

Undergraduate Academic Calendar of Saint Mary's University 2013-2014

Saint Mary's University
Halifax, Nova Scotia
Canada
B3H 3C3

Tel: (902) 420-5400

(902) 420-5452 TTD

Fax: (902) 420-5102 President

(902) 420-5104 Vice President Academic and Research

(902) 420-5566 Vice President Administration and Finance

(902) 420-5511 Associate Vice President External Affairs

(902) 496-8100 Associate Vice President (Enrolment) & Registrar

(902) 496-8772 Associate Vice President Research

(902) 420-5073 Admissions and Recruitment

(902) 420-5151 Service Centre

(902) 420-5103 Continuing Education

(902) 496-8184 Financial Services

Information about Saint Mary's, including this *Academic Calendar*,
is available at <http://www.smu.ca/servicecentre/calendar.html>

A Brief Guide to Using this *Academic Calendar*

The Academic Calendar is the University's most important publication, and serves many purposes. The table of contents on the following page shows all the details, together with page numbers, but here is brief guide to using this valuable document.

If you are a Prospective Student:

- Review the range of **academic programs** available at Saint Mary's in Section 3. (Saint Mary's University publishes a separate Graduate Academic Calendar.)
- Learn how Saint Mary's University schedules courses over the 12-month academic year by referring to the **Academic Calendar of Events**, which includes key deadlines for course registration and payment of fees.
- Review the **Descriptions of Courses** in Section 4, to learn about the range of topics which may be included in a subject area. This section is a sort of official "menu" from which the departments plan what courses to offer each year. To find out which courses will be offered at a specific time, consult the Academic Timetable on Saint Mary's web site.
- Find information on the **admission requirements** and university regulations which apply to you in Section 2.
- Interested in the **costs**? See Section 5 for an explanation of how costs are calculated, together with opportunities for scholarships and other financial support. However, for detailed data on current costs, look to the Financial Services pages on Saint Mary's web site.
- What about **support services** for students? Yes, you will find these listed in Section 7, but for more detailed information consult the Current Students pages of the Saint Mary's web site.

If you are a member of the university community – student, staff, or member of faculty:

- Plan your year by referring to the **Academic Calendar of Events**, which gives timelines for each semester, including key dates for registration, application for graduation, and public holidays.
- Look here for information on **Academic Regulations**. Not all university regulations are included here; these are the ones approved by the University Senate, applying to matters such as grades, examinations, and special circumstances. (Section 2) This section also includes a glossary of terms related to those regulations.
- Check on the **requirements for majors**, minors, and concentrations in Section 4. When reviewing

the **Descriptions of Courses** in this section, keep in mind that this is a sort of officially approved "menu" from which the departments plan what courses to offer each year. For details on which courses will be offered at a specific time, consult the Academic Timetable on Saint Mary's web site.

- Need to know what constitutes a breach of **Academic Integrity**? Consult Section 3.
- Look here for information on **degree requirements**. Keep in mind that there are requirements for a degree or diploma (Section 3) and also requirements for a major, minor, or concentration within that degree (Section 4). As well, make sure that you consult the Academic Calendar for the year you are interested in.
- Find out about the **academic qualifications** of faculty members, academic officers, and staff, using Section 8.

Inquiries related to specific areas should be directed to the offices listed below:

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

Admissions and Recruitment

Telephone: 902-496-8280
Fax: 902-420-5073

Service Centre (Enrolment Services)

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

Continuing Education:

Telephone: 902-420-5492
Fax: 902-420-5103

Library

Circulation 902-420-5547
Fax: 902-420-5561

Residence Accommodations

single housing: 902-420-5598
family and graduate housing: 902-420-5589
Fax: 902-496-8107

Scholarships and Student Loans

Telephone: 902-420-5582
Fax: 902-420-5151

Student Affairs

Telephone: 902-420-5615
Fax: 902-420-5125

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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. Our vision is for our students to become citizens of the world as education is a critical investment for you and the future of our increasingly global society. We take our role seriously in providing you with the highest return on your investment.*

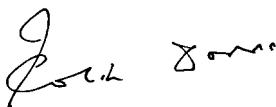
As this Academic Calendar will demonstrate, we offer a broad range of academic programs, and are extending the number of graduate programs to add to those currently available. In addition, we offer many interdisciplinary programs and we encourage students to study for minors in other faculties to equip 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 welcomes students from over 90 countries – a veritable United Nations. This is a tremendous resource for the internationalization of our campus. For our Canadian students, we have opportunities to study/work abroad through a number of exchange agreements and internships. For example, we have exchange agreements for study in France, Germany, Mexico, the U.K. and Australia and we are increasing our funding support for these programs. For those who have graduated, our International Activities office manages a range of internships and Saint Mary's grads have worked in over 36 countries.

At Saint Mary's University students are our primary responsibility and we want to help you achieve your full potential. 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 counseling, peer support, the Atlantic Centre for Support of Students with Disabilities and a Medical Centre. There numerous 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! We are committed to campus renewal and you will see evidence of this now and in the future.

You will find academic excellence in our programs and instructors and you will find a dedicated and committed staff to support our academic mission. There is vibrancy, a sense of community and commitment on our campus

Saint Mary's is a university very much on the move and thank you again for investing in your studies with us.



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

Section

1

General Information

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

History

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 7,200 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 Saint Mary's University 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.

From the Jesuits and their predecessors, Saint Mary's has inherited a strong commitment to meeting community needs and an equally strong tradition of emphasizing 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, business, 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 and Gender Studies, Astronomy, Applied Psychology, Business Administration and Finance. In November 1999 a doctoral program in Business Administration (Management) was officially launched, followed in 2003 with a doctoral program in Astronomy and a year later with a Ph.D. in Organizational Psychology. A Ph.D. in International Development Studies begins in September 2013.

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, and architecture. Through the cooperative efforts of the Division of Continuing Education, part-time students study in these programs and in a variety of non-credit executive and professional 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 90 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 many fold. 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 Centre for Academic and 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.

Students 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 Nova Scotia universities and colleges, and "The Homburg Centre for Health and Wellness".

The Homburg Centre for Health and Wellness officially opened April 24, 2012. It consists of a 23,650 square foot state-of-the-art multi-purpose complex that includes the Centre for the Study of Sport and Health, integrated wellness program space, a large community studio/fitness room, community seminar rooms, a mid-size studio, a small studio, support space, and a show piece entrance that includes open space for students and other groups to gather, converse and study.

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.

8 History

In 2009 a \$25 million expansion and renovation project was completed on the Science Building. In 2010 the Atrium and the Global Learning Commons was completed at a cost of \$17.5 million. The building features a main floor Global Learning Commons - a wireless, student-centered, barrier-free communal learning space that encourages interaction between faculty and staff, and provides more opportunity for community engagement. The second and third floors house teaching and study space, along with space for offices and computational sciences research.

In spring 2011 a total renovation of the McNally Building was completed. The McNally Building is the oldest structure on the campus and home to the Faculty of Arts and administrative offices.

The newest development on campus is the North East Campus Project which began in 2012 and will be completed in three phases. It is a \$15 million redevelopment of the North East corner of the campus and includes a 26,000 square-foot development that will connect global and local communities to the Saint Mary's campus by providing modern classrooms and facilities for the TESL program and the Saint Mary's Business Development Centre.

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 cooperative ventures with other Maritime universities. The results have included the Atlantic Metropolis 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 over half of its students from this area. 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 centered around continued academic excellence in teaching and research, accessibility for all Nova Scotians, strong community outreach, and facilities and instruction for the physically challenged.

In early 2012, the Senate approved a revised Academic Plan, entitled *Building a Community of Global Learners: Academic Plan for Saint Mary's University, 2012-2017*, the revised plan was based on campus-wide consultations held

in the course of 2011. Key priorities identified in the plan include:

- Enhance Student Learning through Excellence in Teaching
- Enhancing Student Success
- Linking Theory and Practice
- Promoting Research, Creative Activity and Graduate Studies
- Building Thematic Clusters of Teaching and Research
- Enhancing our International Diversity

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. 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 cooperation and new initiatives, most notably a new MA in Theology and Religious Studies. This promises many exciting new developments, including a Centre for Ethics as well as cooperative ventures with faculty and students.

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 Jewelry 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.

ACADEMIC CALENDAR OF EVENTS 2013-2014

Please note: May - August

Each year Saint Mary's University offers two undergraduate summer sessions. For 2013, the first summer session is May 6 to June 21 and the second summer session is July 2 to August 19. Details will be posted on Banner Self-Service website in January 2013.

Each year Saint Mary's University offers one graduate summer session. For 2013, the summer session is May 6 to August 19. Details will be posted on Banner Self-Service website in January 2013.

Registration Details on registration for the 2013-2014 academic year will be published on the Service Centre's webpage www.smu.ca/servicecentre in March 2013.

2013

June

28 (Friday) Deadline for filing an Application for Graduation for Fall Convocation, 2013.

September

1 (Sunday) Last day for filing Applications for Graduation for degrees, diplomas and certificates to be awarded in January 2014 or at Spring Convocations, 2014

4 (Wednesday) **CLASSES BEGIN.**

13 (Friday) (a) Last day for registering and changing a Fall term (September – December) course
(b) Last day for final payment of Fall term tuition fees.

October

14 (Monday) Administrative Offices closed and no classes - Thanksgiving Day.

18, 19 (Friday, Saturday) Fall Convocation 2013 (tentative)

November

11 (Monday) Administrative Offices closed and no classes - Remembrance Day.

12 (Tuesday) Last day for withdrawing, without academic penalty, from three (3) credit hour or six (6) credit hour courses taught only in the Fall term (Reference: Academic Regulation 16).

27 (Wednesday) Last day of classes in Fall term.

28 (Thursday) Study Day. No classes

29 (Friday) Start of formal final examinations in three (3) credit hour courses and formal mid-year examinations in six (6) credit hour courses.

December

8 (Sunday) Patronal Feast of the University. Normally no examinations are scheduled on this day.

17 (Tuesday) End of final exams and end of the Fall term. **Note:** Subject to change should it not be possible to schedule all formal examinations in the designated timeframe.

2014

January

6 (Monday) **CLASSES RESUME.**

15 (Wednesday) **(a) Last day for registering in a Winter term (January – April) course**
 (b) Last day for final payment of Winter term tuition fees.

18 (Saturday) January Convocation (tentative)

February

14 (Friday) Last day for withdrawing, without academic penalty, from six (6) credit hour courses taught from September to April (Reference: Academic Regulation 16).

17 (Monday) – Winter Break. No classes.
 22(Saturday)

March

14 (Friday) Last day for withdrawing, without academic penalty, from three (3) credit hour courses or six (6) credit hour courses taught only in the Winter term (Reference: Academic Regulation 16).

April

3 (Thursday) Last day of classes in Winter term.

4(Friday) Study Day.

5 (Saturday) Start of formal final examinations

18 (Friday) Administrative Offices closed and no classes - Good Friday.

21 (Monday) Administrative Offices closed and no classes - Easter Monday.

26 (Saturday) End of formal final examinations and end of the Winter term. **Note:** Subject to change should it not be possible to schedule all formal examinations in the designated timeframe.

May

16 (Friday) Spring Convocation, 2014 at Halifax Metro Centre (tentative).

May - August

Each year Saint Mary's University offers two undergraduate summer sessions. For 2014, the first summer session is May 5 to June 20 and the second summer session is July 7 to August 21. Details will be posted on Banner Self-Service website in January 2014.

Each year Saint Mary's University offers one graduate summer session. For 2014, the summer session is May 5 to August 21. Details will be posted on Banner Self-Service website in January 2014.

Board of Governors

Chairperson

Mr. John Fitzpatrick

Vice-Chairperson

Ms. Karen Oldfield

Members Ex-Officio

Chancellor

Dr. Robert P. Kelly

Visitor

The Most Reverend Anthony Mancini

President and Vice-Chancellor

Dr. J. Colin Dodds

Vice-President, Academic and Research and Board

Secretary

Dr. David Gauthier

Vice-President (Finance and Administration)

Ms. Gabrielle Morrison

Members Appointed by the Roman Catholic

Episcopal Corporation

Ms. Louise Abraham-Pace

Mr. John Fitzpatrick

Ms. Karen Oldfield

Members Elected by the Alumni Association

Mr. Philip Gaunce

Ms. Nicole Godbout

Ms. Shelley Hessian

Mr. Michael McKenzie

Mr. Greg Poirier

Mr. Matthew Towns

Members Elected by the Academic Staff

Dr. Louis Beaubien

Dr. Shelagh Crooks

Dr. Dawn Jutla

Dr. Peter Twohig

Dr. Robert McCalla

Dr. Michael Vance

Members Elected by the Students

Mr. Gorba Bhandari

Ms. Elizabeth Cole

Mr. Michael MacDonell

Mr. Jared Perry

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

TBA*

Members Elected by the Board of Governors

Mr. Philip Fraser

Mr. Lawrence Freeman

Mr. Frank Matheson

Mr. Joseph Metlege

Mr. Scott Norton

Mr. Paul O'Hearn

Mr. R. B. Cameron

Ms. Marsha Sobey

Members Appointed by the Lieutenant-Governor in Council

Mr. Rakesh Jain

Mr. Lawrence Hood

Observer Elected by Support Staff

Ms. Catherine Kilfoil

Academic Senate

Chairperson

Dr. Donald J. Naulls

Vice-Chairperson

Dr. Kathryn Kimery

Members Ex-Officio

Dr. J. Colin Dodds, President

Dr. David Gauthier, Vice-President, Academic and Research

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

Dr. Patricia Bradshaw, Dean of the Sobey School of Business

Dr. Steven Smith, Dean of Science

Dr. Kevin Vessey, Associate Vice President Research and Dean of Graduate Studies and Research

Dr. Paul Dixon, Associate Vice President (Enrolment Management) and Registrar

Mr. Keith Hotchkiss, Director of Student Services

Ms. Marie DeYoung, University Librarian

Mr. Gordon Michael, Director, Division of Continuing Education

Members Elected

To August 2015

Dr. Donald Naulls

Dr. Jeff Power

Dr. Jing Wang

Dr. Peter Secord

TBA

To August 2014

Dr. Danika van Proosdij

Dr. Ron Russell

Dr. Veronica Stinson

Dr. Philip Street

Dr. Bill Sewell

To August 2013

Dr. Roby Austin

Dr. Alison Barclay

Dr. Jason Ivanoff

Dr. Kathryn Kimery

Dr. Shripad Pendse

Student Senators

Mr. Jared Perry

Mr. Michael MacDonell

Mr. Gorba Bhandari

Ms. Rumbi Chimhanda

Mr. Michael Coady

Senate Office

Barb Bell

Section
2

**Student Recruitment
and Admissions**

**Academic Integrity and
Student Responsibility**

Academic Regulations

Registration

Admission & Recruitment Services

Admissions & Recruitment is responsible for the promotion of Saint Mary's programs and services to prospective students, making undergraduate admissions decisions, and awarding Entrance Scholarships.

Meet an advisor	496-8280	recruitment@smu.ca
Application status	491-6438	Admission.status@smu.ca
Scholarships	496-8280	recruitment@smu.ca
Student loans	420-5582	Financial.aid@smu.ca
Residence	420-5598	Residence.life@smu.ca

Students seeking program information and/or applications can find complete details at:

<http://www.smu.ca/futurestudents/welcome.html>

To book a campus tour, please contact us at: 902-420-5682 or email campustours@smu.ca

Visitors to our campus are advised to park on Robie Street, and enter through the McNally Main Entrance (unless otherwise instructed) where you will be met by a student ambassador. Please note that Saturday tours may not be as comprehensive as week day tours, as some areas are not accessible.

Campus tours are normally available

Monday	10:00 a.m.
Tuesday	4:00 p.m.
Wednesday	2:30 p.m.
Thursday	1:00 p.m.
Friday	10:00 a.m. and 1:00 p.m.

Each tour is approximately 60 minutes in length. Participants have the opportunity to visit our classrooms, library, bookstore, residences, athletics facilities and dining halls. One week advance booking is recommended.

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

As a new student at Saint Mary's, you may have a lot of questions you need answered. That's what the Centre for New Students is for - to help you find answers to your questions. Located in the main entrance of the McNally Building, the Centre for New Students welcomes new and prospective students. At the Centre, students can be linked with the appropriate academic department, support services, or given information about what the Saint Mary's community has to offer.

The Centre for New Students provides:

- Pre-admission information for high school students interested in full-time or part-time studies.
- A "home base" information area for all new students once they arrive on campus.
- Referrals to the appropriate academic, administrative or support services.
- Assistance for new students in understanding the course selection process and determining their academic timetable.

Students are invited to drop by anytime to chat or to take advantage of the many brochures and other publications designed to help with the transition to university life at Saint Mary's University.

If you would like to schedule an appointment with the Centre for New Students, please call 902-491-8691 or e-mail us at cns@smu.ca

Admissions Information:

Students seeking admission to an undergraduate program at Saint Mary's University can apply online or use a paper application. Details can be found at http://www.smu.ca/futurestudents/chs_apply.html

Written correspondence should be sent to:

Admissions & Recruitment
Saint Mary's University
923 Robie St.
Halifax, Nova Scotia B3H 3C3

Telephone: 902-420-5415

Fax: 902-496-8100

1. **Procedures for Admission to Undergraduate Programs**

- a. **Admission Timelines:** There are four admission terms: September, January, May and July.

Completed applications are considered on an ongoing basis and students can expect to receive a reply within one to two weeks of receipt of the application and all supporting documents.

"International" students should apply early enough to obtain their study permit and "Transfer" students must ensure that official transcript(s) arrive in the Admissions Office at least 4 weeks prior to the beginning of the term start date.

- b. **Documents:** Applicants should ask their high school to submit official transcripts of final grades. 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 may result in dismissal from the University.
- c. **Former Saint Mary's University students:** Students not enrolled in the previous academic year must re-apply. If accepted, students will be re-admitted to the program they were previously enrolled in.

2. Requirements for Admission to Undergraduate Programs

a. General Considerations

Possession of the 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.

b. Canadian High Schools

Students are required to have completed Grade 12 level university preparatory English and 4 other university preparatory courses. The overall average should be at least 70% with no grade below 60%. Specific program requirements are as follows:

Bachelor of Arts

- English
- 4 other academic university preparatory courses

Bachelor of Environmental Studies

- English
- 4 other academic university preparatory courses

Bachelor of Commerce

- English
- Academic Mathematics
- 3 other academic university preparatory courses

Bachelor of Science

- English
- Pre-calculus Mathematics
- 2 Sciences
- 1 other academic university preparatory course

Diploma in Engineering

- English
- Pre-calculus Mathematics
- Chemistry
- Physics
- 1 other academic university preparatory course

c. International Baccalaureate (IB) Diploma

Students may be admitted if they have completed the IB Diploma with a total score of 24 points and a minimum grade of 3 in required courses. Specific course requirements are the same as those in 2b. above.

Students who have scores of 5, 6 or 7 in HL courses are eligible to receive university credit for these courses. Students with total points of 30 or above may receive 30 credit hours of university credit.

Students with a combination of IB Diploma courses and regular courses will be considered for admission if they meet the specific course requirements as in 2b above.

d. 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.

e. Access Program

Canadian high school graduates who do not satisfy the normal admission requirements for their chosen program may be eligible for admission to the Access Program. Students must demonstrate strong potential for success in university studies. If admitted, students must comply with any additional program requirements as specified by their Dean. Students should contact the Admissions and Recruitment Office for details on the application process.

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. British Patterned System of Education

For students studying a British patterned curriculum (i.e. CXC, CAPE, AICE, GCE, GCSE, IGCSE or WASSCE) must meet the following requirements:

- (i) Students must pass at least five subjects, two of which must be at the Advanced Level, and satisfy the specific subject requirements in 2b. Students who achieve above average results in a minimum of five subjects will be considered for admission.
- (ii) Students who receive a final grade of A, B or C in approved GCE A Level examined subjects will be eligible for advanced standing credit, to a maximum of 18 credit hours. The official examination certificate from one of the examination boards ((AQA, OCR, Edexcel, WJEC and CCEA) must be sent to the Admissions Office.
- (iii) Students who receive a final grade of I, II or III in approved CAPE Advanced Level examined subjects will be eligible for advanced standing credit, to a maximum of 18 credit hours.

h. Other Countries

For countries with education systems other than those above, the general requirements for admission are comparable to those used in the country from which the student is applying. Course requirements for each program are comparable to those in 2b, except that we will accept a literature course in the student's native language in lieu of English literature.

i. Advanced Placement Examinations

Students with grades of 4 or 5 on Advanced Placement courses are eligible to receive up to 18 credit hours of university credit.

j. Transfer Students

Students who have been enrolled in an academic program at another university are normally required to have achieved a minimum average of C. If admitted, transfer students may receive advanced standing credit hour recognition 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.

k. Mature Students

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.

l. Language Requirement

Students whose first language is not English, and who have not attended an English language secondary school, are required to take one of the following standardized English language proficiency tests.

- Test of English as a Foreign Language (TOEFL)
 - minimum 550 on paper-based
 - minimum iBT 80, with no band below 20
- International Test of English Language Testing System (IELTS) – minimum 6.5 with no individual score below 6.0
- CanTEST – minimum 4.5 with no individual score below 4.0
- Canadian Academic English Language Assessment (CAEL) – minimum 60 with no individual band below 50
- University of Cambridge ESOL Examinations Certificate of Advanced English (CAE) with grade of A, B or C
- Pearson PTE score of 58
- English for Academic Purposes Level 6 administered by the TESL Centre at Saint Mary's University
- Student has completed university preparatory English at a Languages Canada accredited school recognized by Saint Mary's University
- Student has completed three years in a Canadian secondary school where the language of instruction and examination is English

3. Procedures for Other Admission Categories

a. Open Studies Student

- (i) Individuals interested in taking one or more courses at the University without being registered in an academic program can seek admission as an open studies student. Such students must meet the stated prerequisites for the course(s) for which they register. Students may take no more than thirty (30) credit hours as open studies students. If open studies students wish to continue to study at Saint Mary's beyond thirty (30) credit hours, they must formally be admitted to an academic program. Students who are subsequently admitted to academic programs from an open studies status may count the university credit hours that they have earned as open studies students. All courses attempted at the University will remain a part of the students' permanent records.
- (ii) Under special circumstances and with the permission of the appropriate Dean, high school students may be admitted to enroll as open studies students in Saint

Mary's courses for which they have the necessary prerequisites.

- (iii) Open Studies students must apply through the Admissions Office. A separate application is required for each academic year or summer session(s) in which the student is enrolled with this admission basis.

b. Upgrading Student

Students who already hold a degree or professional certificate may enroll in a course(s) to upgrade their qualifications. 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 thirty (30) credit hours. The Dean of the Faculty in which a course(s) is offered may authorize an additional course(s) over this limit.

c. Auditing

Students who are interested in auditing a course (see Academic Regulation 2 below) are required to apply for admission. 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.

d. Visiting 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 hours to their home institution must apply for admission as a Visiting Student. Students are required to follow normal registration procedures. In addition, these students must file a Letter of Permission with the Admissions Office at Saint Mary's. Visiting students from institutions in Halifax will have their grades sent automatically to their home institution. All other students must formally request transcripts to be sent to their home institution. This can be done at the Service Centre. Saint Mary's shall not be held responsible for meeting the deadlines for submission of grades of other universities.

4. Graduate Admission

Admission to a graduate program at the University is covered in the *Graduate Academic Calendar*.

5. Entrance Scholarship / Bursary Program:

Please refer to the Student Awards and Financial Aid Section for information on our Scholarship and Bursary programs.

Presidential and Santamarian Scholarships are awarded on the basis of:

- A **very high aggregate score** (as calculated by the Admissions Office). Successful candidates typically have a Scholarship average of 95% or above. Recipients of these awards will be determined by their overall placement in relation to other candidates.
- A **résumé**, which should comment on such things as involvement in community service, participation in

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student government, athletic achievement, extracurricular activities and volunteer and /or paid work.

- The Presidential/Santamarian Recommendation Form can be downloaded from the Saint Mary's University web site www.smu.ca/canadianscholarships or www.smu.ca/internationalscholarships or obtained by telephoning the Admissions Office at 902-420-5415.
- **Students will be considered for these scholarships when all of the above information has been received on time.**
- **Presidential Scholarships** are valued at \$9,000 and renewable for up to four years for a total of \$36,000. The number of awards is limited
- **Santamarian Scholarships** are valued at \$5,000 and renewable for up to four years for a total of \$20,000. The number of awards is limited

International Baccalaureate Scholarships: Saint Mary's has shown its commitment to the International Baccalaureate Diploma program by developing scholarships specifically for IB Diploma candidates.

An **International Baccalaureate Recommendation Form** is to be completed by the IB Coordinator after final first semester (mid-year) grade twelve results are available. Diploma candidates will be considered for this scholarship once this form has been submitted to the Admissions Office, Saint Mary's University. Please fax no later than **March 15**. Fax: 902-496-8100

- Award available to both domestic and international IB Diploma candidates.
- Award valued at \$8,000 per annum which is renewable for up to four years for a total of \$32,000. The number of awards is limited
- Awarded on the basis of overall IB marks ranging from 38-45; a résumé, which should include information on such things as involvement in community service, participation in student government and athletic achievement. In addition, the completed International Baccalaureate Recommendation Form must be submitted under separate cover, by the high school IB Coordinator.
- Recipients of this award will be determined by their overall placement in relation to other Diploma candidates. A candidate's overall ranking will be determined by the Admissions Office.
- A minimum grade point average of 3.8 is required for renewal of this scholarship.

The deadline for all Scholarship consideration is **March 15** (Only applications accompanied by supporting documentation are considered). Scholarships are announced no later than **May 15**

Renewable Entrance Scholarship Program: Saint Mary's University guarantees a minimum total scholarship offer to any high school graduate with a Scholarship Average of 80% and higher. Apply by March 15 to be automatically considered. Students with an 80% average and above who apply by March 15 are also guaranteed a space in residence!

\$14,000 total value (\$3,500 per year)

- **Scholarship Average 95%+.** The award will be continued during the recipient's undergraduate program provided the student maintains a minimum 3.67 grade point average (GPA) each year in a minimum of 30 credit hours.

\$8,000 total value (\$2,000 per year)

- **Scholarship Average 90-94.99%.** The award will be continued during the recipient's undergraduate program provided the student maintains a minimum 3.67 grade point average each year in a minimum of 30 credit hours. Should the recipient achieve a GPA of 4.00 or above in any academic year, the value of their award will be increased for that year.

\$4,000 total value (\$1,000 per year)

- **Scholarship Average 85-89.99%.** The award is valued will be continued during the recipient's undergraduate program provided the student maintains a minimum 3.67 grade point average each year in a minimum of 30 credit hours. Should the recipient achieve a GPA of 3.80 or above in any academic year, the value of their award will be increased for that year.

\$3,500 total value (\$500 1st year and \$1,000/yr after)

- **Scholarship Average 80-84.99%.** This scholarship is valued at \$500 for the first year and \$1,000 per year for three additional years, should the recipient achieve a GPA of 3.67 or above in any academic year, in a minimum of 30 credit hours.

Entrance Scholarships (non- renewable) are also awarded to high school students who begin their studies in January. To calculate a Scholarship Average, Saint Mary's uses the Admission Average plus bonus points for enriched courses. Averages are calculated to two decimal points and are not rounded.

The deadline for **Renewable Entrance Scholarship** consideration is **March 15**. Students who apply after March 15 will be considered for Entrance Scholarships as resources permit.

Donor Sponsored Entrance Awards

Due to generous contributions from organizations, alumni, and friends of Saint Mary's University, we are able to offer many donor-sponsored scholarships and bursaries. The donor has specified the criteria for the award. Although some require superior academic performance, others are awarded based upon extra-curricular activities or financial need. All students are encouraged to apply.

The deadline for **Donor-Sponsored Entrance Award** consideration is **March 15**. Application forms and information may be obtained from the Recruitment and Admissions Office.

Further information is available in Section 5 (**Student Awards and Financial Aid Programs**) of this *Academic Calendar*.

Academic Integrity and Student Responsibility

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

1. to promote and disseminate learning and knowledge.
2. to provide an atmosphere of freedom, responsibility and mutual respect in the University community, and,
3. to aid in the improvement of society in all ways consistent with these objects.

More recently, the University has defined among its Vision, Mission and Core Values as:

Vision

Saint Mary's, building on its strong tradition of accessibility and community engagement, will be the University of choice for aspiring citizens of the world.

Mission

The mission of Saint Mary's University is to offer undergraduate, graduate, and continuing education programs; to engage in research and disseminate its results; and to serve the community from the local to the international level.

Core Values

Saint Mary's University addresses its vision and mission in the context of all of its values:

- In achieving its mission, the Saint Mary's community is guided by core values of academic integrity, the pursuit of knowledge, responsiveness to community needs, openness to change, concerns for a just and civil society, and fiscal responsibility.
- The University is committed to accessibility, diversity and the provision of a positive and supportive learning environment through the effective integration of teaching and research.
- Through promoting the importance of critical enquiry, leadership, teamwork and global awareness, we aim to prepare students for responsible and rewarding lives and to remain engaged with our alumni worldwide.
- We recognize the importance of the contribution and growth of each individual in the University's success.
- Saint Mary's welcomes mutually beneficial partnerships and strategic alliances with all levels of government, with other educational institutions, non-government institutions and the private sector.

The above guide the University in how it conducts its affairs. Two key policies of the University are Academic Regulation 19, governing Academic Integrity, and the Student Code of Conduct governing non-academic standards of behaviour.

Academic Integrity (Academic Regulation 19)

An academic community flourishes when its members are committed to these fundamental values:

1. **HONESTY:** An academic community of integrity advances the quest for truth and knowledge by requiring intellectual and personal honesty in learning, teaching, research and service.
2. **TRUST:** An academic community of integrity fosters a climate of mutual trust, encourages the free exchange of ideas, and enables all to reach their highest potential.
3. **FAIRNESS:** An academic community of integrity establishes clear standards, practices, and procedures and expects fairness in the interactions of students, faculty, and administrators.
4. **RESPECT:** An academic community of integrity recognizes the participatory nature of the learning process and honours and respects a wide range of opinions and ideas.
5. **RESPONSIBILITY:** An academic community of integrity upholds personal accountability and depends upon action in the face of wrongdoing¹.

¹ The Fundamental Values of Academic Integrity, Center for Academic Integrity, Duke University (www.academicintegrity.org)

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 reasonable efforts 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. Some students 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.

Examples of Academic Offences

In April of 2005, the Quality of Teaching Committee Sub-Committee on Academic Integrity released a comprehensive report on academic integrity at Saint Mary's. The following examples of academic offences, while not exhaustive, were compiled from information contained in this report.

Plagiarism – "The presentation of words, ideas or techniques of another as one's own. Plagiarism is not restricted to literary works and applies to all forms of information or ideas that belong to another (e.g., computer

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programs, mathematical solutions, scientific experiments, graphical images, or data)".

Examples of plagiarism include:

- quoting, paraphrasing, or summarizing text without proper acknowledgment;
- paraphrasing too closely (e.g., changing only a few words or simply rearranging the text);
- downloading all or part of a paper, journal article, or book from the Internet or a library database and presenting it as one's own work;
- purchasing documentation and presenting it as one's own work;
- sharing papers including the selling of essays, tests, or other assignments.

Cheating – "The attempt to secure a grade by unethical means. Knowingly assisting someone to cheat is itself cheating".

Examples of cheating include:

- impersonating someone during a test or exam;
- copying or sharing information during a test or exam;
- using or possessing unauthorized materials (e.g., notes, books, calculators) during a test or exam;
- obtaining or looking at a copy of a test or exam before it is administered;
- improper use of technology (e.g., Personal Digital Assistants to store and retrieve information during an exam);
- unauthorized use of communication technology (e.g.: cell phones, pagers, Blackberries, etc);
- unauthorized collaboration between students when individual work is required.
- submitting the same work for credit in more than one course without the permission of the instructors involved;

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

Examples of falsification include:

- submitting a false excuse for missing a class, exam, etc. (e.g., forging a medical or death certificate);
- falsifying course work (e.g., altering or making up data, using fake citations in a bibliography);
- changing the answers on a returned assignment and resubmitting it to be reevaluated;
- submitting false information on a university admission form or other documentation;
- misrepresentation of knowledge of a language by providing inaccurate or incomplete information about one's linguistic educational history;
- non-disclosure of previous post-secondary enrolment;
- presentation of another's credentials as one's own.

Tampering – "It is an offence to tamper with University library materials or computer system resources in any way which would deprive others of their use".

Examples of tampering include:

- destroying, hiding, or stealing library materials;
- altering or destroying university computer programs or files without authorization;
- accessing and altering official records without authorization.

Assisting someone in the commission of dishonest behavior is an offence subject to penalty.

General Procedures

When a member of the University community (faculty, staff, or student) believes that an academic offence has been committed, s/he shall make a written submission to the department chairperson, Dean and Registrar. The Registrar will advise the instructor whether this is the first instance of academic dishonesty.

Informal Resolution

In the case of a first instance of dishonesty that would normally carry a penalty of zero in the piece of work triggering discipline, the instructor may choose to informally resolve the complaint with the student. If the student and instructor mutually agree to a penalty of a reduction in grade (e.g., a grade of zero on the assignment) or resubmission of the assignment, then this decision is to be communicated in writing to the student, chairperson, Dean and Registrar. The incident and action are to be documented using the Incident Report Form available from the Service Centre. The Form requires the signatures of the instructor and student.

All cases that cannot be resolved by the above informal process shall be resolved by the Senate Academic Discipline Committee in accordance with the procedures for resolution of formal complaints (see below).

Appeals of decisions of the Senate Academic Discipline Committee may be made to the Senate Academic Discipline Appeals Board on specific grounds (see below). Students may not appeal decisions that were agreed to through the informal process.

Documentation of all incidents resolved through the informal process and those of the Senate Academic Discipline Committee not overturned on appeal shall be kept in the student's official file. This file is maintained in accordance with the applicable privacy legislation. Documentation on allegations that are not supported by the evidence as determined by the Academic Discipline Appeal Board, shall be destroyed.

Senate Academic Discipline Committee

Composition

The Committee is comprised of nine (9) representatives of the Faculty and three (3) representatives of the student body. The Faculty representatives are elected by Senate for a three (3) year term. There shall be three (3) Faculty representatives from each of the Faculties of Arts, Commerce and Science, with no two (2) Faculty representatives from the same Department. The student representatives shall be appointed by the Students Association. The Chair of the Committee shall be a Faculty representative chosen by a vote of the majority of the Committee. The Committee members shall participate in adjudication training annually.

Formal Resolution of Academic Discipline Complaints

In cases that cannot be resolved informally, the Senate Academic Discipline Committee shall:

- Consider all complaints or allegations in relation to offences or irregularities of an academic nature at both the undergraduate and graduate levels, including but not limited to, those relating to admissions procedures, evaluation procedures, second offences of plagiarism, cheating and other academic dishonesty. The Committee may impose penalties in cases where the Committee finds an offence or irregularity has occurred;
- Have the power to discipline a student who, before or during the disciplinary process involving him or her, but prior to a Hearing or adjudication, has:
 - been compelled to withdraw academically;
 - chosen to withdraw from the University prior to being disciplined; or
 - chosen not to register at the University.
- Assume jurisdiction when a complaint or allegation in relation to offences or irregularities of an academic nature is brought to its attention by the Registrar. Complaints or allegations may be made by Faculty or other evaluators of academic work done by students. The Registrar will provide documentation to the Senate Office. Four copies will be generated and forwarded to the Chair of the Committee.

The Hearing Panel

Upon notification by the Senate Office of an allegation or complaint the Chair of the Committee shall appoint a Hearing Panel from the members of the Committee to hear the allegation or complaint. A Hearing Panel is comprised of two (2) Faculty members and one (1) student. One of the Faculty members shall be from the Faculty in which the offence occurred but not the same department and shall serve as Chair.

Procedures for Formal Complaints

1. The Complainant shall make a complaint in writing to the Registrar.
2. The Registrar shall transmit the Complaint to:
 - (a) the Senate Office;
 - (b) the Department Chairperson and Dean of the Faculty from which the Complaint emanates;
 - (c) the Dean of the Faculty in which the student is enrolled; and
 - (d) the student.
3. The Senate Office shall transmit four copies of the case documentation to the Chair of the Senate Academic Discipline Committee (or the Chair's designate)
4. The Chair of the Senate Academic Discipline Committee shall appoint the members of the Hearing Panel to hear and determine the complaint.

5. The Chair of the Hearing Panel shall:
 - (a) request the parties to provide the Hearing Panel with written submissions as set out in paragraph 5. below; and
 - (b) inquire of both parties whether they want a Hearing in person;The parties shall provide the information requested by the Chair.
6. The written submissions of the parties shall contain:
 - (a) copies of all documents relevant to the Hearing; and
 - (b) a written statement of the Complainant's position.
7. The Complainant shall submit his or her written submission within five (5) working days of being requested to do so by the Chair.
8. The Respondent shall make a written submission within five (5) working days of receiving the Complainant's submission.
9. The Chair shall supply copies of all submissions received to both parties to the Complaint.
10. Where a Hearing in person is requested by either party, the Chair shall set a date for a Hearing within thirty (30) calendar days of the filing of the Complaint and shall notify both parties of the date.
11. If a party intends to be represented or assisted by a lawyer or other person, he/she must inform the Chair at least two working days prior to the Hearing and the Chair will inform the opposing party and allow them time to arrange representation if desired.
12. Where a Hearing in person is held, normally the Complainant and Respondent will be present in person. If reasonable attempts to locate a party have been unsuccessful, the Hearing may take place in his/her absence.
13. Where a Hearing in person is held, the Hearing Panel shall regulate as it considers appropriate in order to achieve an orderly, fair and expeditious resolution of the complaint, with each party to the complaint being given an opportunity to present all relevant evidence and submissions that it wishes to bring forward, an opportunity to comment on the presentations of the other party, and an opportunity to put questions to the other party, directly, or through the Panel.
14. Whether or not a Hearing in person is held, it is the responsibility of the parties to present to the Panel all relevant evidence and submissions that it wishes to bring forward. In addition to considering all such evidence and submissions, the Hearing Panel may consider relevant evidence and submissions from other sources and, on its own initiative, solicit additional information and act upon it, provided that the parties are apprised of the additional evidence, submissions, and information, with an opportunity to respond.

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15. The Hearing Panel may specify any remedy that it considers appropriate and that would be within the power of Senate to grant.
16. Decisions of the Hearing Panel shall be made by majority vote. In weighing evidence, the Committee shall base its decisions on “the balance of probabilities”.
17. The Chair of the Hearing Panel shall forward the decision of the Hearing Panel to the Chair of the Academic Discipline Committee. The Chair will record the decision and forward the Hearing Panel’s decision to the Senate Office and the Registrar. The Registrar shall then notify the parties to the Hearing of the decision and will also inform the individuals identified in paragraph 2.
18. If any party to a Complaint fails to comply with these procedures or with any request for information after having been given a reasonable opportunity to do so, the Hearing Panel may, in its discretion, deal with the Complaint in a manner adverse to the interests of the party who has failed to comply.

Penalties

The Hearing Panel may impose the following penalties of an academic nature and, without restricting the generality of the foregoing, may include any one or more of:

- notation of the fact of discipline on the offender’s transcript for a period of one (1) or more years;
- repeat of the assignment that triggered the discipline;
- a failing grade or mark or assessment in the piece of work triggering the discipline;
- failure of the class or course;
- required withdrawal for an academic term or year (to a maximum required withdrawal of three (3) academic years);
- expulsion from the University;
- loss of a current or continuing scholarship, or both, or loss of eligibility to receive or maintain scholarships, prizes or bursaries;
- removal from the Dean’s list;
- reduction in grade; and
- revocation of degree, certificate or diploma.

Appeals

An appeal from the decisions of the Senate Academic Discipline Committee may be made to the Senate Academic Discipline Appeal Board on the following grounds:

- a. A failure to follow the “rules of natural justice”;
- b. A failure to follow University rules, regulations or policies.

The rules of natural justice require that decisions are made by a fair process. The nature and context of the decision being made are important in determining what is a fair process. The rules of natural justice include the right to be heard and the right to an unbiased decision maker.

The processes for filing an appeal are found in the terms of reference of the Senate Academic Discipline Appeal Board.

Senate Academic Discipline Appeal Board

Composition

The Senate Academic Discipline Appeal Board is comprised of 6 representatives of the Faculty and 2 representatives of the student body. The Faculty representatives are elected by Senate for a 3 year term. There shall be 2 Faculty representatives from each of the Faculties of Arts, Commerce and Science, with no 2 Faculty representatives from the same Department. The student representatives shall be appointed by the Students Association. The Chair of the Board shall be a Faculty representative chosen by a vote of the majority of the Board. The Board members shall participate in adjudication training annually.

Function

The Senate Academic Discipline Appeal Board shall:

1. Hear appeals from decisions of the Senate Academic Discipline Committee on the following grounds:
 - (a) a failure to follow the “rules of natural justice”,
 - (b) a failure to follow University rules, regulations or policies.
2. Have the responsibility to ensure the execution of its decisions.

Procedures

Initiation of the Appeal

1. Either party to the original complaint may initiate an appeal under this policy by delivering a Notice of Appeal Form to the Registrar.
2. The Registrar will forward the Notice of Appeal to:
 - a. the Department Chairperson and Dean of the Faculty from which the original complaint emanated;
 - b. the Dean of the Faculty in which the student is enrolled; and
 - c. both parties to the original complaint.

The Notice of Appeal shall be delivered not later than ten (10) working days from the date a final decision being appealed has been communicated in writing to the student. Thereafter no appeal may be brought.

Appointment of an Appeal Board

Upon receipt of a Notice of Appeal, the Registrar shall send a copy of it to the Chairperson of the Senate Academic Discipline Appeal Board. If the Chairperson concludes that the appeal involves the permissible grounds for appeal as set out herein, an Appeal Hearing Panel shall be constituted to hear the appeal. The Chair of the Board shall appoint an Appeal Hearing Panel from the members of the Committee to hear the appeal. An Appeal Hearing Panel is comprised of two (2) Faculty members and one (1) student. One (1) of the Faculty members shall be from the Faculty in which the offence occurred but not the same department and shall serve as Chair.

Appeal Hearing Panel Procedure

1. The Appeal Hearing Panel shall be convened to hear the appeal as soon as practical, but not later than fifteen (15) working days after it is constituted or such later date as is acceptable to the Appellant and Respondent.
2. The Appeal Hearing Panel shall determine its procedures subject to the following:
 - a. all parties involved shall be given adequate notice and full opportunity to participate;
 - b. the basis of the appeal shall be presented by the person who made the appeal (the Appellant) or person appointed by such person;
 - c. the Respondent is usually the person who started the initial proceeding;
 - d. the Appellant or Respondent shall be entitled to be represented by one other person, including legal counsel;
 - e. evidence supporting or rebutting the appeal may be given by witnesses;
 - f. witnesses may be questioned by the appellant, the appellant's representative, the Chairperson of the original Academic Discipline Hearing Panel or by the Board;
 - g. the hearing shall be *in camera* unless the student requests that it be open, in which case the number of observers may be limited by the Chairperson. The student is entitled to at most five (5) observers.

Disposition of the Appeal

The Senate Academic Discipline Appeal Board may, by a majority:

- a. deny the appeal;
- b. quash the decision of the Senate Academic Discipline Committee entirely;
- c. quash the decision of the Senate Academic Discipline Committee and recommend a re-hearing on the merits by another panel of the Senate Academic Discipline Committee; or
- d. modify the penalty assessed by the Senate Academic Discipline Committee.

Copy of the Decision

Within five (5) working days from the date the Academic Discipline Appeal Board has rendered its decision, the Registrar shall deliver a copy of the decision to the student who initiated the appeal and to the persons mentioned in item 2 above;

Compliance within Thirty (30) Calendar Days

Where the Academic Discipline Appeal Board has determined that a person or Faculty is to address or act upon a particular matter, the person or Faculty shall within thirty (30) calendar days of the receipt of the decision, advise the Registrar of its compliance, or time table for compliance, with the decision.

No Further Appeal

The findings and ruling of the Academic Discipline Appeal Board shall be binding without further appeal.

Student Code of Conduct

1. Among the objectives of Saint Mary's University are:
 - to promote and disseminate learning and knowledge.
 - to provide an atmosphere of freedom, responsibility and mutual respect in the University community, and,
 - to aid in the improvement of society in all ways consistent with these objects.
2. It is important to recognize that in the fulfillment of these objectives, non-academics standards of behavior on the University Campus are as important as academic standards. The Student Discipline Code is directed towards non-academic standards of behavior and seeks to define the rights and responsibilities of students as members of the University Community.
3. Discipline should encourage students to understand the fundamental values that are essential to the well-being of both the individuals and society, and to accept responsibility for the consequences of their actions.
4. Students will be responsible for their conduct and will accept the consequences for choices made.
5. The Student Discipline Code is adopted by the Board of Governors pursuant to Section 8(1)(g) of the Saint Mary's University Act.
6. **Premises of the Student Discipline Code**
 - a. The Student Discipline Code is committed to fairness in disciplinary and appeal procedures.
 - b. The Student Discipline Code is committed to clarity of form and content, in order to facilitate a fair and timely resolution of problems.
 - c. Notwithstanding the rules and procedures set out in the Student Discipline Code, the President retains his/her authority to exercise general supervision over the students in accordance with the University Act.

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- d. The purpose of this discipline code is instruction. It is a process through which individuals learn to behave in a manner consistent with expectations designed to allow the greatest number of people the opportunity to learn in an appropriate and safe environment.
7. Misconduct for which students of the University will be subject to discipline includes but is not limited to:
- conduct which threatens or endangers the health, safety, or well-being of anyone in their capacity as a member of the University community on or off campus,
 - the use of abusive or offensive language or gestures at University sponsored functions,
 - theft of, or deliberate or reckless damage to, University property or the property of a member of the University community,
 - violations of published rules including those governing University residences,
 - dishonesty, including, but not limited to:
 - knowingly furnishing false information or failing to verify the accuracy of the information provided, and
 - fraud, forgery, alterations or misrepresentation of documents, University records or instruments of identification;
 - use or consumption of intoxicants, including alcoholic beverages, except where specifically authorized under lawful conditions,
 - unauthorized use of the University's corporate name, crest, or logo,
 - intentional obstruction or disruption of any University sponsored function, including disciplinary proceedings held in accordance with these regulations,
 - the entry or attempted entry without lawful authority of any building, facility or dwelling on University property,
 - failing to comply with the direction of University officials acting in the performance of their authorized duties,
 - violation of any law of Canada, including but not limited to, acts declared unlawful relating to drugs, alcoholic beverages or gambling or the possession of weapons,
 - the unauthorized alterations or misuse of any fire fighting equipment, safety equipment or emergency devise,
 - soliciting or canvassing for commercial purposes without prior written authorization from the University, and
 - deliberate assault upon a security officer (including without limitation, members of the campus police force, residence assistants, residence security staff or security officers).

Disciplinary Officers and Jurisdiction

8. Under the general responsibility and direction of the Director of Student Services, and subject to Senate regulations, the following Administrative Officers at the University (hereinafter called "Disciplinary Officer") shall have jurisdiction in matters of student conduct and discipline in respect of all registered

- students at the University, both full and part-time, and all student organizations at the University:
- in matters of damage to property or misconduct against the person, occurring within the confines to the residences maintained by the University (the "Residences"), the Director of Residences,
 - in matters involving property damage to University property outside the confines of the Residences, the Director of Student Services,
 - in matters involving misconduct against the person committed on University property, but outside the Residences, and relating to misconduct against the person and/or property outside the University, the Director of Student Services, and
 - notwithstanding (a), (b), and (c), in respect of all cases of sexual harassment, regardless of location, the Conflict Resolution Officer.

9. In the event that the Disciplinary Officer having jurisdiction is unable to act upon any complaint filed with him/her, or must disqualify himself/herself from acting upon any complaint for any reason, that officer shall refer the matter to either of the other Disciplinary Officers who shall, upon referral of any complaint, have jurisdiction to act upon the complaint. Should those other officers also disqualify themselves, the matter may be referred to the Assistant Director of Residences (Residence Life).
10. The Disciplinary Officers, when exercising their jurisdiction as set out herein, shall uphold the authority of the Board of Governors, the Senate and the Saint Mary's University Students' Association (the Students' Association).

Sexual Harassment

11. Because of the special considerations involved in cases of sexual harassment, the Senate has approved a procedure for dealing with sexual harassment. This Policy contains a complete code with respect to matters of complaints of sexual harassment and shall be used to govern all cases of sexual harassment even where it conflicts with this Policy, except in so far as disciplinary penalties are concerned. The range of disciplinary penalties which can be invoked in cases of sexual harassment are those enumerated in Article 23 of that Policy.

Disciplinary Complaints

12. Any member of the University community (i.e., students, faculty, administrators or employees) may lodge a complaint with any of the Disciplinary Officers alleging that a student has engaged in a misconduct. Any such complaint shall set out the facts of the alleged misconduct and shall be made within five days of the complainant having become aware of the misconduct. A Disciplinary Officer shall have the power to extend the time for filing a complaint if he/she deems it appropriate having regard to all the circumstances surrounding the alleged misconduct.

Disciplinary Hearing

13. Complaints will be heard by a Board (the Student Disciplinary Board or "SDB") consisting of three persons as follows:
- the Disciplinary Officer having jurisdiction over the complaint (8. (a), (b), c)),
 - one member of the administration staff of the University to be appointed by the President, and
 - one student chosen by the Director of Student Services through an interview process, in conclusion with the Saint Mary's Students' Association.
- With respect to the administrative and student members, an alternate for each shall be designated as outlined in 13. b) and c).
14. Disciplinary hearings will be chaired by the Disciplinary Officer having jurisdiction.
15. Upon receiving any complaint, the Disciplinary Officer acting in respect of the alleged misconducts shall set a time and place for the hearing of the complaint. Wherever possible, the hearing of the complaint shall be within ten (10) days from the date of the receipt of the complaint by the Disciplinary Officer acting in respect of the alleged offence.
16. The Disciplinary Officer acting in respect of the alleged misconduct shall serve the student respondent with notice of the time and place of the hearing and the nature of the alleged misconduct not later than 48 hours prior to the time set for the hearing. This notice can be waived by a mutual agreement.
17. A student respondent shall have the liberty to admit to the misconduct with explanation and avoid a full disciplinary hearing. Once the Disciplinary Officer has heard the admission with or without "explanation" he/she shall advise the student of his/her decision regarding a disciplinary penalty. The student may accept this decision or may request a full hearing of the Student Disciplinary Board. In the latter case, the Disciplinary Officer will disqualify him/herself from hearing the case and refer the complaint to the second Disciplinary Officer. A student respondent who accepts the decision made by the Disciplinary Officer shall not have the right to an appeal subject to the complainant's right of appeal.
- In the event that a student respondent fails or refuses to comply with the disciplinary penalty and/or fine imposed hereunder, the Disciplinary Officer shall recommend to the Appeal Board the suspension and/or expulsion of the person from the University and shall provide notice of his/her recommendation to the person.
18. At the commencement of any hearing, the Chair of the Student Disciplinary Board shall ask the accused person to admit or deny the allegations of misconduct. In the event that the student respondent neither admits or denies the allegations, the Disciplinary Officer shall consider that the student respondent denies the allegations and require the complainant to provide evidence in support of the complaint.

19. The Student Disciplinary Board shall have the power to determine the procedure to be followed at any disciplinary hearing, but in every case shall provide both the complainant and the student respondent the opportunity to testify personally, to call witnesses and to make representations provided, however, that the complainant's case against a student respondent shall be completed prior to the student respondent's testifying or calling witnesses.
20. Both the complainant and the student respondent will normally present their cases without necessity of legal or other representation. In appropriate circumstances, the Student Disciplinary Board may allow parties to be assisted by an advisor, legal or otherwise, but in any case, where a person wishes to have representation, he/she shall so advise the Chair of the Student Disciplinary Board not less than 48 hours prior to the hearing.
21. In the event that a student respondent, having been given notice thereof, shall fail or refuse to attend the disciplinary hearing at the place and time set therefore, the Student Disciplinary Board shall conduct the hearing in the absence of the student respondent.

Decision

22. The Student Disciplinary Board shall, within five (5) days of the conclusion of a hearing, render the Student Disciplinary Board's decision in writing, setting out the reasons therein for the Student Disciplinary Board's decision. The decision of the Student Disciplinary Board shall be the decision of a majority of the Board. The student respondent and the complainant shall be sent a copy of the decision within two (2) days of the rendering of the decision, and a copy of the decision shall be forwarded to the President of the Students' Association, the President of the University and the other Disciplinary Officers.

Disciplinary Penalties

23. The Student Disciplinary Board shall, on completion of the hearing, have the power to dismiss the complaint if the Board concludes that the student respondent did not engage in the alleged misconduct, or to impose any of the following penalties, if the Board concludes that the student respondent did engage in the misconduct:
- to the matter. Ten (10) dollars will be the amount normally levied in respect of administrative costs, but the University reserves the right to levy such amount as is appropriate in the circumstances of each case,
 - to levy such fine or penalty as the Student Disciplinary Board deems appropriate, but no monetary penalty in excess of the actual monetary amount of damage caused by the student respondent plus a fine of \$100.00 shall be levied in a case where the student respondent admits to the misconduct.
 - to recommend to the Appeal Board the suspension and/or expulsion of the student respondent from the University, and/or

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- d. to impose any other penalty that is deemed appropriate having regard to all the circumstances surrounding the complaint.
24. In the event that a student respondent fails or refuses to comply with the disciplinary penalty and/or fine imposed hereunder, the Disciplinary Officer shall recommend to the Appeal Board the suspensions and/or expulsion of the person from the University and shall provide notice of his/her recommendation to the person.
25. There shall be an Appeal Board consisting of three persons to be appointed as follows:
- a. one faculty member to be appointed by the Senate,
 - b. one member of the Administration Staff of the University to be appointed by the President of the University, and
 - c. one student to be appointed by the Student's Council.
- An alternate for each of these persons shall be designed as in 25. (a),(b) and (c).
26. The following people are not eligible to serve on the Appeal Board:
- a. Student Security,
 - b. Residence Assistants,
 - c. Residence Security, and,
 - d. Disciplinary Officers.
27. The Faculty member shall act as chairperson of the Appeal Board.

Appeals Procedure

28. If either complainant or the student respondent feels aggrieved by the decision or penalty imposed by the student Disciplinary Board, they may file a written notice for consideration of an appeal with the Appeal Board within five (5) days of receiving notice of the decision of the Student Disciplinary Board. A person filing a Notice of Appeal shall, at the time of filing the Notice, pay to the University a deposit of \$25.00. If the appellant is successful in the appeal, the deposit shall normally be refunded to him/her.
29. The grounds for an appeal shall be limited to:
- a. disclosure of new and relevant evidence not available at the original hearing, and/or
 - b. severity of the penalty.
- The Chairperson, in consultation with the board members, shall consider the relevance of the student's appeal on these grounds prior to setting an appeal hearing. If the Appeal Board finds that grounds do not exist then the appeal is to be denied and the chairperson shall notify the appellant within 48 hours.
30. Once it has been determined that an appeal is warranted, the Chairperson of the Appeal Board shall set a time and place for the hearing of the appeal. An appeal shall normally be heard within five (5) University business days from the date of the filing of Notice of Appeal. The chairperson shall inform the complainant, the student respondent and the Disciplinary Officer of the time and place for the

hearing. He/she shall also make known the grounds for an appeal as outlined in 25. (a) and (b).

31. The Appeal Board shall have the right to determine its own procedure, but in every case shall give both the complainant and the student respondent the right to make representations. Both the complainant and the student respondent will normally present their cases without legal or other representation. In appropriate circumstances, the Appeal Board may allow parties to be assisted by a representative (legal or otherwise), but in any case, where a person wishes to have representation, he/she shall so advise the Chairperson of the Appeal Board not less than 48 hours prior to the hearing.
32. Upon hearing any Appeal, the Appeal Board may confirm the decision of the Student Disciplinary Board or vary the decision in any manner which it deems appropriate. In any case where the Appeal Board has decided to suspend/expel a person from the University, it shall forward the decision to the President of the University for approval.
33. The decision of the Disciplinary Appeal Board shall be the decision of a majority of the Board, and shall be made known to all interested parties in accordance with the manner set out in paragraph 22 herein.

Fines, Etc.

34. All fines or other money received pursuant to this Student Disciplinary System shall be paid to the general account of the University. The Chairperson of the Appeal Board shall ensure that, where appropriate, any funds so received are credited to the University Department concerned.

Offenses Against Security Officers

35. Where the Student Disciplinary Board has found that a student respondent has committed an assault upon a Security Officer (including, without limitation, members of the Student Security Force, Residence Assistants, Residence Security Officers) the Student Disciplinary Board shall recommend to the Appeal Board the suspension and/or expulsion of the person from the University and shall provide notice of its' recommendation to the person.

General

36. In this Disciplinary System, unless otherwise specified, "days" shall mean University Business days.
37. The Student Disciplinary Board acting in respect of a complaint, or the Appeal Board in the case of an appeal, shall have the power to extend or waive any of the time limits contained herein if it considers that it is necessary in the circumstances and that it would not prejudice any of the parties involved.

University Housing Disciplinary Procedures

38. All students who reside in University housing must abide by the Saint Mary's University Student Discipline Code and by the policies and regulations set out in the

Residence Handbook, Residence Agreement, and the University Calendar.

39. Residence Assistants (RA), Residence Coordinators (RC), and Residence Security Officers (RSO) shall be empowered by the Director of University Residences to issue bonding notices for misconduct which would not normally be heard through the Student Discipline Code including:
 - a. non-evacuation during a fire alarm/emergency,
 - b. excessive noise and/or violation of Quiet Hour Policy,
 - c. mischief/disruptive behaviour,
 - d. violation of Liquor Policy,
 - e. playing hallway games,
 - f. violation of Smoking Policy,
 - g. violation of Guest and/or Visitor Policy.
40. The bonding Notice may be in the form of a warning only or a bond in the amount of \$50.00. The bond becomes payable within two business days of the date of a second bond being issued. One copy of the Bonding Notice goes to the student, a second to the RA, RC or RSO and a third to the Director. Within twenty-four hours of issuing a Bonding Notice, the RA/RC/RSO must complete an incident report copying the student, the RA/RC/RSO and the Director.
41. Appeals of a Bonding Notice will be heard by a Residence Discipline Committee, which shall be scheduled as follows:
 - a. the committee will be called together by the Residence Coordinator of the residence in which the bonded student lives,
 - b. the committee shall consist of five residence student members who shall represent a cross-section of all residences. Committee members shall be selected by the Director, University Residences through an interview process (See Article 26 for eligibility requirements).
 - c. three members shall constitute quorum of the committee,
 - d. the Chairperson of the committee shall be chosen by a majority vote of the committee members, and
 - e. the decision of the committee shall be final and shall be communicated to the bonded student, with copies to the Residence Coordinator and Director, within five (5) days of the hearing.

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 section apply to all students at the University. Additional regulations pertaining to degree programs are in the Section 3 of the *Calendar*, while regulations pertaining to majors, honours, concentrations, and minors are found in Section 4.

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.

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 Also called Degree Evaluation or CAPP (www.smu.ca/servicecentre/capp.html), a computerized checking of courses completed against the requirements for a student's academic program. An important aid for advising students.

Academic Standing A student is in Good Standing if their CGPA is 1.70 or above. Students who have attempted at least 24 credit hours with a CGPA below 1.70 will be placed on Academic Probation and those with a CGPA below 1.00 may be on Academic Dismissal for 12 months or longer. See Academic Regulation 7.

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

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

Admission Acceptance of an applicant as a student.

Advanced Standing Credit hours 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 3 year B.A. and B.Sc. programs).

Attendance Status A student officially registered for at least nine (9) credit hours in a term is considered to be "full-time", whereas a part-time student is registered for less than nine (9) credit hours in a term. The exception is Engineering. See Academic Regulation 1.

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

Bachelor Degree Refers to a three or four year undergraduate degree awarded by the University. Also referred to as a Baccalaureate degree.

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

Chairperson Faculty member responsible for an academic department and affiliated area(s) of study.

Concentration See "Area of Concentration" above.

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

Co-requisite A course which must be taken concurrently with another course (e.g., CHEM 1211 requires MATH 1210 to be taken before or concurrently).

Course A unit of study in a particular subject identified by a course title and a unique course number.

Credit Hours A unit of academic value. Six (6) credit hours are granted for each successfully completed full-year course three (3) credit hours are granted for a successfully completed one-term course

Credit hour 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.

Cross-Listed Courses Courses which are listed under two different numbers in two different

	departments or academic units. Cross-listed courses may be taken through either department/ academic unit, but credit hours may be earned for only one of the courses.		the student's academic program. See Academic Regulation 21.
Cumulative Grade Point Average	Each letter grade awarded has an associated numeric grade point value. A cumulative grade point average (CGPA) is an average calculated based upon all courses taken subsequent to admission to the University. The CGPA is used to determine academic standing and distinctions. See Academic regulations 5 and 6.	Major	A formal, specific subject area of study within an academic unit as defined by its degree program. It has more depth than a Concentration, but not as much as Honours.
Dean	Also called Dean of the Faculty; the chief academic administrator of a Faculty.	Open Studies Status	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.
Degree Grade Point Average	A degree grade point average (DGPA) is calculated based upon the courses presented in fulfillment of the degree requirements.	Part-time	See "Attendance Status" above.
Directed Reading/Study	An approved course in which an individual student studies, discusses and writes about a selected set of readings under the direction of an individual faculty member.	Plagiarism	An academic offence. Plagiarism means presenting words, ideas or techniques of another as one's own. Please see Academic Integrity and Student Responsibility in Section 2 of the Academic Calendar and A Student's Guide to avoiding plagiarism and cheating. www.smu.ca/administration/library/plagiarism.html
Elective	Within an academic program, some courses are explicitly required and some courses may be selected from a specified set. These latter courses are called "electives".	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).
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.	Prerequisite	A course for which credit hours must have been earned prior to registration in another course, lab, or recitation which lists it as a prerequisite.
Full-time	See "Attendance Status" above.	Probation	A conditional status assigned to a student who has shown evidence of academic weakness. See Academic Regulation 7.
Grade	The letter indicating an instructor's evaluation of a student's work in a course. See Academic Regulation 5 (undergraduate) and Graduate Regulation 6 (graduate).	Program	An approved combination of courses in a subject area(s) which fulfills the requirements for a degree, diploma, or certificate.
Grade Point Average	Each letter grade awarded has an associated numeric grade point value. A grade point average (GPA) is an average of these grade points. Commonly used GPA's are Cumulative GPA, Degree GPA and Term GPA.	Program Grade Point Average	A program (major, honours, minor, concentration) grade point average (PGPA) is calculated based upon the courses presented in fulfillment of the program requirements.
Honours	Honours is the most intense level of study in a discipline within an undergraduate degree program.	Registration	The process of officially selecting courses, labs, and recitations.
Instructor	A member of faculty.	Satisfactory Academic Standing	See Academic Standing above.
Letter of Permission	An official document issued by Saint Mary's to enable its own students to register for a course(s) at another post-secondary institution and to guarantee transfer of the credit hours for that course(s), if successfully completed, to	Scholarship	A monetary award based on academic achievement.
		Semester	Same as "term" below.
		Special Topics	Approved courses dealing with specialized subject-matter that is announced from time to time by

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	Departments; they involve classes at regularly scheduled times and are included in the normal timetable.		
Subject	Also called a discipline; a specific field of study, e.g., Accounting, Chemistry, History.	Discipline Abbreviations	
Summer Sessions	Terms of study during the summer. See "term" below.	ACCT	Accounting
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. See Academic Regulation 32.	ACST	Atlantic Canada Studies
Transfer Credit	Credit granted for work completed at another post-secondary academic institution after admission and initial registration at Saint Mary's University. Students must obtain an approved Letter of Permission before enrolling in courses for which transfer credit will be sought. See Academic Regulation 21.	ANTH	Anthropology
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.	ARBC	Arabic
Visiting 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.	ASNT	Asian Studies
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.	ASTR	Astronomy
Year of Study	Attaining a degree, diploma, or certificate depends in part on earning credit hours 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 hours in the number of courses normally specified on an annual basis for their academic program. The following are the credit hour totals required for each year of study. Year 1: 0 to 30 credit hours Year 2: 33 to 60 credit hours Year 3: 63 to 90 credit hours Year 4: 93 or more credit hours	BIOL	Biology
		BUSI	Business Administration
		CHEM	Chemistry
		CHNS	Chinese
		CISY	Computing and Information Systems
		CLAS	Classics
		CMLW	Commercial Law
		COMM	Communication
		CRIM	Criminology
		CSCI	Computing Science
		ECON	Economics
		EDUC	Education
		EGNE	Engineering
		EGSL	English as a Second Language
		EGYP	Egyptian
		EMBA	Executive Master of Business Administration
		ENGL	English
		ENVS	Environmental Science
		FILM	Film Studies
		FINA	Finance
		FREN	French
		FRSC	Forensic Sciences
		GEOG	Geography
		GEOL	Geology
		GREK	Greek
		GRMN	German
		GSCI	General Science
		GWST	Women and Gender Studies (graduate)
		HEBW	Hebrew
		HIST	History
		IDST	International Development Studies
		IRST	Irish Studies
		JPNS	Japanese
		LATN	Latin
		LING	Linguistics
		MATH	Mathematics
		MFIN	Master of Finance
		MGMT	Management
		MGSC	Management Science
		MKTG	Marketing
		MMCCU	Master of Management - Cooperatives & Credit Unions
		PHIL	Philosophy
		PHYS	Physics
		POLI	Political Science
		PSYC	Psychology
		RELS	Religious Studies
		SMBA	Master of Business Administration
		SOCI	Sociology
		SPAN	Spanish
		WMST	Women and Gender Studies (undergraduate)

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

- (i) 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 fifteen (15) credit hours per semester; while in the Division of Engineering, eighteen (18) credit hours per semester constitute a normal full-time load.

Undergraduate students registered for at least nine (9) credit hours in a semester are considered to be full-time, while students registered for fewer than nine (9) credit hours 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.

- (ii) Students who have earned at least thirty (30) credit hours at Saint Mary’s may elect to take up to an additional six (6) credit hours in the regular academic year. Permission is not required for such an overload.
- (iii) Students may take up to nine (9) credit hours during any one summer term, i.e., May to June or July 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 hours 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, honours, or minor will be advised by the Chairperson of the

appropriate departments or their appointees. All other students should seek advice from the Dean, Associate Dean or Undergraduate Program Advisor for their Faculty. Students are strongly urged to familiarize themselves with the academic audit program in Banner.

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

- (i) all students who are on academic probation as defined in Regulation 7d;
- (ii) all students who do not attain a grade point average of at least 1.70 in any given semester;

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. Students who cannot write the test outside of class time must be offered reasonable accommodation. Students must give the instructor a minimum of two weeks notice.

d. Instructors must also provide feedback to students regarding their progress in the course prior to the final date by which a student may cancel the course without academic penalty (see Academic Regulation 16 a). Normally, for undergraduate courses, this feedback must equal a minimum of 15% of the final grade.

5. Undergraduate Rating, Grades and Grade Points *

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

Grades	Grade Points	Percentage Points	Rating
A+	4.30*	90-100	Excellent
A	4.00	85-89	
A-	3.70	80-84	
B+	3.30	77-79	Good
B	3.00	73-76	
B-	2.70	70-72	

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C+	2.30	67-69	
C	2.00	63-66	Satisfactory
C-	1.70	60-62	
D	1.00	50-59	Marginal
F	.00	0-49	Failure or withdrawal after deadline (see 16 below)
IP			In Progress (Applicable ONLY for undergraduate honours courses.)

*In November 1997, the Senate of Saint Mary's University voted to have the A+ grade carry 4.30 grade 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 grade 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. In cases where students have not be able to complete the work of the course due to exceptional circumstances the instructor may, with the prior written authorization of the Dean of the Faculty, give the grade IC (incomplete). The IC grade will not be included in the calculation of any grade point average. The IC will be automatically converted to a failing grade, F, if the instructor does not submit a final grade as follows: for first term by Jan 31, for the second term by May 31, for summer session one by July 31 and for summer session two by Sept 30.

e. 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 honours courses and theses. The IP grade will not attract any grade points and therefore will not be calculated into any grade 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 grade point averages to a temporary grade became effective on 1 September 2001 and is not retroactive.

f. The maximum time limit permitted for a change of final grade is six months from the last day of classes in the semester. Except for the changing of an 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.

g. 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 grade point and cumulative grade point averages. This temporary grade of AI is assigned by the Registrar.

h. 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.

*The course outline may stipulate how the final grade is determined. While the total of all elements of a course may exceed 50%, a pass in certain components may be mandatory in order to pass the course.

6. Grade Point Average

a. Each letter grade is given a grade point equivalent as described in 5a above. A grade point average (GPA) is calculated by multiplying each grade by the number of credit hours, totaling the grade points and dividing by the total number of credit hours attempted. Grade point averages may be calculated for a semester, year, degree, program or cumulatively. Common grade point averages are described below.

b. The cumulative grade point average (CGPA) is based upon all courses taken for credit hours in any Faculty at Saint Mary's other than those for which grades of AE have been given. Courses for which grades of F have been given are included in the calculation of the grade point average. In the case of a repeated course, only the most recent grade is included. 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 by CGPA changes due to repeated courses.

In the case of a Saint Mary's graduate completing a second undergraduate degree, the final transcript shall include an additional GPA with a notation stating the GPA is based solely on all undergraduate courses taken since the completion of the first degree.

c. A degree grade point average (DGPA) is calculated based upon the courses presented in fulfillment of the degree requirements. Since courses without passing grades (W, F, IC, IP) are not used to fulfill degree requirements, they are not included in the DGPA. In the case of a repeated course, the most recent grade is included. Grades for courses in excess of degree requirements are not included.

d. A program (major, honours, minor, concentration) grade point average (PGPA) is calculated based upon the courses presented in fulfillment of the program requirements. Since courses without passing grades (W, F, IC, IP) are not used to fulfill program requirements, they are not included in the program GPA. In the case of a repeated

course, the most recent grade is included. Grades for courses in excess of program requirements are not included.

e. Grades for courses taken at other institutions for which advanced standing is given *are not included* in calculations for a grade point average, a cumulative grade point average, or in calculations for determining awards and distinctions. Grades for courses taken at other institutions covered by the Pan Canadian Agreement for which transfer credit is given are included in these calculations.

7. Standing Required

a. There are multiple regulations governing a student's program of study. These include the overall regulations for the credential (degree, certificate or diploma) as well as those for the area(s) of specialization (concentration, major, honours, minor). For each set of regulations, the ones that apply are those in effect at the time the student first registers in the credential or declares the specialization. For example, a student admitted to a B.A. in 2004 who then declares an English major in 2006 is governed by the B.A. requirements in effect in 2004 and the English major requirements in effect in 2006. If it is advantageous for a student to follow the new regulations in meeting the requirements for the credential or specialization, the new regulations will apply.

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. Good Standing

- (i) Student are deemed to be in "Good Standing" if they have achieved a minimum cumulative grade point average (CGPA) of at least 1.70.
- (ii) To qualify for a Bachelor's degree in Arts, Science, or Commerce a student must achieve a minimum degree grade point average (DGPA) of 2.00. Note: A higher DGPA may be required for some programs (e.g., honours).
- (iii) To qualify for a Diploma in Engineering or a Certificate students are required to achieve a program grade point average (PGPA) of at least 2.00. Note: Individual programs may require a higher PGPA.

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), a student has attempted a minimum of 24 credit hours with a CGPA of at least 1.00 but less than 1.70;
- (ii) if on readmission after being required to withdraw because of academic weakness [see (i) below];
- (iii) 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. Eligibility to Continue

Students in Good Standing are eligible to continue. Students on academic probation are eligible to continue if at the end of any academic year (i.e., on or about 1 May) their annual GPA is 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 Counseling

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), students will be required to withdraw for 12 months if:

- (i) they have attempted at least 24 credit hours with a CGPA below 1.00;
- (ii) they are on probation and do not satisfy the requirements for continuance;
- (iii) they are on probation and fail to comply with any formal conditions governing their probation.

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.

h. Admission after Required Withdrawal

- (i) Students who are not eligible for readmission to their former institution are normally not admissible to Saint Mary's University.
- (ii) Students who have been required to withdraw from Saint Mary's, and who wish subsequently to be readmitted, must apply to the Admissions Office.
- (iii) If readmitted, students will be placed on academic probation and must fulfill those 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 Service Centre. Therefore students are urged to ensure that this address is both accurate and complete.

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8. Examinations

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

b. All final tests and 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 six (6) credit hour 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 three (3) credit hour 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.

(iii) In the fall and winter terms, test and examinations individually or collectively contributing more than 10% of the overall evaluation of the course are not permitted to be held during the last fourteen calendar days preceding the end of classes, except as noted in (iv) below. End of term tests and examinations are to be held during the final assessment period as specified in sections, 8a. and b.

(iv) Prior to the first class date, the Dean of the Faculty may authorize a lab examination worth more than 10% of the final grade within the last 14 days preceding the end of classes. A lab examination requires the use of lab resources.

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. Students are responsible for ensuring they have up-to-date schedules. This information is posted on Banner Self Service with the student's 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 test or examination" or for rescheduling the test or examination.

f. Students are required to present their valid Saint Mary's University student identification cards at all tests and examinations for possible verification of their photographs or signatures.

g. 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.

h. Participation in university sanctioned activities and events may occasionally conflict with exam schedules. Students experiencing such conflicts should follow the instructions in g. (above)

i. In the case of courses delivered at extension centres, midterms and final examinations will take place at the extension centre. If the location is within the Halifax Regional Municipality, the final examination may be held on the Saint Mary's University campus, with the approval of the Dean of the Faculty.

j. In the case of distance education courses taught via the internet or other means, the course outline will specify if midterms and final examinations will be either held online or at locations in reasonable proximity to the students. Remotely offered examinations must be invigilated by an invigilator (proctor) that is approved by the course instructor. The Division of Continuing Education will be responsible for working with the student to make arrangements for the test location and invigilation.

k. Supplementary examinations are not offered.

9. Evaluations

a. At the end of each semester, instructors must submit to the Registrar, through Self-Service Banner, their evaluations of all students registered in their courses. For six credit hour courses taught over two terms, interim grades will be submitted at the end of the first term 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, one week from the day on which the examination was written; and
- (iii) in the cases of courses taught in Summer Sessions, grades are due in the Service Centre 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.

At the start of each term, any blank grades from the previous term will be assigned a grade of F.

b. Final grades are available on Self-Service one day after submission by the instructor. Grade reports are not produced.

c. 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.

d. 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 publicly post grades without the written permission of the student.

e. 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 student who, due to a serious illness or emergency, was detained or rendered unfit to write a required final examination, may appeal for a special examination. Elective arrangements (such as travel plans) are not considered acceptable grounds for granting an alternative examination time. A student who wishes to have such an appeal considered must:

a. Within 48 hours after the end of the final examination, report, or have a representative report (in writing if possible), to the Instructor and the Dean of the Faculty in which the course is offered, intention to appeal for a special examination and

b. Within one week after the end of the examination submit to the Dean a written request for a special examination. This request must be accompanied by an explanation of the circumstances which made it impossible for the student to write the regular examination and a medical doctor's report, or other document, which supports the appeal.

c. The Dean's decision will be communicated to the student and the instructor within one week of receipt of the request.

d. If the Dean approves the special examination, the responsibility for setting and conducting special examinations will lie with the instructor and the department. Special examinations should be completed as soon as possible and normally (i.e. wherever possible) as follows: for first term by Jan 31, for the second term by May 31, for summer session one by July 31 and for summer session two by Sept 30.

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 the 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. A student's course documentation should include grade history and copies of any retained graded materials on which the student's grades were based (i.e. exercises, reports, papers, tests, examinations). This documentation shall be retained on-campus for a minimum of twelve months from the deadline of submission of grades.
- (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 the student, the student shall submit the 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) The appellants and instructors will be invited to appear before the committee(s) hearing the 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 Hours without Final Examination

Students who, for medical or compassionate reasons, have been unable to finish a course but who have satisfactorily completed the other requirements, may apply to the Dean of the Faculty for credit hours 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 hours for the course but are unable to determine a precise grade point grade, then they will assign the grade of AE (aegrotat). This grade will not be included in computing the grade point average. Students may apply for aegrotat standing for a maximum thirty (30) credit hours during their undergraduate program. This grade of AE is available only as a final grade and therefore cannot be awarded at mid-year for six (6) credit hour courses.

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 eight working days (excluding Saturdays) during the academic year; five days in a summer session.

c. Changes can be effected only through Banner Self-Service. 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. Students can expect reasonable accommodation if they are impacted negatively by late registration and/or course changes. 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 therefore is regarded as being full. In exceptional circumstances, the course instructor or heads of academic units (i.e., chairperson, subject area representatives, directors of divisions, or area coordinators) may authorize a student to register in a closed course, lab, or recitation. This must be done through an over-ride on the student information system. The student may then register in the course. Permission to register does not mean that the student is registered.

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

a. In order to declare or change a major, area of concentration, honours, 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, honours, or minor. Students are strongly urged to declare their major, area of concentration, honours, or minor before registering for their final sixty (60) credit hours and before 1 June.

b. The regulations governing the major, area of concentration, honours, 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, honours, 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 4. Students should check carefully because minors are not available in all subject areas.

d. Students must file a Change of Registration form indicating the dropping of their major, area of concentration, honours, 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. Students should be aware that a change of Faculty is not automatic. 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 any course, after the time limits indicated in 13b above have expired, and provided the course still has one quarter of the instruction time remaining, 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. Students should refer to Regulation 4 d regarding feedback that must be provided prior to the last day to withdraw without academic penalty to allow for an informed decision to be made to withdraw from a course.

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 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 their 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 complete retroactive withdrawal (regardless of the number of courses involved) will be charged a \$50.00 processing/administrative fee.

Notes:

- (i) Students must withdraw through Banner Self-Service. 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. Each course counts only once as credit hours in the academic program. In accordance with regulation 6b above, only the most recent grade is included in the cumulative GPA, even if this is a lower grade.

b. In the cases where courses have been renumbered, changed in level, or where a six (6) credit hour course (formerly referred to as a "full course") has been split into two three (3) credit hour courses (formerly termed "half courses") or vice versa, a student who received credit hour recognition for the original course is not entitled to repeat the course in its new format or on its new level for additional credit hour recognition.

c. Students will not ordinarily be given credit hours 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 Integrity

See the section preceding Academic Regulations, entitled Academic Integrity and Student Responsibility

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 hours, if appropriate, in consultation with the

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Dean of the Faculty. To obtain a first baccalaureate degree or a diploma, the student must successfully complete a minimum of 50% of the credit hours required for their degree, diploma or certificate program at Saint Mary's. Among these credit hours, students must complete a minimum of 50% of the credit hours required for the major, honours or concentration at Saint Mary's. Note that the equivalency of courses conducted at other institutions is at the discretion of the Dean of the Faculty.

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 accordance with the Pan Canadian Protocol on Transfer Credits, all first and second year courses taken and passed at Canadian universities will be recognized for credit. Deans have the discretion to stipulate a minimum grade which must be attained to receive credit for a specific Saint Mary's course, otherwise elective credit may be granted. Advanced standing for third and fourth year courses is at the discretion of the Dean.

(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 credit hours that students must complete to satisfy their academic program is final.

(d) Normally, for courses completed at universities outside Canada, a minimum grade of C (65%) is required for advanced standing.

(e) Advanced standing for courses taken at community or private colleges is granted on a case by case basis, except where formal articulation agreements exist.

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.

21. Transfer Credit Hours

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 hours to an academic program at Saint Mary's. Students seeking such permission must apply to the Dean using the Letter of Permission form, available from the Service Centre. The letter of application should state why the student wishes to take the course at another institution, how the requested course fits into the student's academic program, and whether it has been determined that no equivalent or other suitable course is available at Saint Mary's University. A full description of the course(s) for

which transfer credit hours are requested must be included. The description from an academic calendar will suffice. 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 is a few formal exchange programs, details of which are available from Financial Services.

c. Before transfer credit hours can be considered, students must have the institution concerned send to the Registrar an official transcript of the work undertaken.

d. All courses at Canadian Universities for which a student receives a passing grade [D (or equivalent) or higher] on Letter of Permission will be accepted for transfer credit hours. However, the Deans have the authority to stipulate a minimum grade which must be attained to transfer a particular course for fulfillment of a particular degree or program requirement.

e. 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, honours, or minor program.

f. In accordance with regulation 6e Grades for courses taken at other institutions covered by the Pan Canadian Agreement for which transfer credit is given are included in GPA calculations.

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

Note: Students should note that **at least 50%** of all credit hours for any academic program (degree, diploma, or certificate) must be taken at Saint Mary's. The only exceptions to this are exchange programs with which Saint Mary's University has entered into formal agreements, and formal joint programs.

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 credit hours 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 honours in another; and degree and certificate programs. 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.

b. It is possible to satisfy simultaneously the requirements for two baccalaureate degrees in the Faculties of Arts, Business or Science. To formally declare their status as dual degree, students must complete the appropriate form in the Service Centre 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). Students must complete the requirements of both degree programs for a minimum of 150 credit hours 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. Advanced standing may be granted for courses completed in the first degree. The student must successfully complete a minimum of 50% of the credit hours required for the second degree program at Saint Mary's. Among these credit hours, students must complete a minimum of 50% of the credit hours required for the major, honours or concentration at Saint Mary's. If the first degree was earned at Saint Mary's, a minimum of 30 additional credit hours must be earned at Saint Mary's.

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. 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. 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 in Atlantic Canada Studies
 - Certificate of Chinese Studies
 - Certificate of Proficiency in French
 - Certificate in German Studies
 - Certificate of Linguistics
 - Certificate of Japanese Studies
 - Certificate in Spanish Language and Hispanic Culture
 - Certificate of Human Resource Management
 - Certificate in Financial Instrument Analysis
 - Certificate in Mathematical Science for Education

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 grade point average requirements for the specific certificate or diploma program in which they plan to enroll.

26. Certificate of Honours Equivalency

a. The Certificate of Honours 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 honours 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 Honours Equivalency,

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students must complete all the requirements (or their equivalents) for the appropriate honours program.

b. Students who have earned a first undergraduate degree from another post-secondary institution may be admitted to the Certificate if they have achieved a cumulative grade point average of 3.00 or above. Admission requires the approval of the appropriate department chairperson and the Dean. Advanced standing will be granted in accordance with regulation 20 above. Students must complete at least 30 additional credit hours at Saint Mary's and satisfy all course and grade requirements for the honours program.

27. Convocation Dates, Degrees, Diplomas, and Certificates

a. Students **MUST** file an Application for Graduation from a specific academic program, accompanied by a degree audit (manual or computer generated), with the Registrar by the dates stipulated in the University Calendar of Events. If during the course of the student's 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 honours to major), it will be necessary for the student to officially withdraw their original application and reapply for graduation.

b. There are three convocations annually, May, October and January, with ceremonies held at each. 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 honours is shown on the parchment.

e. The University grants the following degrees:

Bachelor of Arts	B.A.
Bachelor of Commerce	B.Comm.
Bachelor of Environmental Studies	B.E.S.
Bachelor of Science	B.Sc.
Master of Arts	M.A.
Master of Business Administration	M.B.A.
Master of Finance	M.Fin.
Master of Management - Cooperatives & Credit Unions	M.Mgt.
Master of Science	M.Sc.
Master of Technology Entrepreneurship and Innovation	M.TEI
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 in Atlantic Canada Studies	Cert. A.C.S.
Certificate of Chinese Studies	Cert.C.S.
Certificate of Proficiency in French	Cert.Fren.
Certificate of German Studies	Cert.G.S..
Certificate of Human Resource Management	Cert. H.R.M.
Certificate in Financial Instrument Analysis	Cert. F.I.A.
Certificate of Honours Equivalency	Cert. Hons.
Certificate of Linguistics	Cert. Ling.
Certificate of Japanese Studies	Cert. J.S.
Certificate of Spanish and Hispanic Culture	Cert. S.H.C.
Certificate in Mathematical Sciences for Education	Cert. M.S.E
Cooperative Education Certificate	Coop.
Diploma in Engineering	Dip.Egne.
Diploma in Forensic Sciences	Dip.F.Sc.
Diploma in Co-operative Management	Dip Mgt

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

g. Students whose accounts with either or both of Financial Services or the Library Systems 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.

29. Distinctions

a. In the undergraduate degree and diploma program, distinctions are awarded to successful candidates on the basis of overall performance as measured by the cumulative grade point average as specified below :

Cumulative Grade Point Average	Distinction:	
	B.A., B.Sc., & B.Comm.	Diploma in Engineering
4.00 - 4.30	summa cum laude	With greatest distinction
3.85 - 3.99	magna cum laude	With great distinction
3.70 - 3.84	cum laude	With distinction

b. No distinctions are awarded in graduate and certificate programs.

30. University Medals

At each Spring Convocation the following are presented:

a. Governor General’s Silver Academic Medal

This medal is awarded annually to the undergraduate deemed to be the top candidate.

b. Faculty and Division Medals

In the Faculties of Arts, Business and Science; and in the Division of Engineering, medals are awarded to the undergraduate students with the highest cumulative grade point average.

Notes:

- (a) In the case of undergraduate degrees and diplomas, the cumulative grade 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 in the Fall or January Convocation will be considered for medals at the next Spring Convocation.

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. Students enrolled in Bachelor degree programs or the Diploma in Engineering are eligible for placement on the Dean’s List. Evaluation for placement on the Dean’s List occurs at the end of the academic year (i.e., shortly after May 1st). Placement on the Dean’s List is recorded on the student’s academic transcript.

- a. New students, admitted in the previous September, will be automatically placed on the Dean’s List if they have completed at least 24 credit hours in the academic year with a GPA of 3.67 or above.
- b. Returning students will be automatically placed on the Dean’s List if they have completed at least 30 credit hours in the previous 12 months with a GPA of at least 3.67.

Students who do not fall into the above two categories may officially apply for placement on the Dean’s List. Placement will be based upon achievement of a GPA of at least 3.67 on at least 30 credit hours completed between the start of a term in a previous year and the end of the current academic year. After having been placed on the Dean’s List, these students must take at least 30 additional credit hours to qualify again for placement on the Dean’s List.

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 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 P.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. Details on ordering transcripts can be found at www.smu.ca/servicecentre/tran_pricing.html

Transcripts include the following information:

- (i) Faculty, program, major, area of concentration, minor, and/or honours;
- (ii) advanced standing and/or transfer credit hours;
- (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:

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- (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. 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 (FOIPOP).

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

1. Procedures

Registration procedures are the responsibility of the Registrar and will be made known to students, instructors and administrators on the website, www.smu.ca/currentstudents

2. 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 through Banner Self-Service. Only the Service Centre can officially process changes submitted in writing. Changes made in any other way, formally or informally, are not honored.

3. 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).

4. 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 Service Centre 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, 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 Assistant Registrar-Scheduling. 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.

6. 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 posted on Banner Self-Service.

7. 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.

8. Addresses

During the academic year, all communications are mailed to local addresses. Therefore students are urged to keep theirs up-to-date in the Service Centre. During the summer months, communications are normally sent to the students' permanent addresses unless an alternate address has been filed with the Service Centre prior to the advertised deadlines.

9. Identification Cards

At the time of first registration, students are required to obtain an I.D. card. 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 lab 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 by the Library 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 or submit an electronic ID photo using our online Photo ID Submission form:
<http://libraryid.smu.ca/PhotoUpldPage/frmPhotoUpload.aspx>

Faculties and Programs

**Faculty of Arts
Sobey School of Business
Faculty of Science
Continuing Education
Study Abroad Opportunities
Pre-Professional Programs**

Section

3

Faculty of Arts

Dr. Esther E. Enns, Dean
 Dr. Donald J. Naulls, Associate Dean
 Olu Oredugba, Program Advisor

1. General Information

The Faculty of Arts offers a wide range of programs based on research in the Humanities, Social Sciences and Sciences. Students have many opportunities to include both traditional disciplines and/or new and interdisciplinary fields of study in their degrees. In the Faculty of Arts, students can earn a Bachelor of Arts Degree (B.A.), and a Bachelor of Environmental Studies Degree (B.E.S.).

The Bachelor of Arts (BA) is a well-established, foundational degree recognized both across Canada and around the world. A general education component that helps students develop a broad base of knowledge and skills is central to the degree. Students also specialize in the theory and methods of selected fields of study. The B.A. degree encourages students to develop a broad sense of citizenship, international experience, a uniquely interdisciplinary perspective, and it prepares students for entry into various professional schools (e.g. education, law, social work), employment in various careers, or graduate-level training and research.

The following three types of B.A. degrees are available:

BA – Major	BA – Honours	BA – General (Double Concentration)
Students develop a considerable level of conceptual sophistication, intellectual autonomy, and specialization in a particular field. <i>This is the standard B.A. program taken by most students.</i>	Students develop a high level of conceptual sophistication, intellectual autonomy, and specialization in a particular field. Students carry out independent scholarly research and show capacity for advanced intellectual work. <i>This program is intended for high-achieving students planning post-graduate studies.</i>	Students develop a moderate level of conceptual sophistication, and focus in at least two fields of study. <i>This degree can satisfy entry requirements for certain professional programs, or provide access to certain careers.</i>

New students are normally admitted into the BA-Major program (120 credit hours). Alternatively, students may choose the BA-General program (90 credit hours). Students wishing to complete a BA-Honours program may seek admission at a later stage provided they have achieved a minimum Grade Point Average of 3.00.

2. Requirements for Completing a B.A. Degree

BA – Major	BA – Honours	BA – General (Double Concentration)
120 credit hours	120 credit hours	90 credit hours
Basic Arts Requirements (see details below)	Basic Arts Requirements (see details below)	Basic Arts Requirements (see details below)
66 credit hours: 2000 level or higher in Arts	66 credit hours: 2000 level or higher in Arts	48 credit hours: 2000 level or higher in Arts
A minimum of 36 and maximum of 48 credit hours to complete a selected Major (as specified by Departments or Programs).	At least 60 credit hours in the Honours subject, of which 48 credit hours must be at the 2000 level or higher	24 distinct credit hours in each of two Arts areas (for a total of 48 to complete the two concentrations) with at least 18 in each area at the 2000 level or above.

BA – Major	BA – Honours	BA – General (Double Concentration)
Minimum Grade Point Average of 2.00 in the credits constituting the Major. Students who fail to achieve 2.00 in the Major may graduate as “Non-Majors” provided they have fulfilled all other BA Requirements.	Minimum Grade Point Average of 3.00 in the credits constituting the Honours subject, with grades of B or higher in at least 48 credit hours, and no grade lower than C.	Minimum Grade Point Average of 2.00 in the credits constituting the two concentrations. Students who fail to achieve 2.00 in the Concentrations may graduate without the Double Arts Concentration designation provided they have fulfilled all other BA Requirements.
A Minor may be declared as part of the degree program.	A Minor may be declared as part of the degree program.	Minors in any Arts areas are <u>not</u> allowed. A Minor in a non-Arts area or a Minor in Business may be declared.
Up to thirty (30) credit hours from non-Arts fields of study may count toward the degree.	Up to thirty (30) credit hours from non-Arts fields of study may count toward the degree.	Up to eighteen (18) credit hours from non-Arts fields of study may count toward the degree.
Minimum Degree Grade Point Average of 1.70	Minimum Degree Grade Point Average of 3.00	Minimum Degree Grade Point Average of 1.70

3. Basic Arts Requirements - *The First Thirty Credit Hours*

The *Basic Arts Requirements* are the “general education” core of the B.A. degree, and are designed to develop the broad base of knowledge and skills that are central and foundational for any B.A. degree. Students are strongly encouraged to build their first year (the first 30 credit hours) using the *Basic Arts Requirements* as the framework.

<i>Basic Arts Requirements</i>		
a.	English 1205 or at the discretion of the Chairperson of the English Department, an alternative three (3) credit hours in English	Development of literacy and cultural understanding
b.	Six (6) credit hours from one or two of the following: Philosophy 1200 (Critical Thinking) (No other Philosophy course satisfies this requirement.) Or Mathematics [including MGSC 1205; MGSC 1206; and CISY 1225] Or a language other than English Or a natural science (except Psychology)	Development of logical reasoning and analytical skill
c.	The equivalent of nine (9) credit hours from at least TWO of the following Humanities: Classics, English other than ENGL 1205, History, Philosophy other than PHIL 1200, Religious Studies, and Modern Languages courses on literature and/or culture	Interpretation of human imagination and experience
d.	The equivalent of twelve (12) credit hours from at least two of the following Social Sciences: Anthropology, Economics, Geography, Linguistics, Political Science, Psychology, and Sociology. (A maximum of six (6) credit hours will be counted from any one area.)	Analysis of structures and systems of social life and aspects of nature

Programs in the Bachelor of Arts

	Honours B.A. (120-credit-hr)	B.A. Major (120-credit hr)	B.A. General Double Arts Concentration (90-credit-hr)	Minor	Certificate	Elective Courses
Anthropology	✓	✓	✓	✓		✓
Arabic						✓
Asian Studies	✓	✓	✓	✓		✓
Atlantic Canada Studies	✓	✓	✓	✓	✓	✓
Chinese					✓	✓
Classics		✓	✓	✓		✓
Criminology	✓	✓	✓	✓		
Economics	✓	✓	✓	✓		✓
Education						✓
English	✓	✓	✓	✓		✓
Entrepreneurship		✓				
Film Studies				✓		✓
French	✓	✓	✓	✓		✓
Geography	✓	✓	✓	✓		✓
German Studies			✓	✓	✓	✓
Hispanic Studies		✓			✓	
History	✓	✓	✓	✓		✓
International Development Studies	✓	✓	✓	✓		✓
Irish Studies		✓	✓	✓		✓
Japanese					✓	✓
Latin American Studies				✓		
Linguistics	✓	✓	✓	✓	✓	✓
Mathematics	✓	✓	✓			✓
Philosophy	✓	✓	✓	✓		✓
Political Science	✓	✓	✓	✓		✓
Psychology	✓	✓	✓	✓		✓
Religious Studies	✓	✓	✓	✓		✓
Sociology	✓	✓	✓	✓		✓
Spanish		✓	✓	✓	✓	✓
Women & Gender Studies			✓	✓		✓

4. Requirements for Completing a B.E.S Degree

Bachelor of Environmental Studies		
120 Credit Hours	Year 1	21 required credit hours in social sciences, humanities, environmental and natural science courses 9 elective credit hours in social sciences and humanities
	Year 2	15 credit hours of required courses in social sciences, humanities and environmental sciences 6 credit hours in public policy 6 credit hours that may be selected from an approved list of social sciences and humanities courses 3 credit hours in free electives
	Year 3	15 credit hours of required courses in social sciences, humanities and environmental sciences 6 credit hours of approved electives in natural sciences 6 credit hours of approved electives in humanities 3 credit hours of free electives
	Year 4	9 credit hours in required capstone courses 9 credit hours from approved list of electives 12 credit hours of free electives

For details about program requirements and course descriptions, please refer to the Environmental Studies section of the Academic Calendar.

5. Declaration of Program

Bachelor of Arts - Major

B.A. students, in consultation with the designated Department and/or Program advisor, must formally declare the particular field of study in which they wish to take their Major **not later than the completion of sixty (60) credit hours**. For full-time students, this normally means **by the end of their second year**.

It is possible to declare a *Double Major* (i.e., two majors, one in each of two different subject areas). It is also possible to declare a *Minor* as part of the Bachelor of Arts – Major degree program.

The Faculty of Arts offers *Major* programs in the following fields of study:

- Anthropology
- Asian Studies
- Atlantic Canada Studies
- Classics
- Criminology
- Economics
- English
- Entrepreneurship
- French
- Geography
- Hispanic Studies

- History
- International Development Studies
- Irish Studies
- Linguistics
- Mathematics
- Philosophy
- Political Science
- Psychology
- Religious Studies
- Sociology

The regulations governing the Major program will be those in effect at the time of the declaration of the Major.

It is possible for students to change their Major at a later stage.

Bachelor of Arts – Honours

The Faculty of Arts offers Honours programs in the following fields of study:

- Anthropology
- Asian Studies
- Atlantic Canada Studies
- Criminology
- Economics
- English
- French
- Geography
- History

- International Development Studies
- Mathematics
- Philosophy
- Political Science
- Psychology
- Religious Studies
- Sociology

It is possible to take *Double Honours* in any two of these fields of study. It is also possible to declare a *Minor* as part of the Bachelor of Arts – Honours degree program.

B.A. students, in consultation with the designated Department and/or Program advisor, must formally declare the particular field of study in which they wish to take an Honours degree **after completing eighteen (18) credit hours in the field**, or after completing sixty (60) credit hours in the BA.

The prerequisite for admission into the B.A. – Honours is a minimum cumulative grade point average of 3.00. Students seeking admission to the B.A. – Honours will be assessed also on the basis of their overall academic record.

To continue in the program, students must achieve a minimum degree grade point average of 3.00. Students are advised that some academic units have stipulated a higher minimum cumulative grade point average.

To graduate, students must achieve a minimum degree grade point average of 3.00. Students are advised that some academic units have stipulated a higher minimum cumulative grade point average.

For a double honours degree, students must complete not fewer than forty-two (42) credit hours in each of two honours subjects. At least sixty (60) of these credit hours must be at the 2000 level or above, including a minimum of twenty-four (24) credit hours in each subject. Students are required to have a minimum grade point average of 3.00 in the double honours courses, with grades of B or higher in at least sixty-six (66) credit hours, and no grade lower than C.

Bachelor of Arts – General (Double Arts Concentrations)

B.A. students, in consultation with the designated Department and/or Program advisors, must formally declare the two (2) subject areas in the Faculty of Arts in which they wish to complete the Double Arts Concentration Requirement **not later than the completion of thirty (30) credit hours**. For full-time students, this normally means **by the end of their first year**.

Students can do their B.A. *Concentrations* in the following fields of study:

- Anthropology
- Asian Studies
- Atlantic Canada Studies
- Classics
- Criminology
- Economics
- English
- French
- Geography

- German Studies
- Hispanic Studies
- History
- International Development Studies
- Irish Studies
- Latin American Studies
- Linguistics
- Mathematics
- Philosophy
- Political Science
- Psychology
- Religious Studies
- Sociology
- Women and Gender Studies

The regulations governing this program will be those in effect at the time of declaration.

Minors

Students completing a *Bachelor of Arts - Major* or a *Bachelor of Arts – Honours* have the option of declaring one or more Minors as part of their degree program. The following Minors are available for such students:

Minors in Arts	Minors in Business	Minors in Science
<ul style="list-style-type: none"> ▪ Anthropology ▪ Asian Studies ▪ Atlantic Canada Studies ▪ Classics ▪ Criminology ▪ Economics ▪ English ▪ Film Studies ▪ French ▪ Geography ▪ German Studies ▪ Film Studies ▪ Hispanic Studies ▪ History ▪ International Development Studies ▪ Irish Studies ▪ Linguistics ▪ Latin American Studies ▪ Mathematics ▪ Philosophy ▪ Political Science ▪ Psychology ▪ Religious Studies ▪ Sociology ▪ Women and Gender Studies 	<ul style="list-style-type: none"> ▪ Business 	<ul style="list-style-type: none"> ▪ Astronomy ▪ Biology ▪ Chemistry ▪ Computing Science ▪ Geology ▪ Physics

To satisfy the requirements for a Minor in Arts, students must complete at least twenty-four (24) credit hours in the field of study. At least twelve (12) of these credit hours must be at the 2000 level or above. Specific Departmental requirements may apply to particular Minors; see discipline statements in Section 4 of the *Calendar*.

Minors in Business and Science require a minimum of 30 credit hours. Requirements for the Minor in Business can be found in the next section on programs in the Sobey School of Business. For requirements for minors in Science, see the discipline statements in Section 4 of this *Calendar*.

6. Non-Arts Credits

Students may count towards a Bachelor of Arts – Major or Honours thirty (30) credit hours outside of the recognized Arts subjects. Recognized Arts subjects are those in which a student may pursue a BA - major. With a Bachelor of Arts - General degree, the equivalent of up to eighteen (18) credit hours from outside the range of recognized Arts subjects may be counted. The following courses are acceptable as Arts credits: MGMT 2383, MGMT 2384, MGSC 1205, MGSC 1206, MGSC 2207, CISY 1225 and all courses in Education (EDUC prefix).

7. Certificates

Certificates in Arts

The Faculty of Arts offers a number of Certificate programs. Students can take these programs either as an add-on to their B.A. degree program, or separate from a degree program.

- Certificate in Atlantic Canada Studies
- Certificate of Chinese Studies
- Certificate in German Language and Culture
- Certificate of Honours Equivalency
- Certificate of Japanese Studies
- Certificate in Linguistics
- Certificate in Spanish Language and Hispanic Culture

Certificate in Human Resource Management

It is also possible for students in the Faculty of Arts to complete the Certificate in Human Resource Management either on a stand-alone basis through the Department of Psychology, or in combination with a Major in Psychology:

Certificate of Honours Equivalency

Students who have graduated from Saint Mary's University with a Bachelor of Arts – Major or Double Concentration may earn a Certificate of Honours Equivalency by returning to the University and completing all of the requirements specified for Honours in the subject.

Students who have earned a first undergraduate degree from another post-secondary institution may be admitted to the Certificate if they have achieved a cumulative grade point average of 3.00 or above. Admission requires the approval of the appropriate department chairperson and the Dean. Advanced standing will be granted in accordance with Academic Regulation 20. Students must complete at least 30 additional credit hours at Saint Mary's and satisfy all course and grade requirements for the honours program.

8. Cooperative Education Programs

Students may pursue a cooperative education option with the major or honours in Psychology. The requirements for cooperative education are found in the Bachelor of Science portion of Section 3 of this *Calendar*.

9. 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 Business.

While the total time required is somewhat longer, such dual degree programs are quite feasible. In essence, students have to fulfill 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.

10. Second Undergraduate Degrees

At least half of the credits presented in fulfillment 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*.

11. Internationalization and the Bachelor of Arts Degree

The B.A. programs at Saint Mary's University offer a wide variety of learning opportunities to help students become citizens of the world. Through the Faculty of Arts, students can gain cross-cultural experience and develop an international perspective. Such preparation is valuable for entry into various careers and for effective engagement in the contemporary world.

The Faculty provides international learning opportunities in a number of ways:

a. Academic Programs with International Scope

- Interdisciplinary "Area Studies" – Asian Studies, Atlantic Canada Studies, German Studies, Hispanic Studies, Irish Studies
- Studies on Aspects of World Cultures – Anthropology, Classics, English, French, History, Linguistics, Philosophy, Religious Studies
- Analysis of World Issues – Criminology, Economics, Geography, International Development Studies, Political Science, Religious Studies, Sociology

b. International Languages

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

It is possible to study the following languages in the Faculty of Arts:

- Arabic
- Chinese
- English
- French
- German
- Irish
- Japanese
- Scottish Gaelic
- Spanish

c. International Field Schools and Study Abroad

The Faculty provides a variety of courses that involve field study in other parts of the world. Such courses may be offered in the following programs:

- Anthropology
- Asian Studies
- English
- German
- Geography
- International Development Studies

There are also opportunities to study abroad in such countries as France, Germany, Japan, China, Mexico. Further information can be found at

http://www.smu.ca/administration/international/learn_a_broad.html.

12. Northern Studies Connection Linkage with University of the Arctic

Students in the Faculty of Arts have access to a range of courses relating to Northern Studies through various Departments and Programs, including:

- Anthropology
- Atlantic Canada Studies
- English
- Geography
- History

For specific courses involving Northern Studies content, please refer to the relevant sections in the Academic Calendar. For information on Northern Studies at Saint Mary's University, contact the Dean of Arts at smarts@smu.ca.

Further opportunities for study are available through Saint Mary's University's membership in the University of the Arctic consortium. Through this membership, Arts students can receive transfer credit for online courses completed through the University of the Arctic. Also, any University of the Arctic courses hosted on campus at Saint Mary's University can be taken for credit by Arts students at Saint Mary's.

Certain courses required by University of the Arctic students who are pursuing the Bachelor of Circumpolar Studies degree (B.C.S.) are offered through the Faculty of Arts at Saint Mary's University. The offerings change year to year; please refer to the University of the Arctic website for details, or contact the Dean of Arts at Saint Mary's at smarts@smu.ca.

13. Graduate Studies

Details on graduate programs can be found in the *Graduate Academic Calendar*. The following Master of Arts programs are offered at Saint Mary's University:

Master of Arts in Atlantic Canada Studies
 Master of Arts in Criminology
 Master of Arts in History
 Master of Arts in International Development Studies
 Master of Arts in Philosophy
 Master of Arts in Theology and Religious Studies
 Master of Arts in Women and Gender Studies
 Ph.D. in International Development Studies

Sobey School of Business

Dr. Patricia Bradshaw, Dean
Dr. Thomas Kozloski, Associate Dean Academic
Lois Larson, Undergraduate Program Manager
Mahboub Nassim, Undergraduate Program Officer

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
Certificate in Financial Instrument Analysis
Master of Business Administration
Master of Business Administration / Certified Management Accountant
Master of Finance
Master of Technology Entrepreneurship and Innovation
Master of Management – Cooperatives and Credit Unions
Graduate Diploma in Cooperative Management
Executive Master of Business Administration
Doctor of Philosophy in Business Administration (Management)

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, eligible students may 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 Entrepreneurship. A cooperative education option, placements at the Sobey Business Development Centre and study-abroad opportunities are available to qualified students.

Certificate programs in Financial Instrument Analysis and 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: Human Resource Management.

For information on graduate business programs, consult the *Graduate Academic Calendar*.

Bachelor of Commerce

The following requirements apply to all entering Commerce students.

1. a. The Bachelor of Commerce program consists of one hundred and twenty (120) credit hours 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 Grade 12 Academic Mathematics (or equivalent) is a prerequisite for two first-year MGSC courses [MGSC 1205 and MGSC 1206]. Students who do not have Nova Scotia Grade 12 Academic Mathematics on admission, will be required to upgrade their mathematical knowledge before taking MGSC 1205 and 1206.

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

b. Honours and cooperative education students must attain a minimum degree grade point average of 3.00.

c. To be eligible to declare a major, students must have completed 45 credit hours and must have a cumulative grade point average of 2.0.

d. Completion of a major – i.e., to have a major formally recognized on a student's academic record – requires that students complete the designated courses with a grade point average of 2.2. (The courses required for each major are listed in Regulation 5 below.)

3. During the regular Academic Year (September to May), full time students will normally take the equivalent of thirty (30) credit hours (i.e. five courses in each academic term). Students who have completed at least thirty (30) credit hours at Saint Mary's may elect to take an additional three (3) credit hours (i.e., one course) each term. Permission is not required. (See academic regulation 1.)

4. All students must successfully complete the following required courses, arranged by year as a guide to students in preparing their programs of study. Students required to complete additional courses due to background deficiencies should consult the BComm Program Manager. Course descriptions, listed alphabetically by discipline, can be found in Section 4, Description of Courses.

Note:

A non-Commerce elective is a course offered by the Faculties of Arts or Science.

A free elective is a course offered by Arts, Science or Business.

Year 1

CISY 1225	Introduction to Computer Applications
ECON 1201	Principles of Economics: Micro
ECON 1202	Principles of Economics: Macro
ENGL 1205	Introduction to Literature
MGMT 1281	Introduction to Business Management
MGSC 1205	Quantitative Methods I

MGSC 1206 Quantitative Methods II
Nine (9) non-Commerce elective credit hours

Year 2

ACCT 2241 Introductory Financial Accounting
ACCT 2242 Introductory Managerial Accounting
CMLW 2201 Legal Aspects of Business - Part I
COMM 2293 Communications
MGSC 2207 Introductory Statistics
MGMT 2383 Micro Organizational Behaviour
MGMT 2384 Macro Organizational Behaviour
MKTG 2270 Introduction to Marketing
Three (3) credit hours in Economics electives (except ECON 4475) - see Note below
Three (3) credit hours in non-Commerce electives

Notes:

- (i) It is recommended that students planning to major in Economics take ECON 3300 or ECON 3301 in Year 2 and defer three (3) credit hours of Economics electives to Year 3.
- (ii) Students planning to major in Human Resource Management should take ECON 3340.
- (iii) Students may elect to take FINA 2360 in Year 2 (once prerequisites are completed) and the Economics elective in Year 3 or 4.
- (iv) Students may substitute one of BIOL 2308, ENGE 2309, GEOG 3326, MATH 1207, MATH 1216, PSYC 2350 or CRIM/SOCI 3102 in lieu of MGSC 2207

Year 3 and Year 4

FINA 2360 Business Finance I (may be taken in Year 2, once prerequisites completed)
FINA 3361 Business Finance II
MGMT 3480 Ethical Responsibilities of Organizations
MGMT 4489 Strategic Management
At least twelve (12) credit hours in non-Commerce electives
Courses required by the major or non-major route to the degree – see Regulation 5 below.

Note:

The BComm degree requires students to successfully complete at least twenty-four (24) credit hours of non-Commerce electives. (Some majors require students to complete more than the minimum). Non-Commerce courses taken in lieu of Commerce courses cannot be counted as non-Commerce electives. For example, Math 1210 could not be counted both as a replacement for MGSC 1206 and a non-Commerce elective.

5. Students are not required to complete a major. However, upon completion of 45 credit hours, students with a cumulative grade point average of 2.0 may elect to choose a major. (In exceptional circumstances, students can also be admitted to a major by permission of the appropriate Chairperson or Program Coordinator.)

Eligible students can undertake majors in
Accounting
Computing and Information Systems
Economics
Entrepreneurship
Finance
General Business Studies

Global Business Management
Human Resource Management and Industrial Relations Management
Marketing

To complete a major, students must attain a grade point average of 2.2 in the designated required courses.

It is possible for students to double major by fulfilling the requirements of two majors (with the exception of General Business Studies). However, undertaking a double major may require students to complete more than the standard 120 credit hours required for the degree.

To assist students, the Year 3 and Year 4 course requirements for each major, and the core BComm degree program requirements, are listed below. Course descriptions, listed alphabetically by discipline, can be found in Section 4, Description of Courses.

a. BComm (without major)

Year 3

FINA 2360 Business Finance I
FINA 3361 Business Finance II
MGMT 3480 Ethical Responsibilities of Organizations
9 credit hours Commerce electives at 3000 level or above
6 credit hours non-Commerce electives
6 credit hours free electives

Year 4

MGMT 4489 Strategic Management
9 credit hours Commerce electives at 3000 level or above
6 credit hours non-Commerce electives
12 credit hours free electives

b. Accounting Major

In addition to all other requirements for the major, a minimum GPA of 2.2 is required in the 3rd and 4th year ACCT courses (as indicated below by *).

Year 3

*ACCT 3323 Management Information Systems
*ACCT 3333 Cost Management: Measurement Systems – See Note (i)
*ACCT 3334 Cost Management: Systems Evaluation
*ACCT 3341 Intermediate Financial Accounting I
*ACCT 3342 Intermediate Financial Accounting II
*ACCT 3345 Financial Accounting Theory
FINA 2360 Business Finance I
FINA 3361 Business Finance II
MGMT 3480 Ethical Responsibilities of Organizations
Three (3) credit hours in free electives

Year 4

*ACCT 4455 Financial Accounting Seminar
or
*ACCT 4470 Management Accounting Seminar
*Six (6) credit hours in Accounting electives - see Notes below
MGMT 4489 Strategic Management
Twelve (12) credit hours in non-Commerce electives
Six (6) credit hours in free electives

Notes:

- (i) Students cannot receive credit for both ACCT 3332 and ACCT 3333.
- (ii) CISY 2324, CISY 3326, or CISY 4435 as well as ACCT 3357 or any 4000 level course in Accounting not used to fulfill other requirements may be used to satisfy this requirement.

c. Computing and Information Systems Major

In addition to all other requirements for the major, a minimum GPA of 2.2 is required in ACCT 3323 and all Computing and Information Systems courses taken at the 2000 level or above (as indicated below by *).

Students who are planning to major in Computing and Information Systems are advised to take CISY 2320 during year two.

Year 3

- *ACCT 3323 Management Information Systems
- *CISY 2320 Business Applications Programming
- *CISY 3326 Database Programming
- *CISY 3327 Web Information Systems
- *CISY 3328 Computer Organization
- FINA 2360 Business Finance I
- FINA 3361 Business Finance II
- MGMT 3480 Ethical Responsibilities of Organizations
- Six (6) credit hours in non-Commerce electives

Year 4

- *CISY 4425 System Analysis and Design
- *CISY 4435 Information Systems Projects and Practice
- *CISY 4436 Communications Networks and Security
- MGMT 4489 Strategic Management
- Six (6) credit hours in non-Commerce electives
- Twelve (12) credit hours in free electives

d. Economics Major

In addition to all other requirements for the major, a minimum GPA of 2.2 is required in ECON 1201, ECON 1202, Economics electives from second year, and the 3rd and 4th year ECON courses (as indicated below by *).

Year 3

- *ECON 3300 Intermediate Microeconomic Theory - see note below
- *ECON 3301 Intermediate Macroeconomic Theory - see note below
- *ECON 4400 Advanced Microeconomic Theory or
- *ECON 4401 Advanced Macroeconomic Theory
- FINA 2360 Business Finance I
- FINA 3361 Business Finance II
- *Three (3) credit hours in Economics electives at the 3000 level or above
- Six (6) credit hours in humanities or language electives [Classics, History, Philosophy (except PHIL 1200), Religious Studies, English, or Modern Languages]
- MGMT 3480 Ethical Responsibilities of Organizations
- Three (3) credit hours in free electives

Year 4

- MGMT 4489 Strategic Management
- *Six (6) credit hours Economics electives at 3000 level or above
- *Three (3) credit hours in Economics electives at 4000 level (except ECON 4475)
- Six (6) credit hours in social sciences (excluding Economics) [Anthropology, Geography, Political Science, Sociology, or Psychology]
- Twelve (12) credit hours in free electives

Note: It is recommended that students planning to major in Economics take ECON 3300 or 3301 in Year 2 and defer three (3) credit hours of Economics electives to Year 3.

e. Entrepreneurship Major

In addition to all other requirements for the major, a minimum GPA of 2.2 is required in ACCT 3332, MGMT 2383, MGMT 2384, MGMT 2380, MGMT 3389, MGMT 4487, MGMT 4494, and MGMT 4495 (as indicated below by *).

Year 3

- *ACCT 3332 Planning and Control – see Note
- FINA 2360 Business Finance I
- FINA 3361 Business Finance II
- *MGMT 3380 Family Business
- *MGMT 3389 Structuring the Start-Up
- MGMT 3480 Ethical Responsibilities of Organizations
- Six (6) credit hours in non-Commerce electives
- Six (6) credit hours in free electives

Year 4

- *MGMT 4487 New Venture Opportunities
- MGMT 4489 Strategic Management
- *MGMT 4494 Entrepreneurship: Theory and Concepts
- *MGMT 4495 Small Business Performance Improvement
- Six (6) credit hours in non-Commerce electives
- Twelve (12) credit hours in free electives

Note: Students cannot receive credit for both ACCT 3332 and ACCT 3333.

f. Finance Major

In addition to all other requirements for the major, a minimum GPA of 2.2 is required in FINA 4463, FINA 4466, FINA 4467 and the six (6) credit hours used to satisfy the 4000 level Finance electives requirement (as indicated below by *).

Year 3

- ACCT 3343 Financial Accounting Analysis
- FINA 2360 Business Finance I
- FINA 3361 Business Finance II
- MGMT 3480 Ethical Responsibilities of Organizations
- Three (3) credit hours in Commerce electives at 3000 level or above.
- Six (6) credit hours in non-Commerce electives.
- Nine (9) credit hours in free electives.

Year 4

*FINA 4463 Financial Management
 *FINA 4466 Investments
 *FINA 4467 Portfolio Management
 MGMT 4489 Strategic Management
 *Six (6) credit hours in Finance electives at 4000 level except FINA 4491 [ACCT 4445 and ECON 4403 may be used to satisfy this requirement].
 Six (6) credit hours in non-commerce electives.
 Six (6) credit hours in free electives.

g. General Business Studies Major

The General Business Studies Major is designed to enable students to customize a major. Students may not double major by combining another major in Commerce with a Major in General Business Studies.

In addition to all other requirements for the major, a minimum GPA of 2.2 is required in the eighteen (18) credit hours in Commerce electives completed in fulfillment of the major. (Courses included in the GPA calculations are indicated by *).

Year 3

FINA 2360 Business Finance I
 FINA 3361 Business Finance II
 MGMT 3480 Ethical Responsibilities of Organizations
 *Nine (9) credit hours in Commerce electives at 3000 level or above
 Six (6) credit hours in non-Commerce electives
 Six (6) credit hours in free electives

Year 4

MGMT 4489 Strategic Management
 *Nine (9) credit hours in Commerce electives at 3000 level or above
 Six (6) credit hours in non-Commerce electives
 Twelve (12) credit hours in free electives

h. Global Business Management Major

In addition to all other requirements for the major, a minimum GPA of 2.2 is required in ACCT 3357, MKTG 3375, FINA 4476, MGMT 4488, and the Geographic and Cognate electives completed in fulfillment of the major (as indicated below by *).

This program is administered by the Department of Management. Students are advised that they should take their language requirements as early as possible in their program so that later they will have increased flexibility in choosing their courses. Students are responsible to schedule their classes to meet prerequisite requirements for their advanced courses.

Year 3

ACCT 3332 Planning and Control - see Note (viii)
 *ACCT 3357 International Accounting
 FINA 2360 Business Finance I
 FINA 3361 Business Finance II
 MGMT 3480 Ethical Responsibilities of Organizations
 *MKTG 3375 International Marketing

Six (6) credit hours in a Modern Language (except English) [Arabic, Chinese, French, German, Japanese, or Spanish] - see Note (i) below.

*Six (6) credit hours in Geographic electives – see Note (ii) below.

Year 4

*FINA 4476 International Financial Management
 *MGMT 4488 International Business Management
 MGMT 4489 Strategic Management
 Six (6) credit hours in a Modern Language (except English) [Arabic, Chinese, French, German, Japanese, or Spanish] see Note (iii) below.

*Six (6) credit hours in Geographic electives – see Note (iv) below.

*Six (6) credit hours in cognate electives – see Note (v) below.

Three (3) credit hours in free electives

Notes:

- (i) If the non-Commerce elective in Year 1 was a Modern Language, then this requirement can be replaced with six (6) credit hours in free electives.
- (ii) Six (6) credit hours in electives must be selected from the following regions: Africa, Americas, Asia, or Europe. Approved courses for each region are listed in the entry “Global Business Management” in Section 4 of this Calendar.
- (iii) Credit must be in the same language as Year 3 language credit.
- (iv) Six (6) credit hours in electives must be selected from any of the following areas (Africa, Americas, Asia, or Europe).
- (v) Six (6) credit hours in electives must be selected from the approved list of cognate credits found in the “Global Business Management” entry in Section 4 of this Calendar. If ECON 3310, ECON 3312, ECON 3315, ECON 3365, ECON 4410, ECON 4413, or ECON4414 were used to satisfy the Economics elective in Year 2, the number of free electives is increased by three (3) credit hours.
- (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 twenty-four (24) credit hours in non-Commerce electives.
- (viii) Students cannot receive credit for both ACCT 3332 and ACCT 3333.

i. Human Resource Management and Industrial Relations Major

In addition to all other requirements for the major, a minimum GPA of 2.2 is required in ACCT 3332, MGMT 2383, MGMT 2384, MGMT 3385, MGMT 3386, MGMT 4482, MGMT4483, MGMT 4485 and MGMT 4486 (as indicated below by *).

Students who successfully complete the above requirements for the Human Resource Management major will

automatically be granted the Certificate in Human Resource Management.

Year 3

*ACCT 3332 Planning and Control - see Note (i)
ECON 3340 Human Resource Economics
FINA 2360 Business Finance I
FINA 3361 Business Finance II
*MGMT 3385 Human Resource Management
*MGMT 3386 Industrial Relations
MGMT 3480 Ethical Responsibilities of Organizations
Nine (9) credit hours in free electives - see Note (ii) below

Year 4

*MGMT 4482 Staffing and Selection
*MGMT 4483 Management Skills I
*MGMT 4485 Wage and Salary Administration
*MGMT 4486 Training and Development
MGMT 4489 Strategic Management
Twelve (12) credit hours in non-Commerce electives
Three (3) credit hours in free electives

Notes:

- (i) Students cannot receive credit for both ACCT 3332 and ACCT 3333.
- (ii) If ECON 3340 was used to satisfy the required Economics elective in Year 2, the number of free electives credits is increased by three (3) credit hours.

j. Management Major

In addition to all other requirements for this major, a minimum GPA of 2.2 is required in ACCT 3332, MGMT 2383, MGMT 2384, MGMT 3385, MGMT 3386, MGMT 4481, MGSC 3317, plus the courses satisfying the required ACCT, FINA, and MKTG electives (as indicated below by *).

Year 3

*ACCT 3332 Planning and Control – see Note
FINA 2360 Business Finance I
FINA 3361 Business Finance II
MGMT 3480 Ethical Responsibilities of Organizations
*MGSC 3317 Operations Management
*Three (3) credit hours in Accounting electives
*Six (6) credit hours in Marketing electives
Three (3) credit hours in Commerce electives
Three (3) credit hours in free electives

Year 4

*MGMT 3385 Human Resource Management
*MGMT 3386 Industrial Relations
*MGMT 4481 Organization Theory: Structure, Process, Analysis and Design
MGMT 4489 Strategic Management
*Three (3) credit hours in Finance electives
Twelve (12) credit hours in non-Commerce electives
Three (3) credit hours in free electives

Note: Students cannot receive credit for both ACCT 3332 and ACCT 3333.

k. Marketing Major

In addition to all other requirements for the major, a minimum GPA of 2.2 is required in MKTG 2270 and the 3rd and 4th year MKTG courses (as indicated below by *).

Year 3

FINA 2360 Business Finance I
FINA 3361 Business Finance II
MGMT 3480 Ethical Responsibilities of Organizations
*MKTG 3376 Consumer Behaviour
*MKTG 3378 Marketing Research
*MKTG 3379 Marketing Management
Nine (9) credit hours in non-Commerce electives
Three (3) credit hours in free electives

Year 4

MGMT 4489 Strategic Management
*MKTG 4479 Marketing Policy
*Six (6) credit hours in Marketing electives
Six (6) credit hours in non-Commerce electives
Twelve (12) credit hours free electives

Bachelor of Commerce - Honours Economics

1. Admission Requirements

- a. Minimum grade point average of 3.00 at the end of Year 2.
- b. Students must make application for admission to the Honours program on the special form obtainable from the Registrar normally by the beginning of Year 3. They must obtain the approval of the Chairperson of the Economics Department and the Dean of Sobey School of Business.

2. Requirements for Continuance and Graduation

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

Year 1

CISY 1225 Introduction to Computer Applications
MGSC 1205 Introduction to Quantitative Methods I
MGSC 1206 Introduction to Quantitative Methods II
MGMT 1281 Introduction to Business Management
ECON 1201 Principles of Economics: Micro
ECON 1202 Principles of Economics: Macro
ENGL 1205 Introduction to Literature
Six (6) credit hours in humanities electives [Classics, History, Philosophy (except PHIL 1200), Religious Studies, English, or Modern Languages]
Three (3) credit hours in non-Commerce electives

Year 2

- *MGSC 2207 Introductory Statistics
- ACCT 2241 Introductory Financial Accounting
- ACCT 2242 Introductory Managerial Accounting
- MKTG 2270 Introduction to Marketing
- MGMT 2383 Micro Organizational Behaviour
- MGMT 2384 Macro Organizational Behaviour
- CMLW 2201 Legal Aspects of Business - Part I
- COMM 2293 Communications
- *ECON 3300 Intermediate Microeconomic Theory
- *ECON 3301 Intermediate Macroeconomic Theory

Year 3

- FINA 2360 Business Finance I
- FINA 3361 Business Finance II
- *ECON 3302 Mathematical Economics
- *ECON 3303 Intermediate Economic Statistics
- *ECON 4400 Advanced Microeconomic Theory
- *ECON 4401 Advanced Macroeconomic Theory
- MGMT 3480 Ethical Responsibilities of Organizations
- * Three (3) credit hours in Economics electives
- Six (6) credit hours in social science electives
(Anthropology, Geography, Political Science, Sociology, or Psychology but not Economics)

Year 4

- MGMT 4489 Strategic Management
- *ECON 4403 Econometrics
- *ECON 4404 Special Topics in Microeconomics
or
- *ECON 4405 Special Topics in Macroeconomics
- *ECON 4498 Research Seminar in Economics
- *ECON 4499 Honours Project in Economics or another
three (3) credit hours in an advanced economics course
approved by the Chairperson
- *Fifteen (15) credit hours in Economics electives

- c. For courses marked with an asterisk (*), no grade below a C is acceptable and at least thirty-nine (39) credit hours 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 twelve (12) credit hours 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 nine (9) credit hours from the Department of Mathematics and Computing Science for ECON 3302, 3303, and 4403.
- f. Commerce students doing an honours in economics are permitted to count nine (9) economics credit hours at the 3000-level or above as non-commerce electives.

Minors for Bachelor of Commerce Students

Students in the Sobey School of Business 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. Although students may take a minor in another Faculty, they must fulfill the requirements of the degree in which they are registered, including officially

declaring and fulfilling the requirements for a major or honours (or in the case of Science, a concentration).

Minor in Business for Arts and Science Students

A minor in Business is available for students pursuing a Bachelor of Arts or Bachelor of Science degree. Students pursuing a major in Entrepreneurship are not eligible for a Minor in Business. The minor consists of the equivalent of thirty (30) credit hours, namely:

- ACCT 2241 Introductory Financial Accounting
- ACCT 2242 Introductory Managerial Accounting
- CISY 1225 Introduction to Computer Applications
- CMLW 2201 Legal Aspects of Business I
- COMM 2293 Communications
- MGMT 1281 Introduction to Business Management
- MGMT 2383 Micro Organizational Behaviour
or MGMT 2384 Macro Organizational Behaviour
- MKTG 2270 Introduction to Marketing
- Six (6) credit hours in electives 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 fulfill 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 grade point average of 2.00 is required for the minor in Business.

Cooperative Education Programs

Sobey School of Business
Cooperative Education Advisor -Heather Sceles, Accounting

The Sobey School of Business offers cooperative education options to the Bachelor of Commerce program. Cooperative 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.

1. Admission Requirements for Undergraduate Cooperative Education Programs

- a. Enrolment in the cooperative 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 cooperative education option in the Faculty of Commerce after the completion of forty-five (45) credit hours. Normally, this will occur at the end of the first semester of the second year.

c. The normal admission requirement to the cooperative education program in a regular Bachelor of Commerce program is a minimum cumulative grade point average of 3.00.

d. Candidates will be admitted to a cooperative 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 Cooperative 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 cooperative 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 cooperative education program, students must earn a minimum degree grade point average of 3.00.

3. Policies and Regulations Governing Cooperative Education Work Terms

a. The University will make every effort to locate work term positions for cooperative education students in academically related areas of employment, but cannot guarantee placements. Employment settings may also be identified by cooperative education students, but require the approval of the Commerce Cooperative Education Program Advisor.

b. The satisfactory fulfillment of cooperative 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 cooperative education work term (self-employed students will be evaluated by an individual selected by the department);
- (iii) the satisfactory completion of a written report in the required format, 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 cooperative work term requirements will have this noted on their academic transcripts. If, in addition, all other normal academic requirements are fulfilled, a "Cooperative Education" notation will be printed on their parchments.

e. Students may be required to withdraw from the cooperative education option of their degree if:

- (i) they are dismissed from, quit, or fail to accept an appropriate and approved cooperative work term position;
- (ii) they fail to submit or successfully complete a work term report;
- (iii) they do not maintain the required grade point average necessary for continuance in the Cooperative Education Program;
- (iv) in the judgment of the faculty, they are no longer suited for the particular requirements of the Cooperative Education Program.

f. Students who voluntarily withdraw from or who are required to withdraw from the Cooperative Education Program may remain enrolled in and continue with the major or honours degree program offered by their department.

g. Cooperative Education students will be expected to attend any special seminars or colloquia developed by the Sobey School of Business, or the Cooperative 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 six (6) credit hours may be taken during a work term. Up to six (6) credit hours 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 Cooperative Education

a. Students are required to register for all work terms, according to normal registration procedures, including all stipulated deadlines. Work terms will be officially designated on students' transcripts as:

Work Term 1 = COOP 1000
Work Term 2 = COOP 2000
Work Term 3 = COOP 3000

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.

- a. 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.
- b. A “study term” is a semester of full -time study [minimum of 3 courses (nine (9) credit hours)]. Normally students must end their program with a study term.
- c. 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.
- d. Back to back work terms are permissible only with prior approval of the the Sobey School of Business Cooperative Education Advisor. These work terms must be with different employers or require significantly different job descriptions if with the same employer. Students must make application to the Sobey School of Business Cooperative Education Advisor not less than one month before the start of the second work term, providing justification for back to back work terms and a job description for the second work term.
- e. Three work terms in succession, with no intervening full-time study term, are not permitted.
- f. 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 the Sobey School of Business Cooperative Education 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. Students must fulfill 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 fulfillment 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*.

Graduate Studies

Information concerning the Sobey School of Business’ programs at the graduate level is found in the *Graduate Academic Calendar*. Graduate programs in Business include:

- Master of Business Administration
- Master of Business Administration – Certified Management Accountant
- Master of Finance
- Master of Technology Entrepreneurship and Innovation
- Master of Management - Cooperatives and Credit Unions
- Graduate Diploma in Cooperative Management
- Executive Master of Business Administration
- Doctor of Philosophy in Business Administration (Management)

Faculty of Science

Dr. Steven Smith, Dean
Dr. Adam Sarty, Associate Dean - External & Student Affairs
Dr. Kathy Singfield, Associate Dean - Curriculum
Dr. William A. Bridgeo, Dean Emeritus
Dr. David H. S. Richardson, Dean Emeritus
Susan Doré, Undergraduate Program Advisor
Courtney Kyle, Coordinator, Science Advising & Outreach

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.

Honours

The honours program demands a minimum grade of C in all courses followed in the honours subject. (Particular requirements for the honours in Environmental Science are found in this *Academic Calendar*, Section 4, “Environmental Science”). These honours 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 honours subject. Students of above-average ability are urged to contact the Chair of the Department in which they wish to follow an honours program before the end of Year 3 for application details. Formal application for admission to an honours program must be made on a form available in the Service Centre.

Major

The major program demands a minimum grade of C in all courses in the major subject. (Particular requirements for the major in Environmental Science are found in this *Academic Calendar*, Section 4, “Environmental Science”). 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 honours programs, and students are encouraged to supplement their science studies with courses in the humanities and social sciences.

Bachelor of Science

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

Bachelor of Science - General (with a Concentration)

1. A concentration program can be taken in the following disciplines: Biology, Chemistry, Computing Science, Geography, Geology, Mathematics, Physics or Psychology. Subject to the regulations set forth in this *Academic Calendar*, students must complete ninety (90) credit hours. 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 and at least 50% of all courses taken in the concentration subject must be taken at Saint Mary’s University.

2. Students will normally take thirty (30) credit hours during the regular academic year.

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

a. three (3) credit hours in English [ENGL 1205] and three (3) credit hours in Humanities: Classics, English other than ENGL 1205, History, Philosophy, Religious Studies and Modern Languages (courses on literature and/or culture). Students planning to apply to professional schools, which require six (6) credit hours of writing components, are advised to take English 1205 (Introduction to Literature) and three (3) credit hour courses in English from among the ENGL 2300 to ENGL 2393 courses. These courses have been designated by the Department of English as having a major writing component

b. six (6) credit hours in Mathematics and/or Computing Science at the 1210-level or above. Students who have completed MATH 1250 may not use CSCI 1226 or MATH 1210 towards fulfilling this requirement.

c. twelve (12) credit hours in Arts subjects and/or Economics; 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 PSYC 3348/WMST 3348] and Mathematics are considered Science courses and cannot fulfill this requirement. These twelve (12) credit hours are in addition to requirement (a) above;

d. not less than thirty (30) or more than forty-two (42) science credit hours in their area of concentration;

e. eighteen (18) science credit hours not in the subject of concentration and in addition to the required Mathematics or Computing Science courses (see note below); excluding Geography and Engineering. 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 fulfill this requirement; and

f. sufficient electives to complete the ninety (90) credit hours required for a general Bachelor of Science; and achieve a minimum degree grade point average of 1.70 in order to qualify for graduation with a Bachelor of Science degree.

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:

ASTR 1010 Life in the Universe
 BIOL/ENVS 1203 Biology and the Human Environment
 CHEM 1220 Chemistry and Industry
 CHEM 1221 Chemistry of Life
 CHEM 2380 Communications in Chemistry
 FRSC 2200 Basic Sciences for Forensics I
 FRSC 2201 Basic Sciences for Forensics II
 GEOL 1202 Planet Earth: Atlantic Canada Perspective
 GEOL 1203 Earth History: Atlantic Canada Perspective
 GEOL 1210 Dinosaurs and Their World
 MATH 1190 Pre-Calculus Review
 MATH 1202 Concepts and Topics in Mathematics
 MATH 1203 Concepts in High School Mathematics
 MATH 1207 Survey of Statistics
 PSYC 1200 Introduction to Psychology
 And excluding Geography and Engineering courses.

Bachelor of Science - Major

4. A major program can be taken in the following disciplines: Astrophysics, Biology, Chemistry, Computing Science, Environmental Science, Geography, Geology, Mathematics, Physics or Psychology. Subject to the regulations set forth in this *Academic Calendar*, students must complete one hundred and twenty (120) credit hours. 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 and at least 50% of all courses taken in the major subject must be taken at Saint Mary’s University.

5. Students will normally take thirty (30) credit hours during the regular academic year.

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

- a. three (3) credit hours in English [ENGL 1205] and three (3) credit hours in the humanities [see 3(a) above];
- b. six (6) credit hours in Mathematics and/or Computing Science at the 1210-level or above. Students who have completed MATH 1250 may not use CSCI 1226 or MATH 1210 towards fulfilling this requirement.
- c. twelve (12) credit hours in Arts subjects and/or Economics; 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 PSYC 3348/WMST 3348] and Mathematics are considered Science courses and cannot fulfill this requirement. These twelve (12) credit hours are in addition to requirement (a) above; in addition to ENGL 1205;

d. not less than forty-two (42) credit hours in the major subject.

e. eighteen (18) science credit hours — not in the subject of major and excluding the following courses: ASTR 1010; BIOL/ENVS 1203; CHEM 1220, CHEM 1221, CHEM 2380; FRSC 2200, FRSC 2201; GEOL 1202, GEOL 1203, GEOL 1210; MATH 1190, MATH 1202, MATH 1203, MATH 1207; and PSYC 1200 — and in addition to the required Mathematics or Computing Science credit [six (6) credit hours]; excluding Geography and Engineering. 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 fulfill this requirement;

f. sufficient elective credits to complete the one hundred and twenty (120) credit hours are required for a Bachelor of Science with a major; and achieve a minimum degree grade point average of 1.70 in order to qualify for graduation with a Bachelor of Science degree;

g. an additional three (3) credit hours in Mathematics 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 unless given a written waiver by the Dean of Science, acting in consultation with the academic unit concerned.

Bachelor of Science - 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 and at least 50% of all courses taken in the major subjects must be taken at Saint Mary’s University.

a. at least thirty-six (36) credit hours in each major subject;

b. twelve (12) science credit hours not in the major subjects and in addition to the required Mathematics or Computing Science credit [six (6) credit hours]; excluding Geography and Engineering. 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 fulfill this requirement;

c. sufficient electives to complete the one hundred and twenty (120) credit hours required for a Bachelor of Science with a double major [exclusion list under Major 6(e) applies]; and achieve a minimum degree grade point average of 1.70 in order to qualify for graduation with a Bachelor of Science;

d. students must obtain a grade of at least C in all those courses used to satisfy section 7(a) 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.

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 program grade point average of at least 2.00 in the major subjects.

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. 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:

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

a. at least forty-two (42) credit hours in the major subject;

b. at least thirty (30) credit hours in the minor subject;

c. twelve (12) science credit hours not in the major or minor subjects, in addition to the required Mathematics or Computing Science credit [six (6) credit hours]; excluding Geography and Engineering. 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 fulfill this requirement;

d. sufficient electives to complete the one hundred and twenty (120) credit hours 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 for the major subject and a GPA not less than 2.0 in the minor subject. A student failing to meet either of these conditions will be permitted to continue in the major-minor program only with the approval of the

Dean of Science, acting in consultation with all of the departments/programs concerned.

Note: In conformity with academic regulation 7c (i) students must achieve a minimum degree grade point average of 1.70 in order to qualify for graduation with a Bachelor of Science degree - with a concentration, major, double major, or major-minor.

Bachelor of Science - Honours and Double Honours

11. An honours program can be taken in the following disciplines: Astrophysics, Biology, Chemistry, Computing Science, Environmental Science, Geography, Geology, Mathematics, Physics or Psychology; or as a combination of any two of these subjects (except Astrophysics). Students who plan to take an honours program must have the approval of the honours 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 and at least 50% of all courses taken in the honours and double honours subjects must be taken at Saint Mary's University.

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

a. sixty (60) to seventy-two (72) credit hours in the honours subject, or in double honours [see Science Regulation 12(d)]. The exceptions are: Astrophysics and Computing Science;

b. eighteen (18) science credit hours not in the honours subject [six (6) credit hours in double honours, eighteen (18) credit hours in Astrophysics and Computing Science] in addition to the required Mathematics and Computing Science credit [six (6) credit hours]; excluding Geography and Engineering. 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 fulfill this requirement; [exclusion list under Major 6(e) apply];

c. sufficient electives to complete the one hundred and twenty (120) credit hours are required for a Bachelor of Science with honours.

d. For a double honours program, students must complete:

- forty-eight (48) credit hours in the subject in which they are completing their thesis. (This includes the thesis and seminar course where relevant.)
- students must complete forty-two (42) credit hours in their second honours subject,
- six (6) credit hours in another science,
- twelve (12) credit hours in Arts, as well as the required three (3) credit hours for English [ENGL 1205] and three (3) credit hours in the humanities,
- six (6) credit hours in Mathematics and/or Computing Science at the 1210-level or above, as stipulated in

the regulations of the specific Department. Only one of MATH 1250 and CSCI 1226 may be used towards fulfilling this requirement.

for a minimum of one hundred and twenty (120) credit hours. Entry into this double honours program requires approval by the chairs of the two departments and the Dean of Science.

- e. For an honours and major program, students must complete:
- forty-eight (48) credit hours in their honours subject.
 - students must complete thirty-six (36) credit hours in their major subjects,
 - six (6) credit hours in another science,
 - twelve (12) credit hours in Arts, as well as the required three (3) credit hours for English [ENGL 1205] and three (3) credit hours in the humanities, and
 - six (6) credit hours in Mathematics and/or Computing Science at the 1210-level or above, as stipulated in the regulations of the specific Department. Only one of MATH 1250 and CSCI 1226 may be used towards fulfilling this requirement.
- for a minimum of one hundred and twenty (120) credit hours.

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

14. For a Bachelor of Science degree with honours, students must obtain a degree grade point average of at least 3.00 in those courses used to satisfy the requirements of section 12, above. In cases where a course has been taken more than once for upgrading purposes, only the latest instance of the course will be used to evaluate graduation standing.

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 4 of this *Academic Calendar*.

Bachelor of Science (Major in Geography)

For details on this program please consult the "Geography" entry in Section 4 of this *Academic Calendar*.

Bachelor of Science (Geology/Commerce)

For details on this program, please consult the "Geology" entry in Section 4 of this *Academic Calendar*.

Combined Cooperative Education Program in Commerce/Geology

Students enrolled in the combined commerce/geology major/honours 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/honours programs.

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

For details on this program, please consult the "Geology" entry in Section 4 of this *Academic Calendar*.

Bachelor of Science (Major/Honours in Environmental Science)

For details on this program, please consult the "Environmental Science" entry in Section 4 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 fulfill 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 25.

Minors 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 fulfill the requirements of the degree in which they are registered, including officially declaring and fulfilling the requirements for a major or honours (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 4 of the *Calendar*.

A minor in the Sobey School of Business is available for students pursuing a Bachelor of Arts or Bachelor of Science degree. This consists of the equivalent of thirty (30) credit hours, namely:

ACCT 2241 Introductory Financial Accounting
ACCT 2242 Introductory Managerial Accounting
CMLW 2201 Legal Aspects of Business I
COMM 2293 Communications
MGMT 1281 Introduction to Business Management
MGMT 2383 Micro Organizational Behaviour
or MGMT 3384 Macro Organizational Behaviour
MKTG 2270 Introduction to Marketing
CISY 1225 Introduction to Computer Applications
Six (6) credit hours in Commerce subjects

A minimum program grade point average of 2.00 is required for the minor in Business.

The regular “Declaration of Major/Minor/Concentration” form is to be used to declare a minor. Students must fulfill 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 fulfillment 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*.

Cooperative Education Programs (Major and Honours)

The Faculty of Science offers Cooperative Education programs in Biology, Chemistry, Environmental Science, Geology, Computing Science and Psychology. Cooperative 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 “Cooperative Education” notation is entered on the parchments and academic transcripts of undergraduate students who successfully complete Cooperative Education requirements in addition to their regular degree requirements.

Admission Requirements for Undergraduate Cooperative 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 Cooperative Education program on a special form obtainable from the Cooperative Education Office. Students will be admitted to the Cooperative Education program on the basis of their formal academic achievement and interviews with the Liaison Officer of the Cooperative Education Programs, and the appropriate departmental Cooperative Education Advisor.

c. The normal prerequisite for admission to the Cooperative Education program in a regular Bachelor of Science program is a minimum cumulative grade point average of 2.50 and a minimum grade point average of 3.00 in the course(s) of the student’s declared major subject(s).

d. Students will be admitted to the Cooperative Education program on the basis of their interest, aptitude and assessed ability to combine successfully the academic requirements of a major or honours science program together with the special work term requirements of the Cooperative Education program they wish to enter.

Requirements for Continuance in and Graduation from the Cooperative Education Program

a. Students must complete all of the regular requirements for a Bachelor of Science degree (see regulations 1 through 14 above). Since individual programs may have specific additional requirements for Cooperative 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 three work terms as specified by the department of their major program (see regulations below and departmental Cooperative Education regulations). Official registration is on the regular registration forms available from the Service Centre.

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

Policies and Regulations Governing Cooperative Education Work Terms

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

b. The satisfactory fulfillment of Cooperative Education work terms require:
(i) the completion of a minimum of three terms of work experience in academically related paid employment

situations of 13 to 16 weeks. Under certain circumstances, and with the approval of the appropriate department, students may be permitted to satisfy their work term requirements in an unpaid position.

(ii) a satisfactory employer evaluation for each Cooperative 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 Cooperative work term requirements will have this noted on their academic transcripts. If, in addition, all other normal academic requirements are fulfilled, a "Cooperative Education" notation will be printed on their parchments.

e. Students may be required to withdraw from the Cooperative Education program if:

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

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

(iii) they do not maintain the required grade point average necessary for continuance in the Cooperative Education program;

(iv) in the judgment of their department, they are no longer suited for the particular requirements of the Cooperative Education program.

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

g. Cooperative Education students will be expected to attend any special seminars or colloquia developed by the Cooperative 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 Cooperative Education Advisor. If approval is granted, no more than six (6) credit hours may be taken during a work term.

Fees for Cooperative Education

a. Students are required to register for all work terms at the Service Centre, according to normal registration procedures, including all stipulated deadlines. Work terms will be officially designated on students' transcripts as:

Work Term 1 = COP 1000

Work Term 2 = COP 2000

Work Term 3 = COP 3000

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

In general, the Cooperative 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 Cooperative Education program to the non-Cooperative Education program.

Graduate Studies

Information concerning the Faculty of Science's programs at the graduate level is found in the *Graduate Academic Calendar*. Graduate programs in Science include:

Master of Science in Applied Psychology
 Master of Science in Applied Sciences
 Master of Science in Astronomy
 Doctor of Philosophy in Astronomy
 Doctor of Philosophy in Industrial/Organizational Psychology

Diploma in Engineering

General Information

Saint Mary's University offers the first two years of a Bachelor of 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

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.

In addition, Saint Mary's offers the option of completing a Bachelor of Applied Science (BASc) program in Mechanical Engineering (General, Automotive, Materials, or Environmental options) or the BASc in Civil Engineering program at the University of Windsor, Windsor, Ontario.

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
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:

MATH 1210	Introductory Calculus I
MATH 1211	Introductory Calculus II
CHEM 1210	General Chemistry I
CHEM 1213	General Chemistry II for Engineering
PHYS 1100	University Physics I
PHYS 1101	University Physics II
ENGL 1205	Introduction to Literature
EGNE 1203	Engineering Mechanics (Statics)
EGNE 1204	Computer Methods for Engineers
EGNE 1206	Engineering Design Graphics (Design I)

Three credit hours in:

Humanities: ENGL (excluding ENGL 1205); HIST; CLAS; PHIL; RELS; and Modern Languages (excluding spoken language instruction courses) AND/OR
Social Sciences: ANTH; POLI; PSYC; and SOCI

Students must declare their discipline by the end of year one.

Disciplines

1. Environmental Engineering
2. Chemical Engineering
3. Civil Engineering
4. Electrical Engineering
5. Industrial Engineering
6. Mechanical Engineering
7. Materials Engineering
8. Mineral Resources Engineering

Year Two:

The second year curriculum comprises twenty-seven (27) required credit hours for students in all disciplines and nine (9) credits from discipline-specific courses.

Twenty-seven (27) required credit hours

MATH 2301	Linear Algebra for Engineers
MATH 2303	Differential Equations I
MATH 2311	Intermediate Calculus
EGNE 2303	Thermo-Fluid Engineering I
EGNE 2304	Mechanics of Deformable Bodies
EGNE 2307	Design II
EGNE 2308	Electric Circuits
EGNE 2309	Probability and Statistics
ENGE 2400	Engineering and Biosphere

Nine (9) credit hours from discipline-specific courses:

		Discipline
CHEM 2344	Organic Chemistry I	1, 2, 7
GEOL 1200	Understanding the Earth	3, 8
EGNE 2301	Dynamics	3, 5, 6
ENGE 2302	Engineering Economics	4, 5, 6, 8
EGNE 2305	Digital Logic Circuits	4
EGNE 2306	Thermodynamics	3, 5, 6, 8
EGNE 2311	Circuit Analysis II	4

Notes:

(a) Not all discipline-specific courses for Environmental (1), Chemical (2), and Materials (7) Engineering

Disciplines are offered at Saint Mary’s. Fundamentals of Process Engineering, and Fundamentals of Environmental Engineering are only offered at Dalhousie University and may be taken by Saint Mary’s students using the 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 grade point average of 2.0.

Three-Year Bachelor of Science (General) with Diploma in Engineering

This program entails an extra year of thirty (30) credit hours as listed below:

- six (6) credit hours in MATH at the 3400-level or above.
- six (6) credit hours in CHEM at 2300 level or above
- six (6) credit hours in PHYS and/or BIOL at 2300 level or above
- twelve (12) credit hours in Humanities or Social Sciences at 1200 level or above

Four-Year Bachelor of Science with Major in Mathematics and Diploma in Engineering

Students complete Year One and Year Two of the Diploma in Engineering Program as listed above; the minimum number of MATH/CSCI credit hours to satisfy the requirements for a Major in Mathematics (in consultation with the Mathematics Department Chair), plus sufficient electives to complete the one hundred and twenty (120) credit hours required for a Bachelor of Science degree with a Major.

Students wishing to pursue this degree are advised to substitute CSCI 1226 and 1227 or 1228 for ENGE 1204, and consult with the Mathematics Department Chair before registering for any 3000-level mathematics course or EGNE 2309.

Note: Students who wish to pursue a four year Bachelor of Science degree with Major in another Science and Diploma in Engineering are strongly encouraged to seek advice from the co-director Student Affairs.

Diploma in Forensic Sciences

Dr. Tanya Peckman Program Coordinator

Forensic Sciences 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, 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 [FRSC 3300].

Admission to the Diploma in Forensic Sciences

Admission to the Diploma in Forensic Sciences is by permission of the Program Coordinator in consultation with members of the Forensic Sciences Executive.

Students in Stream 1 who are currently enrolled at Saint Mary's University should apply directly to the Program Coordinator. Students must have completed thirty (30) credit hours of study by the end of the winter semester in the year in which they are applying. Deadline for application is January 15th. Late applications will be considered only if spaces are available. Non-Saint Mary's students who wish to transfer to Saint Mary's University and be considered for admission to the program must apply directly to Admissions at Saint Mary's University. Deadline for application is January 15th. Late applications will be considered only if spaces are available.

Information on applying to Saint Mary's is available at http://www.smu.ca/futurestudents/chs_apply.html. Deadline for application is January 15th. Late applications will be considered only if spaces are available.

Graduation

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

Requirements for the Diploma in Forensic Sciences [sixty (60) credit hours]

NOTE: STUDENTS MUST SATISFY ALL PREREQUISITES FOR ENTRY INTO THESE COURSES.

1. Required courses [twenty-seven (27)]

FRSC 2200 Basic Sciences for Forensics I
 FRSC 2201 Basic Sciences for Forensics II
 FRSC 3300 Application of Forensic Techniques
 BIOL 1201 Molecular and Cell Biology
 BIOL 1202 Organismal and Ecological Biology
 BIOL 2307 Genetics
 BIOL 4419 Molecular Biology
 or FRSC/BIOL 4001 Forensic DNA Typing
 CHEM 1210 General Chemistry I
 CHEM 1212 General Chemistry II for Life Sciences (note MATH pre-reqs)

2. Science-intensive courses [twenty-one (21) to twenty-four (24) credit hours]

ANTH 3373 Fieldwork in Archaeology
 ANTH 3374 Archaeology Laboratory
 ANTH 3471 Forensic Skeletal Identification

ANTH 3472 Forensic Skeletal Analysis
 ANTH 4464 Advanced Fieldwork in Archaeology
 ANTH 4465 Advanced Archaeology Laboratory
 ANTH 4701 Internship in Forensic Anthropology
 BIOL 2004 Cell Physiology and Metabolism
 BIOL 2005 Human Organ Systems
 BIOL 2308 Biostatistics
 or PSYC 2350 Psychological Statistics
 BIOL 2321 Cell Biology I
 BIOL 3001 Principles of Pharmacology and Toxicology
 BIOL 3002 Entomology
 BIOL 3003 Biological Techniques
 BIOL 3006 Animal Ecophysiology
 BIOL 3426 Animal Tissues
 BIOL 3398 Microbiology
 BIOL 4411 Medical and Veterinary Parasitology
 CHEM 2332 Introductory Analytical Chemistry: Wet Methods
 CHEM 2333 Introductory Analytical Chemistry: Instrumental Methods
 CHEM 2344 Organic Chemistry I
 or CHEM 2346 Organic Chemistry for Life Sciences
 CHEM 2345 Organic Chemistry II (Note: pre-req CHEM 2344) CHEM 3451 Introductory Biochemistry
 FRSC 3340 Forensic Entomology
 FRSC 3350 Recent Advancement in Forensic Sciences
 FRSC 4002 Wildlife Forensics
 PHYS 1000 Physics for Life Sciences I
 PHYS 1001 Physics for Life Sciences II

3. Electives [nine (9) - twelve (12) credit hours]. Diploma students may qualify for up to six (6) credit hours based on prior training.

ANTH 1271 Introduction to Archaeology
 ANTH 1280 Introduction to Biological Anthropology
 ANTH 2282 Introduction to Forensic Anthropology
 CRIM 2303 Crime and Society, entry to this course may be restricted
 CRIM 2304 Canadian Criminal Justice System, entry to this course may be restricted
 GEOG 2316 Map and Air Photo Interpretation
 GEOG 3386 Concepts in Geographical Information Systems (G.I.S.)
 LING 3350/CRIM 3313 Forensic Linguistics
 PSYC 1250 Social Behaviour
 PSYC 1260 Personality: Normal and Abnormal
 PSYC 3320 Psychology and Law
 PSYC 3338 Introduction to Forensic Psychology
 PSYC 3349 Drugs and Behaviour
 PSYC 4438 Advanced Forensic Psychology
 PSYC 4443 Advanced Psychology and Law

Continuing Education

Gordon Michael, Director

The Division of Continuing Education facilitates the administration of University programs for part-time and mature learners. This includes admission advising for mature and Open Studies (non-degree) students, credit courses at extension centres, web courses and certificate programs for credit. In addition this division manages Community Based Learning programs for personal, organization and community growth including Executive and Professional Development programs.

The main office of the Division of Continuing Education is located on campus at 883 Robie Street, the green house directly south of the McNally Building. Executive and Professional Development programs are offered at the World Trade Centre, 8th Floor, 1800 Argyle Street and on the 4th floor of the Sobey Building on campus.

Mature Students

The staff of the Division of Continuing Education is available to assist mature students with both on and off campus programs and with application procedures for mature and **open studies** students. To receive an information package, or to book an appointment, call the Division of Continuing Education, 902-420-5492. For details of the Mature and Open Studies admissions procedures, consult Section 2 of this *Academic Calendar*.

Open Studies

Students who are interested in taking one or more courses at the University without being registered in an academic program may take up to 30 credit hours under Open Studies. Students who are subsequently admitted to an academic program may count the university credits they have earned under the program. Contact us for further information.

Part-time Degree Programs

It may be possible to complete the Bachelor of Arts and the Bachelor of Commerce entirely through part-time, evening and web study. As well, it is possible to begin the Bachelor of Science program by part-time study. Each year the Division of Continuing Education publishes a schedule of web course as well as 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 faculty advisor.

University Preparatory Courses

The Division of Continuing Education offers university preparation courses in a variety of areas including Pre University English (writing skills), Pre University Math,

Pre – Calculus 1, Pre – Calculus 11, Online Biology, and Introduction to General Chemistry Preparation and review courses are also offered for the General Management Admissions Test (GMAT) required for admission into the MBA program. These courses are typically offered three or four times a year. For a descriptive course brochure please contact the Division of Continuing Education at 902-420-5492 or check out our website.

Extension Centre Courses

Saint Mary's University offers degree credit courses and Community Based Learning programs at a number of off-campus extension centres. Courses may be offered in a variety of settings: schools, libraries, office buildings, and cultural centres in Dartmouth, Cole Harbour, and downtown Halifax. For information on courses being offered during the academic year contact the Division of Continuing Education or check out our website.

e-Learning

For over 10 years e-Learning has been available through the Division of Continuing Education at Saint Mary's University. E-Learning is a way to complete your degree during a time and in a place convenient for you. It offers you choice and flexibility when looking for credit courses to fit your schedule, and allows you to maintain a healthy lifestyle when balancing your priorities.

If you are looking to upgrade your skills, try a university course, or complete your degree, there are a variety of online courses to choose from. Each online course is accessed over the Internet using web-based classrooms. You will be able to collaborate, share, construct, and learn with your fellow classmates and instructor to get the quality education you need to succeed.

To join an online course, you require access to the Internet, basic computer knowledge and experience, and discipline to maintain weekly deadlines and contributions. Participation and active learning is at the heart of e-Learning, and your involvement makes e-learning relevant and exciting.

Online courses are offered on a semester basis. You must be admitted to Saint Mary's University before you can register for an online course. For more information and to view a complete list of online courses visit our e-Learning website at <http://elearning.smu.ca>.

Certificate Programs

The Division of Continuing Education administers certificates for credit in a number of areas including Atlantic Canada Studies, Linguistics and Mathematical Sciences for Education. The division is also exploring a number of other certificate areas

Executive and Professional Development

Executive and Professional Development Programs are designed to promote and improve skills that benefit both individual career development and organizational and business success. We offer seminars that promote innovative management practices and contribute to successful operations. Learning options include individual seminars and certificate programs. Our certificates are designed in one of two ways: those that have a prescribed set of seminars to complete and those that give you a choice of electives to build your own certificate based on your learning needs. Seminars and Certificates are offered in the following areas:

- Business Communications
- Supervisory
- Negotiation, Mediation and Conflict Resolution
- Human Resources
- Project Management
- Management
- Leadership
- Financial Management

For further information, please contact Saint Mary's University at the World Trade Centre, 902-420-5638 or visit our website: epd.smu.ca.

Community Based Learning

Programs

The Division of Continuing Education is developing programs in Diversity and Wellness. These programs could take the form of a workshop, certificate or a course. For more information please contact the Division of Continuing Education at 902-420-5492 or check out our website.

Community Dialogues Series

Do you remember "Town Hall Meetings" where issues were discussed and people dialogued with each other instead of texting? We have developed a Community Dialogue Series featuring Saint Mary's University faculty and community members. The theme of the topics will vary; however they all could have an impact on your day to day life. If you have a topic you would like see discussed please let us know. For more information please contact the Division of Continuing Education at 902-420-5492 or check out our website.

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 may be offered. For more information call 420-5020 or check out our web site.

Silver Economy Engagement Network

We all know about the aging of our population. However, what we fail to realize is that everyone is a resource with skills and knowledge that may be used in many ways. That is what the Silver Economy is all about. We will be developing a format to provide individuals with the ability to explore ways to become involved as they transition to a new lifestyle. Some may want to work full or part time in an area different from what they did in the past. Others may want to sit on a board of an organization. Still others may want to tutor or be a coach.

If you are interested in becoming a part of this exciting initiative please call us as (902) 420-5492 or send us an email at conted@smu.ca. Over the year we will be developing the Silver Economy Engagement Network (SEEN)

Information

Descriptive pamphlets 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
Web: conted.smu.ca

Executive and Professional Development program information is available at the

World Trade Centre
1800 Argyle Street, 8th Floor
Halifax Nova Scotia B3J 3N8
Telephone: 902-420-5638
Fax: 902-420-5284
Web: epd.smu.ca

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 fulfill 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 at www.smu.ca/administration/international/learn.html. 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 institutions 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
The College of The Bahamas, Bahamas
Pontificia Universidade Católica do Rio de Janeiro, Brazil
City University of Hong Kong, People's Republic of China
Hong Kong Baptist University, People's Republic of China
Jinan University, People's Republic of China
Shaanxi Normal University, People's Republic of China
Xiamen University, People's Republic of China

University of Jyväskylä, Finland
Lappeenranta University of Technology, Finland
ESSCA (Ecole Supérieure des Sciences Commerciales d'Angers), France
Grenoble Ecole de Management, France
Rouen Business School, France
Université Catholique de l'Ouest, France
Constance University of Applied Sciences, Germany
Justus-Liebig-University Giessen, Germany
University of Frankfurt, Germany
Hiroshima University, Japan
Hokkaido University of Education, Japan
Iwate University, Japan
Kumamoto Gakuen University, Japan
Rikkyo University, Japan
Sapporo University, Japan
Mykolas Romeris University, Lithuania
School of Economics and Management/HES, Netherlands
Instituto Tecnológico y de Estudios de Monterrey, Mexico
Universidad Autónoma de Zacatecas, Mexico
Universidad La Salle, Mexico
Østfold University College, Norway
University of Oslo, Norway
University of Ulsan, Korea
Jönköping International Business School, Sweden
National Sun Yat-sen University, Taiwan
Uganda Martyrs University, Uganda
University of the Arctic ("virtual" study abroad through online courses)

Study abroad options for Saint Mary's students include:

- Field trips
- Summer programs
- One or two semester programs

Through the VPAR/SMUSA International Mobility Awards, the Vice President Academic and Research and SMUSA provide 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 Dr 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/administration/international/learn_award.html

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 honours 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 an A- average) for admission into medical school and, in the case of Dalhousie Medical School, take 15 credit hours 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 (30 credit hours) 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 an approved pre-service teacher education program such as a Bachelor of Education degree after completing a Bachelor's degree in Arts, Science, or Commerce. Students who wish to teach at the secondary school level in Nova Scotia should undertake a program in the first Bachelor's degree that will develop sound academic preparation in two academic disciplines normally taught at the secondary school level. Students wishing to teach at the elementary level in Nova Scotia should develop a program in the first Bachelor's degree which has a breadth of academic courses including courses from the social studies, science, mathematics and English subject fields. Students who plan on applying to enter a Bachelor of Education program should be knowledgeable of the course requirements for the university they plan to attend as well as the teacher certification requirements from the certification authorities in that jurisdiction.

For detailed information about teacher certification requirements in Nova Scotia please visit the Nova Scotia Teacher Certification web-site at "certification.ednet.ns.ca".

See the Education entry in Section 4 of this calendar for details on the articulation agreement with the University of Maine at Presque Isle.

Student Counseling 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 on Health professions and the Dean of Arts for information on Education, Law and Theology.

**Programs and
Course Descriptions**

Section

4

Accounting (ACCT)

Co-Chairpersons	D. Bateman, J. Power
Professors	B. Anderson, N. Young
Associate Professors	D. Bateman, N. Kochetova-Kozloski, T Kozloski, K. Lightstone, D. Rixon, P. Secord, X. Song
Assistant Professors	G. Ansong, L. Beaubien, L. Corrigan, J. Power,
Lecturer	H. Sceles
Adjunct Professor	P. Tingling
Professor Emeriti	R. Chesley, F. Dougherty, B. Gorman

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 *the Graduate Academic 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. The Saint Mary's Accounting program is fully accredited by CMA Canada and as a result it is also possible for students to be exempt from the CMA National Entrance Exam. Details of these exemptions may be obtained from the Chairperson of the Department.

The Department also has an agreement with The Association of Chartered Certified 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

Upon completion of 45 credit hours, Commerce students with a cumulative grade point average of 2.0 may elect to declare a major in Accounting. (In exceptional circumstances, students can also be admitted to the major by permission of the Chairperson.)

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.

To assist students, the Year 3 and Year 4 course requirements for an Accounting major and the core BComm degree program requirements are listed below. Course descriptions follow.

To complete a major in Accounting, students must attain a minimum cumulative grade point average of 2.2 in the 3rd and 4th year ACCT courses (as indicated below by *).

Year 3

- *ACCT 3323 Management Information Systems
 - *ACCT 3333 Cost Management: Measurement Systems – See Note (i)
 - *ACCT 3334 Cost Management: Systems Evaluation
 - *ACCT 3341 Intermediate Financial Accounting I
 - *ACCT 3342 Intermediate Financial Accounting II
 - *ACCT 3345 Financial Accounting Theory
 - FINA 2360 Business Finance I
 - FINA 3361 Business Finance II
 - MGMT 3480 Ethical Responsibilities of Organizations
- Three (3) credit hours in free electives

Year 4

- *ACCT 4455 Financial Accounting Seminar
 - or
 - *ACCT 4470 Management Accounting Seminar
 - *Six (6) credit hours in Accounting electives - see Note (ii) below
 - MGMT 4489 Strategic Management
- Twelve (12) credit hours in non-Commerce electives
Six (6) credit hours in free electives - see Note (iii) below

Notes:

- (i) Students cannot receive credit for both ACCT 3332 and ACCT 3333.
- (ii) CISY 3326, or CISY 4435 as well as ACCT 3357 or any 4000 level course in Accounting not used to fulfill other requirements may be used to satisfy this requirement.

Students with a grade below C in ACCT 2241, ACCT 2242, ACCT 3341 or ACCT 3342 are advised against pursuing an Accounting major.

Course Descriptions

2241 Introductory Financial Accounting

3 credit hours

Prerequisite: Fifteen (15) credit hours, including MGMT 1281 or appropriate work experience determined in advance by the Chairperson of the Department.

This course is concerned with the 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.
3 credit hours

2242 Introductory Managerial Accounting

3 credit hours

Prerequisite: ACCT 2241, ECON 1201 and MGSC 1205.

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.

3323 Management Information Systems

3 credit hours

Prerequisite: ACCT 2241 with a minimum grade of C and 2242 with a minimum grade of C.

This course is an introduction to the effective use and impact of computer information systems and emerging information technologies in business. Enterprise systems which include supply chain management, customer relationship management, business intelligence systems and collaborative systems are reviewed to understand their potential strategic value to organizations. Internal controls and the evaluation of information technology investments are common themes.

3332 Planning and Control

3 credit hours

Prerequisite: ACCT 2242 and CISO 1225.

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.

Note: Students cannot receive credit for this course if they also have credit for ACCT 3333.

3333 Cost Management: Measurement Systems

3 credit hours

Prerequisite: ACCT 2241 with a minimum grade of C and 2242 with a minimum grade of C and MGSC 2207.

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 this course if they also have credit for ACCT 3332.

3334 Cost Management: Systems Evaluation

3 credit hours

Prerequisite: ACCT 3333

The focus of this course is on topics related to the evaluation of performance and business processes (e.g. cost

variance analysis, revenue variance analysis, budgeting, the balance scorecard, cost management and transfer pricing).

3341 Intermediate Financial Accounting I

3 credit hours

Prerequisite: ACCT 2241 with a minimum grade of C and 2242 with a minimum grade of C and CISO 1225.

This course is the first segment of the two part comprehensive intermediate sequence addressing the underlying accounting principles and concepts; the accounting model for reporting financial position and performance; and their application to a variety of asset issues. Classes 3 hrs. and lab 75 min. a week.

3342 Intermediate Financial Accounting II

3 credit hours

Prerequisite: ACCT 3341.

This course is the second segment of the two part comprehensive intermediate sequence addressing the application of accounting principles and concepts to liability and equity topics; accounting changes and preparations of the statement of cash flows. Classes 3 hrs. and lab 75 min. a week.

3343 Financial Accounting Analysis

3 credit hours

Prerequisite: ACCT 2242

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 also have credit for ACCT 3341 and ACCT 3342.

3345 Financial Accounting Theory

3 credit hours

Prerequisite: ACCT 3341.

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 ACCT 3342 or after the completion of ACCT 3342.

3357 International Accounting

3 credit hours

Prerequisite: ACCT 2242.

This course is 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.

4423 Accounting Information Systems and Control

3 credit hours

Prerequisite: COMM 2293, ACCT 3323, 3332 or 3333, 3341 or 3343, and MGMT 2384.

This course expands on the systems and control concepts introduced in ACCT 3323. 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.

4443 Advanced Financial Accounting - Corporate Accounting

3 credit hours

Prerequisite: COMM 2293 and ACCT 3342.

This course builds on ACCT 3342, and covers accounting for business combinations and the preparation of consolidated financial statements including issues associated with accounting for foreign currency transactions and international operations. Classes 3 hrs. and lab 75 min. a week.

4444 Advanced Financial Accounting - Special Topics

3 credit hours

Prerequisite: COMM 2293, ACCT 3342 and 3345.

The focus of this course is on financial accounting and reporting standards related to the broader issues of disclosure and of measurements, including those dealing with financial instruments and derivatives; and issues related to not-for-profit and public sector entities.

4445 Financial Statement Analysis

3 credit hours

Prerequisite: COMM 2293, ACCT 3341 or 3343, and FINA 3361.

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.

4450 Auditing

3 credit hours

Prerequisite: ACCT 3342 and COMM 2293.

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.

4453 Taxation - Part I

3 credit hours

Prerequisite: COMM 2293 and ACCT 3342 or FINA 3361.

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.

4454 Taxation - Part II

3 credit hours

Prerequisite: ACCT 4453

This course examines in greater depth the topics covered in ACCT 4453, 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.

4455 Financial Accounting Seminar

3 credit hours

Prerequisite: COMM 2293, ACCT 3342 and 3345.

This capstone course is an examination of emerging issues in financial accounting and the accounting profession, including income statement and balance sheet recognition and measurement. This course will follow a seminar format including student presentations and case analysis.

4460 Internal/Operational Auditing

3 credit hours

Prerequisite: COMM 2293, ACCT 3332 or 3333, ACCT 3341 or 3343.

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.

4465 Accounting for Financial Instruments

3 credit hours

Prerequisites: COMM 2293 and FINA 3361 and either ACCT 3342 or ACCT 3343.

The purpose of this course is to provide students with the background of, and accounting for, the most common financial instruments. Particular attention is paid to risk, internal controls, standard-setting in Canada, accounting for derivatives, fair value, and hedge funds.

4470 Management Accounting Seminar

3 credit hours

Prerequisite: ACCT 3334 and COMM 2293.

This capstone course is an exposure to recent developments in management accounting, including the choice of useful information, the problems in its measurement, and the behavioural consequences of using the data. The course

integrates material relating to operations management, strategic planning, and management control systems. This course will follow a seminar format including student presentations and case analysis.

4475 Business Consultancy

3 credit hours

Prerequisite: COMM 2293 and MGMT 3480 with a minimum CGPA of 3.0.

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.smu.ca/smubdc.

4826 – 4849 Selected Topics in Accounting

3 credit hours

Prerequisite: COMM 2293; ACCT 3332 or 3333; ACCT 3341 or 3343; 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.

4876 – 4899 Directed Study

3 credit hours

Prerequisite: COMM 2293 and permission of 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.

Anthropology (ANTH)

Chairperson, Professor	P. Erickson
Associate Professors	A. O'Malley, T. Peckmann
Assistant Professors	J. Fowler, E. Henry, R. Higgins, M. Zelenietz
Adjunct Professors	M. Daveluy, D. Grimes- MacLellan, T. Sable
Professor Emeritus	S. Davis

Departmental Policy

- To obtain a minor in Anthropology, students are required to have completed at least twenty-four (24) credit hours in Anthropology. Six (6) credit hours must be selected from among ANTH 1202, 1271, 1280, or 1290. Twelve (12) credit hours must be at the 2000 level or above.
- To complete a double concentration in Anthropology, the requirement for the ninety (90) credit hour B.A., students are required to have completed at least twenty-four (24) credit hours in Anthropology. These must include ANTH 1202, 1271, 1280, and 1290. The remaining twelve (12) credit hours must be from courses at the 2000 level or above.
- To obtain a major in Anthropology, students are required to have completed at least thirty-six (36) credit hours in Anthropology. These must include ANTH 1202, 1271, 1280, and 1290. The remaining credits must be at the 2000 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 Honours in Anthropology, a student must first be admitted to the honours program and then graduate from the honours 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.

b. To graduate from the program, a student must satisfy pertinent Faculty of Arts requirements and complete the equivalent of sixty (60) credit hours in Anthropology including the following obligatory core: ANTH 1202, 1271, 1280, 1290, 4452, 4501, and 4502. In addition, students must complete, from the lists below, six (6) credit hours at the 2000-level or above in each of the four subfields of archaeological, biological, socio-cultural, and linguistic anthropology as well as three (3) credit hours in anthropological methods.

c. To graduate from the program, students must also receive minimum grades of B (3.0) in ANTH 4501 and 4502.

d. Students are permitted to count LING 2310, 2320, 2330 and 2340 as Linguistic Anthropology courses at the 2000 level.

5. With the approval of the Chairperson of the Department, the following courses may be used to satisfy requirements for Anthropology courses at the 2000 level or above: ANTH 3826-3849, 3876-3899, 4826-4849, 4850-4875, and 4876-4899.

6. The Department offers a prize for excellence in anthropological writing to major or honours 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.

Archaeology Courses

2273 Who Owns the Past?
3371 Prehistory of Canada
3373 Fieldwork in Archaeology
3374 Archaeology Laboratory
3375 World Prehistory
3376 Archaeology of Death
3377 Urban Archaeology
3378 Landscape Archaeology
3379 The Archaeology of Acadia
3571 Archaeological Mysteries
3572 Archaeology of Empire
3573 Archaeology of Halifax
4462 Method and Theory in Historical Archaeology
4464 Advanced Fieldwork in Archaeology
4465 Advanced Archaeology Laboratory
4466 Researching Halifax Heritage
4467 Cultural Resource Management (CRM) Archaeology

Biological Anthropology Courses

2282 Introduction to Forensic Anthropology
3381 Anthropological Genetics
3382 Paleoanthropology
3471 Forensic Skeletal Identification
3472 Forensic Skeletal Analysis
3473 Forensic Facial Anatomy
3701 Forensic Archaeology Field School
4473 Paleopathology
4474 Human Variation
4701 Internship in Forensic Anthropology

Socio-cultural Anthropology Courses

2301 Anthropology of Children and Childhood
2311 Ethnology: Melanesia
2316 Native Peoples of Canada
2326 Contemporary East Asia
2327 Japanese Society
2401 Anthropology of Work
3201 Anthropology of Food
3301 Nature of Culture
3302 Social Organization
3303 Sex, Gender and Society
3304 Egalitarian Societies
3305 Chiefdoms
3307 Visual Anthropology
3309 Peasant Society and Culture
3316 Anthropology of Religion
3329 The Arctic Culture Area
3334 Warfare and Aggression: Anthropological Approaches to Human Conflict
3366 Worldview: Anthropological Approaches
3710-3719 Field Study in Anthropology
4306 Foraging Adaptations

4365 Myth: Anthropological Approaches
4411 Ethnographic Research Methodology
4412 Qualitative Data Analysis
4710-4719 Advanced Field Study in Anthropology

Linguistic Anthropology Courses

2391 Learning a Field Language
2392 Language, Culture and Society
3395 Language Use and Issues in Northern Canada
3396 Language Use and Issues in Southern Canada
4491 Ethnography of Communication
4492 Anthropological Analysis of Linguistic Communities

Anthropological Methods Courses

The course used to satisfy the anthropological methods requirement cannot at the same time be used to satisfy the archaeological, biological, socio-cultural, or linguistic anthropology requirement.

2391 Learning a Field Language
3373 Fieldwork in Archaeology
3374 Archaeology Laboratory
3471 Forensic Skeletal Identification
3472 Forensic Skeletal Analysis
3701 Forensic Archaeology Field School
3710-3719 Field Study in Anthropology
4411 Ethnographic Research Methodology
4412 Qualitative Data Analysis
4462 Method and Theory in Historical Archaeology
4464 Advanced Fieldwork in Archaeology
4465 Advanced Archaeology Laboratory
4466 Researching Halifax Heritage
4491 Ethnography of Communication
4492 Anthropological Analysis of Linguistic Communities
4701 Internship in Forensic Anthropology
4710-4719 Advanced Field Study in Anthropology

Course Descriptions**1202 Introduction to Socio-Cultural Anthropology**

3 credit hours

An introduction to the cultures and social systems of people from around the world. Topics include economics, politics, kinship, family, and religion, as well as the expressive aspects of culture such as the arts, myth, and ritual.

1271 Introduction to Archaeology

3 credit hours

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.

1280 Introduction to Biological Anthropology

3 credit hours

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.

1290 Introduction to Human Communication

3 credit hours

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 ethno-linguistics as a sub discipline of anthropology is also discussed.

2273 Who Owns the Past?

3 credit hours

Prerequisite: one of ANTH 1202, 1271, 1280, 1290, 2282

Why preserve the past, and in what form? How has the past been used and abused for political purposes in different historical and cultural contexts? To what extent have administrative policies and ethnocentric attitudes towards indigenous peoples alienated indigenous from anthropologists? How do museums, collections, the restitution of cultural property and the illicit traffic in relics contribute to the situation?

2282 Introduction to Forensic Anthropology

3 credit hours

This course is an introduction to the multidisciplinary nature of forensic anthropology. It explores the myths and realities of the search for human remains in crime scenes, what should be expected from a forensic anthropology expert in the courtroom, some of the challenges in mass fatality incident responses, and what a student should consider if they want to pursue a career in forensic anthropology.

2301 Anthropology of Children and Childhood

3 credit hours

Prerequisite: ANTH 1202, or permission of the instructor.

This course examines the nature of childhood in various societies with attention to the development and socialization of children from birth through adolescence. Primary emphasis will be given to a perspective that views children as active participants in their own worlds as well as the worlds of others. While focusing on the social and culture contexts of children's lives, we will explore topics that include parent-child relations, education, child labor, friendship, play, and the relationship of children to media technologies and consumer culture.

2311 Ethnology: Melanesia

3 credit hours

Selected societies and cultures of Papua New Guinea and adjacent island clusters are examined. Special attention is given to cultural diversity within this region. Specific topics covered include variation in the relationship between men and women, variation in leadership patterns, warfare and descent systems.

2316 Native Peoples of Canada

3 credit hours

Prerequisite: ANTH 1202 or six (6) credit hours in HIST 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.

2326 Contemporary East Asia

3 credit hours

Prerequisite: ANTH 1202 or ASNT 3300

This course will consider East Asia as a region with shared cultural and historical legacies, while examining the radically diverse contemporary conditions of each country.

2327 Japanese Society

3 credit hours

Prerequisite: ANTH 1202 or ASNT 3300

This course introduces Japanese society through a life course perspective. Topics include family, education, the work place, gender, class, ethnic minorities and contemporary social problems.

2391 Learning a Field Language [LING 2391]

3 credit hours

Prerequisite: ANTH 1290 or LING 1200

Learning a field language is often an essential part of anthropological fieldwork. In this course, students will learn and apply concepts and methods related to language elicitation, recording, and analysis with the goal of acquiring communicative competence in an unknown language. Students will discover the relationship among language acquisition, cultural learning and community integration.

2392 Language, Culture and Society [LING 2392]

3 credit hours

Prerequisite: three credit hours in either ANTH or LING

Survey of different approaches and concepts in linguistic anthropology (ethnoscience, ethnosemantics, ethnolinguistics). Exposure to main topics of interest in the field (the relationship between language, culture, and thought, for example). Characteristics of an anthropological perspective on language(s).

2401 Anthropology of Work

3 credit hours

Prerequisite: a social science course

Anthropologists have long been interested in work as an aspect of economy (that is, how productive tasks get accomplished), as a determiner of general social structure (that is, a core institution), and as a theme in the ethos of various societies (that is, work as an ethic). As anthropologists turn their attention to industrial societies (and as other disciplines adopt ethno-geographic methods), the workplace itself is often treated as were small communities in the past. In this course, special attention will be given to methods of data collection in workplaces in complex societies. There will also be an examination of the application of these techniques by scholars, development agencies, commercial enterprises, and political movements.

3201 The Anthropology of Food

3 credit hours

Prerequisite(s): ANTH 1202

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The goal of this course is to understand the socio-cultural and economic dynamics that shape food and eating, and the roles that both play in shaping people's everyday lives. Students will critically examine a wide range of processes connected to food and eating around the world.

3301 Nature of Culture

3 credit hours

Prerequisite: ANTH 1202, or SOC 1210; or permission of the instructor.

An introduction to the concept of culture as an essential aspect of human nature. Emphasis will be given to contemporary theories concerning society and culture.

3302 Social Organization

3 credit hours

Prerequisite: ANTH 1202

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.

3303 Sex, Gender and Society [WMST 3303]

3 credit hours

Prerequisite: ANTH 1202, 1290, or one (3 credit hour) social science credit

This course introduces students to an anthropological perspective on the relationship between culture, biology, and social expectations of male and female behavior. Emphasis is given to examining how individuals and societies imagine, negotiate, perform and contest dominant gender ideologies, roles, relations and identities.

3304 Egalitarian Societies

3 credit hours

Prerequisite: ANTH 1202

This course provides a survey of selected egalitarian societies including foragers, horticulturalists and pastoralists located in Africa, North and South America, Asia and Oceania. A number of theoretical issues are raised related to the cultural variations and similarities noted.

3305 Chiefdoms

3 credit hours

Prerequisite: ANTH 1202

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.

3307 Visual Anthropology

3 credit hours

Prerequisite: at least twelve (12) credit hours in ANTH

This course is designed to introduce students to the field of visual anthropology. It has two major foci:

1.) it examines the use of visual material in anthropological research and in the presentation and consumption of anthropological knowledge, focusing particularly on

photography and film, and 2.) it addresses visuality itself as a domain of anthropological inquiry, exploring ways of seeing in culturally and historically specific contexts.

3309 Peasant Society and Culture

3 credit hours

Prerequisite: ANTH 1202

A number of substantive studies of peasant society and culture are examined. Examples are drawn from diverse regions including Mexico, India, China, Japan, Europe and Southeast Asia. Theories related to similar and contrasting features of peasant culture are considered.

3316 Anthropology of Religion [RELS 3316]

3 credit hours

Prerequisite: any one of ANTH 1202, RELS 1210, 1211, 1220, 1221, 1251

This course surveys major developments in the anthropological study of religions. The course will provide a solid theoretical foundation for the field study of contemporary religions.

3329 The Arctic Culture Area

3 credit hours

Prerequisite: six (6) credit hours in ANTH

This course focuses on the contemporary situation of people in the circumpolar regions of the world with an emphasis on northern Canada. Students are introduced to issues of modernity in the north, including environmental problems, health, culture, development, and power. Specific attention is paid to the evolution of political agreements and Aboriginal autonomy.

3334 Warfare and Aggression: Anthropological Approaches to Human Conflict

3 credit hours

Prerequisite: ANTH 1202

The course will examine the nature and structure of human conflict by evaluating anthropological theories of warfare and aggression in light of the case materials available on small-scale societies. In addition, particular attention will be devoted to: 1) the role of racism in human conflict, and 2) a critique of socio-biological theories of human aggression.

3366 Worldview: Anthropological Approaches [RELS 3366]

3 credit hours

Prerequisite: ANTH 1202

This is an examination of anthropological theories pertaining to worldview (a people's perception of the world and how it works). While examples will be drawn from many societies, the course will concentrate upon the beliefs current in a single society.

3371 Prehistory of Canada

3 credit hours

Prerequisite: ANTH 1271

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.

3373 Fieldwork in Archaeology

3 credit hours

Prerequisite: ANTH 1271

This course offers detailed instruction with practical application of archaeological field techniques. This course is generally off-campus at an archaeological site. As such, the course is dependent upon external funds and has a limited enrollment. Please consult the Departmental Chairperson regarding availability.

3374 Archaeology Laboratory

3 credit hours

Prerequisite: ANTH 3373

The course offers training in the laboratory, analysis of materials recovered from an archaeological site. To maintain continuity of the learning experience, students must take ANTH 3373 in the same year this course is offered.

3375 World Prehistory

3 credit hours

Prerequisite: ANTH 1271 or six (6) credit hours 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.

3376 Archaeology of Death

3 credit hours

Prerequisite: ANTH 1271

This course will examine funerary customs within a global framework. Mortuary rituals afford not only insight into the death practices of past societies, they may also provide a basis from which to investigate a broad range of important social and anthropological questions, from social organizations, gender relations, and social inequality, to health and disease, diet, and biological affinity, to the ethical and legal aspects of exhumation and reburial of skeletal remains.

3377 Urban Archaeology

3 credit hours

Prerequisite: ANTH 1271

The development of the sub-discipline of urban archeology in eastern North America will be reviewed. Particular emphasis will be placed on the design and application of urban archeology management plans. Questions regarding the contribution of archeological methods, research and analysis to questions of urban archeological phenomena will be addressed.

3378 Landscape Archaeology

3 credit hours

Prerequisite: ANTH 1271

This course offers an introductory survey to both the empirical and interpretive aspects of Landscape Archaeology incorporating real-world case studies drawn from local archaeological resources. It emphasizes the human-scale experience of the past rather than grand, overarching models, and borrows liberally from socio-cultural anthropology.

3379 The Archaeology of Acadia

3 credit hours

Prerequisite: ANTH 1271

Drawing upon primary source evidence, and placing a particular emphasis on materiality, thematic emphasis is given to colonial Nova Scotia as a stage for conflict and negotiation between Aboriginal and European peoples and adaptation of European social, political, and economic practices to a North American environment. This course explores the European colonization of the Maritime Provinces from contact to the middle of the 18th century.

3381 Anthropological Genetics

3 credit hours

Prerequisite: ANTH 1280

A survey of human genetics, including Mendelian genetics, multifactorial genetics, cytogenetics, and population genetics, intended to enhance understanding of human biological variation.

3382 Paleoanthropology

3 credit hours

Prerequisite: ANTH 1280

A survey of primate and human evolution as revealed in the fossil record.

3395 Language Use and Issues in Northern Canada [LING 3395]

3 credit hours

Prerequisite: three (3) credit hours in either ANTH or LING

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.

3396 Language Use and Issues in Southern Canada

3 credit hours

Prerequisite: ANTH 1290 or three (3) credit hours in LING

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 to the languages in Canada and their current status, as well as a critical look at the respective place of these languages in

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our society. Issues related to multilingualism at an individual and societal level are also examined.

3471 Forensic Skeletal Identification

3 credit hours

Prerequisite: 60 credit hours, including ANTH 2282

A detailed examination of bones of the human skeleton for forensic purposes.

Note: It is recommended that students who complete ANTH 3471 also complete ANTH 3472.

3472 Forensic Skeletal Analysis

3 credit hours

Prerequisite: ANTH 3471

A detailed analysis of the human skeleton aimed at creating profiles of decedents and understanding circumstances surrounding their deaths.

3473 Forensic Facial Anatomy

3 credit hours

Prerequisite: thirty-six (36) credit hours including ANTH 2282

This course studies facial anatomy and its importance in forensic human identification through an examination of topics such as human osteology, soft tissue anatomy, how the brain recognizes faces, collection of facial tissue depths using ultrasound, and 3-D facial reconstruction.

3571 Archaeological Mysteries

3 credit hours

Prerequisite: ANTH 1271

Students will survey spectacular claims about the past found in public discourse. Questions such as the nature of archaeological evidence, the degree to which archaeology can be said to be a science, and the treatment of alternative interpretations of the past will be addressed.

3572 Archaeology of Empire

3 credit hours

Prerequisite: ANTH 1271

This course examines the phenomenon of imperialism through an archaeological lens. Students will explore the relationships between material culture and systems of social power.

3573 Archaeology of Halifax

3 credit hours

Prerequisite: ANTH 1271

A variety of research methods associated with the study of urban materiality will be examined. Using Halifax as a case study, students will participate in research and field work that will contribute directly to an understanding of the urban archaeology and history of Halifax and its people.

3701 Forensic Archaeology Field School

3 credit hours

Prerequisite: 60 credit hours including ANTH 2282 and permission of the instructor.

This course is an introduction to forensic archaeology. It will teach students field recovery techniques of surface and buried remains as well as the protocol associated with crime scenes and exhibit documentation. Topics that will be covered include: introduction to forensic archaeology and anthropology (including roles of various law enforcement officials), crime scene safety and ethics, crime scene and exhibit documentation (scene photography, note taking, chain of custody of exhibits), establishing scene perimeters, searching for clandestine burials and human remains, forensic taphonomy, gridding scenes, mapping scenes, excavation techniques, soil analysis, and scene restoration.

3710 - 3719 Field Study in Anthropology

3 credit hours

Prerequisite: Twelve (12) credit hours in Anthropology and permission of the instructor

Students will deepen their understanding of a particular culture through first-hand interactions with people, places, and institutions. Students will travel to a particular field site (Japan, Arctic Canada, etc.) with a faculty member. On-site instruction will be provided. This course generally takes place between May and August and involves additional costs. Locations and foci will vary from year to year. Please consult the Departmental Chairperson for availability.

3826-3849 Special Topics/Seminars in Anthropology

3 credit hours

Prerequisite: six (6) credit hours at the 2000 level or above

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.

3876 - 3899 Directed Independent Study in Anthropology

3 credit hours

4306 Foraging Adaptations

3 credit hours

Prerequisite: ANTH 1202

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.

4365 Myth: Anthropological Approaches

3 credit hours

Prerequisite: any one of ANTH 1202, ANTH 1290, RELS 1210, RELS 1211, RELS 1201

The student will be exposed to a number of theoretical approaches employed by anthropologists in the study of myth. While examples may come from a number of societies, there will be a concentration upon the myth corpus of a single society.

4411 Ethnographic Research Methodology

3 credit hours

Prerequisite: ANTH 1202 or SOCI 1210

Students are introduced to the variety of ethnographic research methods applicable in the field setting. Through a series of exercises (that may include work in the local community) the students develop and design a long-term research project, and learn how to analyze their findings. A brief introduction to quantitative methods is offered.

4412 Qualitative Data Analysis

3 credit hours

Prerequisite: ANTH 4411

This course examines strategies for the analysis of socio-cultural data in the form of textual and alternative formats. Emphasis is given to hands-on application of analytic techniques and interpretation of real data sets collected by the students. The course culminates in a final portfolio and presentation that articulates a well-defined intellectual issue.

4452 Anthropological Theory After 1900

3 credit hours

Prerequisite: ANTH 1202, 1271, 1280, and 1290

A history of anthropological theory in the twentieth and early twenty-first centuries.

4462 Method and Theory in Historical Archaeology

3 credit hours

Prerequisite: ANTH 1271

Concepts and methods of historical archeology, survey techniques, data collection, and laboratory analysis. Suggested for students who intend to take fieldwork courses in archeology.

4464 Advanced Fieldwork in Archaeology

3 credit hours

Prerequisite: ANTH 3373

Students are expected to have knowledge of field techniques used in archaeology. They assist a senior archaeologist in the excavation of an archaeological site, being responsible for all levels of recording. Please consult the Departmental Chairperson regarding availability.

4465 Advanced Archaeology Laboratory

3 credit hours

Prerequisite: ANTH 3374

Students must have a knowledge of laboratory techniques used in archaeology. They use this knowledge to record, analyze, and report on archaeological specimens. This course may be twinned with ANTH 4464, should the site being excavated produce sufficient archaeological materials.

4466 Researching Halifax Heritage

3 credit hours

Prerequisite: ANTH 1271

An introduction to research techniques and resources, some off-campus, used to assess the historical and archaeological significance of properties in Halifax.

4467 Cultural Resource Management (CRM)**Archaeology**

3 credit hours

Prerequisite: ANTH 1271 and eighteen (18) credit hours 2000-level or above, of which nine (9) credit hours must be Anthropology

Cultural Resource Management (CRM), as an applied form of archaeological research, is a rapidly expanding field of practice where many students and graduates of archaeological curricula develop their professional careers. Students will be introduced to its principles and learn about legislation, policy and protocols that impact CRM archaeology. Students will also be introduced to applications of geomatics technology, including geographic information systems (GIS), for CRM archaeology. Case studies will comprise a fundamental source of information in this course. The format is that of a seminar.

4473 Palaeopathology

3 credit hours

Prerequisite: ANTH 3471 and 3472

Palaeopathology is the study of diseases in past human populations. In this course you will learn how to diagnose simple bone pathologies, and in the process gain an understanding of bone physiology and pathology and how these processes work. The main part of the course will focus on the major categories of disease that affect the skeleton. We will also examine how certain diseases have affected human history.

4474 Human Variation

3 credit hours

Prerequisite: ANTH 3381 and 3382

This class will introduce students to the history of the way people have viewed human variation, and will teach critical thinking skills necessary to analyze issues such as eugenics, *The Bell Curve*, racism, 'environmental racism', sexism, The Human Genome Project, and other difficult topics that affect our daily lives.

4491 Ethnography of Communication [LING 4491]

3 credit hours

Prerequisite: ANTH 1290 or three credit hours in LING

Introduction to communication description as developed by Dell Hymes and John J. Gumperz. Observation and

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practical analysis (fieldwork) of communicative events in diverse situations. Cross-cultural comparison of communication activities.

4492 Anthropological Analysis of Linguistic Communities [LING 4492]

3 credit hours

Prerequisite: ANTH 1290 or three (3) credit hours in LING

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 is chosen at each offering of the course (either one language in different social contexts, or the interacting ethno-linguistic groups in one region).

4501 Honours Thesis Research

3 credit hours

Prerequisite: restricted to students who have been accepted by the department into the honours program.

The application of anthropological theory and methods to a well-defined area of study identified and communicated to the student's honours thesis committee prior to enrolment. Students will work closely with their principal advisors and two other committee members.

4502 Honours Thesis Writing

3 credit hours

Prerequisite: ANTH 4501

This course examines the communication of the results of anthropological inquiry to the scholarly community through the writing of an honours thesis. 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.

4701 Internship in Forensic Anthropology

6 credit hours

Prerequisite: ANTH 3471 and 3472

This is a practical, hands-on course in forensic anthropology. Students will use their knowledge of forensic methodologies for the examination and identification of human remains as well as the writing of forensic anthropology reports through work in an official morgue.

4710 - 4719 Advanced Field Study in Anthropology

3 credit hours

Prerequisite: one of ANTH 3710—3719

Students will investigate and develop a response to a specific research questions in a particular field site (e.g. Japan, Arctic Canada, etc.). Students will travel to the field site with a faculty member. Students will apply anthropological theories and methods to complete a guided research project. This course generally takes place between May and August and involves additional costs. Locations and foci will vary from year to year. Please consult Departmental Chairperson for availability.

4826 - 4849 Special Topics/Seminars in Anthropology

3 credit hours

Prerequisite: six (6) credit hours at the 2000 level or above

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.

4850 - 4875 Directed Independent Study in Anthropology

6 credit hours

4876 - 4899 Directed Independent Study in Anthropology

3 credit hours

Arabic (ARBC)

Chairperson, Modern Languages and Classics
Associate Professor E. Tsedryk

Courses in Arabic are offered by the Department of Modern Languages and Classics

1. Enrollment in some language courses involves the following formal placement procedures.

All students seeking entry into language courses who have not previously taken a language course at Saint Mary's University must complete and return the Language Profile Form to the Department of Modern Languages and Classics.

Based on the information provided in the Language Profile Form, students may receive notification from the

Department to appear for an oral interview and/or a written placement test at a designated time.

The Department of Modern Languages determines the appropriate course placement for each student

- (i) Permission to register or remain in a particular language course can be refused if the Department judges that the student's knowledge exceeds the level for that course.
- (ii) Native speakers are not eligible to receive advanced credit for language courses.
- (iii) Completion of Advanced Standing (transfer) courses does not exempt a student from taking the placement test.

2. 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 enroll in courses at the 2000 level or lower.

Students who misrepresent their knowledge of any given language by providing inaccurate or incomplete information about their linguistic educational history will be subject to disciplinary action as laid out in Academic Regulation 19.

3. 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.

Course Descriptions

1100 Introduction to Arabic: Language and Cultures 6 credit hours

An introductory language course for those beginning the study of Arabic language and cultures. This course is designed to offer an initial competency in Arabic, and is not offered to those with an Arabic-speaking background.

Asian Studies (ASNT)

Program Coordinator	A. Soucy, Associate Professor, Religious Studies
Assistant Professors	A. Avdulov, C. Beaupré, Modern Languages

The Asian Studies degree program at Saint Mary's University has been in operation for over thirty 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 also encouraged to consider pursuing 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 Section 5 of this *Calendar*.

Facility in an Asian language is central to the program and students are encouraged to consider participating in one or more of our cultural exchange programs overseas.

Regulations for Majors

To major in Asian Studies, students must complete forty-two (42) credit hours within the following constraints:

a. twelve (12) consecutive Asian language credit hours (Introductory and Intermediate).

b. six (6) credit hours from the following: HIST 1222, HIST 1223, RELS 1220.

c. ASNT 3300 and ASNT 4400.

d. eighteen (18) additional core credit hours from at least two different disciplines other than languages. The list of core courses is given below.

e. Twenty-four (24) credit hours in Asian Studies core courses at the 2000 level or above.

Basic Arts Requirements

Students may find it useful to note that the following introductory courses available for credit towards degrees in Asian Studies also fulfill Basic Arts requirements:

Requirement 3b

JPNS 1100	Introductory Japanese
CHNS 1100	Introductory Modern Chinese

Requirement 3c

ASNT 1105	Introduction to Chinese Culture
ASNT 1106	Introduction to Japanese Culture
HIST 1208	Global History: 1450 to the Present
HIST 1222	History of Asia: East Asia
HIST 1223	History of Asia: South and Southeast Asia
RELS 1220	Introduction to Comparative Religion I

Requirement 3d

Six (6) credit hours from:

ANTH 1202	Introduction to Ethnology and Social Anthropology
ANTH 1280	Introduction to Biological Anthropology
ANTH 1290	Introduction to Human Communication
ECON 1201	Principles of Economics: Micro
ECON 1202	Principles of Economics: Macro
GEOG 1100	Global Perspectives on Land and Life
GEOG 1200	People, Place and Environment
GEOG 2303	The Geography of World Affairs
POLI 1201	Politics: Contemporary Issues
SOCI 1210	Introductory Sociology

Regulations for Honours

1. Admission to and continuance in the honours program in Asian Studies follows the general regulations of the Faculty of Arts.
2. To obtain an honours or double honours program in Asian Studies, students must complete at least sixty (60) credit hours and satisfy the following requirements;
 - a. all of the requirements of the major listed above.
 - b. six (6) additional Asian language credit hours;
 - c. six (6) additional credit hours from Anthropology, Economics, Geography, Political Science, or Sociology in classes recognized by the Coordinator as relevant for Asian Studies;
 - d. an honours thesis (ASNT 4500), 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; and
 - e. 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 twenty-four (24) credit hours approved for the program:

- (a) CHNS 1100 or JPNS 1100;
- (b) ASNT 3300 and ASNT 4400; and
- (c) twelve (12) credit hours from the Asian Studies Core Courses (below) (at least six from the 2000 level).

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: CHNS 1100; ASNT 3300 and 4400; and twelve (12) other credit hours on China in at least two different disciplines taken from the following list:

ANTH 2326; ASNT 1105, ASNT 2305; ASNT 3310; CHNS 2200; CHNS 3300; HIST 1222; HIST 2381; HIST 2382; HIST 2383; HIST 4511; RELS 2327; RELS 3359; RELS 3360.

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: JPNS 1100; ASNT 3300 and 4400 and twelve (12) other credit hours on Japan in at least two different disciplines taken from the following list:

ANTH 2326; ANTH 2327; ASNT 1106, ASNT 2303; ASNT 3302; ASNT 4410; GEOG 3360; HIST 1222; HIST

2354; HIST 2355; HIST 2356; HIST 4511; JPNS 2200; JPNS 3300; RELS 2327; RELS 2340.

Transfer credits from other academic institutions may be recognized.

Certificate Programs

Information concerning the requirements for the Certificate of Chinese Studies Program and the Certificate of Japanese Studies Program are found in Section 4 of this *Calendar* under Chinese and Japanese.

Regulation for Concentrations

To obtain concentrations in Asian Studies, Chinese Studies, or Japanese Studies in partial fulfillment of the B.A. General Degree (Double Arts Concentrations), a minimum of twenty-four (24) credit hours in one of these three subject areas is required; also a minimum grade point average of 2.00. Further details are available from the Coordinator.

Dual Degree Program

Since it is possible to obtain two undergraduate degrees from Saint Mary's University, for Commerce students it may be 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 the Dean of Arts, the Dean of the Sobey School of Business, 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*.

Asian Studies Core Courses

Note: With the Coordinator's permission, relevant courses not listed below may be acceptable for credit towards the Major or Minor in Asian, Chinese or Japanese Studies.

Anthropology (ANTH)

2326	Contemporary East Asia
2327	Japanese Society

Asian Studies (ASNT)

1105	Introduction to Chinese Culture
1106	Introduction to Japanese Culture
2303	Contemporary Japan: Institutions and Culture
2305	Contemporary China: Institutions and Culture
3300	Multidisciplinary Study of Asia
3302	Japanese Film and Literature
3310	Chinese Film and Literature
3407	Study Abroad: Japan
3408	Study Abroad: China
3826-3849	Selected Topics in Asian Studies
4400	Seminar in Asian Studies

- 4410 Special Topics on Japan
 4500 Honours Thesis
 4826-4849 Selected Topics in Asian Studies
 4876-4899 Directed Study

Geography (GEOG)

- 3360 Geography of Japan

History (HIST)

- 1222 History of Asia: East Asia
 2354 Japan before 1800
 2355 Rise and Fall of Imperial Japan 1800-1945
 2356 Japan since 1945
 2381 China before 1800
 2382 China in Revolution: 1800-1949
 2383 China since 1949
 2394 The Emergence of Modern Korea
 3371 The Chinese Cultural Revolution in History and Memory
 4572 Memories of WW II in China

Arabic (ARBC)

- 1100 Introduction to Arabic

Chinese (CHNS)

- 1100 Introductory Modern Chinese
 2200 Intermediate Modern Chinese
 3300 Advanced Chinese I
 3301 Advanced Chinese II

Japanese (JPNS)

- 1100 Introductory Japanese
 2200 Intermediate Japanese
 3300 Advanced Japanese I
 3301 Advanced Japanese II

Religious Studies (RELS)

- 1220 Introduction to Asian Religions
 1221 Introduction to Comparative Religion
 2323 The Islamic Religious Tradition
 2326 The Hindu Religious Tradition
 2327 The Buddhist Religious Tradition
 2380 Vietnamese Religious Traditions
 3337 Religions and Art: The East
 3351 Field Research Methods
 3358 Religious Diversity in Canada
 3359 The Buddhist Path: Ritual, Meditation and Wisdom
 3360 Engaged Buddhism
 3370 Introduction to the Qur'an
 3371 Life of Muhammad
 3372 Islamic Cultures and Civilizations
 4300 Gender and Asian Religious Traditions
 4387 Religious Pluralism

Asian Studies Course Descriptions**1105 Introduction to Chinese Culture**

3 credit hours

This course surveys aspects of Chinese culture in their historical and social contexts. Topics will be selected by the instructor and may include folklore, literature, language and material culture. No previous study of China or the Chinese language is required.

1106 Introduction to Japanese Culture

3 credit hours

This course surveys aspects of Japanese culture in their historical and social contexts. Topics will be selected by the instructor and may include folklore, literature, language and material culture. No previous study of Japan or the Japanese language is required.

2303 Contemporary Japan: Institutions and Culture

3 credit hours

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.

2305 Contemporary China: Institutions and Culture

3 credit hours

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.

3300 Multidisciplinary Study of Asia

3 credit hours

This 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.

3302 Japanese Film and Literature

3 credit hours

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.

3310 Chinese Film and Literature

3 credit hours

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.

3800 - 3825 Selected Topics in Asian Studies

6 credit hours

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.

3826 – 3849 Selected Topics in Asian Studies

3 credit hours

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.

4400 Seminar in Asian Studies

3 credit hours

Prerequisite: ASNT 3300 and twelve (12) core credit hours 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.

4500 Honours Thesis

6 credit hours

Prerequisite: admission to final year of the honours program.

Asian Studies students are required to submit and defend a thesis to be selected and prepared in conjunction with a faculty advisor.

4800 - 4825 Selected Topics in Asian Studies

6 credit hours

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.

4826 – 4849 Selected Topics in Asian Studies

3 credit hours

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.

4876 - 4899 Directed Study

3 credit hours

Prerequisite: permission of ASNT 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.

Astronomy (ASTR) and Astrophysics

Astronomy courses are offered by the Department of Astronomy and Physics (<http://www.ap.smu.ca>).

Chairperson	R. Thacker
Observatory Director	D. Lane
ICA Director	R. Deupree
Undergraduate Co-ordinator	L. Gallo
Graduate Co-ordinator	D. Guenther
Professors	D. Clarke, R. Deupree, D. Guenther, A. Sarty, M. Sawicki
Associate Professors	R. Austin, L. Gallo, R. Kanungo, I. Short, R. Thacker
Adjunct Professors	P. Bennett, L. Edwards
Professors Emeriti	W. Lonc, G. Mitchell, D. Turner, G. Welch

Note: This segment lists undergraduate courses in astronomy and programs in astrophysics only. Course and program descriptions for physics may be found in the Physics (PHYS) segment of Section 4 in this *Calendar* while graduate course descriptions and programs in astronomy may be found in the *Graduate Academic Calendar*.

History

Astronomy is an ancient science, with some of its first practitioners among the Minoans, Aztecs, Egyptians, and

early Chinese. Throughout its long history, the discipline has gone through many revolutions having benefited from some of the greatest minds who ever lived: Aristotle, Copernicus, Galileo, Newton, and Einstein. In the late 1800's, George Hale proclaimed astrophysics-the joining of traditional astronomical techniques with the mathematical rigour of physics-as "the new astronomy for the twentieth century" and, within a generation, few astronomers could complete their training without a full background in physics. Today, astronomers design highly engineered observatories and detectors, are cognizant of chemistry and biochemistry as more and more complex molecules such as amino acids are detected in the cosmos, and must be competent mathematicians, physicists, and computer scientists to understand and interpret what is being observed. Of all pure scientists, astrophysicists are among the best qualified to pursue a wide variety of careers in both science and education.

Formal introductory courses in Astronomy were introduced to the Saint Mary's curriculum by Father Michael J. Burke-Gaffney S.J. in 1957. Fifteen years later, Burke-Gaffney convinced the University to build a small observatory on the roof of the 23-story Loyola residence to be used for both class activities and public tours. In recognition of Burke-Gaffney's seminal role in establishing Saint Mary's as the regional centre for astronomy, the observatory was named in his honour.

Between 1971 and 1974, three astronomers joined the Department of Physics who, in 1974, formed a separate department and began offering an M.Sc. in Astronomy. This was the University's first Master's program in science as well as the first Astronomy program in the region. In 1989 and in cooperation with the Department of Physics, the Department of Astronomy began offering undergraduate programs in astrophysics to complement the M.Sc. in Astronomy and the B.Sc. in physics.

In 1993, the independent Departments of Physics and Astronomy were combined into a single department with eight faculty members and three staff. Given the University's status as the only institution in Atlantic Canada to offer full programs in Astronomy at either the undergraduate or graduate levels, the new department was called the Department of Astronomy and Physics. Building upon this strength, Saint Mary's made the strategic decision to allocate two of its six Canada Research Chairs to Astronomy and the Department used this opportunity to found the Institute for Computational Astrophysics (ICA) in 2001. With the addition of an NSERC University Research Fellow, the Department now has eleven full-time faculty and three faculty emeriti bringing more than \$350,000 annually to the University in external research funds.

In 2002, approval was granted to the University to offer a Ph.D. program in Astronomy, making it the first science Ph.D. program offered in Nova Scotia outside Dalhousie. With its emphasis on research as well as teaching, its status of offering the only full complement of university astronomy degrees east of Toronto, and its small, intimate, urban setting in one of the most charming cities on the continent, Saint Mary's University is truly a unique place to study astronomy and astrophysics at any level.

Degree Programs in Astrophysics

Because all modern-day astronomers are also physicists, no undergraduate degree in astronomy alone is offered. Instead, the Department offers three programs in astrophysics; a major, an honours and a minor. The astrophysics major program is designed for those who want a solid foundation in modern physics and astronomy, but who are not necessarily planning to continue their education beyond the B.Sc.. The astrophysics honours program is designed for those who intend to continue on to graduate school, and involves the preparation of an honours thesis (PHYS 4790) under the supervision of a faculty advisor in their fourth year. As listed below, these two programs are identical through the second year meaning students need not commit to the honours program until the third year of study. Note also, as listed, these programs conform to the requirements of the Science faculty as outlined in Section 3.

Note: The astrophysics programs 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. For undergraduate courses and programs in physics, please refer to the Physics (PHYS) segment listed in Section 4 of this *Calendar*.

Astrophysics Major/Honours

Major in Astrophysics – Requirements:

The requirements for the degree of Bachelor of Science with Major in Astrophysics are the same as those listed for *Bachelor of Science - Major* in Section Three of this Academic Calendar. A total of forty-two (42) credit hours are required in the major subject: thirty-nine (39) credit hours in PHYS; and eighteen (18) credit hours in ASTR, specifically ASTR 1100 plus fifteen (15) credit hours in ASTR at the 2000-level or above (or equivalent). The specific courses are listed in the suggested program outlined below.

Honours in Astrophysics – Requirements:

The requirements for the degree of Bachelor of Science with Honours in Astrophysics are the same as those listed for *Bachelor of Science – Honours and Double Honours* in Section Three of this Academic Calendar. A total of seventy-five (75) credit hours are required in the honours subject: fifty-four (54) credit hours in PHYS; and twenty-one (21) credit hours in ASTR, specifically ASTR 1100 plus eighteen (18) credit hours in ASTR at the 2000-level or above (or equivalent). The specific courses are listed in the suggested program outlined below.

Year 1

1. three (3) credit hours in science electives [CSCI 1226 recommended] and ASTR 1100
2. PHYS 1100 and 1101
3. ENGL 1205 and PHYS 1500
4. MATH 1210 and 1211
5. six (6) credit hours in science electives [CHEM 1210/1211 recommended]

Year 2

1. ASTR 2100 and 2400
2. PHYS 2300 and 2301
3. MATH 2311 [three (3) credit hours in science electives] and PHYS 2400
4. MATH 2301 and 2303 [six (6) credit hours in science electives]
5. three (3) credit hours in Humanities electives; and three (3) credit hours in Arts or ECON electives

Year 3 (Major)

1. either ASTR 3400 or 3500; and three (3) credit hours in Arts or ECON electives
2. PHYS 3200 and 3201
3. PHYS 3300 and three (3) credit hours in electives
4. PHYS 3500; and either PHYS 3350 or 3400
5. six (6) credit hours in Arts or ECON electives

Year 3 (Honours)

1. either ASTR 3400 or 3500; and either ASTR 4200 or 4600
2. PHYS 3200 and 3201
3. PHYS 3300 and 3210
4. PHYS 3500 and either PHYS 3350 or 3400
5. PHYS 3600 and three (3) credit hours in Arts or ECON electives

Year 4 (Major)

1. either ASTR 3400 or 3500; and either ASTR 4200 or 4600

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2. PHYS 4500 and either PHYS 3350 or 3400
3. eighteen (18) credit hours in electives

Year 4 (Honours)

1. either ASTR 3400 or 3500; and either ASTR 4200 or 4600
2. three (3) credit hours in ASTR at the 5000 level and three (3) credit hours in arts/ECON electives
3. PHYS 4500 and either PHYS 3350 or 3400
4. three (3) additional credit hours in PHYS at the 4000 level and three (3) credit hours in Arts or ECON electives
5. PHYS 4790

Minor in Astrophysics

The requirements for a Minor in Astrophysics are the same as those listed for *Bachelor of Science – Major and Minor* in Section three of this Academic Calendar. A total of thirty (30) credit hours in the minor subject are required. The astronomy and physics course requirements for the *astrophysics minor* are:

1. ASTR 1100 Introduction to Astrophysics
2. PHYS 1100 University Physics I
3. PHYS 1101 University Physics II
4. PHYS 1500 Modern Physics
5. ASTR 2100 Foundations of Astrophysics
6. ASTR 2400 Physics of Stars
7. PHYS 2300 Waves, Oscillations and Optics
8. Three (3) credit hours in ASTR at the 3000 level
9. Six (6) credit hours in PHYS at the 2000 or 3000 level.

Course Descriptions

The Department offers courses in astronomy, both undergraduate and graduate, to support its three degree programs in astronomy and astrophysics. Note that Astrophysics honours students are required to include at least one graduate level course in their program, and students should refer to the *Graduate Academic Calendar* for graduate course descriptions.

The Department also offers introductory astronomy courses for the non-specialist, including ASTR 1000, 1001, and 1010. Both ASTR 1000 and 1001 are suitable for science electives for all students, whereas ASTR 1010 is suitable for a science elective for non-science students only (but still may be taken as a general elective by science students).

1000 The Sky and Planets

3 credit hours

This course provides an introduction to the Solar System for non-science students with little background in science and mathematics. Topics include: the celestial sphere and the night sky, locating astronomical objects, motions and phases of the moon, timekeeping and the calendar, history of astronomy, eclipses, telescopes and instruments, planets, asteroids, and comets. Homework consists of assignments and labs, some of which require the use of the Burke-Gaffney Observatory.

Classes 3 hrs. and lab/telescope observing 1 hr. per week

1001 Stars and Galaxies

3 credit hours

This course is an introduction to astronomy beyond the Solar System for non-science students with little background in science and mathematics. Topics include: the Sun as a star, stars and star clusters, stellar evolution, nebulae, the Milky Way, galaxies and galaxy clusters, quasars, active galaxies, cosmology. Homework consists of assignments and labs, some of which require the use of the Burke-Gaffney Observatory.

Classes 3 hrs. and lab/telescope observing 1 hr. per week

1010 Life in the Universe

3 credit hours

The possibility that life might exist elsewhere in the universe has fascinated human beings ever since our ancestors first gazed into the starry skies. Is life on Earth unique, or could there be other civilisations in the cosmos? This course examines the possibility of extraterrestrial life from astronomical, biological and sociological perspectives. Topics 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.

Notes: This course is currently offered exclusively as a web-based course.

Please note that this course may not be used by B. Sc. Students to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees.

1100 Introduction to Astrophysics

3 credit hours

Prerequisites: PHYS 1100 and Nova Scotia grade 12 math pre-calculus, or equivalent.

This course provides a mathematics-based and physics-based introduction to general and solar system astronomy for science students and astrophysics majors. Topics include: the celestial sphere and the night sky, development of astronomy as a science, orbits planets, time measurement, eclipses, telescopes and astronomical instruments, and the solar system. Homework consists of assignments and labs, some of which require the use of the Burke-Gaffney Observatory.

Classes 3 hrs. and lab/telescope observing 1 hr. per week

2100 Foundations of Astrophysics

3 credit hours

Prerequisites: ASTR 1101; PHYS 1101; MATH 1211

The emphasis of this first course in *astrophysics* is on directly observable quantities such as the positions and motions of stars and the light they emit. Topics include a review of the celestial sphere, time in astronomy, astronomical catalogues, the two-body problem, dynamics of star clusters, stellar spectra including emission and absorption lines, and the operation of telescopes. Students are assigned observing projects and trained to use the Burke-Gaffney Observatory.

Classes 3 hrs. per week and telescope observing session

2400 Physics of Stars

3 credit hours
Prerequisite: ASTR 2100.

One of the major scientific achievements of the 20th Century was the quantitative understanding of stars. This course reviews these advances including the use of binary stars to determine stellar properties, spectral classification and the Boltzmann and Saha equations, radiative transfer and stellar atmospheres, the equations of stellar structure, and the interiors of hydrogen burning stars such as the Sun.

3400 Interstellar Matter and Stellar Evolution

3 credit hours
Prerequisite: ASTR 2400.

This course examines the nature of neutral and ionised interstellar clouds and the onset of star formation. Concepts introduced in ASTR 2400 are used to show how the initial mass of a “protostar” largely determines its place on the “main sequence” as a star, its internal structure and energy production, and the nature of its death, whether it be as a white dwarf, neutron star, or a black hole.

3500 Galaxies and Cosmology

3 credit hours
Prerequisite: ASTR 2400.

This course deals with an extremely broad area of astrophysics covering seven or eight orders of magnitude in length scale. Topics include the kinematic properties of nearby stars, galactic rotation, spiral structure, and the formation of the Milky Way. Extragalactic topics include the

classification of galaxies, galactic evolution and interaction, galaxy clusters, large scale structure of the universe, and modern cosmology including observational tests of various cosmological models.

3876-99 Independent Study in Astrophysics

3 credit hours
Prerequisite: Permission of the chairperson

4200 Observational Astronomy

3 credit hours
Prerequisite: ASTR 2100

The principles of modern ground-based and space-based observational astronomy is discussed. Emphasis is on data acquisition (from observations and archives) and analysis, and on the statistical treatment of data. As much as practical, the Burke-Gaffney Observatory is used for student projects.

Classes 3 hrs. per week and telescope observing session.

4600 High-Energy Astrophysics

3 credit hours
Prerequisite: ASTR 2400, PHYS 2400, PHYS 3300.

This course discusses the astrophysical processes that create high-energy photons (x-rays and gamma-rays) as well as the emission created from very energetic electrons (synchrotron and inverse Compton). Topics include gas and radiative processes, high-energy detectors and telescopes, and astrophysical processes from the solar system to black holes and gamma-ray bursts responsible for high-energy emission.

Atlantic Canada Studies (ACST)

Program Coordinator	A. MacLeod
Professors	J. Reid, History P. Twohig, Atlantic Canada Studies
Associate Professor	A. MacLeod, English
Adjunct Professor	R. Field

Atlantic Canada Studies is an interdisciplinary major, minor, honours, concentration, and certificate 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, honours, concentration, or certificate 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 honours.

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.

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.

Graduate Studies

For detailed information on the Master of Arts in Atlantic Canada Studies, refer to the *Graduate Academic Calendar*.

Major in Atlantic Canada Studies

To complete a major in Atlantic Canada Studies, a student must meet the usual University requirements for the

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Bachelor of Arts degree, and in particular, obtain forty-eight (48) credit hours from the courses listed below with a minimum GPA of 2.00. At least 24 credit hours must be at the 2000 level or above.

- ACST 1000 Making Sense of Atlantic Canada
- a minimum of 3 credit hours in ACST 4000-level courses
- 18 credit hours from Group A below
- 24 credit hours from Group B below

Honours in Atlantic Canada Studies

To complete an honours program in Atlantic Canada Studies, a student must meet the usual University requirements for the Bachelor of Arts (Honours) degree, and in particular, obtain sixty (60) credit hours from the courses listed below with a minimum GPA of 3.00. At least 48 credit hours must be at the 2000 level or above.

- ACST 1000 Making Sense of Atlantic Canada
- a minimum of 3 credit hours in ACST 4000-level courses
- ACST 4500 Honours Seminar
- 21 credit hours from Group A below
- 24 credit hours from Group B below
- 3 credit hours from either Group A or B

Concentration in Atlantic Canada Studies

To complete a concentration in Atlantic Canada Studies, a student must meet the usual University requirements for the Bachelor of Arts degree, and in particular, obtain twenty-four (24) credit hours from the courses listed below with a minimum GPA of 2.00. At least 18 credit hours must be at the 2000 level or above.

- ACST 1000 Making Sense of Atlantic Canada
- a minimum of 3 credit hours in ACST 4000-level courses
- 18 credit hours from Group A below

Minor in Atlantic Canada Studies

To complete a minor in Atlantic Canada Studies, a student must obtain twenty-four (24) credit hours from the courses listed below with a minimum GPA of 2.00. At least 12 credit hours must be at the 2000 level and above.

- ACST 1000 Making Sense of Atlantic Canada
- 12 credit hours from Group A below
- 9 credit hours from Group B

Certificate in Atlantic Canada Studies

The Certificate in Atlantic Canada Studies is designed to meet the needs of students who wish to develop a more nuanced understanding of the region. It will be attractive for students from within Atlantic Canada who wish to improve their knowledge of the local culture that shapes and surrounds them. As well, it provides a valuable educational option for international students travelling abroad who may wish to follow an intense, but carefully planned curriculum that combines a variety of different academic opportunities into a one-year program of study. By creating a classroom environment where local and international students share their different perspectives on the region, the certificate stimulates a useful exchange of ideas and fully integrates the study of Atlantic Canada into a broader national and global analytical framework.

By striking this balance between courses that are tightly focused on the study of the region, and supplementary classes designed to provide a broader Canadian context, the certificate provides students with a more nuanced and comprehensive understanding of Atlantic Canada's historical, political, economic and cultural life, as well as the region's natural environment.

To complete the Certificate, students are required to complete the following twenty-four (24) credit hours.

- 15 credit hours from Group A below
- 9 credit hours from Group B below

Admission requirements for the Certificate in Atlantic Canada Studies

The Certificate in Atlantic Canada Studies requires a formal application for admission and the official approval of the Undergraduate Coordinator for Atlantic Canada Studies. Students applying for admission to the program must have completed thirty (30) credit hours of undergraduate study at an accredited university or must show a demonstrated interest in the field. Students majoring in Atlantic Canada Studies at Saint Mary's University are not eligible for this program.

Students admitted to the program must complete at least eighteen (18) credit hours at Saint Mary's University. The official approval of the Undergraduate Coordinator for Atlantic Canada Studies is required for credit hours completed at another institution to be included in the certificate program.

Group A

Atlantic Canada Studies

ACST 1000 Making Sense of Atlantic Canada
ACST/IRST 1203 Scottish Gaelic I
ACST/IRST 1204 Scottish Gaelic II
ACST 2311 Inheriting Atlantic Canada: The Cultural Past
ACST 2313 Researching Atlantic Canada
ACST/HIST 2340 History of Atlantic Canada
ACST/ENGL 2380 Literature of Atlantic Canada
ACST 2400 Health and Social Policy in Atlantic Canada
ACST 2826–2849 Selected Topics in Atlantic Canada Studies I
ACST 3303 Higher Education in Atlantic Canada
ACST 3305 Moving Images of Atlantic Canada
ACST 3312 Living in Atlantic Canada : The Cultural Present
ACST 3321 African Nova Scotian Culture
ACST/IRST 3325 The Irish and Atlantic Canada
ACST/GEOG 3340 Geography of Nova Scotia
ACST/HIST 3470 The British Black Atlantic
ACST 3826–3849 Selected Topics in Atlantic Canada Studies II
ACST 4411 Atlantic Canada Seminar I
ACST 4412 Atlantic Canada Seminar II
ACST 4500 Honours Seminar
ACST 4511 - 4512 Honours Seminar
ACST/HIST 4565 Scottish Migration
ACST 4876-4899 Directed Readings

Anthropology

ANTH 2316 Native Peoples of Canada
ANTH 3379 The Archeology of Acadia

ANTH 4466 Researching Halifax Heritage

Economics

ECON 3324 The Atlantic Economy
ECON 3325 Atlantic Economy Seminar
ECON 3361 Fisheries Economics

English

ENGL/LING 3312 Canadian English
ENGL 4462 Native North American Literature

Environmental Science

ENVS 3310 Field Course in Environmental Science

Geography

GEOG 3340 Geography of Nova Scotia
GEOG 3454 Bay of Fundy: Environments and Issues

Geology

GEOG 1202 Planet Earth: the Atlantic Canadian
Perspective
GEOG 1203 Earth History: Atlantic Canada Perspective
GEOG 1208 Environmental Geology: Atlantic Canada

History

HIST 2327 France and New France
HIST 2346 Black Heritage in Maritime Canada
HIST 4501 Public History

Political Science

POLI 2307 Provincial Government and Politics

Religious Studies

RELS 4390 Religion and Society in Atlantic Canada

Sociology

SOCI 3310 Society and the Environment

Group B

Atlantic Canada Studies

ACST/IRST 2327 Scottish Gaelic – Intermediate
ACST/IRST 2328 Scottish Gaelic – Intermediate II

Anthropology

ANTH 3329 The Arctic Cultural Area
ANTH 3377 Urban Anthropology
ANTH 3378 Landscape Archeology
ANTH/LING 3395 Language Issues and Use in Northern
Canada
ANTH 3396/LING Language Issues and Use in Southern
Canada
ANTH 4462 Method and Theory in Historical Archeology

Criminology

CRIM 3508 Corporate Crime
CRIM 3512 Youth Justice Philosophy, Models and
Systems

Economics

ECON 3307 Money and Banking
ECON 3318 Public Finance: Expenditure
ECON 3319 Public Finance: Taxation
ECON 3322 Canadian Economic Issues
ECON 3340 Human Resource Economics

ECON /WMST 3349 Women and the Economy
ECON 3362 Natural Resource Economics
ECON 3363 Environmental Economics

Education

EDUC/SOCI 3307 Sociology of Education

English

ENGL 3343 Cultural Studies
ENGL 3344 Canadian Literature to 1920
ENGL 3345 Canadian Literature after 1920
ENGL 3367 Canlit: the 60s and 70s
ENGL 3437 Canadian Drama
ENGL 3471 Contemporary Canadian Fiction
ENGL 3472 Contemporary Canadian Poetry
ENGL 4463 Imagining the North in Canadian Literature

Environmental Science

ENVS/BIOL 1203 Biology and the Human Environment
ENVA 4440 Environmental Policy

Finance

FINA 3364 Canadian Securities
FINA 4466 Investments
FINA 4471 Financial Institutions

French

FREN 3312 Introduction to Quebec Culture
FREN/WMST 4434 Women's Literature in French Canada
FREN/LING 4440 Canadian French
FREN 4451 Quebecois Literature I
FREN 4452 Quebecois Literature II

Geography

GEOG 2310 Geography of Canada: Overview
GEOG 2315 The Oceans
GEOG 4434 Watershed Management
GEOG 4449 Tourist Geographies

History

HIST 1252 Canada to Confederation
HIST 1253 Canada: Confederation to the Present
HIST 1260 History of the Americas
HIST 3100 Canadian Women
HIST 3403 Invention of Canada
HIST/IRST 4566 Irish Migration

Linguistics

LING/SOCI 2339 The Sociology of Language

Management

MGMT 4498 Small Business Consultancy

Political Science

POLI 1240 Politics and Business
POLI 2304 Canadian Politics in the 21st Century
POLI 2310 Government and the Media
POLI 2450 Women and Canadian Politics
POLI 3315 Canadian Foreign Policy

Religious Studies

RELS 1220 Introduction to Religion
RELS 1221 Introduction to Religious Experience

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- RELS 3354 Aboriginal Peoples, Religion, and the Justice System
RELS 3355 Religion and Social Issues in Canada
RELS 3358 Religious Diversity in Canada

Sociology

- SOCI 3336 Sociology and Work
SOCI 4381 Gender, Race, Class and Canadian Immigration Policy
SOCI/WMST 4548 Feminist Analysis

Course Descriptions

1000 Making Sense of Atlantic Canada

3 credit hours

This course provides an introduction to the Atlantic Provinces. It will examine specific content areas from multiple perspectives, including cultural industries, health and social services, environmental issues, economic development, and representations of the region. This course is intended as an introduction to Atlantic Canada Studies and to interdisciplinary inquiry.

1203 Scottish Gaelic - Introductory I [IRST 1203]

3 credit hours

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.

1204 Scottish Gaelic - Introductory II [IRST 1204]

3 credit hours

Prerequisite: ACST/IRST 1203.

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.

2311 Inheriting Atlantic Canada : The Cultural Past

3 credit hours

Prerequisite: A minimum of twenty-four (24) university credit hours.

Ideas, attitudes, and assumptions about Atlantic Canada have been influenced by social, cultural, political, religious, and ethnic traditions inherited from the past. The curriculum of this course covers a wide range of topics from gender, refinement, material culture, dress, food, and conspicuous consumption, to political choices and ethnic biases. Lectures, readings, class discussions, and mixed media demonstrate how historical events and previous ways of behaving and thinking continue to influence social and cultural customs and decision-making.

2313 Researching Atlantic Canada

3 credit hours

Prerequisite: a minimum of twenty-four (24) credit hours.

There are many ways of interpreting the Atlantic Canadian experience. Individual disciplines (such as history,

sociology, anthropology, economics, and 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.

2327 Scottish Gaelic - Intermediate I

3 credit hours

Prerequisite: IRST 1203 and 1204.

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.

2328 Scottish Gaelic - Intermediate II

3 credit hours

Prerequisite: IRST 2327 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.

2340 History of the Atlantic Provinces [HIST 2340]

6 credit hours

Commencing with the earliest Native-European contact in the Atlantic Provinces, this course begins with an examination of the interactions among the peoples who inhabited the region up until the mid-nineteenth century. Students will consider debates over the possible entry of the Atlantic colonies into the Canadian Confederation. The course ends with units that pay special attention to the social, economic, and political characteristics of the region during the twentieth century and beyond.

2380 Literature of Atlantic Canada [ENGL 2380]

6 credit hours

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.

2400 Health and Social Policy in Atlantic Canada

3 credit hours

This course is an exploration of the development of health and social policy in Atlantic Canada. The evolution of the welfare state, hospitals, training for health care workers, and contemporary health issues are examined.

2826 – 2849 Selected Topics in Atlantic Canada Studies**I**

3 credit hours

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.

3305 Moving Images of Atlantic Canada

3 credit hours

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.

3310 The Atlantic Fisheries

6 credit hours

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 of 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.

3312 Living in Atlantic Canada

3 credit hours

This course examines on-going societal issues facing Atlantic Canadians. In a seminar setting, student teams and weekly guest speakers from non-government organizations, engage students in lively presentations about the current challenges facing those living and working in this region. Topics include arts and culture, poverty and homelessness, women, youth, crime, addictions, and concerns faced by aboriginal, black, Muslim, and immigrant communities. The structure of this course provides students a unique learning environment.

NOTE: To maintain the structure of ACST 3312, it should be limited to 30 students, and as a 3000 level course not recommend to first year students.

3320 Gender in Atlantic Canada

3 credit hours

Prerequisite(s): 6 credit hours in ACST or permission

Issues related to gender in Atlantic Canada are examined, including the individual body, the family, the economy, and the state. The experiences of women, men, and those who do not identify with either category are considered. Topics may include the gendering of government policy, class and

cross-cultural perspectives on gender, and the gendered nature of work through examples drawn from throughout Atlantic Canada.

3321 African Nova Scotian Culture

3 credit hours

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.

3325 The Irish and Atlantic Canada [IRST 3325]

3 credit hours

Prerequisite: 30 credit hours and ACST 1000 or permission of instructor

This interdisciplinary course will offer a survey of the history and culture of people of Irish descent in the Atlantic Region. Topics will include Irish settlement in the Atlantic Region, religion and politics, sectarian conflict, social status, community organizations and contemporary Irish identity in the Atlantic Region.

3340 Geography of Nova Scotia [GEOG 3340]

3 credit hours

Prerequisite: at least thirty (30) credit hours.

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.

3470 The British Black Atlantic [HIST 3470]

3 credit hours

The term the “Black Atlantic” has been used to describe the interconnected nature of Black communities in the Atlantic world. This course examines the British dimension of that transatlantic experience. Among topics covered are: Britain’s involvement in African slavery, the migration of Black Loyalists to Nova Scotia and Sierra Leone, and the nature of the Black community in the United Kingdom.

3826 – 3849 Selected Topics in Atlantic Canada Studies**II**

3 credit hours

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.

4400 Health, Illness and Disease in Atlantic Canada

3 credit hours

Prerequisite(s): ACST 1000 and 6 credit hours in ACST or permission of the instructor

This seminar is an examination of health and medicine in contemporary Atlantic Canada through an interdisciplinary perspective. Emphasis is placed on the organization of health services, health policy, the role of voluntary groups and agencies, and the experiences of health and illness in a regional context.

4411 Atlantic Canada Seminar I

3 credit hours

Prerequisite: a minimum of thirty (30) credit hours.

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.

4412 Atlantic Canada Seminar II

3 credit hours

Prerequisite: ACST 4411

This course will continue the work of ACST 4411. 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.

4500 Honours Seminar

6 credit hours

Prerequisite: a minimum of sixty (60) credit hours.

These courses will provide an opportunity for honours students to integrate their knowledge in an interdisciplinary fashion.

4511 - 4512 Honours Seminar

3 credit hours

Prerequisite: a minimum of sixty (60) credit hours.

These courses will provide an opportunity for honours students to integrate their knowledge in an interdisciplinary fashion.

4565 Scottish Migration [HIST 4565]

3 credit hours

From the late eighteenth to the middle of the twentieth century, Scotland had one of the highest emigration rates in Europe. This seminar course will examine a wide range of literature that discusses Scottish migration to various overseas destinations in order to place the Scottish presence in Nova Scotia in historical context.

4876 - 4899 Directed Readings

3 credit hours

Prerequisite: permission of ACST Coordinator.

These courses provide opportunities to study a particular subject in detail. They will normally require a considerable amount of independent, though supervised, study.

Biology (BIOL)

Chairperson	H. Broders
Professors	C. Barber, H. Broders, D. Cone, Z. Dong, T. Rand, D. Strongman, G. Sun, K. Vessey
Associate Professors	S. Bjornson, T. Frasier, J. Lundholm, R. Russell
Lecturer	D. Dansereau
Adjunct Professors	M. Agbeti, S. Basquill, T. Franz-Odendaal, K. Harper, M. Jones, G. Kernaghan, B. Pardy, M. Qaderi
Professor Emeritus	A. Rojo
Dean Emeritus	D. Richardson

Department website: www.smu.ca/academic/science/biology

The Department offers a concentration, major, honours, and minor in biology. The major in Biology has two recommended tracks: Pre-Health Sciences and Ecology and Evolution. It is possible to complete a Biology program by selecting courses from both tracks. A double major or double honours in Biology and another science can be done. Students may pursue a cooperative education option. See the Cooperative Education Office for details.

The Department trains graduate students through the MSc in Applied Science program. Consult the Graduate Academic Calendar for details.

Major in Biology

For a major in Biology, students must complete the following, which include courses that apply to the general requirements for the Bachelor of Science (see Section 3 for details on the requirements for BSc with major):

- Six (6) credit hours in Mathematics at the 1210-level or above.
- BIOL 1201 Molecular and Cell Biology
- BIOL 1202 Organismal and Ecological Biology
- CHEM 1210 General Chemistry I
- CHEM 1211 or CHEM 1212 General Chemistry II (note specific MATH pre-requisites)
- Any five of the six 2000-level Biology courses (15 credit hours)
 - BIOL 2004 Cell Physiology and Metabolism
 - BIOL 2307 Genetics
 - BIOL 2308 Biostatistics
 - or PSYC 2350 Psychological Statistics (Students will not receive credit for both)
 - BIOL 2321 Cell Biology I

- BIOL 2324 Ecology
- BIOL 2423 Evolution
- One of either CHEM 2344 or CHEM 2346
- 24 credit hours of Biology electives at the 3000 and 4000-level, with at least 9 credit hours at each of the 3000 and 4000 level.

Up to six (6) credit hours of BIOL electives may be substituted with any of the following:

ANTH 3471 Forensic Skeletal Identification
 ANTH 3472 Forensic Skeletal Analysis
 CHEM 3451 Introductory Biochemistry
 CHEM 4452 Biochemistry: Metabolism
 PSYC 2350 Psychology Statistics (Group C)
 PSYC 4407 Introduction to Ethnology

Note that these courses cannot count simultaneously as Biology electives and “other Science electives” (Regulation 6e) or Arts electives (Regulation 6c) for the Bachelor of Science with major.

Recommended Tracks for Biology Majors

Note that the prerequisites required for courses listed in the two tracks may not appear in each of the lists below. Students will not be able to enroll in a course without the prerequisites.

1) Pre-Health Sciences Track

The Pre-Health Sciences Track is for students interested in pursuing careers in Medicine, Dentistry, Pharmacy, Optometry, Veterinary Medicine, Chiropractic, Genetic Counseling, Hospital Administration, Medical Technology and Diagnostics, Nursing, Paramedical Services, Physiotherapy and Podiatry. It provides all of the foundation courses usually required for admission to these programs. The track also accommodates interests in specialty topics such as Cell and Molecular Biology, Genetics, Histology, Microbiology and Physiology. Students are encouraged to enroll in health related electives in Arts and Business that complement this track. Details on the admission requirements to health profession programs can be obtained from the Science Academic Advisor.

Recommended Pre-Health Biology courses:

BIOL 3001 Principles of Pharmacology and Toxicology
 BIOL 3003 Biological Techniques
 BIOL 3005 Human Organ Systems
 BIOL 3100 Biology of Human Health
 BIOL 3398 Microbiology
 BIOL 3420 Cell Biology II
 BIOL 3426 Animal Tissues
 BIOL 4004 Advanced Biostatistics
 BIOL 4010 Biology of Cancer
 BIOL 4411 Medical and Veterinary Parasitology
 BIOL 4414 Environmental Microbiology
 BIOL 4408 Animal Developmental Biology
 BIOL 4419 Molecular Biology
 BIOL 4432 Medical and Veterinary Entomology
 BIOL 4433 Ecotoxicology

PHYS 1000 or 1001 may be required for some health profession programs. Students are encouraged to take CHEM 2345 or 2346

2) Ecology and Evolution Track

This track is intended for students wishing to pursue careers as biologists with government or private labs, teachers, or those pursuing graduate study.

BIOL 3002 Entomology
 BIOL 3003 Biological Techniques
 BIOL 3006 Animal Ecophysiology
 BIOL 3303 Plant Form and Function
 BIOL 3304 Animal Form and Function
 BIOL 3329 Systematics
 BIOL 3402 Population Genetics
 BIOL 3412 Ecology of Animal Parasites
 BIOL 3416 Mycology
 BIOL 3420 Cell Biology II
 BIOL 3421 Applied Plant Biology
 BIOL 3424 Diversity and Ecology in Fishes
 BIOL 4003 Molecular Ecology
 BIOL 4004 Advanced Biostatistics
 BIOL 4006 Plant-microbe Interactions
 BIOL 4007 Bioinformatics and Genomics
 BIOL 4331 Ecosystems
 BIOL 4404 Behavioural Ecology
 BIOL 4410 Plant Ecology
 BIOL 4419 Molecular Biology
 BIOL 4422 Conservation Biology
 BIOL 4430 Ornithology
 BIOL 4431 Herpetology
 BIOL 4433 Ecotoxicology
 BIOL 4434 Communication and Defense in Biological Systems
 BIOL 4448 Biology Field Course
 BIOL 4451 Ecology in the Tropics

Suggested Schedule

The following Schedule is suggested for students taking the Biology major program:

Year 1:

- ENGL 1205 Introduction to Literature
- BIOL 1201 Molecular and Cell Biology
- BIOL 1202 Organismal and Ecological Biology
- CHEM 1210 General Chemistry I
- CHEM 1211 or CHEM 1212 General Chemistry II (note specific MATH pre-requisites)
- Six (6) credit hours in Mathematics at the 1210-level or above.
- Six (6) credit hours from Arts or Economics
- Three (3) credit hours from humanities

Year 2:

- Five of the six 2000-level Biology courses (15 credit hours)
 - BIOL 2004 Cell Physiology and Metabolism
 - BIOL 2307 Genetics
 - BIOL 2308 Biostatistics or PSYC 2350 Psychological Statistics
 - BIOL 2321 Cell Biology I

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- BIOL 2324 Ecology
- BIOL 2423 Evolution
- CHEM 2344 Organic Chemistry I or 2346 Organic Chemistry for Life Sciences
- Six (6) credit hours non-Biology science
- Three (3) credit hours in the humanities
- Three (3) credit hours of electives

Year 3:

- Twelve (12) credit hours BIOL at the 3000 level or above
- Nine (9) credit hours non-Biology science
- Three (3) credit hours from Arts or Economics
- Six (6) credit hours of electives

Year 4:

- Twelve (12) credit hours BIOL at the 4000 level or above
- Eighteen (18) credit hours of electives

Double Major in Biology

To complete a double major in Biology and another science, students must complete all of the major requirements above, except that they need only complete eighteen (18) credit hours of BIOL electives at the 3000 and 4000-level, with at least six (6) credit hours at each of the 3000 and 4000-levels.

Honours in Biology

Students with a cumulative GPA of 3.00 or above are encouraged to apply for admission to the honours program. Students must secure a supervisor for the honours thesis (BIOL 4500) before applying in the honours program. Check the Department website for research interests of the faculty. For honours in Biology, students must fulfill the major requirements plus

BIOL 4549 Honours Seminar

BIOL 4500 Honours Thesis

Three (3) additional credit hours in Biology at the 3000-level and three (3) additional credit hours in Biology at the 4000-level, for a total of 30 credit hours of Biology electives at the 3000 and 4000-level, with at least 12 credit hours at each of the 3000 and 4000-levels.

Students must achieve a Degree GPA of 3.00 or above on all those courses presented in fulfillment of the Bachelor of Science with Honours in Biology requirements.

Double Honours in Biology

The requirements from biology for Double Honours (which includes Biology) are the same as those for the major, plus BIOL 4549 Honours Seminar
BIOL 4500 Honours Thesis

Students must achieve a Degree GPA of 3.00 or above on those courses presented in fulfillment of the Bachelor of Science with Honours in Biology requirements.

Concentration in Biology:

Students interested in a career in the health professions are advised not to pursue a 3 year BSc with concentration in Biology as a 4 year degree is required for admission to most programs.

Requirements for a 3 year BSc with concentration in Biology are as follows (in addition to the normal requirements for the Bachelor of Science):

- Six (6) credit hours in Mathematics at the 1210-level or above.
- CHEM 1210 General Chemistry I
- CHEM 1211 or CHEM 1212 General Chemistry II (note specific MATH pre-requisites).CHEM 2344 Organic Chemistry I or CHEM 2346 Organic Chemistry for Life Sciences
- BIOL 1201 Molecular and Cell Biology
- BIOL 1202 Organismal and Ecological Biology
- Any five of the six 2000-level Biology courses (15 credit hours)
 - BIOL 2004 Cell Physiology and Metabolism
 - BIOL 2307 Genetics
 - BIOL 2308 Biostatistics
 - or PSYC 2350 Psychological Statistics
 - BIOL 2321 Cell Biology I
 - BIOL 2324 Ecology
 - BIOL 2423 Evolution

Nine (9) credit hours of BIOL at the 3000 level or above

Minor in Biology:

Requirements for a minor in Biology are:

- BIOL 1201 Molecular and Cell Biology
- BIOL 1202 Organismal and Ecological Biology
- Any five of the six 2000-level Biology courses (15 credit hours)
 - BIOL 2004 Cell Physiology and Metabolism
 - BIOL 2307 Genetics
 - BIOL 2308 Biostatistics
 - or PSYC 2350 Psychological Statistics
 - BIOL 2321 Cell Biology I
 - BIOL 2324 Ecology
 - BIOL 2423 Evolution

Nine (9) other credit hours in BIOL at the 3000-level or above.

Course Descriptions

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. Biology majors must achieve a minimum grade of C in all BIOL courses applied to their degree.

1201 Molecular and Cell Biology

3 credit hours

Prerequisite: Nova Scotia Grade 12 BIO or equivalent.

An introductory study of the principles and organization of life including molecular, cell biology and heredity.

1202 Organismal and Ecological Biology

3 credit hours

Prerequisite: Nova Scotia Grade 12 BIO or equivalent.

An introductory study of the principles and organization of life including anatomy, form and function, physiology, life history and ecology.

1203 Biology and the Human Environment [ENVS 1203]

6 credit hours

This course has no lab component.

This course is intended for non-science majors. A range of current environmental challenges are addressed from a biological perspective. Topics include natural resource practices on a local and global scale; and their effects on biodiversity, ecosystem health, human health, and sustainability. Students will gain a better understanding of how these practices may be changed and the associated challenges.

Note: This course may not be used to satisfy the B.Sc. requirements of a science elective under regulations 3(e), 6(e), and 12(b).

1204 Biology and the Human Environment I

3 credit hours

This course has a lab component

A range of current environmental challenges are addressed from a biological perspective. Topics include natural resource practices on a local and global scale; and their effects on biodiversity, ecosystem health, human health, and sustainability. Students will gain a better understanding of how these practices may be changed and the associated challenges. Students attend the same lectures as those students enrolled in 1203, first semester.

Note: Students may not receive credit for both BIOL 1203 and BIOL 1204.

1205 Biology and the Human Environment 2

3 credit hours

This course has a lab component

A range of current environmental challenges are addressed from a biological perspective. Topics include natural resource practices on a local and global scale; and their effects on biodiversity, ecosystem health, human health, and sustainability. Students will gain a better understanding of how these practices may be changed and the associated challenges. Students attend the same lectures as those students enrolled in 1203, second semester. Biology and the Human Environment I is not a prerequisite for this course.

Note: Students may not receive credit for both BIOL 1203 and BIOL 1205

2004 Cell Physiology and Metabolism

3 credit hours

Prerequisite: BIOL 1201

This course is designed to provide a thorough understanding of the life-sustaining physiological and biophysical concepts associated with cell and tissue processes (including those of humans). Topics covered include membrane structure and function, enzymes and enzyme kinetics, bioenergetics, signal transduction, regulation and homeostasis.

2307 Genetics

3 credit hours

Prerequisite: BIOL 1201

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.

2308 Biostatistics

3 credit hours

Prerequisite: BIOL 1202

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.

NOTE: Students will not receive credit for both BIOL 2308 and any of MATH 1216, PSYC 2350, GEOG 3326, MGSC 2207, SOCI 3102, or CRIM 3102.

2321 Cell Biology I

3 credit hours

Prerequisite: BIOL 1201

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.

2324 Ecology

3 credit hours

Prerequisite: BIOL 1202

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.

2423 Evolution

3 credit hours

Prerequisite: BIOL 1201 and BIOL 1202

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.

3001 Principles of Pharmacology and Toxicology

3 credit hours

Prerequisite: BIOL2004 and BIOL 3005 (formerly BIOL 2005)

This course is designed to provide students with a working knowledge of the fundamental principles of pharmacology and toxicology. This course will emphasize the basic concepts required to understand drug/toxin action and disposition. The second unit will cover topics that are related to the pharmacological management of pathologies associated with selected body systems and will include antimicrobial agents. In addition, the effect of environmental toxicants on selected body systems will be studied.

3002 Entomology

3 credit hours

Prerequisite: BIOL 3304 (formerly BIOL 2001), or BIOL 2326

An introduction to the fascinating world of insects, their anatomy, physiology, taxonomy and ecology. Topics covered include the impact of insects on human activities, adaptations in insects that suit their habitat, and biological control.

3003 Biological Techniques

3 credit hours

Prerequisite: BIOL 1201 and 1202

This course examines fundamental concepts and field and laboratory methods in Biology. Students will get exposure to basic biological techniques including: use and calibration of microscopes; use of dichotomous keys for identification of organisms; separation and quantitation techniques; sterile technique; safety and quality control procedures; as well as basic ecological sampling methods.

3005 Human Organ Systems

3 credit hours

Prerequisite: BIOL 2004

This course is designed to provide the student with an understanding of the organ and system levels of the human body. Unifying themes of anatomy and physiology including the interrelationships of body organ systems, homeostasis and complementarities of structure and function will be emphasized. Topics covered in this course will include integumentary, skeletal, nervous, endocrine and muscular systems. Problem-based learning tutorials will allow students to apply their knowledge to clinical situations.

3006 Animal Ecophysiology

3 credit hours

Prerequisite: BIOL 2004

This course addresses the diversity of physiological adaptations of vertebrates to their environment. Topics covered include the interrelationship between physiology and ecology, and the effects of environmental factors such as temperature, pH, salinity and oxygen debt on animal activity.

3100 Biology of Human Health

3 credit hours

Prerequisite: BIOL 1201 and 1202

This course will provide students with scientific knowledge of the human body and factors that affect the health and wellness of humans. Specific topics will include: (1) Body organization, (2) Human development, maturity and aging and the effects of external factors on these processes, (3) General mechanisms of homeostasis and examples of clinical conditions that may occur when the body is out of homeostasis, (4) Human disease and transmission/tracking of human pathogens, and (5) Effects of fitness and nutrition on human health. Students will develop critical thinking skills as well as scientific writing and presentation skills. This course will be a valuable introduction for students interested in pursuing a career related to human health or veterinary medicine.

3303 Plant Form and Function

3 credit hours

Prerequisite: BIOL 1201 and 1202

Taxonomic treatment of major plant phyla (including nonvascular and vascular plants) with reference to anatomy, function and ecological significance.

3304 Animal Form and Function

3 credit hours

Prerequisite: BIOL 1201 and 1202

This course will introduce students to the taxonomic treatment of major animal phyla with reference to anatomy, function and ecological significance.

3329 Systematics

3 credit hours

Prerequisite: BIOL 1201 and BIOL 1202

This course examines the fundamentals of animal and plant systematics including rules of nomenclature, the basis of classification, and the theory of phylogenetics.

3398 Microbiology

3 credit hours

Prerequisite: BIOL 1201 and BIOL 1202

This course is an introduction to the world of microorganisms, the means by which they are studied, and their role in human disease. Topics may include: the origin and discovery of microbial life; structure and function of prokaryotic cells; cell growth and development; and the role of bacteria, fungi, viruses and protozoa with respect to the development of human disease.

3402 Population Genetics

3 credit hours

Prerequisite: BIOL 2307

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.

3416 Mycology

3 credit hours

Prerequisites: BIOL 1202

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. Important physiological processes, growth and metabolism will also be discussed.

3420 Cell Biology II

3 credit hours

Prerequisite: BIOL 2321

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.

3421 Applied Plant Biology

3 credit hours

Prerequisite: BIOL 3303 (formerly BIOL 2303)

The application of botany, plant physiology and anatomy and plant ecology to the problems of human societies. An introduction to the study of plants used by people, their origin, domestication, botany, cultivation, harvesting, uses, diseases, breeding, and their role in the modern world economy. Plants and plant products of industrial importance, medicinal plants, food plants, psychoactive plants, and food additives will be examined in detail.

3424 Diversity and Ecology of Fishes

3 credit hours

Prerequisite: BIOL 2324

The study of ecology of fishes, their classification, life history and global distribution. The laboratory portion of the course emphasizes study of representatives of world taxa and the fishes of Nova Scotia.

3426 Animal Tissues

3 credit hours

Prerequisite: BIOL 3005 (formerly BIOL 2005)

An introduction to the structure and function of animal tissues. Laboratory work will involve the interpretation of histological preparations of representative vertebrate tissues.

4001 Forensic DNA Typing [FRSC 4001]

3 credit hours

Prerequisite: BIOL 2307

The course is designed for students interested in applying DNA analysis to the study of populations both in and outside the field of forensics. The course provides students with an opportunity to learn all aspects of common forensic DNA typing protocols, and the interpretation of results. Topics include the theory behind the practice of each step in the protocol. Protocols and procedures selected for study and practice are those currently used by the RCMP. The lab component is an integral part of the course in which the same protocols are put into practice using the students' own DNA samples. Upon completion of the course, students will have constructed their own DNA profile; it will be compared to those in existing databases.

4003 Molecular Ecology

3 credit hours

Prerequisite: BIOL 3402 and BIOL 4419

This course introduces students to current molecular biology techniques and associated analyses that are most frequently used in ecological research will be covered. Specific applications of molecular ecology in natural populations of animals, microbes and plants will be discussed. This course will give students conceptual understanding of molecular techniques and their application in natural populations.

Three hours per week.

4004 Advanced Biostatistics

3 credit hours

Prerequisite: BIOL 2308 or PSYC 2350

This course will provide students with the basic tools to design and conduct biological experiments. Topics will include analysis of variance, regression, multivariate analysis, nonparametric methods, and model selection.

4006 Plant-microbe Interactions

3 credit hours

Prerequisite: BIOL 3303 (formerly BIOL 2303)

This course will cover some of the practical aspects of plant microbial relationships such as viruses, bacteria, fungi and some protists..

4007 Bioinformatics and Genomics

3 credit hours

Prerequisite: BIOL 4419

This course provides an introduction and overview to the fields of bioinformatics and genomics, covering genomics technologies, bioinformatics technologies and their use in analysis and interpretation of genomics data. The aim is to provide practical descriptions of the topics, tools and current trends instead of the theoretical and computational aspects of the field.

4010 Biology of Cancer

3 credit hours

Prerequisites: BIOL 2321 and 2307

Current models of the nature of cancer and how cancer arises in a multicellular body are explored. Topics include the molecular processes that control normal growth and development, including oncogenes, tumor suppressors, the cell cycle, cell death, and cell communication. The course is an exploration of how these molecular machines act inappropriately in cancer cells, and how this knowledge is influencing anti-cancer therapies.

4331 Ecosystems

3 credit hours

Prerequisite: BIOL 2324

Development of the ecosystem concept in modern Biology. Specific topics include energy and material flow, food webs, ecosystem engineers, directionality and succession and ecosystem health.

4404 Behavioral Ecology

3 credit hours

Prerequisite: BIOL 2324 and BIOL 2308 or PSYC 2350 or MATH 1216

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.

Note: Students cannot receive credit for BIOL 4404 and PSCY 4407.

4408 Animal Developmental Biology

3 credit hours

Prerequisite: BIOL 2004

Early developmental processes involved in the transformation of the fertilized egg into a new individual.

4410 Plant Ecology

3 credit hours

Prerequisite: BIOL 3303 (formerly BIOL 2303) and BIOL 2324)

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.

4411 Medical and Veterinary Parasitology

3 credit hours

Prerequisite: BIOL 3304

The study of animal parasites of humans and domesticated animals. The taxonomy, life cycle and epidemiology of protists and helminthes are emphasized. Laboratory work involves microscopic diagnostics of the important parasite species.

4414 Environmental Microbiology

3 credit hours

Prerequisite: BIOL 3398 (formerly BIOL 2398)

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).

4419 Molecular Biology

3 credit hours

Prerequisite: BIOL 2307 and CHEM 2344 or 2346

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.

4422 Conservation Biology

3 credit hours

Prerequisite: BIOL 2324

This course introduces how principles of evolutionary-ecology can be applied to help us understand how human exploitation of natural resources affects biodiversity. The course will characterize biodiversity and explore topics such as the biology of small populations, conservation genetics, ecological economics, and landscape ecology. In the lab students explore current topics in Conservation Biology through critiques, population modeling and independent research.

4430 Ornithology

3 credit hours

Prerequisite: BIOL 2324

Introduction to bird biology that covers morphology, classification, life history, and behavior. Labs provide hands-on experience and complement lectures.

4431 Herpetology

3 credit hours

Prerequisite: BIOL 2324

Herpetology is the study of amphibians and reptiles. Topics include ecology, natural history, form and function of amphibians and reptiles with emphasis on Nova Scotia herpetofauna.

4432 Medical and Veterinary Entomology

3 credit hours

Prerequisite: BIOL 3002 (formerly BIOL 2427)

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 vector borne pathogens, and the mechanisms of vector and disease control.

4433 Ecotoxicology

3 credit hours

Prerequisite: BIOL 2324 and CHEM 1212

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.

4434 Communication and Defense in Biological Systems

3 credit hours

Prerequisites: BIOL 3303 (formerly BIOL 2303) and BIOL 2324

This course explores the ecological interrelationships between plants and animals and the ways in which they use chemicals to communicate, attract mates, and protect themselves from predators. Topics include the chemical and morphological adaptations of insect defense, plant toxins and their effects on animals, insect and animal venoms, plant and fungal hallucinogens, hormonal and chemical interactions between

plants and animals, animal pheromones, and plant allelopathy and its ecological importance.

4448 Biology Field Course

3 credit hours

Prerequisite: BIOL 2324, and BIOL 2308 or PSYC 2350 or MATH 1216

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.

Note: Enrolment in this course is limited. Normally this course is held over 10-12 consecutive days and nights at an off-campus site.

4451 Ecology in the Tropics

3 credit hours

Prerequisites: BIOL 2324, BIOL 2308 or PSYC 2350 or MATH 1216 and application to the department.

This course will provide students with an opportunity to study ecology of a tropical environment, the highlight of which will be a field trip to a tropical location where students will be able to immerse themselves into a tropical environment. Prior to departure students will present and attend seminars on subjects pertinent to the ecology of the tropical field site to be visited. Further, students will design a research project on some aspect of tropical ecology prior to departure to the tropical site, collect data for the project while in the tropics and write a report on the research upon return to Saint Mary's University.

Note: Students are responsible for travel and living costs associated with the course, as well as tuition. Enrolment is limited and admission is by application to the Biology Department, contact the chair for details. This course occurs over a period of 10-12 days and nights at an off-campus location.

4500 Research Thesis

6 credit hours

Prerequisite: honours 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.

4549 Honours Seminar

6 credit hours

Prerequisite: honours standing.

Seminars followed by discussions based on recent advances in biology. In consultation with the honours advisor, the honours students will select and prepare the topics for presentation to biology faculty and students.

4876 - 4899 Directed Study in Biology

3 credit hours

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.

Chemistry (CHEM)

Chairperson	M. Lamoureux (acting)
Professors	J. Clyburne (Canadian Research Chair [Tier II] in Environmental Science & Materials, cross appointed with ENVS), R. Singer, K. Vaughan
Associate Professors	M. Lamoureux, J. Masuda, A. Piorko, C. Pye, K. Singfield
Assistant Professor	C. Brosseau
Lecturer	M. Sheppard
Adjunct Professors	D. Gamble, J. MacNeil, C. Matta, I. Pottie
Professors Emeriti	J. Murphy, J. Young
Dean Emeritus	W. Bridgeo

Department website:
www.smu.ca/academic/science/chemist/

The program offerings of the Department of Chemistry are designed to meet two main objectives:

a. to provide a rigorous core education in the theory and practice of chemistry for students pursuing a Bachelor of Science degree with Honours, Major, Minor, or Concentration in Chemistry;

b. to provide students in other disciplines an introduction to the principles and practices of this central science, contributing to their fundamental understanding and appreciation of the physical world.

Our Bachelor of Science with Major in Chemistry and Bachelor of Science with Honours in Chemistry degrees are **nationally accredited programs by the Canadian Society for Chemistry (CSC) governing board**, ensuring that the program has the potential to prepare graduates to practice their profession in a competent scientific manner. Honours graduates from the program are well prepared to continue their education at the graduate level in related fields of study. Majors graduates are also well equipped to further their education or to enter into the scientific work force, contributing to such areas as research, education, government, and industry at various levels of responsibility.

In addition to having a strong commitment to teaching, the Chemistry Department Faculty members are committed to engaging undergraduate students in their research activities. Opportunities exist for motivated and capable students to enrich their program by contributing to the research work

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and dissemination of research results through employment as research assistants and participation in research conferences.

Major in Chemistry - Requirements:

The requirements for the degree of Bachelor of Science with Major apply as listed in this Academic Calendar under the heading of Faculty of Science, Bachelor of Science – Major. The specific list of Chemistry courses which satisfies the required minimum forty-five (45) credit hours in the Major subject is as follows:

- CHEM 1210 General Chemistry I
- Three (3) credit hours from: CHEM 1211, 1212 or 1213 General Chemistry II
- CHEM 2312 Physical Chemistry I
- CHEM 2313 Physical Chemistry II
- CHEM 2332 Introductory Analytical Chemistry: Wet Methods
- CHEM 2333 Introductory Analytical Chemistry: Instrument Methods
- CHEM 2344 Organic Chemistry I
- CHEM 2345 Organic Chemistry II
- CHEM 3322 Inorganic Chemistry I
- CHEM 3324 Inorganic Chemistry II
- Three (3) credit hours from: CHEM 3451 Introductory Biochemistry, or CHEM 4452 Biochemistry: Metabolism I
- Twelve (12) credit hours in CHEM at the 3400 level or above;
- MATH 1210 and MATH 1211;
- Three (3) credit hours in Mathematics (above MATH 1211) or Computer Science (above CSCI 1200-level).
- PHYS 1100 and PHYS 1101

Major in Chemistry - Suggested Program

The following program is recommended by the Department of Chemistry for students wishing to graduate with a Bachelor of Science with Major in Chemistry

Year 1:

- CHEM 1210 General Chemistry I
- Three (3) credit hours from: CHEM 1211, 1212 or 1213 General Chemistry II
- MATH 1210 Introductory Calculus I
- MATH 1211 Introductory Calculus II
- PHYS 1100 University Physics I
- PHYS 1101 University Physics II
- ENGL 1205 Introduction to Literature
- Three (3) credit hours in Humanities subjects
- Six (6) credit hours in Arts subjects

Year 2:

- CHEM 2312 Physical Chemistry I
- CHEM 2313 Physical Chemistry II
- CHEM 2332 Introductory Analytical Chemistry: Wet Methods
- CHEM 2333 Introductory Analytical Chemistry: Instrumental Methods
- CHEM 2344 Organic Chemistry I
- CHEM 2345 Organic Chemistry II
- Three (3) credit hours in Mathematics or Computing Science

- Three (3) credit hours in non-chemistry science electives
- Six (6) credit hours in electives

Year 3:

- CHEM 3322 Inorganic Chemistry I
- CHEM 3324 Inorganic Chemistry II
- Three (3) credit hours from: CHEM 3451 Introductory Biochemistry; CHEM 4452 Biochemistry: Metabolism I
- Six (6) credit hours in Arts courses
- Six (6) credit hours of non-chemistry science electives
- Nine (9) credit hours of electives

Year 4:

- Twelve (12) credit hours in CHEM at the 3400 level or above
- Eighteen (18) credit hours of electives

Double Major in Chemistry and Other Science - Requirements:

The requirements for the degree of Bachelor of Science with Double Major apply as listed in this Academic Calendar under the heading of Faculty of Science, Bachelor of Science – Double Major. The specific list of Chemistry courses which satisfies the required minimum thirty-six (36) credit hours in Chemistry is as follows:

- CHEM 1210 General Chemistry I
- Three (3) credit hours from: CHEM 1211, 1212 or 1213 General Chemistry II
- CHEM 2312 Physical Chemistry I
- CHEM 2313 Physical Chemistry II
- CHEM 2344 Organic Chemistry I
- CHEM 2345 Organic Chemistry II
- Six (6) credit hours from the following:
 - CHEM 2332 Introductory Analytical Chemistry: Wet Methods
 - CHEM 2333 Introductory Analytical Chemistry: Instrument Methods
 - CHEM 3322 Inorganic Chemistry I
 - CHEM 3324 Inorganic Chemistry II
- CHEM 4412 Quantum Chemistry
- CHEM 4499 Selected Research Topics In Chemistry (or three (3) credit hours in CHEM at the 2000 level or above if thesis in other science)
- CHEM 4500 Research Thesis
- Twelve (12) credit hours in CHEM at the 3400-level or above
- MATH 1210 and MATH 1211
- MATH 2311
- One of: MATH 2301, 2303, 2315, 2320 or 3405
- PHYS 1100 and PHYS 1101

Honours in Chemistry – Requirements:

The requirements for the degree of Bachelor of Science with Honours apply as listed in this Academic Calendar under the heading of Faculty of Science, Bachelor of Science – Honours and Double Honours. Students must secure a supervisor for the honours thesis (CHEM 4500) before applying in the honours program. The specific list of Chemistry courses which satisfies the required minimum sixty (60) credit hours in Chemistry is as follows:

- CHEM 1210 General Chemistry I
- Three (3) credit hours from: CHEM 1211, 1212 or 1213 General Chemistry II
- CHEM 2312 Physical Chemistry I
- CHEM 2313 Physical Chemistry II
- CHEM 2332 Introductory Analytical Chemistry: Wet Methods
- CHEM 2333 Introductory Analytical Chemistry: Instrumental Methods
- CHEM 2344 Organic Chemistry I
- CHEM 2345 Organic Chemistry II
- CHEM 3322 Inorganic Chemistry I
- CHEM 3324 Inorganic Chemistry II
- Three (3) credit hours from: CHEM 3432 Instrumental Analysis I or CHEM 4433 Instrumental Analysis II
- Three (3) credit hours from: CHEM 3443 Organic Reaction Mechanisms or CHEM 4444 Synthesis in Organic Chemistry
- Three (3) credit hours from: CHEM 3445 Organic Spectroscopy, CHEM 4421 Organometallic Chemistry or CHEM 4422 Advanced Topics in Organic Chemistry
- Three (3) credit hours from: CHEM 3451 Introductory Biochemistry or CHEM 4452. Biochemistry: Metabolism I
- CHEM 4412 Quantum Chemistry
- CHEM 4499 Selected Research Topics in Chemistry
- CHEM 4500 Research Thesis
- Six (6) credit hours in CHEM at the 3400 level or above;
- MATH 1210 and MATH 1211;
- MATH 2311
- One of: MATH 2301, 2303, 2315, 2320 or 3405.
- PHYS 1100 and PHYS 1101

Double Honours in Chemistry and Other Science - Requirements:

The requirements for the degree of Bachelor of Science with Double Honours apply as listed in this Academic Calendar under the heading of Faculty of Science, Bachelor of Science – Honours and Double Honours. The specific list of Chemistry courses which satisfies the required minimum forty-eight (48) credit hours in Chemistry (if thesis completed in Chemistry)* is as follows:

***Note:** The minimum required number of credit hours in Chemistry is reduced to forty-two (42), with the removal of CHEM 4500 from this list, if the thesis is completed in the other science.

- CHEM 1210 General Chemistry I
- Three (3) credit hours from: CHEM 1211, 1212 or 1213 General Chemistry II
- CHEM 2312 Physical Chemistry I
- CHEM 2313 Physical Chemistry II
- CHEM 2344 Organic Chemistry I
- CHEM 2345 Organic Chemistry II
- Six (6) credit hours from:
 - CHEM 2332 Introductory Analytical Chemistry: Wet Methods
 - CHEM 2333 Introductory Analytical Chemistry: Instrument Methods

- CHEM 3322 Inorganic Chemistry I
- CHEM 3324 Inorganic Chemistry II
- CHEM 4412 Quantum Chemistry
- CHEM 4499 Selected Research Topics In Chemistry (or six (6) credit hours in CHEM at the 2000 level or above if thesis in other science)
- CHEM 4500 Research Thesis
- Nine (9) credit hours in CHEM at the 3400-level or above
- MATH 1210 and MATH 1211
- MATH 2311
- One of: MATH 2301, 2303, 2315, 2320 or 3405
- PHYS 1100 and PHYS 1101

Honours in Chemistry and Major in Other Science - Requirements:

The requirements for the degree of Bachelor of Science with Honours in Chemistry and Major in another science apply as listed in this Academic Calendar under the heading of Faculty of Science, Bachelor of Science – Honours and Major Program. The specific list of Chemistry courses which satisfies the required minimum forty-eight (48) credit hours in Chemistry is the same as that listed above for the Double Honours, thesis completed in Chemistry.

Concentration in Chemistry – Requirements:

The requirements for the degree of Bachelor of Science General with Concentration in Chemistry apply as listed in this Academic Calendar under the heading of Faculty of Science, Bachelor of Science – General (with a Concentration). The specific list of Chemistry courses which satisfies the required minimum thirty (30) credit hours in Chemistry is as follows:

- :
- CHEM 1210 General Chemistry I
- Three (3) credit hours from: CHEM 1211, 1212 or 1213 General Chemistry II
- Twelve (12) credit hours from the following:
 - CHEM 2312 Physical Chemistry I and CHEM 2313 Physical Chemistry II
 - CHEM 2332 Introductory Analytical Chemistry: Wet Methods
 - CHEM 2333 Introductory Analytical Chemistry: Instrumental Methods
 - CHEM 2344 Organic Chemistry I
 - CHEM 2345 Organic Chemistry II
 - CHEM 3322 Inorganic Chemistry I
 - CHEM 3324 Inorganic Chemistry II
- Twelve (12) credit hours in CHEM at the 3400 level or above

Minor in Chemistry – Requirements:

The requirements for the degree of Bachelor of Science with Major in another science and Minor in Chemistry apply as listed in this Academic Calendar in the Faculty of Science pages under the heading of Bachelor of Science – Major and Minor. The specific list of Chemistry courses which satisfies the required minimum of thirty (30) credit hours in the minor subject is as follows:

- CHEM 1210 General Chemistry I
- Three credit hours from: CHEM 1211, 1212 or 1213
- Twenty four (24) credit hours from the following:

- CHEM 2100 Green Chemistry
- CHEM 2312 Physical Chemistry I
- CHEM 2313 Physical Chemistry II
- CHEM 2332 Introductory Analytical Chemistry: Wet Methods
- CHEM 2333 Introductory Analytical Chemistry: Instrument Methods
- CHEM 2344 Organic Chemistry I
- CHEM 2345 Organic Chemistry II
- CHEM 2346 Organic Chemistry for Life Sciences
- CHEM 2373 Environmental Chemistry I
- CHEM 2374 Environmental Chemistry II
- CHEM 3322 Inorganic Chemistry I
- CHEM 3324 Inorganic Chemistry II

SPECIAL NOTE

Students must achieve a passing grade in the lab component of a chemistry course and complete all the experiments in order to be eligible to receive credit for the course. All of the Chemistry courses listed on these pages have a 3-hour per week lab period except the following courses: CHEM 1220, CHEM 1221, CHEM 2380, and CHEM 4499.

Graduate-Level Courses

The Department offers instruction in Chemistry at the graduate level. For details on graduate courses, see the *Graduate Academic Calendar*.

Course Descriptions**1210 General Chemistry I**

3 credit hours

Prerequisite: Nova Scotia Chemistry 12 Academic or equivalent

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.

1211 General Chemistry II for Physical Sciences

3 credit hours

Prerequisite: CHEM 1210 and MATH 1210 (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.

Note: Credit is only given for one of CHEM 1211, 1212, or 1213.

1212 General Chemistry II for Life Sciences

3 credit hours

Prerequisite: CHEM 1210; and either MATH 1210 or MATH 1250 (which can be taken concurrently)

Note: CSCI 1226 or CSCI 1227 may be taken in lieu of MATH 1210.

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. This course satisfies the requirement for the Chemistry Major or Honours only if MATH 1210/1211 is completed successfully

Note: Credit is only given for one of CHEM 1211, 1212, or 1213.

1213 General Chemistry II for Engineering

3 credit hours

Prerequisite: CHEM 1210; and MATH 1210 (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.

Note: Credit is only given for one of CHEM 1211, 1212, or 1213

1220 Chemistry and Industry

3 credit hours

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: Please note that this course may not be used to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees. There is no lab component for this course.

1221 Chemistry of Life

3 credit hours

This course is an introduction to the chemistry of everyday life for non-science major students who have an interest in improving their scientific literacy and understanding of the world around them. Theory is presented on a need-to-know

basis as real-world subjects ranging from the chemistry of global warming to designer drugs are encountered.

Note: Please note that this course may not be to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees. There is no lab component for this course.

2100 Green Chemistry [ENVS 2100]

3 credit hours

Prerequisite: six (6) credit hours in CHEM at the 1000 level

Green chemistry, or environmentally benign chemistry, is the design of chemical products and processes that reduce or eliminate the use and generation of hazardous substances. This course will examine the chemical principles and processes in the development of technology and in the effects that this technology has on the environment. The course will avoid traditional approaches that only consider the treatment of pollution after it was created, and will focus on alternative routes that limit the production of waste.

2312 Physical Chemistry I

3 credit hours

Prerequisite: CHEM 1211, 1212 or 1213, and MATH 1211

In this introduction to Physical Chemistry, a study of the underlying physical principles that govern the properties and behaviour 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.

2313 Physical Chemistry II

3 credit hours

Prerequisite: CHEM 1211 or 1212 or 1213, and MATH 1211

In this second course in Physical Chemistry, the focus is 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 is 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.

2332 Introductory Analytical Chemistry: Wet Methods]

3 credit hours

Prerequisite: CHEM 1211 or 1212 or 1213

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.

2333 Introductory Analytical Chemistry: Instrumental Methods

3 credit hours

Prerequisite: CHEM 2332

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.

2344 Organic Chemistry I

3 credit hours

Prerequisite: CHEM 1211 or 1212 or 1213

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.

2345 Organic Chemistry II

3 credit hours

Prerequisite: CHEM 2344

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.

2346 Organic Chemistry for Life Sciences

3 credit hours

Prerequisite: CHEM 1211 or 1212 or 1213

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 emphasizes 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.

Note: This course cannot be used to satisfy requirements for the Chemistry Major; Honours; or double Major or Honours. Students planning to go to some professional schools in Life Sciences are strongly advised to take CHEM 2344 and CHEM 2345.

2373 Environmental Chemistry I

3 credit hours

Prerequisite: CHEM 1211 or 1212 or 1213.

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; vapour 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.

3322 Inorganic Chemistry I

3 credit hours

Prerequisite: CHEM 1211 or 1212 or 1213

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.

3324 Inorganic Chemistry II

3 credit hours

Prerequisite: CHEM 3322

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.

3432 Instrumental Analysis I

3 credit hours

Prerequisite: CHEM 2333

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.

3443 Organic Reaction Mechanisms

3 credit hours

Prerequisite: CHEM 2345

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.

3445 Organic Spectroscopy

3 credit hours

Prerequisite: CHEM 2345

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.

3451 Introductory Biochemistry

3 credit hours

Prerequisite: CHEM 2345 or 2346

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.

4412 Quantum Chemistry

3 credit hours

Prerequisite: CHEM 2312 and 2313, MATH 2311

The basic principles of quantum physics are used to develop an understanding of atomic and molecular structure.

4413 Physical Chemistry III

3 credit hours

Prerequisite: CHEM 2312, CHEM2313 and MATH 2311

An introduction to statistical thermodynamics and the study of chemical reaction rates and mechanisms.

4414 Symmetry and Chemical Applications of Group Theory

3 credit hours

Prerequisite: CHEM 4412 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.

4415 Introduction to Polymers

Prerequisite: CHEM 2312 and 2313

This introduction to long-chain polymer molecules integrates and builds on foundation concepts in thermodynamics, kinetics, bonding and structure, as well as synthesis, and analytical methods. Topics include chain conformations, molecular weight averages, distributions and measurement; survey of different types of polymerization and polymerization kinetics: polymer solutions; phase behaviour, physical properties of glass and crystalline states; structure-property relationships and end-use applications.

4421 Organometallic Chemistry

3 credit hours

Prerequisite: CHEM 3324 or permission of the instructor

This course will deal with synthesis, structure, and reactivity or organotransition metal complexes. Topics will include transition metal-alkyls, -carbonyls, -alkenes, -alkynes and -

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.

4422 Advanced Topics in Inorganic Chemistry

3 credit hours

Prerequisite: CHEM 3324 or permission of the instructor

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.

4433 Instrumental Analysis II

3 credit hours

Prerequisite: CHEM 2333

Emphasis will be placed on (i) atomic spectroscopy including atomic absorption and emission; (ii) x-ray fluorescence; (iii) neutron activation analysis; (iv) mass spectrometry.

4444 Synthesis in Organic Chemistry

3 credit hours

Prerequisite: CHEM 2345

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.

4452 Biochemistry: Metabolism I

3 credit hours

Prerequisite: CHEM 2345 or 2346

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.

4453 Biochemistry: Metabolism II

3 credit hours

Prerequisite: CHEM 3451 or CHEM 4452

A course presenting principles of metabolism of molecules commonly referred to as the secondary metabolites, i.e. involved neither in energy nor in biosynthetic substrates formation. Thus biosynthetic pathways leading to formation of major secondary metabolite (or natural products) classes, i.e. fatty acids derivatives, polyketides, isoprenoids including sterols, alkaloids, and shikimic acid pathway products such as phenols, lignans, and flavonoids, will be presented. Some major enzymes involved in formation of these biomolecules as well as the methods of pathway and structure elucidation will be presented along with biological activity, ecological and taxonomic significance of metabolites. The laboratory component will provide an opportunity to complete an individual research project, including literature search, experimental work, analysis of results, and writing a comprehensive report.

4499 Selected Research Topics in Chemistry

3 credit hours

Prerequisite: Enrolment is permitted after declared Chemistry Majors or Honours students have successfully completed thirty (30) credit hours in Chemistry.

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.

4500 Research Thesis

6 credit hours

Prerequisite: Enrollment is permitted to declared Chemistry Honours students only.

Students will carry out a research project under the direction of one of the Chemistry Department faculty members and will prepare a thesis on their work. The thesis is presented orally.

4876 – 4899 Directed Study in Chemistry

3 credit hours

Prerequisite: Permission of instructor

These courses cover advanced topics in chemistry chosen according to the needs and interests of the students and instructor. These courses provide an opportunity to study a particular subject in detail and require some measure of independence and initiative from the student.

Chinese (CHNS)

Chairperson, Modern Languages and Classics

Associate Professor E. Tsedryk

Assistant Professor C. Beaupré

Courses in Chinese are offered by the Department of Modern Languages and Classics

1. Enrollment in some language courses involves the following formal placement procedures.

All students seeking entry into language courses who have not previously taken a language course at Saint Mary's University must complete and return the Language Profile Form to the Department of Modern Languages and Classics.

Based on the information provided in the Language Profile Form, students may receive notification from the

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Department to appear for an oral interview and/or a written placement test at a designated time.

The Department of Modern Languages determines the appropriate course placement for each student

- (i) Permission to register or remain in a particular language course can be refused if the Department judges that the student's knowledge exceeds the level for that course.
- (ii) Native speakers are not eligible to receive advanced credit for language courses.
- (iii) Completion of Advanced Standing (transfer) courses does not exempt a student from taking the placement test.

2. 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 enroll in courses at the 2000 level or lower.

Students who misrepresent their knowledge of any given language by providing inaccurate or incomplete information about their linguistic educational history will be subject to disciplinary action as laid out in Academic Regulation 19.

3. 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.

Certificate of Chinese Studies (Cert. C.S.)

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 twenty-four (24) credit hours. 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 Coordinator 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 eighteen (18) credit hours at Saint Mary's University. Relevant academic courses, work experience and linguistic capability may be considered for credit recognition. Applicants should submit a resume of relevant work experience, official university transcripts and any other relevant documentation.

Program Courses

This program consists of twelve (12) required credit hours and a number of optional credit hours. All students are required to take CHNS 1100 (Introductory Modern Chinese) and CHNS 2200 (Intermediate Modern Chinese). Students must also select twelve (12) optional credit hours in at least two different disciplines from the following courses:

ANTH 2326; ASNT 3300; ASNT 3310; GEOG 3380; HIST 1222; HIST 1223; HIST 2381; HIST 2382 HIST 2383; HIST 4511; RELS 2327.

At least twelve (12) credit hours must be at the 2000 level or above. Detailed descriptions are found under Departmental listing. These courses may not be offered every year.

Requirements for Graduation

Students are encouraged to complete the program within five years. A minimum cumulative grade 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.

Course Descriptions

1100 Introductory Modern Chinese

6 credit hours

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.

2200 Intermediate Modern Chinese

6 credit hours

Prerequisite: CHNS 1100

A continuation of CHNS 1100, 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.

3300 Advanced Oral and Written Chinese I

3 credit hours

Prerequisite: CHNS 2200

This course offers an opportunity to build and refine students' ability to comprehend and to communicate effectively in Chinese.

3301 Advanced Oral and Written Chinese II

3 credit hours

Prerequisite: CHNS 3300

This course is a continuation of CHNS 3300.

Classics (CLAS)

Ancient History (CLAS) - Classical Literature and Civilization (CLAS) - Greek (GREK) - Latin (LATN)

Chairperson, Modern Languages and Classics
Associate Professor E. Tsedryk

Classics

Associate Professor M. McCallum
Assistant Professor A.E. Barclay
Adjunct Professor M. Rothfuss

Courses and programs in Classics are offered by the Department of Modern Languages and Classics

Note that Classics courses (CLAS) satisfy the BA humanities requirement 3(c), but courses in Latin and Greek do not.

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 eighteen (18) credit hours at the undergraduate level in one ancient language (Latin or Greek) and twelve (12) credit hours in the other. Latin is a valuable asset for students majoring in French, German or Spanish.

Major in Classics

A major in Classics comprises forty-two (42) credit hours, eighteen (18) credit hours of which must be at the 3000 level or above. Six (6) credit hours are required in an ancient language, e.g., Greek, or Latin. Students in Arts must maintain a minimum grade point average of 2.00 (an average grade of C) in order to achieve the Classics major.

Concentration in Classics

To obtain a concentration in Classics in partial fulfillment of the B.A. General Degree (i.e. one with a Double Arts Concentration and a minimum of ninety (90) credit hours), a minimum of twenty-four (24) credit hours Classics is required. At most 6 credit hours can be at the 1000 level. Also, the minimum grade point average is 2.00.

Minor in Classics

A minor in Classics consists of at least twenty-four (24) credit hours, twelve (12) of which must be at the 3000 level or above. To obtain a minor students must achieve a minimum grade point average of 2.00 (an average grade of C or better) in the courses of the minor.

Course Descriptions (CLAS)

1001 Ancient Civilizations of the Near East and Egypt 3 credit hours

An introduction to the civilizations and cultural contributions of the ancient Near East and Egypt. Aided by illustrated lectures and the study of ancient literature, students will explore the history, political organizations, art and monuments of these early civilizations.

Note: This course is not open to students with credit in CLAS 2200

1002 The Ancient Civilizations of Greece and Rome 3 credit hours

A general introduction to the civilizations of ancient Greece and Rome with particular regard to history, political organization, material culture, and contributions to western cultural development. Students will examine primary sources relevant to the history, social, and political organization of Greek and Roman society, and be introduced to the art, architecture, and material culture of these two ancient cultures

Note: This course is not open to students with credit in CLAS 2200.

2000 An Introduction to Greek Art and Archaeology 3 credit hours

This course is a survey of the art and archaeology of the ancient Greek world from the Late Bronze Age through the Hellenistic period. Aided by slides and other visual media, students will become acquainted with the "major arts" (painting, sculpture, architecture) and other material remains of the ancient Greeks. Through the application of art historical and Praxitiles' archaeological method and theory, students will also explore the origins and development of pivotal examples of ancient Greek art, artifacts and monuments within their broader social, historical and religious contexts (e.g. Corinthian and Athenian vase-painting, the Parthenon, Aphrodite of Knidos).

Note: This course is not open to students who have received credit in CLAS 3311, "Art in Greece and/or the Ancient Near East".

2100 A Survey of Roman Art and Archaeology 3 credit hours

This course investigates important issues and current problems in the art and archaeology of the ancient Roman world. Students will focus on a careful examination of the material record of the ancient Romans, including architecture, works of art, and artifacts, and through the lens of art historical and archaeological method and theory, be asked to understand complex cultural phenomena such as imperialism, urbanism, gender definitions, ethnicity, economic behaviour, cultural interaction, and culture change. Aided by slides and other visual media, students will be presented with the images of the great works of art

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and architecture of the Roman world, such as the Pantheon and the Augustus Prima Port, and will examine the great sites of the Roman world, a list that may include Pompeii, Ostia, Rome, Ephesus, and Constantinople.

Note: Students who have taken CLAS 3312, “Art of the Hellenistic World and/or Rome,” are not eligible to receive credit for this course

2201 The Mythology of Greece and Rome I: The Gods

3 credit hours

Students will explore the nature of mythology in ancient Greece and Rome through a survey of the principal myths of the gods and goddesses. Emphasis will be placed on myths describing the creation of the universe, the gods and their powers, the origin of humans and the relationships between gods and mortals. Students will read a selection of works of Classical literature and will come to understand how these myths helped shape the life and thought of the classical civilizations of Greece and Rome.

2202 The Mythology of Greece and Rome II: The Heros

3 credit hours

Students will explore the nature of mythology in ancient Greece and Rome with particular emphasis on the concept of the hero. Students will read tales of adventure in a selection of works of Classical literature, following heroes as they fight monsters, take journeys to the underworld, and save heroines in distress. Through these myths, students will come to understand the significance of heroes such as Achilles, Herakles, Aeneas, and Jason in Greek and Roman literature and culture, as well as the literary foundations for later representations of myth in tragedy, art and film.

2451 Greek History I: From Minos to the Medes

[HIST 2451]

3 credit hours

An introduction to the history and culture of the ancient Greeks from the Bronze Age through the Persian Wars. Students will explore Minoan and Mycenaean civilizations and the social, historical and cultural development of the Archaic period, including the origins of the Greeks and the evolution of the polis and early political systems. Among the topics students will examine are the evaluation of the Spartan military state, Athenian democracy, pre-Classical Greek religion, art, architecture and literature. Students will be asked to read the works of various ancient authors and to consider the archaeological and epigraphical evidence for this period of Greek history.

Note: This course is not open to students who have received credit in CLAS 3303//HIST 2350

2452 Greek History II: The Golden Age of Greece

[HIST 2452]

3 credit hours

An introduction to the history of the Greeks from the Persian Wars through the death of Alexander the Great. Students will study the historical, political and cultural developments of the Greeks in the 5th and 4th centuries BC, including the rise and fall of Athens, democracy in action and the cultural achievements of Athens in her “Golden Age” (e.g. religion,

theatre, philosophy, art and architecture). Students will also explore the activities of other Greek states (e.g. Sparta, Boeotia, Syracuse), the roles of men and women in Greek society, the causes and aftermath of the Peloponnesian wars, the conquest of Greece by Phillip II of Macedon and of the Persian Empire by his son, Alexander. Students will be asked to read various works of ancient authors and to consider archaeological and epigraphical evidence relevant to this period of Greek history.

2453 Republic and Revolution: Roman History I [HIST 2453]

3 credit hours

An introduction to the history of Italy and the city of Rome from the Iron Age through the end of the Roman republican system of government. This course will explore the origins and evolution of the Roman Republic, including the interaction among Romans, their Italian neighbours such as the Etruscans, and the Greek and Phoenician peoples of the eastern Mediterranean. Among the topics students will examine are the political and military history of the period as well as the social and cultural context that encapsulates and informs this history, and the eventual decline of the republican system amidst the political turmoil and revolution of the first century BC. Students will be asked to read the works of various ancient authors and to consider archaeological and epigraphic evidence for this history of the Roman republic. Content will vary from year to year.

NOTE: This course is not open to students who have received credit in CLAS 3304//HIST 2351

2454 Bloody Caesars: Roman History II [HIST 2454]

3 credit hours

An introduction to the history of the Roman world from the establishment of the Principate under Octavian/Augustus to the decline of the Roman empire in the western Mediterranean and Europe. This course will explore the evolution of the Principate and its eventual replacement by the Dominate, the nature of Roman imperialism, the role of the emperor as a political and religious figure, the interaction among the Romans and their neighbours in central Europe and the Near East, and the eventual political and economic disintegration of the imperial system. Students will be asked to consider such topics as different models of Roman economic, social, and political organization, the role and status of women in the Roman world, the codification of the Roman legal system, and the intellectual and religious developments that laid the foundations for subsequent historical periods in western Europe and the Mediterranean. Students will be asked to read the works of various ancient authors and to consider archaeological and epigraphic evidence relevant to the history of the Roman imperial period. Content will vary from year to year.

IN ORDER TO ENROLL IN 3000-LEVEL CLAS COURSES, A STUDENT MUST HAVE AT LEAST SIX (6) CREDIT HOURS IN CLASSICS, OR AT LEAST THIRTY (30) CREDIT HOURS OF UNIVERSITY COURSES, OR THE PERMISSION OF THE INSTRUCTOR

3000 Topics in Greek Art and Archaeology

3 credit hours

Prerequisite: 6 credit hours in Classics or permission of instructor (CLAS 2000 is strongly recommended).

This course addresses a specific topic, theme, period, or geographical region related to the study of Greek Archaeology. The specific topic and course content will be different each time the course is offered, so the students should check with the program coordinator for Classics about the specific topic on offer for the current semester. Topics may include art and architecture of the Aegean Bronze Age (Minoans and Mycenaean), urban life in the Greek city-state, art and politics in Archaic and Classical Greece, cultural interaction between Greece, the Near East and Egypt or Greek iconography. This course is intended to follow CLAS 2000, "Introduction to Greek Art and Archaeology", but students with a background in archaeology, history, Classics, or art history are also encouraged to enroll.

3100 Topics in Roman Archaeology

3 credit hours

Prerequisite: 6 credit hours in Classics or permission of instructor (CLAS 2000 is strongly recommended).

This course addresses a specific topic, theme, period, or geographical region related to the study of Roman Archaeology. The specific topic and course content will be different each time the course is offered, so students should check with the Program coordinator for Classics about the specific topic on offer for the current semester. Topics may include art and architecture of the Augustan Age, Etruscan art and archeology, the art and archaeology of the Roman provinces, or the art and architecture of empire. This course is intended to follow CLAS 2100, "Introduction to Roman Art and Archaeology," but students with a background in archaeology, history, Classics, or art history are also encouraged to enroll.

3310 Classical Literature [ENGL 3310]

3 credit hours

Prerequisite: 6 credit hours of CLAS or ENGL courses.

This course is a survey of the literature of ancient Greece and/or Rome in English translation. Course content will be organized either thematically, for example on women in Classical literature or metamorphosis, or by genre, for example on epic, tragedy, or comedy. The course is intended for students who have some background in Classics and/or Classical literature.

3317 Greek Sanctuaries [RELS 3314]

3 credit hours

Prerequisite: 3 credit hours in Classics, and 3 credit hours in one of the following: CLAS, HIST, ANTH or RELS

This course explores ancient Greek religion and the role of the sanctuary in Greek culture. Students will study the archaeological remains and documentary evidence for the role and function of domestic, civic, and panhellenic sanctuaries (e.g., household cults, the Athenian Acropolis, Olympia, Delphi). Students will also consider sites which

provide examples of specialty cults (healing, oracular, mystery religions) or which illustrate particular social, political or archaeological issues.

3318 Classical Archaeology

3 credit hours

Prerequisite: 3 credit hours in Classics or permission of instructor

A study of the civilizations of ancient Greece and Rome based on the material remains (e.g., artifacts, architecture, epigraphy). Students will learn how archaeology has helped shape our understanding of these ancient cultures through an exploration of the pioneer days of Classical archaeology, modern methods of interpretation, and of the sites, artifacts and monuments in their cultural contexts.

3319 Pompeii

3 credit hours

Prerequisites: Six (6) credit hours in HIST, or thirty (30) credit hours of University courses.

Students examine the archaeological remains of Pompeii, including the site's depositional history and the history of its excavation, as well as its architectural remains, material culture, and art. Students are introduced to current archaeological research at the site which is changing our understanding of Roman urban life.

3320 Hellenistic Art

3 credit hours

Prerequisites: Six (6) credit hours in CLAS or thirty (30) credit hours of university courses

The historical, political and cultural trends illustrated by the art and architecture of the Hellenistic Age are explored.

3352 Women in Antiquity I [RELS 3306; WMST 3352]

3 credit hours

Students will examine the daily activities, roles and legal position of women of different social classes in the ancient world. The focus will be on women and family life in ancient Greece, with some consideration of the lives of women in Mesopotamia, ancient Israel and Egypt. The development of women's roles and the relationships between men and women will be considered in the context of history, religion, and myth with reference to the documentary and material evidence.

3610 Field Study in Roman Archaeology

3 credit hours

Prerequisite: 3 credit hours in CLAS or ANTH 1271

The practical application of archaeological field techniques and method as it pertains to the study of Classical Roman sites in the Mediterranean and Europe. This course is always taught off-campus at one or more ancient Roman sites in Europe, most frequently Italy. Consequently, the course is dependent upon external funds and has a limited enrollment. Please consult the Program Coordinator of Classics regarding availability.

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3611 Laboratory Methods in Roman Archaeology

3 credit hours

Prerequisite: CLAS 3610 and either 3 credit hours in CLAS or ANTH 1271.

This course introduces students to the laboratory method used by Roman archaeologists in the study of archaeological materials recovered from Roman-period sites. The course is taught on-site in the Mediterranean and is to be taken in conjunction with CLAS3610 during the same academic year.

3612 Ancient Greek Cities and Sanctuaries

3 credit hours

Prerequisites: Six (6) credit hours in CLAS, thirty (30) credit hours of university courses.

This field course of ancient Greek history and culture is organized around visits to archaeological sites and major museums in one or more countries associated with the ancient Greek world (e.g.: Greece, Turkey, or Southern Italy and Sicily).

3826 – 3849 Thematic Selected Topics in Classics

3 credit hours

Prerequisite: 6 credit hours in CLAS or permission of the instructor

A series of courses on selected topics that will be determined by the course instructor. Each course will focus on particular themes in Classical culture (history, archaeology, art and/or literature) and/or specific chronological periods. The subject matter of these courses will be announced occasionally.

4405 Advanced Reading and Tutorial

6 credit hours

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.

4406 Seminar in Classical Studies

3 credit hours

Prerequisite: 12 credit hours in Classics or permission of the instructor.

A seminar on selected topics in Classical culture (history, archaeology, art, literature and/or a specific chronological period) intended as an advanced course for Classics majors and students in their graduating year. Topics to be examined will be selected by the instructor. Students will be required to give seminar presentations and write a major research paper.

4407 Greek Art, Life and Politics

3 credit hours

Prerequisites: Twelve (12) credit hours in CLAS or the permission of the instructor.

In this seminar the social history of Archaic and/or Classical Greece is explored through the function and meaning of material culture. The material remains, which include metal, ivory, ceramic vessels, and sculpture, are important sources of evidence for understanding the daily lives of the ancient Greeks and their social values.

4876 – 4899 Directed Study

3 credit hours

Prerequisite: At least twelve (12) credit hours in Classics or permission of instructor.

A three (3) credit hour 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 - Greek (GREK)

1100 Introduction to Ancient Greek

6 credit hours

An introductory course covering the major grammatical points of the ancient Greek language.

Classics - Latin (LATN)

1100 Introduction to Latin

6 credit hours

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.

2201 Intermediate Latin

6 credit hours

Prerequisite: LATN 1100 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.

Commercial Law (CMLW)

Professor B. Anderson

These courses are administered by the Department of Accounting.

2201 Legal Aspects of Business - Part I

3 credit hours

Prerequisite: ECON1201 and 1202 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.

3202 Legal Aspects of Business - Part II

3 credit hours

Prerequisite: CMLW 2201

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

Communications (COMM)

Associate Professor V. Creelman
Assistant Professors K. Grandy

These courses are administered by the Department of Marketing.

2293 Communications

3 credit hours

Prerequisite: MGMT 1281 and CISY 1225.

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.

3394 Oral Communications and Presentation Techniques

3 credit hours

Prerequisite: COMM 2293

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.

Computing and Information Systems (CISY)

Chairperson	M. Zhang, Associate Professor
Professor	D. Jutla, S. Sivakumar
Associate Professors	K. Kimery, H. Wang
Assistant Professor	Z. Wan
Adjunct Professor	K. Bain

Computing and Information Systems courses are offered by the Department of Finance, Information Systems, and Management Science.

Over the past few decades, computerized information systems have helped transform the business and social landscape in North America and around the world. To be successful today, companies require individuals who possess in-depth understanding of the technologies and processes underlying the new environment, and, at the same time, understand the strategic information needs of businesses and consumers. The Bachelor of Commerce degree with a major in Computing and Information Systems is designed to prepare students to fill this important role in modern organizations.

A major in Computing and Information Systems may be completed within the Bachelor of Commerce program, either alone or as part of a dual major. In either case a major in Computing and Information Systems requires the completion of the core B. Comm. requirements plus a set of core CIS courses. Course requirements for a Computing and Information Systems major, beyond the B. Comm. Core, are described below and in Section 3 of the *Calendar*. While the CIS core courses are normally taken during Year 3 and Year 4, students pursuing a major in Computing and Information Systems are encouraged to enrol in CISY 2320 during Year 2.

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.

Upon completion of 45 credit hours, Commerce students with a cumulative grade point average of 2.0 may elect to declare a major in Computing and Information Systems. (In exceptional circumstances, students can also be admitted to the major by permission of the Chairperson.)

To assist students, the Year 3 and Year 4 course requirements for a Computing and Information Systems major and the core BComm degree program requirements are listed below. Course descriptions follow.

To complete a major in Computing and Information Systems, students must attain a minimum grade point average of 2.2 in ACCT 3323 and all Computing and Information Systems courses taken at the 2000 level and above (as indicated below by *).

Year 3

*ACCT 3323	Management Information Systems
*CISY 2320	Business Applications Programming
*CISY 3326	Database Programming
*CISY 3327	Web Information Systems
*CISY 3328	Computer Organization
FINA 2360	Business Finance I
FINA 3361	Business Finance II
MGMT 3480	Ethical Responsibilities of Organizations
Six (6) credit hours in non-Commerce electives	

Year 4

*CISY 4425	Systems Analysis and Design
*CISY 4435	Information Systems Projects and Practice
*CISY 4436	Communication, Networks and Security
MGMT 4489	Strategic Management
Six (6) credit hours in non-Commerce electives	
Twelve (12) credit hours in free electives	

Course Descriptions

1225 Introduction to Computer Applications

3 credit hours

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.

2320 Business Applications Programming

3 credit hours

Prerequisite: CISY 1225 or CSCI 1226

This is a foundation programming language course that presents fundamental principles used in writing business applications. Primitive data types, objects, controls, basic data structure, flow control constructs, reusable modules, and debugging techniques are covered. Further topics include parameter passing methods, arrays, error handling, and file processing. The implementation language, such as Visual Basic, will utilize object-oriented programming concepts. This course is a foundation course for the CISY program.

3326 Database Programming

3 credit hours

Prerequisite: CISY 2320

This course covers topics in modeling data to meet organizational requirements, programming business applications on a current database management platform, the SQL command language, and managing data security and database administration. Also included are topics on hierarchical, distributed, and object oriented databases.

3327 Web Information Systems

3 credit hours
Prerequisite: CISY 2320

This course introduces students to web information systems, a sub-area of CISY 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.

3328 Computer Organization

3 credit hours
Prerequisite: CISY 2320

This course focuses on an introduction to the computer hardware and software needed to run standard business applications in small, medium and large enterprises. Topics include hardware and software in personal computers, main frame centric environments, and client-server architectures. The course also covers local area network architectures and technologies.

4425 Systems Analysis and Design

3 credit hours
Prerequisite: COMM 2293, ACCT 3323, CISY 3326 and CISY 3328 (or concurrent)

The intent of this course is to provide the student with the necessary skills to successfully apply state-of-the-art information systems methodologies to the planning, analysis, design, and implementation phases of information systems projects. These skills include, but are not limited to, information systems strategy development, requirements analysis for business processes, business process modeling techniques, data and architectural modeling techniques, and project management skills and techniques. Students work in teams to perform a real-life systems analysis and design exercise for a business organization.

4435 Information Systems Projects and Practice

3 credit hours
Prerequisite: CISY 4425 and COMM 2293.

This course focuses on the design and development of information systems (IS) to support business decision-making. Students explore different types of decision support systems (DSS), including expert systems, simulation, and data mining. IS project management techniques are reinforced via a team-based DSS design project. Expectations of new entrants into IS careers, including required technical and business competencies, ethical obligations, and professional conduct, are also addressed.

4436 Communication Networks and Security

3 credit hours
Prerequisite: CISY 3328 and COMM 2293.

This course is an introduction to data communications and computer network systems from a business application perspective. Topics covered include fundamental concepts of data communications, types of communication links, wireless networks, TCP/IP networks, telecommunication and wide area networks. Security topics such as identifying networked enterprise threats, and security technologies for networks for the purposes of secure data transmission and access control, including encryption, authentication, and non-repudiation technologies, are also covered.

4490 Seminar in Computing and Information Systems

3 credit hours
Prerequisite: COMM 2293 and permission of Chairperson.

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.

4491 Small Business Consultancy

3 credit hours
Prerequisite: COMM 2293 and permission of Chairperson.

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.

4876 – 4899 Directed Study

3 credit hours
Prerequisite: COMM 2293 and permission of Chairperson.

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.

Computing Science (CSCI)

Chairperson	N. Linney
Professors	R. Dawson, A. Finbow, B. Hartnell, S. Konstantinidis, P. Lingras, P. Muir
Associate Professors	W. Finbow-Singh J. Irving, B. Khan, N. Linney, M. Mastnak, S. Oore, P. Scobey
Lecturer	A. Hare
Adjunct Professor	R. Haynes
Computing Science Advisor	S. Oore
Co-op Advisor:	B. Khan

Department website:

<http://www.smu.ca/academic/science/compsci/>

Students can obtain a Bachelor of Science in Computing Science in one of two possible ways. A traditional degree in Computing Science involving an emphasis in Mathematics is offered as a minor, concentration, major, or honours. Alternatively, students interested in applying the technical aspects of Computing Science to business can obtain a major in Computing Science and Business Administration. Both of these Computing Science options have a Co-op option.

The major and honours programs in computing science are accredited by the Computer Science Accreditation Council of the Canadian Information Processing Society (CIPS). Not only is this an assurance of program quality, but it also allows students to earn the Information Systems Professional (ISP) designation in less time.

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.

Cooperative Education Program (Co-op)

This program is designed for students in the honours or major programs who wish to gain relevant work experience while attending university. The general requirements for the Cooperative Education program can be found in the Faculty of Science regulations, Cooperative 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.

Important Notes:

- i. CSCI 1226/CSCI 1227 or CSCI 1228 are intended to be the course(s) for all students who intend to pursue further studies in computing science.
- ii. Students taking a concentration, major, or honours in computing science are permitted credit for at most one of MATH 1207, BIOL 2308, MGSC 2207, or PSYC 2350, and shall not be permitted credit for any of these courses simultaneously with or subsequent to MATH 1216.
- iii. Related courses to a maximum of nine (9) credit hours offered by other Departments may be allowed for CSCI credit, with written approval of the Department of Mathematics and Computing Science Chairperson.
- iv. Students pursuing a major or honours in Computing Science can also complete a minor in Mathematics by taking 30 credit hours in MATH, including MATH 2310, MATH 2311, MATH 2321 and three (3) additional credit hours in MATH, in addition to the MATH courses specified for the major or honours.

Major in Computing Science

For a major in Computing Science, students must complete the following 39 credit hours in Computing Science and 21 credit hours in Mathematics, in addition to the general requirements for the Bachelor of Science (see Section 3 for details on the requirements for B.Sc. with major). Students must receive a minimum grade of C in each of these MATH and CSCI courses [see Faculty of Science Regulation 6 (h)].

1. CSCI 1226 Introduction to Computing Science and Programming (see note below)
2. CSCI 1227 Computer Programming and Problem Solving or CSCI 1228 Accelerated Programming and Problem Solving
3. CSCI 2307 Theoretical Foundations of Computing Science
4. CSCI 2308 [MATH 2308] Introduction to Numerical Analysis
5. CSCI 2327 Digital Logic and Computer Architecture
6. CSCI 2328 Assembly Level Machine Organization and Language
7. CSCI 2341 Data Structures and Algorithms I
8. CSCI 2342 Data Structures and Algorithms II
9. CSCI 3428 Software Engineering
10. CSCI 3430 Principles of Programming Languages
11. CSCI 3431 Operating Systems
12. MATH 1210 Introductory Calculus I
13. MATH 1211 Introductory Calculus II
14. MATH 1216 Introduction to Mathematical Statistics
15. MATH 2305 Survey of Discrete Mathematics
16. MATH 2320 Linear Algebra I

17. Three (3) credit hours in CSCI numbered 2306 or above
18. Six (6) credit hours in CSCI numbered 3000 or above
19. Three (3) credit hours in MATH numbered 2306 or above

Note: Students passing the challenge test for CSCI 1228 may substitute three (3) additional credit hours in CSCI for CSCI 1226.

Suggested Program

The following program is recommended by the Department of Mathematics and Computing Science for students taking the Computing Science major program:

Year 1:

- ENGL 1205 Introduction to Literature
- CSCI 1226 Introduction to Computing Science
- CSCI 1227 Computer Programming and Problem Solving or CSCI 1228 Accelerated Programming and Problem Solving
- MATH 1210 Introductory Calculus I
- MATH 1211 Introductory Calculus II
- Six (6) credit hours in Science (not CSCI)
- Three (3) credit hours in Humanities
- Six (6) credit hours from Arts or Economics

Year 2:

- CSCI 2307 Theoretical Foundations of Computing Science
- CSCI 2308 [MATH2308] Introduction to Numerical Analysis
- CSCI 2327 Digital Logic and Computer Architecture
- CSCI 2328 Assembly Level Machine Organization and Language
- CSCI 2341 Data Structures and Algorithms I
- CSCI 2342 Data Structures and Algorithms II
- MATH 2305 Survey of Discrete Mathematics
- Six (6) credit hours in Science (not CSCI)
- Three (3) credit hours in Arts or Economics

Year 3:

- CSCI 3428 Software Engineering
- CSCI 3430 Principles of Programming Languages
- CSCI 3431 Operating Systems
- MATH 1216 Introduction to Mathematical Statistics
- MATH 2320 Linear Algebra I
- Six (6) credit hours in Science (not CSCI)
- Nine (9) credit hours of electives

Year 4:

- Three (3) credit hours in CSCI numbered 2306 or above
- Six (6) credit hours in CSCI numbered 3000 or above
- Three (3) credit hours in MATH numbered 2306 or above
- Three (3) credit hours in Arts or Economics
- Fifteen (15) credit hours of electives

Double Major in Computing Science and Mathematics

For a double major in Computing Science and Mathematics, students must complete the following 39 credit hours in Computing Science, 33 credit hours in Mathematics and 6 credit hours in either Mathematics or Computing Science, in addition to the general requirements for the Bachelor of Science (see Section 3 for details on the requirements for BSc with major):

1. CSCI 1226 Introduction to Computing Science and Programming (see note below)
2. CSCI 1227 Computer Programming and Problem Solving or CSCI 1228 Accelerated Programming and Problem Solving
3. CSCI 2307 Theoretical Foundations of Computing Science
4. CSCI 2308 [MATH 2308] Introduction to Numerical Analysis
5. CSCI 2327 Digital Logic and Computer Architecture
6. CSCI 2328 Assembly Level Machine Organization and language
7. CSCI 2341 Data Structures and Algorithms I
8. CSCI 2342 Data Structures and Algorithms II
9. CSCI 3428 Software Engineering
10. CSCI 3430 Principles of Programming Languages
11. CSCI 3431 Operating Systems
12. MATH 1210 Introductory Calculus I
13. MATH 1211 Introductory Calculus II
14. MATH 1216 Introduction to Mathematical Statistics
15. MATH 2305 Survey of Discrete Mathematics
16. MATH 2310 Intermediate Calculus I
17. MATH 2311 Intermediate Calculus II
18. MATH 2320 Linear Algebra I
19. MATH 2321 Linear Algebra II
20. Six (6) credit hours in MATH numbered 3000 or above
21. Three (3) credit hours in CSCI numbered 2306 or above
22. Six (6) credit hours in CSCI numbered 3000 or above
23. Six (6) credit hours in MATH or CSCI numbered 2306 or above

Note: Students passing the challenge test for CSCI 1228 may substitute three (3) additional credit hours in CSCI for CSCI 1226.

Double Major in Computing Science and another Science

For a double major in Computing Science and another Science other than Mathematics, students must fulfill all of the specified required courses in CSCI and MATH for the major (requirements 1 – 16) above, plus an additional three (3) credit hours in CSCI numbered 2306 and above and an additional three (3) credit hours in MATH numbered 2306 and above.

Honours in Computing Science

Students with a cumulative GPA of 3.00 or above are encouraged to apply for admission to the honours program. For honours in Computing Science, students must fulfill the major requirements plus

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1. CSCI 3451 Theory of Computation
2. Nine (9) additional credit hours in CSCI numbered 2306 or above
3. Six (6) additional credit hours in CSCI numbered 3000 or above
4. Six (6) additional credit hours in MATH numbered 3000 or above. It is recommended that CSCI 4500 Research Thesis be used to satisfy this requirement.

resulting in a total of 57 credit hours in CSCI and 27 credit hours in MATH

Students must achieve a Degree GPA of 3.00 or above on those courses presented in fulfillment of the Bachelor of Science with Honours in Computing Science requirements.

Double Honours in Computing Science and Mathematics

For /Double Honours in Computing Science and Mathematics, students must fulfill all of the specified required courses in CSCI and MATH for the double major (requirements 1 – 19), plus:

1. CSCI 3451 Theory of Computation
2. MATH 4420 Abstract Algebra I
3. MATH 4441 Real Analysis I
4. Three (3) additional credit hours in CSCI numbered 2306 or above
5. Six (6) additional credit hours in CSCI numbered 3000 or above. CSCI 4500 Research Thesis can be used to satisfy this requirement.
6. Six (6) additional credit hours in MATH numbered 3000 or above resulting in a total of 51 credit hours in CSCI and 45 credit hours in MATH. MATH 4500 Research Thesis can be used to satisfy this requirement.
7. Six (6) additional credit hours in MATH numbered 3000 or above

resulting in a total of 51 credit hours in CSCI and 45 credit hours in MATH

Students must achieve a Degree GPA of 3.00 or above on those courses presented in fulfillment of the Bachelor of Science with Double Honours in Computing Science and Mathematics requirements.

Double Honours in Computing Science and another Science

For Double Honours in Computing Science and another science, students must fulfill all of the specified required courses in CSCI and MATH for honours, plus:

- Three (3) additional credit hours in MATH courses numbered 2306 or above.
- Six (6) additional credit hours in CSCI courses numbered 2306 or above.

Concentration in Computing Science

Students may complete a 3 year (90 credit hour) Bachelor of Science with a concentration in computing science. See

Section 3 for details on the requirements for general B.Sc. with concentration. The Computing Science concentration requires 36 credit hours in Computing Science and Mathematics as follows:

1. CSCI 1226 Introduction to Computing Science and Programming (see note below)
2. CSCI 1227 Computer Programming and Problem Solving or CSCI 1228 Accelerated Programming and Problem Solving
3. CSCI 2327 Digital Logic and Computer Architecture
4. CSCI 2328 Assembly Level Machine Organization and language
5. CSCI 2341 Data Structures and Algorithms I
6. CSCI 2342 Data Structures and Algorithms II
7. Twelve (12) credit hours in CSCI numbered 2306 or above
8. MATH 1210 Introductory Calculus I
9. MATH 1211 Introductory Calculus II

Note: Students passing the challenge test for CSCI 1228 may substitute three (3) additional credit hours in CSCI for CSCI 1226.

Requirements for a Minor in Computing Science

It is possible to obtain a minor in Computing Science by completing 30 credit hours in Computing Science as follows:

1. CSCI 1226 Introduction to Computing Science and Programming (see note below)
2. CSCI 1227 Computer Programming and Problem Solving or CSCI 1228 Accelerated Programming and Problem Solving
3. CSCI 2327 Digital Logic and Computer Architecture
4. CSCI 2328 Assembly Level Machine Organization and language
5. CSCI 2341 Data Structures and Algorithms I
6. CSCI 2342 Data Structures and Algorithms II
7. Twelve (12) credit hours in CSCI numbered 2306 or above

Note: Students passing the challenge test for CSCI 1228 may substitute three (3) additional credit hours in CSCI for CSCI 1226.

Major in Computing Science and Business Administration

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 Sobey School of Business. 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. The courses listed below are required. Due to restrictions associated with the prerequisite structure, it is strongly recommended that students take courses in the sequence shown below. A minimum grade of C is required in each of the required CSCI and MATH courses and a minimum

average GPA of 2.2 is required in the required business courses.

Year 1:

- ENGL 1205 Introduction to Literature
- CSCI 1226 Introduction to Computing Science
- CSCI 1227 Computer Programming and Problem Solving or CSCI 1228 Accelerated Programming and Problem Solving
- MATH 1210 Introductory Calculus I
- MATH 1216 Introduction to Mathematical Statistics
- MGMT 1281 Introduction to Business Management
- ECON 1201 Principles of Economics: Micro
- ECON 1202 Principles of Economics: Macro
- Six (6) credit hours in Science (not CSCI)

Year 2:

- CSCI 2327 Digital Logic and Computer Architecture
- CSCI 2355 Internet Technologies and Web Programming
- CSCI 2341 Data Structures and Algorithms I
- Cisy 2320 Business Applications Programming
- ACCT 2241 Introductory Financial Accounting
- ACCT 2242 Introductory Managerial Accounting
- MKTG 2270 Introduction to Marketing
- MGMT 2383 Micro Organizational Behaviour
- MGMT 2384 Macro Organizational Behaviour
- Three (3) credit hours of electives

Year 3:

- Six (6) credit hours in CSCI numbered 2306 or above
- MATH 2320 Linear Algebra I
- ACCT 3332 Planning and Control
- FINA 2360 Business Finance I
- FINA 3361 Business Finance II
- Nine (9) credit hours in Science (not CSCI)
- Three (3) credit hours in Humanities

Year 4:

- Twelve (12) credit hours in CSCI numbered 3000 or above
- MGMT 4489 Strategic Management
- ACCT 3323 Management Information Systems
- Cisy 4425 Systems Analysis and Design
- Six (6) credit hours in Arts
- Three (3) credit hours of electives

Notes:

- (i) Students passing the challenge test for CSCI 1228 may substitute three (3) additional credit hours in CSCI for CSCI 1226.
- (ii) For students in the Computing Science and Business Administration program, MATH 1210 can replace MGCSC 1205 or MGCSC 1206 as a prerequisite for other business courses.
- (iii) For students in the Computing Science and Business Administration program, CSCI 1228 can replace Cisy 1225 as a prerequisite for other business courses. However, a knowledge of the topics covered in Cisy 1225 will be assumed in other courses.

- (iv) Students may not receive credit for Cisy 1225 if taken concurrently with or subsequent to CSCI 1226 or CSCI 1228.
- (v) Cisy 2320 may be acceptable as a CSCI elective above 2306 and below 3000 level with written permission of the Department.
- (vi) Cisy 3327 may be acceptable in lieu of CSCI 2355 with written permission of the Department. Students cannot receive credits for both Cisy 3327 and CSCI 2355.
- (vii) Cisy 4425 may be acceptable in lieu of CSCI 3428 with written permission of the Department. Students cannot receive credit for both Cisy 4425 and CSCI 3428
- (viii) Cisy 3326 may be acceptable in lieu of CSCI 3461 with written permission of the Department. Students cannot receive credits for both Cisy 3326 and CSCI 3461.
- (ix) Cisy 4436 may be acceptable in lieu of CSCI 3421 with written permission of the Department. Students cannot receive credits for both Cisy 4436 and CSCI 3421.

Course Descriptions

1226 Introduction to Computing Science and Programming

3 credit hours

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.

Note: students who receive credit for CSCI 1228 will not receive credit for CSCI 1226 if it is taken concurrently with, or after the completion of, CSCI 1228.

Classes 3 hrs. and lab 3 hrs. a week.

1227 Computer Programming and Problem Solving

3 credit hours

Prerequisite: CSCI 1226

This course is designed to extend the student's knowledge of, and provide additional hands-on experience with, the

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programming language encountered in CSCI 1226, in the context of the structured data types provided by that language, and within the larger contexts of object-oriented programming 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 program, of an abstract type that has already been implemented.

Note: students who receive credit for CSCI 1228 will not receive credit for CSCI 1227.

Classes 3 hrs. and lab 3 hrs. a week.

1228 Accelerated Programming and Problem Solving 3 credit hours

This course is intended for students who have programming experience from high school, and who have achieved the required grade on a challenge test administered at the beginning of the term. It begins with a quick review of the topics normally treated in CSCI 1226 followed by enhanced coverage of the current material from CSCI 1227.

Note: students who receive credit for CSCI 1228 will not receive credit for CSCI 1227. Students who receive credit for CSCI 1228 will not receive credit for CSCI 1226 if it is taken concurrently with, or after the completion of, CSCI 1228.

Classes 3 hrs. and lab 3 hrs. a week.

2301 Data Structures and Numerical Methods for Engineers 3 credit hours Prerequisites: CSCI 1226 or EGNE 1204

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 learning to implement properly structured solutions.

Note: This course is intended only for Engineering students. Computing Science students (CPSC or CSCI) should take CSCI 2341 and CSCI 2342 instead. No credit will be given for this course simultaneously with or subsequent to CSCI 2341.

Classes 3 hrs. and recitation 1 1/2 hrs. a week.

2307 Theoretical Foundations of Computing Science 3 credit hours Prerequisites: CSCI 1227 or CSCI 1228, and MATH 2305

This course complements CSCI 2341. It uses various mathematical concepts to define tools and address problems of fundamental status in Computing Science. Topics will involve notions related to graphs, formal languages and computability. Moreover, depending on the focus, other fundamental tools will be considered, which are utilized in topics such as database modeling, information coding, complexity, knowledge modeling, program correctness and automated reasoning.

2308 Introduction to Numerical Analysis [MATH 2308] 3 credit hours Prerequisite: MATH 1210/1211, CSCI 1226 or equivalent programming experience.

Discussion of errors in numerical analysis. Theoretical and practical considerations of numerical procedures in non-linear equations in one variable, systems of linear equations, and systems of non-linear equations, interpolation, polynomial approximation and integration. Classes 3 hrs. plus recitation 1.5 hrs. a week.

2309 Selected Topics in Numerical Analysis [MATH 2309] 3 credit hours Prerequisite: MATH 2308 [CSCI 2308] or permission of instructor.

Select topics for MATH 2308 [CSCI 2308] may be further explored. Other topics may include linear least squares, eigenvalues and eigenvectors and optimization. Classes 3 hrs. plus recitation 1.5 hrs. a week.

2327 Digital Logic and Computer Architecture 3 credit hours Prerequisite: CSCI 1227 or CSCI 1228

This course considers data representation, digital logic and computer organization at the assembly language level. 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 (e.g. flip-flops, registers, tri-states, bus structures, multiplexers, comparators, and adders). Computer organization includes the fetch—execute cycle of a processor, addressing modes of the machine, the data path, the memory hierarchy, and the input/output subsystem.

Classes 3 hrs. and recitation 1 1/2 hrs. a week.

2328 Assembly Level Machine Organization and Language 3 credit hours Prerequisite: CSCI 2327

This course builds on the experience obtained in CSCI 2327 by examining some topics in more detail and applying

them to a particular processor. The students will also learn assembly language programming for the processor.

Classes 3 hrs. and recitation 1 1/2 hrs. a week.

2341 Data Structures and Algorithms I

3 credit hours

Prerequisite: CSCI 1227 or CSCI 1228

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.

Classes 3 hrs. and recitation 1 1/2 hrs. a week.

2342 Data Structures and Algorithms II

3 credit hours

Prerequisite: CSCI 2341

This course provides an introduction to data structures and associated algorithms. Students will build on the theoretical and programming skills developed in CSCI 1226/1227/1228 and CSCI 2341 through a systematic study of some of the fundamental computing science concepts. The course will use the basis for evaluating algorithms, established in CSCI 2341, 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. The advantages and disadvantages of using these data structures will be studied.

Classes 3 hrs. and recitation 1 1/2 hrs. a week.

2355 Internet Technologies and Web Programming

3 credit hours

Prerequisite: CSCI 1227 or CSCI 1228

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.

Classes 3 hrs. and recitation 1 1/2 hrs. a week.

3421 Data Communications and Networking

3 credit hours

3428 Software Engineering

3 credit hours

Prerequisite: CSCI 2342.

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.

3430 Principles of Programming Languages

3 credit hours

Prerequisite: CSCI 2342 and MATH 2305

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.

3431 Operating Systems

3 credit hours

Prerequisite: CSCI 2328

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.

Classes 3 hrs. and recitation 1 1/2 hrs. a week.

3451 Theory of Computation

3 credit hours

Prerequisite: CSCI 2342 and CSCI 2307

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.

3461 Database Systems

3 credit hours

Prerequisite: CSCI 2342 and MATH 2305

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.

3462 File Structures

3 credit hours

Prerequisite: CSCI 2342 and MATH 2305

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.

3465 Object-Oriented Programming

3 credit hours

Prerequisite: CSCI 2342 and MATH 2305

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.

Classes 3 hrs. and recitation 1 1/2 hrs. a week.

3475 Human Computer Interaction

3 credit hours

Prerequisite: CSCI 1227 or CSCI 1228 or Cisy 2320, or permission of the instructor

The objective of this course is to teach future software developers, designers and managers to avoid pitfalls of wasting time and energy building software that no one will be able to use. This is accomplished by leading the students through a design process, from identifying and learning about the users/clients to creating and finally evaluating prototypes. We will consider both classic and cutting-edge

interaction technologies as they relate to human factors.

This is a project-based course.

Classes 3 hrs. and recitation 1 1/2 hrs. a week.

3482 Artificial Intelligence

3 credit hours

Prerequisite: CSCI 2342, MATH 1216, and MATH 2305

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 one or more of the popular AI tools.

3826 – 3849 Special Topics in Computing Science

3 credit hours

Prerequisite: permission of instructor.

Approved seminar courses dealing with specialized subject-matter that are announced from time to time by the Department.

4408 Numerical Solution of Initial Value Problems

[MATH 4408]

3 credit hours

Prerequisite: CSCI 2308 [MATH 2308] or permission of instructor.

This course considers the numerical solution of initial value ordinary differential equations. Topics may include multi-step methods, Runge-Kutta methods, stability, stiffness, step-size selection, local error, etc.

4409 Numerical Solution of Boundary Value Ordinary Differential Equations [MATH 4409]

3 credit hours

Prerequisite: CSCI 2308 [MATH 2308] or permission of instructor.

This course is concerned with the numerical solution of boundary value ordinary differential equations. Topics may include finite difference methods, shooting methods, collocation methods, conditioning, mesh selection, error estimation, etc.

4423 Cryptography

3 credit hours

Prerequisite: CSCI 2341 and MATH 2305

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.

4452 Algorithm Analysis

3 credit hours

Prerequisite: CSCI 2342 and MATH 2305

This course will build on the concepts of algorithm analysis introduced in CSCI 2341. 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

4463 Numerical Software

3 credit hours

Prerequisite: CSCI 2342 and MATH 2308

This course will study software development issues in the area of numerical analysis. The course will examine a number of numerical software tools such as Fortran90, Matlab, and Maple. The main course project will be the development of a numerical software package by students working in programming teams in a selected area of numerical algorithms.

Classes 3 hrs. and recitation 1 ½ hrs a week.

4471 Computer Graphics

3 credit hours

Prerequisite: MATH 2310 and 2320; and CSCI 2342

This course provides an overview of the principles and methodologies of computer graphics, including the representation, manipulation, and display of two- and three-dimensional objects. Subtopics may include characteristics of display devices (i.e., raster, vector); representing primitive objects (lines, curves, and surfaces) and composite objects; two- and three-dimensional transformations (translation, rotation, scaling); hidden lines and surfaces; shading and colouring; interactive graphics and the user interface; animation techniques.

Classes 3 hrs. and recitations 1 1/2 hrs. a week.

4474 Information Retrieval

3 credit hours

Prerequisite: CSCI 2342

This course considers manipulations on a bibliographic database. Topics to be covered include an introduction and basic definitions, inverted file structures, automatic

indexing, prototype systems, retrieval and refinements and natural language processing.

4476 Computer Vision and Digital Image Processing

3 credit hours

Prerequisite: CSCI 2342

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.

4477 Data Mining

3 credit hours

Prerequisite: CSCI 2342.

Data mining refers to a family of techniques used to detect interesting knowledge in data. With the availability of large databases to store, manage and assimilate data, the new thrust of data mining lies at the intersection of database systems, artificial intelligence and algorithms that efficiently analyze data. The course will use concepts from pattern recognitions, statistics, data analysis and machine learning. The size of databases and high complexity of techniques present many interesting computational challenges.

4500 Research Thesis

6 credit hours

Prerequisite: honours 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.

4826 - 4849 Special Topics in Computing Science

3 credit hours

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.

Criminology (CRIM)

Chairperson	R. Westhaver
Professors	G. Barrett, J. McMullan, E. Tastsoglou, M. VanderPlaat
Associate Professors	S. Bell, M. Byers, D. Crocker, V. Johnson, A. MacNevin, S. Schneider, A. Schulte-Bockholt, R. Westhaver
Assistant Professors	A. Carver, D. Leroux, D. Stefanovic
Lecturer	E. van der Veen
Coordinator of Criminology: Graduate Studies	D. Crocker
Adjunct Professors	B. Cottrell, J. Flint, L. Liebenberg, S. Lord, X. Petrinioti

Department website:

<http://www.smu.ca/academic/arts/sociology/>

Department Mission

The Department of Sociology and Criminology offers programs that provide students with a strong undergraduate experience in both Sociology and Criminology. Majors and honours programs are offered in each field. Students are particularly encouraged to complete a double major program in Sociology and Criminology. The Department also offers a Master's degree 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 and Gender Studies. For details on graduate programs, refer to the Graduate Academic Calendar.

The Bachelor of Arts degree in Criminology, including the honours program, provides students with an opportunity for focused study of various forms of regulation, policing, punishment, justice, law, delinquency and misbehaviour. The development of a coherent program at the undergraduate level enables students to obtain a solid foundation in Criminology for further study at the graduate level; for the pursuit of Criminology-related disciplines; and for careers in the related professions. A structured honours program is included for outstanding undergraduate students intending to pursue a Master's degree.

Major Program

For admission to the program, students must have completed SOCI 1210 and 1211 with a minimum grade of C in each course; and six (6) additional credit hours with a minimum grade of C in each course from the following courses: ANTH 1202, ANTH 1280, ECON 1201, ECON 1202, POLI 1201, POLI 1210, POLI 1220, POLI 1230, POLI 1240, POLI 1250, PSYC 1200, PSYC 1250, PSYC 1260.

To major in Criminology, students must complete forty-eight (48) credit hours as follows:

- a. Core Courses
 - SOCI 1210 Introductory Sociology (minimum grade C)
 - SOCI 1211 Social Power Relations (minimum grade C)

- CRIM 2010 [SOCI 2010] Principles of Social Theory
 - CRIM 2100 [SOCI 2100] Social Research Methods
 - CRIM 2124 [SOCI 2124] Social Inequality & Justice
 - CRIM 3010 [SOCI 3010] Classical Theory
 - CRIM 3011 Contemporary Criminological Theory
 - CRIM 3100 [SOCI 3100] Qualitative Research Methods
 - CRIM 3102 [SOCI 3102] Quantitative Research Methods
 - CRIM 2303 Introduction to Criminology
 - CRIM 2304 Canadian Criminal Justice System
- b. Six (6) credit hours in CRIM at the 3000 level
 - c. Six (6) credit hours in CRIM or SOCI at the 4000 level
 - d. Three (3) credit hours at the 3000 level not listed above from SOCI or CRIM.

FOR STUDENTS COMPLETING A DOUBLE MAJOR IN SOCIOLOGY AND CRIMINOLOGY, ONLY SIX (6) CREDIT HOURS OF CROSS-LISTED COURSES CAN BE DOUBLE COUNTED.

Suggested Schedule

The following program is recommended by the Department of Sociology and Criminology for students majoring in Criminology:

Year 1:

- ENGL 1205 Introduction to Literature
- 9 credit hours of introductory courses in the following humanities (except PHIL 1200): Classics; History; Religious Studies; Modern Languages courses on literature and culture (a maximum of 6 credit hours can be counted from any one area).
- SOCI 1210 Introductory Sociology with a minimum grade of C.
- SOCI 1211 Social Power Relations with a minimum grade of C.
- Six (6) credit hours from ANTH 1202, ANTH 1280, ECON 1201; ECON 1202; POLI 1201, POLI 1210, POLI 1220, POLI 1230, POLI 1240, POLI 1250, PSYC 1200, PSYC 1250, or PSYC 1260 with a minimum grade of C.
- Six (6) credit hours from one or two of the following: PHIL 1200 Critical Thinking, Mathematics, a language other than English, or a natural science other than Psychology.

Year 2:

- CRIM 2010 [SOCI 2010] Principles of Social Theory
- CRIM 2124 [SOCI 2124] Social Inequality & Justice
- CRIM 2303 Introduction to Criminology
- CRIM 2304 Canadian Criminal Justice System
- CRIM 2100 [SOCI 2100] Social Research Methods
- Nine (9) credit hours in Arts at the 2000 level or above
- Six (6) credit hours of electives

Year 3:

- CRIM3010 [SOC 3010] Classical Theory
- CRIM 3011 Contemporary Criminological Theory
- CRIM 3100 Qualitative Research Methods
- CRIM 3102 Quantitative Research Methods
- Six (6) credit hours in CRIM at the 3000 level
- Six (6) credit hours in Arts at the 2000 level or above
- Six (6) credit hours of electives

Year 4:

- Six (6) credit hours in CRIM or SOCI at the 4000 level
- Three (3) credit hours at the 3000 level not listed above from SOCI or CRIM
- Nine (9) credit hours in Arts at the 2000 level or above
- Twelve (12) credit hours of electives

Honours Program

This is a selective program. Applicants for admission must:

- have completed at least 60 credit hours;
- have a cumulative GPA of at least 3.00;
- have a cumulative GPA in Criminology courses of 3.30;
- have a faculty member's written agreement to serve as a supervisor for the honours thesis, CRIM 4500.

The deadline for application is 1 April of the year before students wish to begin the honours program.

For honours in Criminology, students must complete sixty-three (63) credit hours as follows:

a. Core Courses

- SOCI 1210 Introductory Sociology (minimum grade C)
- SOCI 1211 Social Power Relations (minimum grade C)
- CRIM 2010 [SOC 2010] Principles of Social Theory
- CRIM 2100 [SOC 2100] Social Research Methods
- CRIM 2124 [SOC 2124] Social Inequality & Justice
- CRIM 2303 Introduction to Criminology
- CRIM 2304 Canadian Criminal Justice System
- CRIM 3010 [SOC 3010] Classical Theory
- CRIM 3011 Contemporary Criminological Theory
- CRIM 3100 [SOC 3100] Qualitative Research Methods
- CRIM 3102 [SOC 3102] Quantitative Research Methods

b. Six (6) credit hours in CRIM at the 3000 level

c. Twelve (12) credit hours in CRIM at the 4000 level.

- CRIM 4501 Advanced Theory
- CRIM 4502 Advanced Research Methods
- CRIM 4600 Honours Thesis Research Preparation
- CRIM 4601 Honours Thesis Writing

To graduate, students must maintain a cumulative GPA of 3.30 in Criminology courses as well as earn a grade of B+ in CRIM 4601.

Concentration in Criminology

Students in a ninety (90) credit hour B.A. program with a concentration in CRIM are required to complete twenty-four (24) CRIM credit hours with a minimum grade point average of 2.00. Courses cross-listed with Sociology may not be double counted if students choose to complete a double

concentration in Sociology and Criminology. Required courses are as follows:

- SOCI 1210 Introductory Sociology (minimum grade C)
- SOCI 1211 Social Power Relations (minimum grade C)
- CRIM 2010 [SOC 2010] Principles of Social Theory
- CRIM 2100 [SOC 2100] Social Research Methods
- CRIM 2124 [SOC 2124] Social Inequality & Justice
- CRIM 2303 Introduction to Criminology
- CRIM 2304 Canadian Criminal Justice System
- 3 additional credit hours in CRIM

Minor in Criminology

The minor in criminology requires twenty-four (24) credit hours in criminology completed with a minimum grade point average of C. Required courses include:

- SOCI 1210 Introductory Sociology (minimum GPA of 2.00)
- SOCI 1211 Social Power Relations (minimum GPA of 2.00)
- CRIM 2302 Introduction to Criminology and CRIM 2304 Canadian Criminal Justice System
- An additional 12 credit hours in CRIM at the 2000, 3000, or 4000 level

Note: For students enrolled in the minor program in criminology and the major program in sociology, only 6 credit hours of cross-listed courses may be double counted to meet program requirements.

Course Descriptions**2010 Principles of Social Theory [SOC 2010]**

3 credit hours

Prerequisite: SOCI 1211

This course introduces students to the basic theoretical frameworks and tools through which we seek to understand key variables and patterns in social life. The course will examine the key frameworks through which sociologists and criminologists analyze issues of social justice, crime, identity, power, social inequality, culture, technology etc.

Note: Students may not receive credit for CRIM 2010 if they have already received credit for CRIM 2300 or SOCI 2362.

2100 Social Research Methods [SOC 2100]

3 credit hours

Prerequisite: SOCI 1211

This course introduces students to basic social research methods by examining positivist, interpretivist, and critical research strategies, different forms of research design, and a range of methods of evidence collection. While the course is intended as a general introduction to the language of social research methods, it will emphasize that choice of methods is closely related to theory and the nature of particular research questions. Students will assess and critique Sociological and Criminological scholarly research.

Note: Students may not receive credit for CRIM 2100 if they have already received credit for CRIM 2364 or SOCI 2364.

2124 Social Inequality and Justice [SOC1 2124]

3 credit hours
Prerequisite: SOCI 1211

Students will examine major structures of social inequality and how these structures intersect in the lives of individuals and groups. Patterns in opportunity, disadvantage, regulation, and access to justice emerge from those structures.

2303 Introduction to Criminology

3 credit hours
Prerequisite: SOCI 1211

This course introduces students to contemporary issues, problems and themes pertinent to the field of Criminology in Canada.

2304 Canadian Criminal Justice System

3 credit hours
Prerequisite: SOCI 1211

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.

3010 Classical Theory [SOC1 3010]

3 credit hours
Prerequisite: SOCI/CRIM 2010

This course introduces students to the major themes of classical Sociological and Criminological theory. Students will examine key debates from the 18th and 19th century which have influenced contemporary Sociological and Criminological Theory.

Note: Students may not receive credit for CRIM 3010 if they have already received credit for CRIM 2300 or SOCI 2362.

3011 Contemporary Criminological Theory

3 credit hours
Prerequisite: CRIM/SOCI 3010

This course introduces students to the major themes of contemporary criminological theory including the influence of class, gender, race, media and politics in the definition, explanation, and regulation of crime and criminal behaviour.

Note: Students may not receive credit for CRIM 3011 if they have already received credit for CRIM 2301.

3100 Qualitative Research Methods [SOC1 3100]

3 credit hours
Prerequisite: CRIM/SOCI 2100

This course introduces students to sociological and criminological research that uses qualitative methods. The course will examine qualitative methodology, research strategies, designs and methods of qualitative data collection and analysis, including the contributions of feminist scholarship. Students will also learn different ways of interpreting qualitative data. Approaches covered in this class may include grounded theory, participatory action

research, historical and textual methods, and participant-observation/ethnography, among others.

Class 3 hrs and Lab 75 min/week

Note: Students may not receive credit for CRIM 3100 if they have already received credit for CRIM 2302 or SOCI 2365.

3102 Quantitative Research Methods [SOC1 3102]

3 credit hours
Prerequisite: CRIM/SOCI 2100

This course introduces students to quantitative methodology, research strategies, designs, methods of quantitative data collection and statistical analysis. A key feature of this class will involve interpreting and critiquing statistical data, which is a major source of information for sociologists and criminologists.

Class 3 hrs and Lab 75 min/week

Note: Students may not receive credit for CRIM 3100 if they have already received credit for CRIM 2302 or SOCI 2365.

3220 Race, Racism and Colonialism [SOC1 3220]

3 credit hours
Prerequisites: One of SOCI/CRIM 2010, 2100, 2124

Students in this course will critically examine the history, social production, and ongoing impacts of race, racism and colonialism

3505 Prisons and Punishment [SOC1 3505]

3 credit hours
Prerequisite: SOCI 1211

Drawing upon literature from the sociology of punishment, this course situates Western penal regimes within historically-specific economic, socio-political, and cultural frameworks. The emergence and re-emergence of a broad range of practices for punishing and regulating 'problem populations' will be a central theme for the course.

3506 Gender, Race and Justice [SOC1 3506]

3 credit hours
Prerequisite: SOCI 1211

The course examines the effects of the intersection of gender and race on the administration of justice. Students will look into how issues relating to gender and race play out in the criminal justice system at various levels including police, courts and corrections.

3507 Policing and Society [CRIM 3507]

3 credit hours
Prerequisite: SOCI 1211

In this course students will explore issues related to the policing of modern societies. Topics will include the exercise of police powers and discretion, police misconduct, and policing in a multicultural society.

3508 Corporate Crime [SOCI 3508]

3 credit hours
Prerequisite: SOCI 1211

Students in this course will examine and analyze 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.

3509 Victims and Criminal Justice [SOCI 3509]

3 credit hours
Prerequisite: SOCI 1211

In criminal justice systems, the role of the victim has expanded considerably. It is not clear if these developments have resulted in better treatment of victims or more justice in broader ways. To explore these issues students will learn about the historic roots of "victimology", and critical theoretical perspectives on the social construction of victims and their needs and rights.

3510 Criminal Law [SOCI 3510]

3 credit hours
Prerequisite: SOCI 1211

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.

3511 Youth Crime and Moral Panics [SOCI 3511]

3 credit hours
Prerequisite: SOCI 1211

This course takes a historical/comparative approach to the study of youth crime in Canada. It examines changing definitions and perceptions of youth crime, contemporary crime patterns, correlates and their explanations. The course emphasizes a critical approach to understanding youth crime statistics and their changes over the last 100 years. The overall objective of the course is to develop in students a critical appreciation of moral panics about youth crime.

3512 Youth Justice Philosophy, Models and Systems [SOCI 3512]

3 credit hours
Prerequisite: CRIM/SOCI 3511

This course takes a historical/comparative approach to the study of youth justice in Canada. It examines social responses to youth crime and how philosophies and systems have changed over the last 100 years. The course focuses on legislative change from the creation of the juvenile justice system under the Juvenile Delinquents Act to its reform with the Young Offenders Act, Youth Criminal Justice Act and the introduction of reformatory justice principles. The overall objective of the course is to develop in students a critical understanding of youth governance and justice.

3518 State, Crime, and Power in Developing Countries [SOCI 3518]

3 credit hours
Prerequisite: SOCI 1211

This course is an interdisciplinary exercise designed for students in Criminology, International Development Studies, Political Science, and Sociology. Students will: (a) learn about the colonial origins of crime in Latin America; (b) be introduced to the basics of Latin American criminological thinking such as Liberation Criminology; (c) explore the various dimensions of criminal activity (street, organized, state and corporate) in developing countries; and (d) study the detrimental effects of crime, corruption and abuse of power on the societies of the South.

3519 Terrorism: Perspective and Policy [SOCI 3519]

3 credit hours
Prerequisites: CRIM 2010, 2100, 2124

This course is a comprehensive examination of how terrorism movements have comparatively developed. This includes an analysis of methods, typical motivations, and outcomes. Academic studies on terrorism and counter-terrorism are contrasted with responses to terrorism.

3526 Organized Crime [SOCI 3526]

Prerequisite: SOCI 1211
3 credit hours

This course provides an introduction to the subject of organized crime and its control in North America. The course applies sociological, criminological, and economic theory to understand the rise and proliferation of criminal organizations and organized crime activities. It also explores dominant organized crime genres, activities, and recent trends. The course also explores strategies and laws to combat organized crime.

3546 Crime and the Media [SOCI 3546]

3 credit hours
Prerequisite: SOCI 1211

This course focuses on the depiction of crime in various media of mass communication. Areas of study include 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

3800 – 3825 Special Topics in Criminology [SOCI 3800 – 3825]

6 credit hours
Prerequisites: One of SOCI/CRIM 2010, 2100, 2124.

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.

130 Criminology

3826 – 3849 Special Topics in Criminology [SOCI 3826 – 3849]

3 credit hours

Prerequisites: One of SOCI/CRIM 2010, 2100, 2124.

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.

4210 Forced Migration and Refugees [SOCI 4210]

3 credit hours

Prerequisites: SOCI/CRIM 3010, SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

This course will critically examine the key determinants, processes, and consequences of internal displacement and forced migration across borders through the analysis of case studies from around the world. Topics in the course will include, selectively, contemporary refugee issues, gender violence in conflict zones, resettlement, repatriation, refugees and development, asylum-seekers, and the Canadian and UN refugee protection systems and various international conventions.

4220 Power, Equity and Global Issues [SOCI 4220]

3 credit hours

Prerequisites: CRIM/SOCI 3010, 3100, 3102 and SOCI 3012 or CRIM 3011

This course is designed to examine power, equity, and global issues through a critical anti-racist lens. A critical anti-racist discursive framework/praxis demands unequivocal democratic citizenship rights, qualitative social justice, and respect for human rights and freedoms promised by the International Human Rights Laws and Conventions. It addresses questions such as: What is power? Is it the domination of individuals, socio-racial groupings, geographical locations, and societies at large? How does power manifest itself in a global context?

4303 Canadian Penal Policy, Practices, and Research

3 credit hours

Prerequisites: CRIM/SOCI 3010, 3100, 3102 and (SOCI 3012 or CRIM 3011)

Through critical socio-legal inquiry, this course examines the effects of progressive and oppressive practices characterizing the administration of contemporary Canadian prisons. Progressive initiatives may include prisoners' rights, the rule of law, the Gladue decision, and harm reduction initiatives. Repressive control strategies may include risk management discourse and treatment regimes, Dangerous Offender designations, Aboriginal and gender-specific programmes, involuntary transfers, and solitary confinement.

4404 Critical Criminology

3 credit hours

Prerequisites: Completion of the courses in Criminology core and permission of the instructor.

Critical criminology challenges the dominant paradigms of crime-control, adopting instead a social justice approach to crime. Students will explore central themes of critical

criminology including power; the social construction of crime; governance and regulation; the politicization of crime control; and, the significance of gender, race and class.

4420 Genocide [SOCI 4420]

3 credit hours

Prerequisite: Completion of the Criminology core program requirements.

Genocide as a sociological and criminological phenomenon prevalent through history is examined. Different types of genocide are identified, as well as the many challenges in responding to it.

4421 War as Crime [SOCI 4421]

3 credit hours

Prerequisite: CRIM/SOCI 3010, 3100, 3102 and (SOCI 3012 or CRIM 3011)

The 20th century has seen two world wars and numerous other conflicts. The so-called 'Cold War' turned hot in many parts of the developing world and cost the lives of tens of millions and maimed countless others. With the new millennium, novel forms of warfare and military technologies have been introduced which again largely victimize the societies of the 'Global South'. Students will analyze the criminal dimensions and true costs of military conflict.

4432 Gender and Law [SOCI 4432, WMST 4432]

3 credit hours

Prerequisites: CRIM/SOCI 3010, 3100, 3102 and SOCI 3012 or CRIM 3011

Students will examine how the social construction of femininity and masculinity intersect with other forms of identity and power to shape law. The course will include investigation of the creation, interpretation and enforcement of law.

4461 Applied Survey Design [SOCI 4461]

3 credit hours

Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

Students will explore issues that arise in the design and administration of surveys. These issues include: questionnaire design, ethics, pre-testing, sampling and developing a theoretically informed formulation of the research question. The course will cover several stages from data collection to preliminary analysis. On-line surveys and use of surveys with focus groups may be included in the course.

4501 Advanced Theory [SOCI 4501]

3 credit hours

Prerequisite: enrolment in honours program.

Presentation of various topics of interest to advanced criminology and sociology students. Attention is given to the critical theoretical accomplishments of various writers, including feminist scholars. 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.

Note: Students are advised to enrol in SOCI 4495 - 4496 in years when CRIM 4501 is not offered.

4502 Advanced Research Methods [SOCI 4502]

3 credit hours

Prerequisite: enrolment in honours 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.

4512 Issues in Juvenile Justice [SOCI 4512]

3 credit hours

Prerequisites: CRIM/SOCI 3010, 3100, 3102, (SOCI 3012 or CRIM 3011), and CRIM/SOCI 3512

This course that explores contemporary issues associated with the concept, philosophy and practice of juvenile justice. Students will examine children and youth as theoretical constructs in the context of the discourse surrounding children's rights and governance of the young. The course aims to develop students' critical understanding of the politics and philosophy of youth justice in postmodern society.

4515 Drugs and Power in Latin America [SOCI 4515]

3 credit hours

Prerequisite: CRIM/SOCI 3010, 3100, 3102 and (SOCI 3012 or CRIM 3011)

Students in this course will become familiar with 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.

4525 Crime Prevention: Theory and Practice [SOCI 4525]

3 credit hours

Prerequisite: SOCI/CRIM 3010, SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

This course introduces students to the field of crime prevention, which can be defined as "the anticipation, recognition, and appraisal of a crime risk and the initiative of some action to remove it." Topics include situational, social developmental, and community-based approaches to crime prevention as well as community policing, problem-oriented policing, and restorative justice. The course also teaches students how to plan and implement a crime prevention project and the final assignment is the development of a crime prevention plan for a real community.

4543 Law in Society [SOCI 4543]

3 credit hours

Prerequisites: CRIM/SOCI 3010, 3100, 3102 and SOCI 3012 or CRIM 3011

Students will explore the social issues and power relations inherent in the creation, enforcement, and reform of law.

4600 Honours Thesis Research Preparation [SOCI 4600]

3 credit hours

Prerequisite: enrolment in honours program.

This course is restricted to students who have been accepted into the honours program. Its purpose is to aid students in the preparation of their honours thesis through workshops related to proposals, research and writing.

4601 Honours Thesis Writing [SOCI 4601]

3 credit hours

Prerequisite: Completion of SOCI/CRIM 4600.

Students will work closely with their supervisor to complete their thesis. To obtain an honours degree in sociology and criminology, the student must earn a grade of B+ (3.30) in CRIM 4601

4800 – 4825 Special Topics in Criminology

6 credit hours

Prerequisite: CRIM/SOCI 3010, 3100, 3102 and (SOCI 3012 or CRIM 3011)

These seminar courses are designed to provide seminars pertaining to particular interests of faculty and students in Criminology.

4826 – 4849 Special Topics in Criminology

3 credit hours

Prerequisite: CRIM/SOCI 3010, 3100, 3102 and (SOCI 3012 or CRIM 3011)

These seminar courses are designed to provide seminars pertaining to particular interests of faculty and students in Criminology.

4850 – 4875 Directed Readings in Criminology

6 credit hours

Prerequisite: permission of the instructor

These courses provide an opportunity for students to read in depth in an area of sociology not normally covered by regular Departmental course offerings. Students are expected to demonstrate some initiative and independence.

Note: These courses do not constitute a 4000-level seminar in fulfillment of requirement (d) for majors.

4876 – 4899 Directed Readings in Criminology

3 credit hours

Prerequisite: permission of the instructor

These courses provide an opportunity for students to read in depth in an area of sociology not normally covered by regular Departmental course offerings. Students are expected to demonstrate some initiative and independence.

Note: These courses do not constitute a 4000-level seminar in fulfillment of requirement (d) for majors.

Economics (ECON)

Chairperson	A. Dar,
Professors	A. Akbari, S. AmirKhalkhali, P. Arya, A. Dar, M. MacDonald, S. Novkovic
Associate Professors	Y. Aydede, N. Sharif, J. Taheri
Assistant Professors	M. Raymond, B. Talukdar
Adjunct Professors	W. Rankaduwa
Professor Emeritus	A. Harvey

Department Statement

“Economics is the study of how individuals, firms, government and other organizations within our society make *choices*, and how these choices determine society’s use of its resources.” (Joe Stiglitz).

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. Economists are central players in setting government policy, from social programs to economic development. In the private sector, they contribute to market research for new products, evaluate the impact of mergers, and assess tax policy.

Students who desire some minimum understanding of economics are encouraged to consider taking one or two courses at the 1200 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: ECON 3307, 4407
 Public Finance: ECON 3318, 3319
 International: ECON 3327, 3365, 4413, 4414
 Quantitative: ECON 3302, 3303, 4403, 4409
 Regional: ECON 3324, 3325
 Natural Resources and Environment: ECON 3362, 3363
 Comparative Systems: ECON 3315
 Cost-Benefit Analysis and Health: ECON 3364, 3366
 Development: ECON 3310, 4410
 Labour: ECON 3340, 3341, 3349
 Industrial Organization: ECON 3316
 Other theory courses: ECON 4400, 4401, 4404, 4405.

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.

See Faculty of Arts and Faculty of Commerce, Section 3 of this *Calendar*, for the basic requirements for these degrees.

In addition to the programs cited above, information on graduate courses, may be found in *the Graduate Academic Calendar*.

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.

Major in Economics

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. The following economics courses:
 - ECON 1201 Principles of Economics: Micro
 - ECON 1202 Principles of Economics: Macro
 - MGSC 1206 Introduction to Quantitative Methods II
 - MGSC 2207 Introductory Statistics
 - ECON 3300 Intermediate Microeconomic Theory
 - ECON 3301 Intermediate Macroeconomic Theory
 - ECON 4400 Advanced Microeconomic Theory or
 - ECON 4401 Advanced Macroeconomic Theory.
 - One additional course (three (3) credit hours) in ECON at the 4000-level (excluding ECON 4475).
 - 12 additional credit hours in ECON

Majors are encouraged to include ECON 3302 and/or 3303 among their Economics electives.

Students may complete MATH 1210 or 1250 Introductory Calculus in lieu of MGSC 1206.

- b. Six (6) credit hours in the humanities: Classics, English other than ENGL 1205, History, Philosophy other than PHIL 1200, Religious Studies, and Modern Languages courses on literature and/or culture. In special circumstances, with the permission of the Chairperson, all or part of this requirement may be fulfilled from among the following: ECON 3312; 3315; and 3323.
- c. Six (6) credit hours from the social sciences other than economics.

Bachelor of Arts – Major in Economics

Arts students are encouraged to take MGSC 1205 and/or CISY 1225 in fulfilment of Arts requirement 3b. The above requirements for the major will satisfy Arts regulation 3d and 6 or the 9 credit hours in Arts regulation 3c.

Students must achieve a minimum grade point average of 2.0 in the courses listed in a. above.

Suggested course sequencing for the program is as follows:

Year 1

ENGL 1205 Introduction to Literature
 ECON 1201 Principles of Economics: Micro
 ECON 1202 Principles of Economics: Macro
 MGSC 1206 Introduction to Quantitative Methods II
 6 hours in two Humanities
 6 hours in Social Science but not ECON
 6 hours in MATH, Science or modern language (MGSC 1205 and CISY 1225 recommended)

Year 2

MGSC 2207 Introductory Statistics
 ECON 3300 Intermediate Microeconomic Theory
 ECON 3301 Intermediate Macroeconomic Theory
 12 hours Arts electives at 2000 level or above
 3 hours in Humanities
 6 hours electives

Year 3

9 hours in ECON at the 3000 level or above
 15 hours Arts electives at 2000 level or above
 6 hours electives

Year 4

3 hours in ECON at the 3000 level or above
 One of

- ECON 4400 Advanced Microeconomic Theory or
- ECON 4401 Advanced Macroeconomic Theory

3 hours in ECON at the 4000 level (excluding 4475)
 12 hours Arts electives at 2000 level or above
 9 hours electives

Bachelor of Commerce - Major in Economics

Upon completion of 45 credit hours, Commerce students with a cumulative grade point average of 2.0 may elect to declare a major in Economics. (In exceptional circumstances, students can also be admitted to the major by permission of the Chairperson.)

To complete a major in Economics, students must attain a minimum grade point average of 2.2 in ECON courses below as indicated by *.

Suggested course sequencing for the program is as follows:

Year 1

CISY 1225 Introduction to Computer Applications
 *ECON 1201 Principles of Economics: Micro
 *ECON 1202 Principles of Economics: Macro
 ENGL 1205 Introduction to Literature
 MGMT 1281 Introduction to Business Management
 MGSC 1205 Quantitative Methods I
 MGSC 1206 Quantitative Methods II
 Nine (9) non-Commerce elective credit hours

Year 2

ACCT 2241 Introductory Financial Accounting
 ACCT 2242 Introductory Managerial Accounting
 CMLW 2201 Legal Aspects of Business - Part I
 COMM 2293 Communications
 MGSC 2207 Introductory Statistics
 MGMT 2383 Micro Organizational Behaviour
 MGMT 2384 Macro Organizational Behaviour

MKTG 2270 Introduction to Marketing
 Three (3) credit hours in ECON at the 3000 level
 Three (3) credit hours in non-Commerce electives

Year 3

*ECON 4400 Advanced Microeconomic Theory
 or
 *ECON 4401 Advanced Macroeconomic Theory
 FINA 2360 Business Finance I
 FINA 3361 Business Finance II
 *Six (6) credit hours in Economics electives at the 3000 level or above
 Six (6) credit hours in humanities or language electives [Classics, History, Philosophy (except PHIL 1200.0), Religious Studies, English, or Modern Languages]
 MGMT 3480 Ethical Responsibilities of Organizations
 Six (6) credit hours in free electives

Year 4

MGMT 4489 Strategic Management
 *Six (6) credit hours ECON electives at 3000 level or above
 *Three (3) credit hours in ECON electives at 4000 level (excluding ECON 4475)
 Six (6) credit hours in social sciences (excluding Economics) elective [Anthropology, Geography, Political Science, Sociology, or Psychology]
 Three (3) credit hours in non-Commerce electives
 Twelve (12) credit hours in free electives

Students are encouraged to take ECON 3300 or 3301 in year 2 and defer 3 credit hours in ECON electives to year 3.

Honours in Economics

The Department of Economics offers honours programs to students enrolled in either the Bachelor of Arts or the Bachelor of Commerce. Descriptions of the general requirements for the degrees of Bachelor of Arts (Honours) and of Bachelor of Commerce (Honours) are contained in Section 3. In addition to these general requirements, for graduation with honours in economics, all students must comply with the following:

- a. Students must satisfy the applicable requirements for a major in economics as outlined above.
- b. The sixty (60) credit hours in economics presented for honours must include:
 - (i) ECON 1201, ECON 1202, MGSC 1206, and MGSC 2207, or equivalent;
 - (ii) ECON 3300 and ECON 4400;
 - (iii) ECON 3301 and ECON 4401;
 - (iv) ECON 3302, ECON 3303, and ECON 4403, or nine (9) credit hours from the Mathematics and Computing Science Department with the approval of the Chairperson of the Economics Department;
 - (v) ECON 4498;
 - (vi) ECON 4499 or another advanced economics three (3) credit hours approved by the Chairperson of the Department;
 - (vii) either ECON 3310, ECON 3312, ECON 3315, ECON 3323, or another three (3) economics credit hours approved by the Chairperson;
 - (viii) ECON 4404 or ECON 4405.
- c. With the approval of the Chairperson of the Economics Department, a student may be permitted to substitute up to

twelve (12) credit hours from a related subject area as part of the sixty (60) credit hours in economics presented for honours.

d. Commerce students doing honours in economics are permitted to count nine (9) economics credit hours at the 3000-level or above as a non-commerce elective.

e. The recommended course selection and sequence for the degree of Bachelor of Commerce (Honours: Economics) can be found in the Bachelor of Commerce section of this *Calendar*.

f. Students contemplating pursuing graduate studies in Economics are encouraged to enrol in Mathematics courses beyond those required for Honours. Courses in Calculus and Linear Algebra are recommended. Students should consult with the chairperson for advice.

Concentration in Economics (Bachelor of Arts only)

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 ninety (90) credit hours), a minimum of twenty-four (24) credit hours in Economics with a minimum grade point average of 2.00 is required. Further details are available from the chairperson.

Minor in Economics

Students in the Bachelor of Arts and the Bachelor of Science have the option of declaring a minor in Economics. To satisfy the requirements for this minor students must complete twenty-four (24) credit hours in Economics, with at least twelve (12) credit hours at the 3000-level or above.

Course Descriptions

1201 Principles of Economics: Micro

3 credit hours

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 behaviour of individual households and firms. It also focuses on the determination of the market prices of individual goods and services under different market structures.

1202 Principles of Economics: Macro

3 credit hours

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 macroeconomic issues. Topics include: measuring macroeconomic indicators (GDP, unemployment rate, price level), determinants of aggregate economic activity, money and banking, causes of economic fluctuations, stabilization policies (fiscal and monetary), international transactions and growth.

3300 Intermediate Microeconomic Theory

3 credit hours

Prerequisite: ECON 1201 and MGSC 1206.

Theory of consumer behaviour and demand, theory of production and cost, behaviour of the firm, theory of price and output under different market structures, and the theory of factor markets.

3301 Intermediate Macroeconomic Theory

3 credit hours

Prerequisite: ECON 1202 and MGSC 1206.

Measurement of macroeconomic variables; models of aggregate income and price determination; unemployment and inflation; macroeconomic policy debates.

3302 Mathematical Economics

3 credit hours

Prerequisite: ECON 1201 and 1202; and MGSC 1206 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.

3303 Intermediate Economic Statistics

3 credit hours

Prerequisite: MGSC 2207 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.

3307 Money and Banking

3 credit hours

Prerequisite: ECON 1201 and 1202.

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.

3310 Development Economics

3 credit hours

Prerequisite: ECON 1201 and 1202.

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.

3315 Comparative Economic Systems

3 credit hours

Prerequisite: ECON 1201 and 1202.

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 past and existing systems will be analyzed, with emphasis on diverse institutional arrangements.

3316 Industrial Organization

3 credit hours

Prerequisite: ECON 1201 and 1202.

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 behaviour of firms, and efficiency in resource allocation.

3318 Public Finance: Expenditure

3 credit hours

Prerequisite: ECON 1201 and 1202.

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.

3319 Public Finance: Taxation

3 credit hours

Prerequisite: ECON 1201 and 1202.

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.

3322 Canadian Economic Issues

3 credit hours

Prerequisite: ECON 1201 and 1202.

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.

3324 The Atlantic Economy

3 credit hours

Prerequisite: ECON 1201 and 1202.

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.

3325 Atlantic Economy Seminar

3 credit hours

Prerequisite: ECON1201 and 1202.

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.

3327 Asia Pacific Economies

3 credit hours

Prerequisite: ECON 1201 and 1202.

The goal of the course is to create and enhance a capacity for understanding contemporary economic development in Asia Pacific. The course examines economic, historical, and institutional conditions and factors that influence economic growth in selected countries in this region. Policy lessons related to exchange rates, trade, and development will be drawn. The course will also look at some recent developments and address current debates on growth, distribution, environment, and globalization.

3340 Human Resource Economics

3 credit hours

Prerequisite: ECON 1201 and 1202.

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.

3341 Labour Economics

3 credit hours

Prerequisite: ECON 1201 and 1202.

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.

3349 Women and the Economy [WMST 3349]

3 credit hours

Prerequisite: ECON 1201 and 1202.

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.

3362 Natural Resource Economics

3 credit hours

Prerequisite: ECON 1201 and 1202.

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.

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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.

3363 Environmental Economics

3 credit hours

Prerequisite: ECON 1201.

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.

3364 Cost-Benefit Analysis

3 credit hours

Prerequisite: ECON 1201 and 1202.

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.

3365 International Economic Issues

Prerequisite: ECON 1201 and 1202.

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.

3366 Health Economics

3 credit hours

Prerequisite: ECON 1201 and 1202.

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.

3826 – 3849 Special Topics in Economics

3 credit hours

Prerequisite: permission of instructor

3876 – 3899 Directed Study in Economics

3 credit hours

Prerequisite: permission of instructor

4400 Advanced Microeconomic Theory

3 credit hours

Prerequisite: MGSC 1206 or equivalent, and ECON 3300.

Advanced treatment of the theories of consumer behaviour and the firm with special emphasis on duality theory; general equilibrium theory; welfare economics. Other topics may include choice under uncertainty and game theory.

4401 Advanced Macroeconomic Theory

3 credit hours

Prerequisite: MGSC 1206 or equivalent, and ECON 3301.

Microeconomic foundations of macroeconomics; inflation; interest rates; exchange rates; labour markets and unemployment; investment and real business cycles; economic growth.

4403 Econometrics

3 credit hours

Prerequisite: ECON 3303.

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.

4404 Special Topics in Microeconomics

3 credit hours

Prerequisite: ECON 4400.

Selected topics in microeconomics chosen for rigorous, in-depth study from the following areas: input markets; general equilibrium; welfare economics; inter-temporal choice; information theory. Topics may vary depending on the interests of the students and the instructor.

4405 Special Topics in Macroeconomics

3 credit hours

Prerequisite: ECON 4401.

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.

4407 Monetary Economics

3 credit hours

Prerequisite: ECON 3300, 3301.

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.

4410 Issues in Economic Development

3 credit hours

Prerequisite: ECON 3300, and 3310.

Specific problems in economic development; emphasis on government policies, foreign aid, foreign trade and their impact on underdeveloped countries.

4413 International Macroeconomics and Finance

3 credit hours

Prerequisite: ECON 1201, and 3301.

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.

4414 International Trade

3 credit hours

Prerequisite: ECON 3300.

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.

4475 Business Consultancy

3 credit hours

Prerequisite: ECON 3300, and permission of 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.smu.ca/smubdc>.

4490 Seminar in Economics

3 credit hours

Prerequisite: ECON 3300, and 3301.

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.

4498 Research Seminar in Economics

3 credit hours

Prerequisite: ECON 3300, and ECON 3301.

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.

4499 Honours Project in Economics

3 credit hours

Prerequisite/co-requisite: admission to the honours program (thesis option) and completion of ECON 4498, 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.

4826 – 4849 Special Topics in Economics

3 credit hours

Prerequisite: permission of instructor

4876 – 4899 Directed Study in Economics

3 credit hours

Prerequisite: ECON 1201, 1202, 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.

Education (EDUC)

(Acting) Dean	E. Enns
Professors	S. Crooks, E. Enns
Associate Professor	A. O'Malley
Adjunct Professors	P. Bennett, S. Hassanali, H. vanGurp,
Professor Emeritus	J. Haysom

Undergraduate Courses

Saint Mary's University offers a number of undergraduate courses in education. These courses are available to Saint Mary's students enrolled in the Faculties of Arts, Science and Commerce, and as pre-service teacher education courses for teachers holding a Bridging Teacher's Certificate. Some of the Education courses are cross-listed with Arts, and can be taken for credit toward some of the Majors and Minors in the B.A. degree programs. For detailed information, please contact the Dean of Arts at smarts@smu.ca. Teachers interested in using courses for teacher certification purposes are advised to obtain prior approval of the Registrar of Teacher Certification at The Nova Scotia Department of Education, PO Box 578, Halifax, Nova Scotia, B3J 2S9.

Access to Pre-service Teacher Education Programs

Saint Mary's University provides a number of degree programs in which students can prepare for admission to degrees in Education both within Nova Scotia and in other provinces and countries. Subject to degree requirements, students may include some education courses in their degree as a foundation for future studies in this field.

In Nova Scotia, pre-service teacher education programs are offered by Acadia University, Cape Breton University, Mount Saint Vincent University, Saint Francis Xavier University and Université Saint Anne.

Saint Mary's students can opt to take advantage of our Articulation Agreement with the University of Maine at Presque Isle. This agreement provides several benefits including international experience and certification as a teacher in both Maine and Nova Scotia. To qualify, students must complete an undergraduate degree at Saint Mary's of at least ninety (90) credit hours in arts and science courses, which must include the undergraduate courses required for teacher certification in both Maine and Nova Scotia for the level and subject the student wishes to teach. During their final year, students must apply to enter the Education program at the University of Maine at Presque Isle. Students must also complete the Praxis I exam and include the results in their application for admission. At Presque Isle, students will complete two semesters and a summer school of Education courses. Students will then complete one semester of Practice Teaching. Documents describing this program are available from BA Advising Centre, McNally Main 218.

For certification as a teacher, Nova Scotia regulations require students to complete a minimum of three years of undergraduate arts and science courses plus two years of education courses, one semester of which is practice

teaching. For more detailed information concerning Nova Scotia's undergraduate studies requirements, please visit their web-site at certification.ednet.ns.ca.

Continuing Teacher Education

Certificate Programs for Teachers

Saint Mary's offers the following two Certificate Programs which have received general approval for the upgrading of Nova Scotia Teacher's Certificates:

1. The Certificate in the Mathematical Sciences for Education is described in the Mathematics entry, Section 4 of this *Calendar*.
2. The Certificate in Linguistics is described in the Linguistics entry, Section 4 of this *Calendar*.

Teachers interested in completing a certificate program for purposes of upgrading their teacher certification classification, are advised to obtain approval of their proposed program of study from the Registrar of Teacher Certification, Nova Scotia Department of Education, PO Box 578, Halifax, N.S. B3J 2S9 prior to enrolment in the certificate program.

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. For details, see the *Graduate Academic Calendar*.

Course Descriptions

2365 Philosophy of Education: Classic Texts [PHIL 2365]

3 credit hours

Prerequisite: at least thirty (30) credit hours

A critical examination of influential works in the history of educational thought.

3305 Perspectives on Schooling

3 credit hours

Prerequisite: at least thirty (30) credit hours

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.

3306 Schooling and Society

3 credit hours

Prerequisite: at least thirty (30) credit hours

This course continues the examination of the role of the teacher in the school and the school in society begun in EDUC 3305. An historical and comparative perspective is used to explore teaching as a career and the school as an increasingly central feature of developed societies.

3307 Sociology of Education [SOCI 3307]

3 credit hours

Prerequisite: at least thirty (30) credit hours

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.

3365 Philosophical Foundations of Education [PHIL 3365]

3 credit hours

Prerequisite: at least thirty (30) credit hours

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.

3826 – 3849 Special Topics in Education

3 credit hours

Prerequisite: permission of instructor

3876 – 3899 Directed Study in Education

3 credit hours

Prerequisite: permission of instructor

4456 Curriculum and Instruction in Teaching English as a Second or Foreign Language I

3 credit hours

Prerequisite: at least thirty (30) credit hours

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. Focus is on analysis and evaluation of selected curricular approaches and pedagogical methods in foreign language teaching.

4457 Curriculum and Instruction in Teaching English as a Second or Foreign Language II

3 credit hours

Prerequisite: EDUC 4456

A continuation of EDUC 4456. Topics may include trends and issues in foreign language education, and critical examination of selected approaches, e.g. teaching for communication, content-based ESL/EFL.

4458 Pedagogical Grammar for ESL Teachers: Theory and Practice

3 credit hours

Prerequisite: LING 1200 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.

4459 Seminar and Practicum in Teaching English as a Second/Foreign Language

3 credit hours

Prerequisite: EDUC 4456

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.

4461 Language, Culture, and Education

3 credit hours

Prerequisite: at least thirty (30) credit hours

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.

4473 Comparative Perspectives on Innovations in Education – Reforms [IDST 4473]

3 credit hours

Prerequisite: at least thirty (30) credit hours

This course will assess, compare and contrast variations and reforms to mainstream educational systems, and will emphasize the conditions out of which such reforms are initiated. Special emphasis will be given to contrasting public systems of education with privatization initiatives, together with public/private partnerships and changes that affect access to education, gender and education, and so on. This course will draw on the considerable body of literature and concrete case studies throughout the world; however, considerable emphasis will be given to examples and case

studies from the regions or sub-regions of Asia, Africa, Latin America and the Middle East/North Africa.

4474 Comparative Perspectives on Innovations in Education – Alternatives [IDST 4474]

3 credit hours

Prerequisite: at least thirty (30) credit hours

This course will seek to understand the material and social conditions, practical initiatives, rationale and outcomes of radical alternatives to mainstream education and mainstream educational reforms. Above and beyond in-depth discussions of perspectives on informal and non-formal educational systems, the works of Illich, Freire, and other educational radicals will be discussed, as will the concepts of intercultural bilingual education, social capital education, and other alternative conceptions of education. The course will provide a forum for the discussion and deeper understanding of the relation between the larger social, political and economic structure and the educational goals and objectives of radical education alternatives. Considerable emphasis will be given to examples and case studies from the regions or sub-regions of Asia, Africa, Latin America and the Middle East/North Africa.

4476 Education and Development I: Perspectives [IDST 4476]

3 credit hours

Introduction to concepts and analysis underlying a comparative understanding of selected educational systems around the world. The course will emphasize comparisons between mainstream educational understandings in the developed world, the agenda of international education organizations, international educational funders, and the implementation of educational systems, both public and private. Specific reference will be made to access to education, curriculum and culture, gender and education, and similar issues with an emphasis on examples from the so-called *developing world* in Asia, Africa, Latin America and the Middle East/North Africa.

4477 Education and Development II: Policies and Practices [IDST 4477]

3 credit hours

A continuation of EDUC 4476. Examination and comparison of educational policies in selected countries or regions of the world with a view to assessing educational outcomes, education processes and the relation between education, the public sector, the private sector and international organizations, and the effect of such policies worldwide. Emphasis is on Asia, Africa, Latin America and the Middle East/North Africa.

4518 Introduction to International Comparative Education: Perspectives [IDST 4518]

3 credit hours

Prerequisite: at least thirty (30) credit hours

Introduction to concepts and analysis underlying a comparative understanding of selected educational systems around the world. The course will emphasize comparisons between mainstream educational understandings in the developed world, the agenda of international education organizations, international educational funders, and the implementation of educational systems, both public and private. Specific reference will be made to access to education, curriculum and culture, gender and education and similar issues with an emphasis on examples from the so-called developing world in Asia, Africa, Latin America and the Middle East/North Africa..

4528 Introduction to International Comparative Education: Policies [IDST 4528]

3 credit hours

Prerequisite: at least thirty (30) credit hours of University courses and EDUC 4518 or permission of Instructor

This course is a continuation of EDUC 4518. Examination and comparison of educational policies in selected countries or regions of the world with a view to assessing educational outcomes, educational processes and the relation between education, the public sector, the private sector and international organizations, and the effect these policies have had, or are having worldwide, with emphasis on the regions or sub-regions of Asia, Africa, Latin America and the Middle East/North Africa

4826 – 4849 Special Topics in Education

3 credit hours

Prerequisite: permission of instructor

4876 – 4899 Directed Study in Education

3 credit hours

Prerequisite: at least thirty (30) credit hours of University courses.

An independent study organized by a faculty member in consultation with a student. It enables a student to pursue independent research in a specific theme in education. Papers and/or examinations will be required.

Engineering (EGNE)

Director	A. Merabet, Assistant Professor
Professor	D. Swingler
Lecturer	D. MacNeil

General Information

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
- social understanding
- an appreciation for continued learning

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 the program for the discipline of their choice leading to a Diploma of Engineering. Students may also choose to continue their studies at Saint Mary's to obtain a Bachelor of Science with Diploma in Engineering.

Saint Mary's University is one of a group of Associated Universities which offer the Diploma in Engineering, a two-year program after which students may apply to Dalhousie University for the completion of their Bachelor of Engineering degree in their chosen discipline program.

Admission to the desired discipline program at Dalhousie University is not automatic and may depend on the applicant's academic standing and the number of available seats in the different programs. Priority is not given to Dalhousie students over those D. Eng students from the Associated Universities.

With a Saint Mary's University Diploma in Engineering, students may be eligible for admission to the Bachelor of Applied Science (BASC) in Mechanical Engineering and to the Bachelor of Applied Science (BASC) in Civil Engineering programs at the University of Windsor. Students must have successfully completed their Diploma in Engineering and obtained a minimum grade of C- in each of their required courses for the Diploma. Available options within the BASc in Mechanical Engineering include General, Automotive, Materials or Environmental. Interested students should speak to the Engineering Academic Advisor.

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
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:

MATH 1210	Introductory Calculus I
MATH 1211	Introductory Calculus II
CHEM 1210	General Chemistry I
CHEM 1213	General Chemistry II for Engineering
PHYS 1100	University Physics I
PHYS 1101	University Physics II
ENGL 1205	Introduction to Literature
EGNE 1203	Engineering Mechanics (Statics)
EGNE 1204	Computer Methods for Engineers
EGNE 1206	Engineering Design Graphics(Design I)

Three credit hours in:

Humanities: ENGL (excluding ENGL 1205); HIST; CLAS; PHIL; RELS; and Modern Languages (excluding spoken language instruction courses)

AND/OR

Social Sciences: ANTH, POLI, PSYC, and SOCI

Students must declare their discipline by the end of year one.

Disciplines

1. Environmental Engineering
2. Chemical Engineering
3. Civil Engineering
4. Electrical Engineering
5. Industrial Engineering
6. Mechanical Engineering
7. Materials Engineering
8. Mineral Resources Engineering

Year Two:

The second year curriculum comprises twenty-seven (27) required credit hours for students in all disciplines; nine (9) credits from discipline-specific courses.

Twenty-seven (27) required credit hours

MATH 2301	Linear Algebra for Engineers
MATH 2303	Differential Equations I
MATH 2311	Intermediate Calculus
EGNE 2303	Thermo-Fluid Engineering I
EGNE 2304	Mechanics of Deformable Bodies
EGNE 2307	Design II
EGNE 2308	Electric Circuits
EGNE 2309	Probability and Statistics
ENGE 2400	Engineering and Biosphere

Nine (9) credit hours from discipline-specific courses:

Course		Discipline
CHEM 2344	Organic Chemistry I	1, 2, 7
GEOL 1200	Understanding the Earth	3, 8
EGNE 2301	Dynamics	3, 5, 6
ENGE 2302	Engineering Economics	4, 5, 6, 8
EGNE 2305	Digital Logic Circuits	4
EGNE 2306	Thermo-Fluid Engineering II	3, 5, 6, 8
EGNE 2311	Circuit Analysis II	4

Notes:

(a) Not all discipline-specific courses for Environmental (1), Chemical (2), and Materials (7) Engineering

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Disciplines are offered at Saint Mary's. Fundamentals of Process Engineering and Fundamentals of Environmental Engineering are only offered at Dalhousie University and may be taken by Saint Mary's students using the 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 grade point average of 2.0.

Three-Year Bachelor of Science (General) with Diploma in Engineering

This program entails an extra year of thirty (30) credit hours as listed below:

- six (6) credit hours in MATH at the 3400-level or above.
- six (6) credit hours in CHEM at 2300 level or above
- six (6) credit hours in PHYS and/or BIOL at 2300 level or above
- twelve (12) credit hours in Humanities or Social Sciences at 1200 level or above

Four-Year Bachelor of Science with Major in Mathematics and Diploma in Engineering

Students complete Year One and Year Two of the Diploma in Engineering Program as listed above; the minimum number of MATH/CSCI credit hours to satisfy the requirements for a Major in Mathematics (in consultation with the Mathematics Department Chair), plus sufficient electives to complete the one hundred and twenty (120) credit hours required for a Bachelor of Science degree with a Major.

Students wishing to pursue this degree are advised to substitute CSCI 1226 and 1227 or 1228 for ENGE 1204, and consult with the Mathematics Department Chair before registering for any 3000-level mathematics course or EGNE 2309.

Note: Students who wish to pursue a four year Bachelor of Science degree with Major in another Science and Diploma in Engineering are strongly encouraged to seek advice from the co-director Student Affairs.

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.

Course Descriptions

1203 Engineering Mechanics (Statics)

3 credit hours

Prerequisite: MATH 1210/1211 (concurrently).

This course covers the 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. Topics also include the profession of engineering and its history. A design project is a component of this course.

Classes 3 hrs. and lab 3 hrs. a week.

1204 Computer Methods for Engineers

3 credit hours

Students must be registered in either the Diploma of Engineering or the B.Sc./Diploma in Engineering program.

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.

1206 Engineering Design Graphics (Design I)

3 credit hours

Prerequisite: Students must be registered in either the Diploma of Engineering or the B.Sc./Diploma in Engineering Program

The course topics include, 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. This course also provides an opportunity for students to develop technical writing and presentation skills, study skills, examination skills and introduces students to the variety of disciplines of engineering and regulations for engineering.

Classes 3 hrs. a week and lab 3 hrs. a week.

2301 Dynamics

3 credit hours

Prerequisite: MATH 1211, EGNE 1203, and EGNE 1204.

Topics include rectilinear and curvilinear kinematics using Cartesian, normal-tangential, and polar cylindrical labels: projectile motion with zero and non-zero drag. Topics also include continuous and discrete forms of the second law:

work-energy, conservation of energy, impulse-momentum. Students are introduced to the Newtonian analysis of bodies in translation, rotation about a fixed axis, and plane general motion. Planar mechanisms with pin joints, sliding connections, and gears are addressed.
Classes 3 hrs. and lab 3 hrs. a week.

2302 Engineering Economics

3 credit hours

Prerequisite: Students must be registered in either the Diploma of Engineering or the B.Sc./Diploma in Engineering program.

This course deals with the economics of engineering design. Students are introduced to the fundamental concepts and cash flow diagrams; and interest factors are dealt with in some detail. A variety of discounted cash flow techniques are covered including rate of return calculations. Topics also include inflation, tax, replacement and risk.

Classes 3 hrs. a week and labs 1 hr. a week.

2303 Differential Equations I

3 credit hours

Prerequisite: MATH 1211 and PHYS 1101.

This course introduces students to the fields of Thermodynamics and Fluid Mechanics in an integrated manner. It covers the basic properties of fluids and gasses, ideal gas equation of state, fluid statics, work and heat interactions, control volume using energy, the first and second laws of thermodynamics, enthalpy, entropy, as well as Carnot, Rankine and power/refrigeration cycles. Formal report writing on some topics related to the history and the evolution of the field is required.

Classes 3 hrs. and lab 3 hrs. a week..

2304 Mechanics of Deformable Bodies

3 credit hours

Prerequisite: MATH 1211, and EGNE 1203.

This course is an introduction to the techniques and theories involved in the analysis of strength, deformation and stability of structural members and assemblies under the action of forces. Students are provided with the opportunity to develop their 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 an introduction to the Theory of Elasticity. The course also provides students with an introduction to the engineering profession, engineering ethics and professional responsibility as well technical writing and presentation skills. A design project is a component of this course.

Classes 3 hrs. and lab 3 hrs. a week.

2305 Introduction to Digital Logic Circuits

3 credit hours

This course introduces students to the 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; and finite state machines. Formal report writing on a topic related to the history and evolution of the field is required.

Classes 3 hrs. and lab 3 hrs. a week.

2306 Thermo-Fluid Engineering II

3 credit hours

Prerequisite: MATH 1211 and EGNE 2303

This course is a continuation of EGNE 2303 in examining the thermo-fluid sciences in an integrated manner. Topics include: buoyancy and stability; the use of continuity, control volume, Euler, Bernoulli, energy and momentum equations in engineering applications; dimensional analysis; similitude; theory of physical models; and laminar vs turbulent flows in piping/conduit systems. Formal report writing on some topics related to the history and the evolution of the field is required.

Classes 3 hrs. and lab 3 hrs. a week.

2307 Engineering Design II

3 credit hours

Prerequisite: EGNE 1206 and 1204.

This course is an extension of EGNE 1206 course material to include: technical drawings and computer graphics; a design project with working drawings and a technical report; and the construction and testing of a physical model.

Classes 3 hrs. a week and lab 3 hrs. a week.

2308 Electric Circuits

3 credit hours

Prerequisite: PHYS 1100 and 1101 (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: Kirchhoff'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. A formal written report on a topic related to the history and the evolution of the field is required. Classes 3 hrs. and lab 3 hrs. a week.

2309 Probability and Statistics for Engineers

3 credit hours

Prerequisite: MATH 1211.

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.

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Classes 3 hrs. and labs 2 hrs. a week.

2311 Circuit Analysis (Circuits II)

3 credit hours

Prerequisite: EGNE 2308.

This course builds on the introduction to electric circuits in EGNE 2308. 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. Labs are “virtual labs” using Electronics Workbench/Spice packages on P.C. network.

Classes 3 hours and lab 3 hours a week.

2400 Engineering and Biosphere

3 credit hours

Prerequisite: CHEM 1210

The course explores the effect of engineered systems and structures on the biosphere. Topics include cell structure and function, microbiology, toxicology, and nutrient cycles. The effect of engineering projects on the ecology, environment and living systems. The application of technology and design to minimize the adverse impact of engineering activities on the biosphere is addressed. Laboratory sessions consist of tutorials and field-trips to local sites.

Classes 3 hrs. a week and lab 3hrs. a week

English (ENGL)

Chairperson	R. Hulan
Professors	B. Bartlett, T. Heffernan, R. Hulan, D. Kennedy, R. Perkin, G. Stanivukovic,
Associate Professors	E. Asp, M. Barr, D. Heckerl, S. Kennedy, A. MacLeod, S. Malton, T. Takseva
Assistant Professors	P. Antwi, D. C. Hall, G. Hlongwane, L. La Berge, S. Morley, J. VanderBurgh, A. Watson
Professors Emeriti	J. Hill, W. Katz, G. Thomas, A. Seaman, K. Tudor
Dean Emeritus	M. Larsen

Department website: www.smu.ca/academic/arts/english/

Department Mission

The English department offers a wide variety of courses leading up to both major and minor concentrations in English, as well as an honours degree. The core of the program reflects a traditional approach to English studies, including literary-historical and genre courses. What makes the department distinctive, however, are a number of courses cross-listed with other disciplines or programs, such as Atlantic Canada Studies, Women and Gender Studies, Linguistics, Irish Studies, and Creative Writing. This feature allows students to expand their area of academic study in ways that reflect interdisciplinary approaches and their own developing interests.

The Major Program

Students wishing to major in English must satisfy the general requirements set out by the Faculty of Arts, and complete forty-two (42) credit hours in English including three (3) credit hours at the Introductory level – ENGL 1205.

The Major Program (42 credit hours) consists of:

- Three (3) credit hours of ENGL 1205
- Twelve (12) credit hours in ENGL at the 2000 level (see detailed requirements in year 2)
- Eighteen (18) credit hours in ENGL at the 3000 level (see detailed requirements in year 3)
- Nine (9) credit hours in ENGL at the 4000 level

Suggested schedule

Year 1

- ENGL 1205 (NOTE: a passing grade in this course is required for entrance into 2000 level ENGL courses).
- Six (6) credit hours from one or two of the following: Philosophy 1200 (no other philosophy course satisfies this requirement); Mathematics [including MGSC 1205; MGSC 1206; and CISO 1225].
- Nine (9) credit hours from at least two of the following Humanities: Classics, History, Religious Studies, English [other than ENGL 1205], Philosophy (other than PHIL 1200), and Modern Languages courses on languages, literature and culture
- Twelve (12) credit hours from first year courses in the following social sciences: Anthropology, Economics, Geography, Linguistics, Political Science, Psychology and Sociology (a maximum of six (6) credits will be counted in any one area)

Year 2

- ENGL 2307 Literary Traditions in English
- Six (6) credit hours from 2000 level English courses (the Department recommends students take ENGL 2205 Practical Criticism as part of this requirement)
- Twelve (12) credit hours from Arts courses at the 2000 level (may include English courses at the 2000 level beyond the above requirement)
- Six (6) credit hours of electives

Year 3

- Nine (9) credit hours from the following ENGL 3000 level courses in the pre-Twentieth Century period:

ENGL 3331; 3344; 3347; 3348; 3404; 3408; 3409; 3452; 3458; 3412; 3414; 3416; 3419; 3446; 3447; 3481; 3482; 3483; 3484.

There may also be Special Author/Special Subject courses that fulfill the distribution requirements for 3000 level courses, if approved by the Department Chairperson.

- Nine (9) credit hours in ENGL at the 3000 level
- Six (6) credit hours from Arts courses at the 2000 level or above (may include English courses at the 3000 level beyond the above requirement)
- Six (6) credit hours of electives

Year 4

- Nine (9) credit hours from 4000 level ENGL courses
- Nine (9) credit hours of Arts electives at the 2000 level or above (may include English courses at the 4000 level beyond the above requirement)
- Twelve (12) credit hours of electives

The Minor Program in English

A minor consists of at least twenty-four (24) credit hours in English with a maximum of three (3) credit hours at the 1000 level and a minimum grade point average of 2.0. 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 twelve (12) credit hours in Creative Writing in at least two of the four genres offered (fiction, poetry, drama and non-fiction).

Students are also required to take twelve (12) credit hours more in English courses beyond ENGL 1205.

Students who wish to major in English and minor in Creative Writing must take forty-eight (48) credit hours in English courses above ENGL 1205 and fulfill the requirements of both programs.

Concentration

A minimum of twenty-four (24) credit hours in English is required 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 ninety (90) credit hours).

Further details are available from the Chairperson.

The Honours Program

Students wishing to major in English with Honours must satisfy the general requirements set out by the Faculty of Arts, and complete sixty (60) credit hours in English including three (3) credit hours at the Introductory level – ENGL 1205.

The Honours program (60 credit hours) consists of:

- Three (3) credit hours of ENGL 1205

- Twelve (12) credit hours at the 2000 level (see detailed requirements in year 2)
- Thirty (30) credit hours at the 3000 level (see detailed requirements in year 3)
- Six (6) credit hours of the Honours Seminar
- Nine (9) credit hours at the 4000 level

Suggested Schedule

Year 1

- ENGL 1205 (NOTE: a passing grade in this course is required for entrance into 2000 level ENGL courses).
- Six (6) credit hours from one or two of the following: Philosophy 1200 (no other philosophy course satisfies this requirement); Mathematics [including MGSC 1205; MGSC 1206; and CISO 1225]
- Nine (9) credit hours from at least two of the following Humanities: Classics, History, Religious Studies, English [other than ENGL 1205], Philosophy (other than PHIL 1200.0), and Modern Languages courses on literature and culture
- Twelve (12) credit hours from first year courses in the following social sciences: Anthropology, Economics, Geography, Linguistics, Political Science, Psychology and Sociology (a maximum of six (6) credits will be counted in any one area)

Year 2

- ENGL 2307 Literary Traditions in English
- Six (6) credit hours from 2000 level English courses (the Department recommends students take ENGL 2205 Practical Criticism as part of this requirement)
- Nine (9) credit hours from Arts courses at the 2000 level (may include English courses at the 2000 level beyond the above requirement)
- Nine (9) credit hours of electives

Year 3

- Twelve (12) credit hours, satisfying the following area requirements (with three (3) credit hours from each of Medieval and Renaissance Literature):
 - Medieval: ENGL 3404, 3439, 4405
 - Renaissance: ENGL 3419, 3421, 3444, 3445, 3446, 3447, 4422, 4423, 4424
 - 18th Century: ENGL 3408; 3412, 3414, 3416
 - 19th Century: ENGL 3344, 3347, 3348, 3481, 3482, 3483, 3484
 - 20th Century/Contemporary: ENGL 3343, 3345, 3351, 3367, 3429, 3435, 3437, 3438, 3443, 3450, 3451, 3453, 3459, 3460, 3461, 3471, 3472.

There may also be Special Author/Special Subject courses that fulfill one or more of these distribution requirement for 3000 level course, if approved by the Department Chairperson

- ENGL 3302 Literary Theory I
- ENGL 3303 Literary Theory II
- Twelve (12) credit hours from ENGL 3000 level courses

Year 4

- Six (6) credit hours of the Honours Seminar (topics vary from year to year; students are encouraged to check the departmental calendar for offerings)
- Nine (9) credit hours from 4000 level English courses
- Fifteen (15) credit hours of electives

Course Descriptions

1205 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.

A PASSING GRADE IN ENGL 1205 IS NORMALLY REQUIRED FOR ENTRANCE TO 2000-LEVEL ENGLISH COURSES.

2205 Practical Criticism

3 credit hours

This course provides an introduction to the discipline of literary criticism through extensive exercises in the practical criticism of selected literary works. It is aimed at developing essential skills in close reading and a critical vocabulary with which to analyze and discuss literature, while sharpening students' attentiveness to the way in which form and content contribute to meaning in a literary work.

2261 Postcolonial Literature: Africa, the Caribbean, and South Asia

3 credit hours

Prerequisite: ENGL 1205

This course introduces students to postcolonial writing in English from Africa, the Caribbean and South Asia. Authors to be studied may include Chinua Achebe, Buchi Emecheta, Shyam Selvadurai, Samuel Selvon, Jamaica Kincaid, Kamala Das and Anita Desai.

2262 Postcolonial Literature: Canada, Australia, and New Zealand

3 credit hours

Prerequisite: ENGL 1205

This course introduces students to postcolonial writing in English from Canada, Australia and New Zealand. Authors to be studied may include Eden Robinson, Sky Lee, Rudy Wiebe, Gerry Bostock, Jack Davis and Witi Ihimaera.

2301 Nineteenth Century Crime and Detective Fiction

3 credit hours

Prerequisite: ENGL 1205

This course considers the development of fiction of crime, mystery, and detection during the nineteenth century, a period in which this genre flourished. Authors to be studied include Mary Elizabeth Braddon, Wilkie Collins, Arthur Conan Doyle, Charles Dickens, Henry James, E. A. Poe, and R. L. Stevenson. Attention may also be given to relevant social developments, such as the rise of the police force, advances in criminology and detection, the typology and

psychology of the criminal, the "lady detective," white-collar crime and criminal networks, and the Victorian Underworld.

2302 Twentieth Century Crime and Detective Fiction

3 credit hours

Prerequisite: ENGL 1205

A study of major 20th Century stories of crime, mystery, and detection. Authors may include Agatha Christie, Raymond Chandler, Dashiell Hammett, and Sue Grafton.

2303 Fictions of Finance

3 credit hours

Prerequisite: ENGL 1205

This course examines the representation of money and finance in a range of genres – including fiction, drama, poetry, and film – and from a range of literary periods. Authors to be considered include William Shakespeare, Charles Dickens, Fyodor Dostoevsky, Theodore Dreiser, George Eliot, D. H. Lawrence, F. Scott Fitzgerald, Arthur Miller, and Martin Amis. Topics to be addressed include narratives of financial success and failure, gambling and risk, the expansion of capitalism and the stock market, lotteries and auctions, fraud and financial crime, and hoarding and expenditure.

2307 Literary Traditions in English

6 credit hours

Prerequisite: ENGL 1205 or equivalent.

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.

2308 Development of English Prose Style [LING 2308]

3 credit hours

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.

2311 Modern English Language [LING 2311]

3 credit hours

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.

2313 Narrative in Fiction and Film

6 credit hours

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.

2315 Masterpieces of Western Literature (Pre-Renaissance)

3 credit hours

An historical survey of the major works of Western civilization from classical Greece to the Renaissance.

2316 Masterpieces of Western Literature (Post-Renaissance)

3 credit hours

An historical survey of the major works of Western civilization from the Renaissance to the 20th century.

2317 Writing by Women [WMST 3317]

6 credit hours

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.

2318 The Writer and Nature

3 credit hours

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.

2320 Writing by Women I

3 credit hours

This course focuses on women's literature from the middle ages to the end of the eighteenth century. It covers a variety of literary genres and examines some of the theoretical, historical, and practical concerns pertaining to women's writing.

2321 Writing by Women II

3 credit hours

This course focuses on literature from the nineteenth century to the present day. It covers a variety of literary genres and examines some of the theoretical, historical, and practical concerns pertaining to women's writing.

2325 The Media in Everyday Life

3 credit hours

This course focuses on the role of printed and electronic media in forming our imaginative conceptions of the world around us.

2326 Language and Gender [LING 2326]

3 credit hours

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.

2327 The Bible and English Literature [RELS 2376]

3 credit hours

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.

2328 The Catholic Tradition in Modern Literature in English [RELS 2375]

3 credit hours

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.

2341 Introduction to Drama I

3 credit hours

This course is a survey of representative plays from ancient Greece to 1700.

2342 Introduction to Drama II

3 credit hours

This course is a survey of representative plays from 1700 to the present.

2356 The Development of Science Fiction to the New Wave

3 credit hours

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.

2360 The Fantastic

3 credit hours

This course will trace the rise of fantastic literature into a variety of modern cultural forms (novel, short story, graphic novel, film, gaming) and explore the ideologies it encodes. Examining how the fantastic filters the mythic, medieval and romantic, we will be in a position to speculate on how fantasy's various manifestations both tie us to the past and reconstruct identity and society in the postmodern era.

2364 The Modern Novella

3 credit hours

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.

2380 Literature of Atlantic Canada [ACST 2380]

6 credit hours

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.

2391 The Study of Short Fiction

3 credit hours

This course is designed to introduce students to short fiction as well as to the analytical concepts necessary for its critical appreciation and judgment.

2392 The Study of the Narrative

3 credit hours

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 judgment.

2393 The Study of Poetry

3 credit hours

Students are introduced to methods and problems in poetics and the reading and analysis of English poetry for the purpose of preparing students for advanced work.

2396 Shakespeare: An Introduction

3 credit hours

This course will provide an introduction to English culture in Shakespeare's time, including a brief overview of the development of English drama. Students will study a selection from Shakespeare's comedies, tragedies, histories, and sonnets, ranging from his earliest to his latest writings.

2511 Reading Film

3 credit hours

Prerequisite: ENGL 1205.

This course introduces students to the fundamentals of film language, modes of production, and critical approaches used in the discipline of film studies to read and interpret narrative films in various social, historical, and media contexts.

Classes 2 hours and Lab/Screening 2 hours.

2800 - 2825 Special Author, Special Subject

6 credit hours

The subject matter of particular courses will be announced from time to time. These courses are designed to examine authors and topics not dealt with in other 2000-level courses.

2826 - 2849 Special Author, Special Subject

3 credit hours

The subject matter of particular courses will be announced from time to time. These special half-credit courses provide the opportunity to study a particular author or subject in depth and detail. They are designed to examine authors and

topics not dealt with in other 2000-level courses or to allow for a different approach to the study of authors and/or topics already covered in other courses.

3302 Literary Theory I

3 credit hours

This course provides an introduction to the major issues, figures, and theoretical approaches in the discipline of literary criticism. This section covers the ancients through to nineteenth-century writers.

3303 Literary Theory II

3 credit hours

This course provides an introduction to the major issues, figures, and theoretical approaches in the discipline of literary criticism. This section covers twentieth century through to contemporary writers.

3310 Classical Literature [CLAS 3310]

3 credit hours

Prerequisite: 6 credit hours of CLAS or ENGL courses.

This course is a survey of the literature of ancient Greece and/or Rome in English translation. Course content will be organized either thematically, for example on women in Classical literature or metamorphosis, or by genre, for example on epic, tragedy, or comedy. The course is intended for students who have some background in Classics and/or Classical literature.

3331 History of Children's Literature

3 credit hours

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.

3343 Cultural Studies

3 credit hours

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.

3344 Canadian Literature to 1920

3 credit hours

An introduction to the drama, fiction, prose and poetry written in early Canadian literary history emphasizing the colonial and post-Confederation periods.

3345 Canadian Literature After 1920

3 credit hours

An introduction to the drama, fiction, prose and poetry written in Canada since 1920 studied in critical and historical context.

3347 American Literature 1820-1865

3 credit hours

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.

3348 American Literature 1865-1914

3 credit hours

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.

3349 Literature in English 1350-1500

3 credit hours

This course provides an in-depth study of various aspects of late medieval English literature, excluding Chaucer. Readings may cover genres such as medieval romance, drama, hagiography and devotional prose as well as works by Langland, the Gawain poet, Lydgate, Malory, the Wakefield dramatist, and Julian of Norwich.

3351 American Fiction from 1950 to the Present

3 credit hours

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.

3361 World Literature in English: Selected Focus

3 credit hours

3367 Canlit: the 60s and 70s

3 credit hours

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.

3375 Writing Fiction I

3 credit hours

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.

3376 Writing Fiction II

3 credit hours

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.

3381 Writing Poetry

6 credit hours

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.

3382 Writing Plays

6 credit hours

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.

3383 Writing Prose - Non-Fiction

3 credit hours

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.

3402 History of the English Language [LING 3402]

6 credit hours

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.

3404 Chaucer: The Canterbury Tales

3 credit hours

Prerequisite: At least six (6) credit hours in English at the 2000 level.

This course will provide an introduction to the poet Geoffrey Chaucer with a detailed study of his most accessible and popular work The Canterbury Tales. The focus will be on reading The Canterbury Tales in Middle English and on the literary, social and historical context in which it was produced. Students are not required to have any prior knowledge of Middle English.

3408 Drama and Society - Restoration to 18th Century

3 credit hours

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.

3412 Restoration and 18th Century Literature

6 credit hours

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.

3416 The Romantic Movement

6 credit hours

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.

3419 English Poetry and Prose of the 16th Century

3 credit hours

Prerequisite: twelve (12) credit hours in ENGL at the 2000-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, Layer, Stuart and Queen Elizabeth I.

3421 English Poetry and Prose of the 17th Century

3 credit hours

Prerequisite: twelve (12) credit hours in ENGL at the 2000-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.

3428 20th Century Poetry

6 credit hours

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.

3429 American Literature 1914-1950

3 credit hours

Prerequisite: ENGL 1205 (or equivalent) and twelve (12) credit hours in ENGL at the 2000-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.

3435 20th Century European Drama

3 credit hours

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.

3437 Canadian Drama

3 credit hours

A course in Canadian drama and theatre history with an emphasis on audience and performance using collaborative and collective study methods. The course covers published plays, radio and television drama, and live performance.

3439 Literature in English 1350-1500

3 credit hours

Prerequisite: ENGL 3404

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.

3443 Irish Poetry [IRST 3443]

3 credit hours

Prerequisite: IRST 1215 or IRST 1216 or ENGL 2393

This course will examine recent Irish poetry, beginning with W. B. Yeats and concluding with an extended analysis of the poetry of Northern Ireland. We will be placing poems in cultural context, but also examining the formal aspects of the work. Students will be required to read a considerable amount of Irish social and cultural history, as well as some theoretical works about poetry and poetics.

3444 Shakespeare I

3 credit hours

The subject of this course is Shakespeare's comedies and romances.

3445 Shakespeare II

3 credit hours

The subject of this course is Shakespeare's history plays and problem plays.

3446 Shakespeare III

3 credit hours

The subject of this course is Shakespeare's tragedies.

3447 Shakespeare's Contemporaries

3 credit hours

This course studies selected plays by such writers as Kyd, Marlowe, Dekker, Jonson, Beaumont and Fletcher and Webster.

3451 British Drama since 1956

3 credit hours

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.

3453 Irish Drama in the 20th Century [IRST 3453]

3 credit hours

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.

3454 Irish Folklore [IRST 3454]

3 credit hours

Prerequisite: six (6) credit hours in ENGL, IRST, ANTH or LING.

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.

3458 History and Theory of the Novel I

3 credit hours

This course will serve as an introduction to the critical reading of the novel. We will study the historical, cultural, and philosophical climate that allowed for the emergence of the novel in the eighteenth century and will track the changes in narrative style, and the implications of these changes, from realism to modernism to postmodernism to post-colonialism. History and Theory of the Novel I will consider the novel in the eighteenth and nineteenth century.

3459 History and Theory of the Novel II

3 credit hours

This course will serve as an introduction to the critical reading of the novel. We will study the historical, cultural, and philosophical climate that allowed for the emergence of the novel in the eighteenth century and will track the changes in narrative style, and the implications of these changes, from realism to modernism to postmodernism to post-colonialism. History and Theory of the Novel II will consider the novel from the twentieth century to the contemporary period.

3460 British Literature, 1900 - 1945

3 credit hours

The course surveys British literature from the beginning of the twentieth century to the end of the second world war, and includes works of poetry, prose, fiction, and drama. Attention will be paid to the social, cultural, and historical contexts of the literature, with reference to such major events as the two world wars and the depression. Authors studied may include George Bernard Shaw, Virginia Woolf, D.H. Lawrence, T.S. Eliot, Graham Greene, and W.H. Auden.

3461 British Literature, 1945 - 2000

3 credit hours

The course surveys British literature from the end of the second world war to the conclusion of the twentieth century, and includes works of poetry, prose, fiction, and drama. Attention will be paid to the social, cultural, and historical contexts of the literature, with reference to topics such as the end of the British empire, the cold war and its aftermath, and the increasing importance of the electronic media. Authors

studied may include Doris Lessing, Philip Larkin, Ted Hughes, Harold Pinter, Margaret Drabble, and Ian McEwan.

3471 Contemporary Canadian Fiction

3 credit hours

An advanced course in Canadian fiction produced in the 1970s, 1980s, and 1990s 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.

3472 Contemporary Canadian Poetry

3 credit hours

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.

3481 The British Novel 1800-1855

3 credit hours

A study of the British novel in the first half of the nineteenth century, focusing on writers such as Jane Austen, Emily Brontë, Charlotte Brontë, William Makepeace Thackeray, and the early Charles Dickens. Attention will be paid to the style and narrative technique of the novels studied, to their place in the cultural history of the period, and to their relationship to their social and historical contexts.

3482 The British Novel 1855 - 1910

3 credit hours

A study of the British novel from the mid-Victorian period to the end of the Edwardian period, focusing on writers such as George Eliot, the later Charles Dickens, Thomas Hardy, Henry James, and Joseph Conrad. Attention will be paid to the style and narrative technique of the novels studied, to their place in the cultural history of the period, and to their relationship to their social and historical contexts.

3483 Victorian Poetry and Prose I

3 credit hours

This course focuses on the poetry and prose of the early Victorian period, including poets such as Elizabeth Barrett Browning, Robert Browning, and Alfred, Lord Tennyson, and prose writers such as Thomas Carlyle and John Stuart Mill. Attention will be paid to the way that Victorian poetry develops out of the Romantic Movement, and to the relationship between literature and the political and social context, focusing on topics like reform and the industrial revolution.

3484 Victorian Poetry and Prose II

3 credit hours

This course focuses on the poetry and prose of the later Victorian period, including poets such as Matthew Arnold, Christina Rossetti, and Gerard Manley Hopkins, and prose writers such as John Henry Newman, Charles Darwin, Matthew Arnold, Walter Pater, and Oscar Wilde. Attention will be paid to the aesthetic movement, the definition of culture, and the crisis of religious faith.

3500 Contemporary Canadian Irish Prose [IRST 3500]

3 credit hours

Prerequisite: six (6) credit hours in ENGL, IRST or HIST

This course examines the work of Canadian authors who have drawn on Ireland, Irish themes or the Irish in Canada in their writings, and the work of Irish-born authors living in Canada whose works contain significant Canadian content. Following an overview of the range of earlier Canadian Irish writings, students will read and discuss a selection of recent fiction and non-fiction texts by authors such as Charles Foran, Jane Urquhart, Brian Moore, Emma Donoghue, Peter Behrens and John Moss.

3511 Film and the City

3 credit hours

Prerequisite: ENGL 1205 and 3 credit hours English at the 2000 level.

Students will explore material and conceptual connections between film and the city—two of the most pervasive influences on the twentieth and twenty-first centuries. Guided by key theorists of city space and cinema, students will pursue textual analysis of films that articulate social, cultural, spatial, and temporal concerns representative of urban lived experiences.

Classes 2 hours and Lab/Screening 2 hours.

3512 Contemporary Canadian Film and Television

3 credit hours

Prerequisite: ENGL 1205 and 3 credit hours English at the 2000 level.

Students will critique foundational concepts, policies, and practices considered important to contemporary Canadian film and television since 1980, through the discussion and analysis of film and television texts.

Classes 2 hours and Lab/Screening 2 hours.

3518 Canadian Nature Writing

3 credit hours

Prerequisite: 9 credit hours in English in addition to ENGL 1205.

A course in the wide variety of "nature writing" by Canadian authors, including poetry, narrative and descriptive non-fiction (wilderness writings, agricultural accounts, naturalists' essays), and prose of environmental and ecological concern. Authors studied could range from Mi'kmaw story-tellers, Harry Thurston, and Don McKay to Mina Hubbard, Don Gayton, and Sharon Butala.

3534 Literature of Modern Ireland I: The Literary Revival, 1890-1922 [IRST 3534]

3 credit hours

Prerequisite: 9 credit hours in English in addition to ENGL 1205.

This course will examine the literature of the Irish Literary Revival with a strong emphasis on social and cultural context. Writers to be studied will include W. B. Yeats, Lady Gregory, J. M. Synge and James Joyce.

3535 Literature of Modern Ireland II: After the Revival, 1922-Present [IRST 3535]

3 credit hours

Prerequisite: 9 credit hours in English in addition to ENGL 1205.

This course will examine the literature of modern Ireland after the revival with a strong emphasis on social and cultural context. Writers to be studied will include Elizabeth Bowen, Brendan Behan, Kate O'Brien, Flann O'Brien, Patrick Kavanagh, Seamus Heaney and Medbh McGuckian.

3788 Literature and Culture in Celtic Tiger Ireland [IRST 3788]

This course will examine the culture and literature produced in the period of economic expansion in Ireland known as the 'Celtic Tiger'. Students will examine how writers, artists, film-makers and musicians responded to the growth of a neo-liberal Irish society, in which the hitherto dominant position of the spiritual hegemony of the Catholic Church was replaced by an emphasis on material growth and secular individualism.

3800 - 3825 Special Author, Special Subject

6 credit hours

The subject matter of particular courses will be announced from time to time. These courses are designed to examine at an advanced level authors and topics not dealt with in other 3000-level courses.

3826 -3849 Special Author, Special Subject

3 credit hours

The subject matter of particular courses will be announced from time to time. These special half-credit courses provide the opportunity to study a particular author or subject in depth and detail. They are designed to examine at an advanced level authors and topics not dealt with in other 3000-level courses or to allow for a different approach to the study of authors and/or topics already covered in other courses.

STUDENTS SHOULD NORMALLY HAVE COMPLETED NINE (9) CREDIT HOURS IN ENGLISH AT THE 2000 OR 3000 LEVEL BEFORE TAKING 4000-LEVEL ENGL COURSES.

4405 Advanced Studies in Chaucer

3 credit hours

Prerequisite: ENGL 3404

This course will focus on the works of Geoffrey Chaucer excluding *The Canterbury Tales*, which may include *Troilus and Criseyde*, *Boece*, and selections from his dream visions and lyrics. Classical, French, Italian and English literary influences on his work will be considered as well as relevant contemporary critical theory.

4417 Feminist Literary Theory [WMST 4417]

3 credit hours

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.

4422 Studies in Renaissance Love Poetry

3 credit hours

The course focuses on a representative selection of Renaissance love poetry in its cultural, social and philosophical contexts. It examines the poetic strategies used to explore the meaning and value of love in its relation to sexuality and gender. Special attention will be given to the sonnet form, its relationship to the courtly love tradition and the cult of the "Virgin Queen," Elizabeth I, but other poetic genres will be studied as well. Intellectual and thematic contexts will be constructed from various classical and Italian texts, such as Plato's *-Symposium-*, the poems of Catullus and Sappho and Petrarch's sonnets. Writers studied may include Wyatt, Sidney, Spenser, Marlowe, Cavendish, Wroth, and Marvell.

4423 John Donne and the Literary Traditions of the Renaissance

3 credit hours

This course will focus on the work of John Donne, an influential early 17th c. English writer, the founder of the so-called "metaphysical" school of style. Through his work, students will become acquainted with various social and cultural contexts of the Renaissance. Readings will include selections from Donne's devotional and love poems, elegies, verse epistles, sermons and other prose. Also, Donne's work will be compared to the work of other Renaissance writers, and placed within the context of the European Baroque, as represented in visual art and literature.

4424 Renaissance Literature: Advanced Study

3 credit hours

The subject of the course will vary from year to year. It allows the opportunity to explore an aspect of Renaissance literature in more depth than is possible in other courses. The following are some examples of possible topics: a single major author or group of authors from the period (e.g. Spenser, Bacon, More); a literary movement or form (e.g. the Metaphysical school of poetry; the Cavalier school of poetry; the epic; the sermon; a social or cultural issue (e.g. "the woman issue"; literature and the institution of the Elizabethan or Jacobean Court); or a close study of one of the major literary works of Renaissance era (*The Faerie Queene*, *Paradise Lost*, *The Anatomy of Melancholy*)

4425 Advanced Studies in 18th - Century and Romantic Literature

3 credit hours

This course explores an aspect of Eighteenth-Century or Romantic literature in more depth than is possible in other courses. The following are examples of possible topics: a single major author or group of authors from either or both periods (e.g. Dryden, Pope, Blake, Hemans); a literary movement or form (e.g. verse satire or the literature of sensibility); a social or cultural issue (e.g. Romanticism as a reaction to Enlightenment, secularization); or close study of a major work (e.g. "The Prelude") or of work in a narrowly-defined historical period (e.g. the 1790s poetry of rebellion).

4431 The Modern Irish Novel [IRST 4431]

3 credit hours

This course will involve a study of the modern Irish novel, placing each work in its social and cultural context. It may

include works by James Joyce, Elizabeth Bowen and/or Samuel Beckett, as well as a selection of contemporary novels by writers like Anne Enright and John Banville.

4441 The Irish Short Story [IRST 4441]

3 credit hours

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.

4455 The Modern Novel

3 credit hours

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.

4456 The Postmodern Novel

3 credit hours

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.

4457 Advanced Studies in American Literature

3 credit hours

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.

4462 Native North American Literature

3 credit hours

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.

4463 Imagining the North in Canadian Literature

3 credit hours

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.

4464 Postcolonial Literature: Special Topics

3 credit hours

This course examines the literatures of specific postcolonial regions. These regions may include Canada, the Caribbean, Africa, New Zealand, Australia and South Asia.

4470 The Rise and Fall of the Printed Book

3 credit hours

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.

4475 Writing Fiction – Advanced

6 credit hours

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 ENGL 3375 or 3376 will be asked to submit a sample portfolio of their work before registration.

4477 Writing Poetry (Advanced)

3 credit hours

Prerequisite: ENGL 3381 or, prior to registration, submission of portfolio to creative writing coordinator.

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.

4485 Victorian Literature – Advanced Study

3 credit hours

The subject of the course will vary from year to year. It allows the opportunity to explore an aspect of Victorian literature in more depth than is possible in other courses. The following are some examples of possible topics: a single major author or group of authors from the period (e.g., Charles Dickens or the Brontës); a literary movement or form (e.g., the aesthetic movement or the sensation novel); a social or cultural issue (e.g., the "woman question" or industrialism in literature); or the literature of a narrowly defined historical period (e.g., the novel in the 1840's or the literature of the *fin de siècle*).

4493 Doing Discourse Analysis [LING 4493]

3 credit hours

Prerequisite: At least twelve (12) credit hours at the 3000 level in English or Linguistics (or permission of the instructor)

The focus is on learning how to do discourse analysis. We will focus on developing skills in the analysis of talk and text using models drawn from linguistics, structuralism and semiotics. The course will explicitly develop skills in analyzing discourse functions as configurations of interaction, experience and organization meaning.

4494 Approaches to Discourse Analysis [LING 4494]

3 credit hours

Prerequisite: At least eighteen (18) credit hours at the 3000 level in English or Linguistics (or permission of the instructor)

Linguistic, structural, post-structural, and semiotic perspectives on discourse analysis are addressed through reading and discussion of key works by authors of "landmark" texts such as R. Jakobsen, J. L. Austen, H. P. Grice, etc. The goals of the course are to (a) familiarize students with some of the "landmark" texts and perspectives on discourse analysis and (b) to develop abilities to relate analyses to cultural and situationally relevant contexts.

4511 Collective Memory and Visual Culture

3 credit hours

This advanced seminar examines how visual artifacts record, organize, and build narratives and cultures of collective memory (for example, that of nations, regions, and identities). The seminar will include field trips to local places of memory (memorials, museums, and archives), city walks of Halifax in the tradition of the Surrealists and Situationists, the study of home movies and documentary film, national television, and digital image memory archives such as blogs, YouTube, and Flickr.

4552 Honours Seminar

6 credit hours

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.

4555 – 4556 Honours Seminar

3 credit hours

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.

4800 – 4825 Special Author, Special Subject

6 credit hours

Additional prerequisite: enrolment in the English honours program or special recommendation of the Department.

These courses provide 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

4826 –4849 Special Author, Special Subject

3 credit hours

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 (EGSL)

1100 English as a Second Language

6 credit hours

Prerequisite: This course is intended for students whose first language is not English, and who have not attended an English language secondary school.

The aim of the course is to help students function effectively in university by developing their academic

English reading, listening, speaking and writing skills. This will be accomplished through a study of the complex issues related to the role of English as an international language.

NOTE: Permission to register or remain in the course can be refused if the instructor judges that the student's knowledge exceeds the level for the course.

Entrepreneurship

A major in Entrepreneurship is offered within the Bachelor of Commerce and the Bachelor of Arts. The major is administered by the Department of Management. Students pursuing a major in Entrepreneurship are not eligible for a Minor in Business.

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.

Bachelor of Commerce

Year 1

CISY 1225 Introduction to Computer Applications
 ECON 1201 Principles of Economics: Micro
 ECON 1202 Principles of Economics: Macro
 ENGL 1205 Introduction to Literature
 MGMT 1281 Introduction to Business Management
 MGSC 1205 Quantitative Methods I
 MGSC 1206 Quantitative Methods II
 Nine (9) non-Commerce elective credit hours

Year 2

ACCT 2241 Introductory Financial Accounting
 ACCT 2242 Introductory Managerial Accounting
 CMLW 2201 Legal Aspects of Business - Part I
 COMM 2293 Communications
 MGSC 2207 Introductory Statistics
 MGMT 2383 Micro Organizational Behaviour
 MGMT 2384 Macro Organizational Behaviour
 MKTG 2270 Introduction to Marketing
 Three (3) credit hours in Economics electives (except ECON 4475) - see Note below
 Three (3) credit hours in non-Commerce electives

Students must have a CGPA of at least 2.0 and have completed a minimum of 45 credit hours to be permitted to declare a major in Entrepreneurship.

Year 3

*ACCT 3332 Planning and Control – see Note (i)
 FINA 2360 Business Finance I
 FINA 3361 Business Finance II

*MGMT 3380 Family Business
 *MGMT 3389 Structuring the Start-Up
 MGMT 3480 Ethical Responsibilities of Organizations
 Six (6) credit hours in non-Commerce electives
 Six (6) credit hours in free electives

Year 4

*MGMT 4487 New Venture Opportunities
 MGMT 4489 Strategic Management
 *MGMT 4494 Entrepreneurship: Theory and Concepts
 *MGMT 4495 Small Business Performance Improvement
 Six (6) credit hours in non-Commerce electives
 Twelve (12) credit hours in free electives

Note: (i) Students cannot receive credit for both ACCT 3332 and ACCT 3333.

In addition to all other requirements for the major, a minimum GPA of 2.2 is required in ACCT 3332, MGMT 2383, MGMT 2384, MGMT 3380, MGMT 3389, MGMT 4487, MGMT 4494, and MGMT 4495 (as indicated below by *).

Bachelor of Arts

Year 1

ECON 1201 Principles of Economics: Micro
 ECON 1202 Principles of Economics: Macro
 MGSC 1205 Quantitative Methods I
 MGMT 1281 Introduction to Business Management
 CISY 1225 Introduction to Computers
 ENGL 1205 Introduction to Literature
 Nine (9) credit hours in Humanities (BA requirement 3c)
 Three (3) credit hours in Social Sciences (BA requirement 3d)

Year 2

MGMT 2383 * Micro Organizational Behavior
 MGMT 2384 * Macro Organizational Behavior
 MKTG 2270 Introduction to Marketing
 COMM 2293 Communications
 ACCT 2241 Introductory Financial Accounting
 ACCT 2242 Introductory Managerial Accounting
 Three (3) credit hours in Social Sciences (BA requirement 3d)
 Nine (9) credit hours in Arts at the 2000 level or above

Year 3

MGMT 3380 * Family Business (Entrepreneurship Stream)
MGMT 3389 * Structuring the Start-up (Entrepreneurship)
ACCT 3332 * Planning and Control
Twenty-one (21) credit hours in Arts at the 2000 level or above

Year 4

MGMT 4487 * New Venture Opportunities
MGMT 4494 * Entrepreneurship: Theory & Concepts
MGMT 4495 * Small Business Performance Improvement

Twenty-one (21) credit hours in Arts at the 2000 level or above

Students must have a CGPA of at least 2.0 and have completed a minimum of 45 credit hours to be permitted to declare a major in Entrepreneurship.

In addition to all other requirements for the major, a minimum GPA of 2.2 is required in ACCT 3332, MGMT 2383, MGMT 2384, MGMT 3380, MGMT 3389, MGMT 4487, MGMT 4494, and MGMT 4495 (as indicated below by *).

Environmental Science (ENVS) - Bachelor of Science

Executive

Program Coordinator C. Suteanu,
Geography/Environmental Science
Professors T. Charles, Management Science/
Environmental Science, J.
Clyburne, Chemistry/
Environmental Science
Associate Professors L. Campbell, Environmental
Science, J. Lundholm, Biology/
Environmental Science
C. Suteanu,
Geography/Environmental Science
Adjunct Professors T. Bowron, D. Walmsley, P.
White

Program website:

www.smu.ca/academic/science/envsci

Environmental Science is a rigorous interdisciplinary program based on core sciences and including courses in management, social sciences and the humanities. This program can lead to a Bachelor of Science degree with a major, honours or minor in Environmental Science under the Faculty of Science.

Students may pursue a double major in Environmental Science and another science subject, as outlined in Section 7 of the Faculty of Science pages in this *Calendar*. They may also pursue a double honours in Environmental Science and another science subject, as outlined in Section 12d of the Faculty of Science pages in this *Calendar*.

Students may combine a minor in Environmental Science with a major in another discipline as part of a Bachelor of Science, Arts or Commerce.

[For details on the Bachelor of Environmental Studies \(BES\) degree requirements in the Faculty of Arts, please refer to the BES calendar section.](#)

The Environmental Science program provides students with the necessary academic preparation to understand environmental and resource-oriented issues and to develop creative and effective solutions to environmental issues and challenges.

Bachelor of Science in Environmental Science

Students have the options to declare a major, double major, dual degree, honours, double honours, minor and/or co-op. Graduates of the honours program may be qualified for admission to graduate programs in Environmental Science or related subjects, see the *Graduate Academic Calendar* for details.

Students may pursue a cooperative education option. See the Cooperative Education Office for details.

Major in Environmental Science

Environmental Science is an interdisciplinary program, drawing upon courses from departments in the Faculty of Science, as well as those in Arts and Commerce. Students:

- must achieve a minimum grade of C in all ENVS courses as per Academic Regulation 6h.
- may count up to a maximum of 3 Field Courses toward their Group C requirements for a major or honours BSc in Environmental Science

For a major in Environmental Science, students must complete the following courses.

Year 1:

- ENVS 1200 Environmental Challenges
- Six (6) credit hours in Mathematics and/or Computing Science at the 1210-level or above. Only one of MATH 1250 and CSCI 1226 may be used towards fulfilling this requirement.
- CHEM 1210 General Chemistry I
- One of CHEM 1211, 1212 or 1213 General Chemistry II (note specific MATH pre-requisites)
- BIOL 1201 Molecular and Cell Biology
- BIOL 1202 Organismal and Ecological Biology
- ECON 1201 Principles of Economics: micro
- ENGL 1205 Introduction to Literature
- GEOG 1200 People, Place and Environment

Year 2:

- ENVS 2300 Environmental Science: Populations and Ecosystems
- ENVS 2310 Environmental Science: Energy, Resources and Pollution

- BIOL 2308 Biostatistics
or GEOG 3326 Statistical Methods for Geographers
- GEOL 1200 Understanding the Earth
- GEOL 1201 The Dynamic Earth
- GEOG 2100 Fundamentals of Physical Geography
- CISY 1225 Intro to Computer Applications
- ECON 3363 Environmental Economics
or ECON 3361 Fisheries Economics,
or ECON 3362 Natural Resource Economics
- Six (6) credit hours from Group B

Year 3:

- Twelve (12) credit hours from Group A
- Six (6) credit hours from group B
- Six (6) credit hours from group C
- Three (3) credit hours from the Humanities (Classics, English, History, Philosophy, Religious Studies and Modern Language courses with a focus on literature and culture).
- Three (3) credit hours of electives

Year 4:

- ENVS 4499 Environmental Seminar
- Six (6) credit hours from Group C
- Twelve (12) credit hours from Group C at the 4000 level
- Six (6) credit hours of electives

Group A

ENVS 1200	Environmental Challenges
ENVS 2100	Green Chemistry
ENVS 2300	Environmental Science: Populations & Ecosystems
ENVS 2310	Environmental Science: Energy, Resources & Pollution
ENVS 3410	Environmental Impact Assessment
ENVS 3420	Environmental Monitoring and Auditing
ENVS 3430	Environmental Information Management
ENVS 3440	The Environment and Human Health
ENVS 4440	Environmental Policy
ENVS 4450	Natural Resource Management
ENVS 4460	Environmental Pattern Analysis and Modeling
ENVS 4470	Environmental Remediation and Restoration
ENVS 4480	Environmental Contaminants

Group B

Environment related courses:

ANTH 4306	Foraging Adaptation
ECON 3361	Fisheries Economics
ENGL 2318	The Writer and Nature
ENVS 3410	Environmental Impact Assessment
ENVS 3430	Environmental Information Management
ENVS 3440	The Environment and Human Health
ENVS 4440	Environmental Policy
ENVS 4450	Natural Resource Management
GEOG 1100	Global Perspectives on Land & Life
GEOG 2200	Fundamentals of Human Geography
GEOG 2315	The Oceans
GEOG 3304	Environmental Management
GEOG 3329	Geographic Perspectives on Nature

GEOG 3454	Bay of Fundy: Environment and Issues
GEOG 4434	Watershed Management
IDST 4470	Environment and Development
MGMT 3480	Ethical Responsibilities of Organizations
PHIL 2305	Environmental Ethics
POLI 2304	Canadian Politics in the 21 st Century
POLI 2305	International Relations
POLI 2307	Provincial Government and Politics
POLI 3321	International Organization
POLI 3322	Global Political Economy
POLI 4493	Global Social Movements
PSYC 4414	Environmental Perception and Cognition
PSYC 4418	Environmental Psychology
RELS 2347	Ecology and Religion
RELS 3348	Religion and Ecological Issues in the Developing World [IDST 3348]
SOCI 3391	Rural Sociology
SOCI 4419	Sociology of the Environment

Background/Techniques courses:

COMM 2293	Communication
COMM 3394	Oral Communication and Presentation Techniques
ECON 1202	Principles of Economics: Macro
ECON 3364	Cost Benefit Analysis
GSCI 1300	Introduction to Science Communication
GSCI 3300	Advanced Science Communication
MGMT 3392	Occupational Health & Safety
PHIL 2302	Ethics
PHIL 2318	Science and Society
PHIL 3448	Philosophy of Science
PSYC 1250	Social Behaviour
PSYC 3309	Human Factors and Performance
PSYC 4497	Community Psychology
RELS 3349	Science & Religion
SOCI 3387	Women & Development [WMST 3387]

Any language courses, up to six (6) credit hours.

Group C

BIOL 2324	Ecology
BIOL 3002	Insect Ecology
BIOL 3303	Plant Form and Function
BIOL 3304	Animal Form and Function
BIOL 3398	Microbiology
BIOL 3421	Applied Plant Biology
BIOL 3424	Diversity & Ecology of Fishes
BIOL 4003	Molecular Ecology
BIOL 4331	Ecosystems
BIOL 4404	Behavioural Ecology
BIOL 4410	Plant Ecology
BIOL 4414	Environmental Microbiology
BIOL 4422	Conservation Biology
BIOL 4430	Ornithology
BIOL 4431	Herpetology
BIOL 4433	Ecotoxicology
BIOL 4448	Biology Field Course
BIOL 4451	Ecology in the Tropics
CHEM 2332	Introductory Analytical Chemistry: Wet Methods [GEOL 2332]
CHEM 2333	Introductory Analytical Chemistry: Instrumental Methods [GEOL 2333]
CHEM 2344	Organic Chemistry I

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CHEM 2345	Organic Chemistry II (note that CHEM 2344 and CHEM 2345 are recommended for CHEM/ENVS double majors)
CHEM 2346	Organic Chemistry for Life Sciences
CHEM 2373	Environmental Chemistry I
CHEM 2374	Environmental Chemistry II
CHEM 3451	Introductory Biochemistry
CHEM 4452	Biochemistry: Metabolism
ENVS 2100	Green Chemistry
ENVS 3310-3315	Field Course in Environmental Science
ENVS 3410	Environmental Impact Assessment
ENVS 3420	Environmental Monitoring and Auditing
ENVS 3430	Environmental Information Management
ENVS 4430	Directed Research
ENVS 4450	Natural Resource Management
ENVS 4460	Environmental Pattern Analysis and Modeling
ENVS 4470	Environmental Remediation and Restoration
ENVS 4480	Environmental Contaminants
GEOG 2316	Map and Air Photo Interpretation
GEOG 2336	Principles of Cartography
GEOG 3313	Geomorphology [GEOL 3373]
GEOG 3333	Biogeography
GEOG 3343	Weather & Climate
GEOG 3356	Remote Sensing of the Environment
GEOG 3366	Field Techniques and Research Methods
GEOG 3386	Concepts of Geographical Information Systems
GEOG 4413	Coastal Geomorphology [GEOL 4476]
GEOG 4414	Integrated Coastal Zone Management
GEOG 4423	Glacial Geomorphology [GEOL 4475]
GEOG 4433	Fluvial Geomorphology
GEOG 4443	Natural Hazards
GEOG 4496	Applications in GIS
GEOL 1206	Global Change
GEOL 2301	Mineralogy
GEOL 2325	Sedimentology [GEOG 2325]
GEOL 3340	Surface and Groundwater Hydrology
GEOL 3453	Principles of Geochemistry
GEOL 3454	Applied Geochemistry
PHYS 1000	Physics for Life Sciences I
PHYS 1001	Physics for Life Sciences II
PHYS 1100	University Physics I
PHYS 1101	University Physics II

Honours or Double Honours in Environmental Science

For the Bachelor of Science (Honours) degree in Environmental Science, students must:

- satisfy the requirements for a major in Environmental Science
- achieve a degree GPA of at least 3.00
- complete ENVS 4599 Honours Research Project

NOTES:

- Students must secure a supervisor for the honours research project (ENVS 4599) before applying to the honours program.
- Students may use ENVS 4599 as six (6) credit hours of the Group C level credit hour requirement.

Concentration in Environmental Science

A 3 year (90 credit hour) Bachelor of Science with a concentration in Environmental Science is not available.

Minor in Environmental Science

Students may combine a minor in Environmental Science with a major in another discipline as part of a Bachelor of Science, Arts or Commerce.

Completion of the minor requires thirty (30) credit hours with a minimum grade of C in the following courses:

- Nine (9) credit hours from:
 - ENVS 1200 Environmental Challenges
 - ENVS 1203 Biology and the Human Environment [BIOL 1203]
 - ENVS 2300 Environmental Science: Populations and Ecosystems
 - ENVS 2310 Environmental Science: Energy, Resources and Pollution
- Nine (9) credit hours from:
 - ENVS 3310-3315 Field Course in Environmental Science
 - ENVS 3410 Environmental Impact Assessment
 - ENVS 3420 Environmental Monitoring and Auditing
 - ENVS 3430 Environmental Information Management
 - ENVS 4430 Directed Research
 - ENVS 4440 Environmental Policy
 - ENVS 4450 Natural Resource Management
 - ENVS 4460 Environmental Pattern Analysis and Modeling
 - ENVS 4499 Seminar in Environmental Science
- Twelve (12) credit hours taken from the following courses and/or from ENVS courses not counted in meeting the above requirements:
 - CHEM 2373 Environmental Chemistry I
 - CHEM 2374 Environmental Chemistry II
 - ECON 3361 Fisheries Economics
 - ECON 3362 Resource Economics
 - ECON 3363 Environmental Economics
 - ENVS 4826–4849 Special Topics in Environmental Science
 - ENVS 4876–4899 Directed Studies in Environmental Science
 - ENGL 2318 The Writer and Nature
 - GEOG 2200 Fundamentals of Human Geography
 - GEOG 2315 The Oceans
 - GEOG 3304 Environmental Management
 - GEOG 3454 Bay of Fundy: Environment and Issues
 - GEOG 4414 Integrated Coastal Zone Management
 - GEOG 4433 Fluvial Geomorphology
 - GEOL 1206 Global Change
 - IDST 4470 Environment and Development
 - PHIL 2305 Environmental Ethics
 - PSYC 4414 Environmental Perception and Cognition
 - PSYC 4418 Environmental Psychology
 - RELS 3348 Religion and Ecological Issues in the Developing World
 - SOCI 4419 Sociology of the Environment

NOTE:

For details on the Bachelor of Environmental Studies (BES) degree requirements in the Faculty of Arts, please refer to the BES calendar section

Course Descriptions

1200 Environmental Challenges

3 credit hours

This course is an interdisciplinary introduction to environmental science. It considers scientific methods, the scale and magnitude of environmental variables, societal pathways and impediments to solving environmental problems, and critical thinking about environmental issues. Topics include: hypothesis testing, social and scientific causation, linear and non-linear processes, temporal and spatial scales, feedback cycles, biodegradation and accumulation, and the social and organizational context of environmental activities.

Classes 3 hrs and lab 3 hrs a week.

1203 Biology and the Human Environment [BIOL 1203]

6 credit hours

This course is intended for non-science majors. A range of current environmental challenges are addressed from a biological perspective. Topics include natural resource practices on a local and global scale and their effects on biodiversity, ecosystem health, human health, and sustainability. Students will gain a better understanding of how these practices may be changed and the associated challenges.

Note: This course may not be used to satisfy the B.Sc. requirements of a science elective under regulations 3(e), 6(e), and 12(b).

2100 Green Chemistry [CHEM 2100]

3 credit hours

Prerequisite: six (6) credit hours in CHEM at the 1000 level.

Green chemistry, or environmentally benign chemistry, is the design of chemical products and processes that reduce or eliminate the use and generation of hazardous substances. This course will examine the chemical principles and processes in the development of technology and in the effects that this technology has on the environment. The course will avoid traditional approaches that only consider the treatment of pollution after it was created, and will focus on alternative routes that limit the production of waste.

Classes 3 hrs and lab 3 hrs a week.

2300 Environmental Science: Populations & Ecosystems

3 credit hours

Prerequisite: ENVS 1200; and 3 credit hours in BIOL or permission of the Environmental Science Program Coordinator.

This course provides a scientific introduction to environmental problems and their solutions. The emphasis is on biological and ecological processes and their

importance to global sustainability. Labs include hands on experience sampling local environments, participation on real research projects, and field trips to local environmental industry facilities.

Classes 3 hrs. and lab 3 hrs.

2310 Environmental Science: Energy, Resources and Pollution

3 credit hours

Prerequisites: ENVS 1200 or permission of the Environmental Science Program Coordinator.

This course provides a scientific introduction to environmental problems and their solutions, with emphasis on sustainability regarding energy and mineral resources, air, and water. Topics include evolving patterns of resource identification, exploration, and consumption, waste management, environmental pollution, climate change, and their implications for the dynamics of human environment relations from the local to the global scale. Labs offer a hands-on approach to concrete environmental problems, including the practical evaluation of patterns of environmental change based on real data.

Classes 3 hrs. and lab 3 hrs

3310-3315 Field Course in Environmental Science

3 credit hours

Prerequisite: 45 credit hours, including one of ENVS 1203, 2300 or 2310

An examination of environmental science topics in the field.

Classes 72 hrs, including lab and field work. Normally this course is offered in the spring.

NOTE:

- i) Multiple versions of this course taught on different topics could be offered within the same calendar year.
- ii) Students may count up to a maximum of 3 Field Courses toward their Group C requirements for a major or honours BSc in Environmental Science

3410 Environmental Impact Assessment

3 credit hours

Prerequisite: 45 credit hours, including one of ENVS 1203, 2300 or 2310.

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.

3420 Environmental Monitoring and Auditing

3 credit hours

Prerequisite: 45 credit hours, including one of ENVS 1203, 2300 or 2310

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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.

3430 Environmental Information Management

3 credit hours

Prerequisites: 45 credit hours, including one of ENVS 1203, 2300 or 2310

This course provides concepts, methods, and practical training with respect to environmental information acquisition, interpretation and processing, and environmental communication. It concentrates on qualitative and quantitative environmental data handling, sign systems detection and interpretation, geographical pattern identification, context-adapted information preparation, graphical representations, and interdisciplinary interactions. Laboratory sessions will include practical patterns evaluation, case simulations, and real-world applications. Students will thus develop information management skills which are required for an effective approach to environmental problems.

Classes 3 hrs. and lab 3 hrs a week

3440 The Environment and Human Health

3 credit hours

Prerequisites: 45 credit hours; and one of: BIOL 1202, BIOL/ENVS 1203, ENVS 2300, ENVS 2310.

A range of natural and anthropogenic agents that result in human health problems in industrialized and developing countries will be examined. Students will explore the scientific causes, the potential health effects and any known synergistic effects of these agents, through case studies, readings, and discussion. Existing policies will be evaluated. Students will research, critique, and present at least three comprehensive case studies.

Classes 3 hrs. a week.

3826 – 3849 Special Topics in Environmental Science

3 credit hours

Prerequisite: 45 credit hours and permission of the instructor

3876 – 3899 Directed Study in Environmental Science

3 credit hours

Prerequisite: 45 credit hours and permission of the instructor

4430 Directed Research

3 credit hours

Prerequisite: 60 credit hours, including one of: ENVS 2300 or 2310, and permission of the Environmental Science Program Coordinator.

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.

4440 Environmental Policy

3 credit hours

Prerequisite: 60 credit hours, including one of: ENVS 1203, 2300, 2310 or GEOG 3304.

This course focuses on environmental and natural resource policy in Canada and the world. Attention is paid to all scales at which policy is developed – local, provincial, national and international. The process of policy making is examined, including aspects of legislation and regulations, participatory and stakeholder approaches, and conflict resolution. Interactions between policy, management measures and compliance are explored, including the role of standards and environmental management systems, and the circumstances under which organizations and businesses comply with regulations concerning environmental impacts and natural resource use.

Classes 3 hrs. a week. 1 semester.

4450 Natural Resource Management [GEOG 4424]

3 credit hours

Prerequisite: 60 credit hours, including one of: ENVS 1203, 2300, 2310, or GEOG 3304

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.

4460 Environmental Pattern Analysis and Modeling [GEOG 4444]

3 credit hours

Prerequisites: 60 credit hours, including one of ENVS 1203, 2300, 2310, or GEOG 3304, and one of MATH 1216, GEOG 3326, MGSC 2207 or BIOL 2308

This course focuses on theory and practical methods for characterizing and modeling environmental systems, which are complex and often strongly variable in space and/or time. It includes approaches to patterns and pattern change evaluation, data mining, and dynamic system modeling. Geoscience and life science applications are studied, such as rivers, coastal areas, fisheries, forests, mineral distribution, geomorphologic features, geohazards, ecosystem dynamics and atmospheric variables

Classes 3 hrs. and lab 3 hrs. a week.

4470 Environmental Remediation and Restoration

3 credit hours

Prerequisites: 45 credit hours and one of: ENVS 1203, ENVS 2300, ENVS 2310.

Current approaches to remediating damaged ecosystems, including such topics as mine reclamation, invasive species control, ecological restoration and constructed ecosystems are examined. Emphasis is placed on the scientific and socioeconomic bases for remediation and restoration, including the following: theoretical approaches; the role of traditional ecological knowledge; gaps between theory and practice; and hands-on training in local ecological restoration projects.

Classes 3 hrs and lab 3 hrs a week.

4480 Environmental Contaminants

3 credit hours

Prerequisites: ENVS 2300, ENVS 2310, CHEM 1211 or CHEM 1212, BIOL 1202, and 60 credit hours; or, permission of instructor.

The focus of this course is on key environmental contaminants, including mercury, other metals, and selected volatile organic compounds. Emphasis is placed on experiential approaches, including field work and laboratory research, to study these environmental contaminants. Students are expected to participate in the critical analyses of literature, and in the discussion and presentation of their own research results.

Classes 3 hrs. and lab 3 hrs. a week

4499 Environmental Seminar

6 credit hours

Prerequisite: Sixty (60) credit hours. including ENVS 2300 or ENVS 2310. Restricted to students registered in Environmental Science (minor, major, or honours) and to students registered in the Bachelor of Environmental Studies, or with permission of the Environmental Science Program Coordinator.

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.

4599 Honours Research Project

6 credit hours

Prerequisite: Honours standing in Environmental Science.

Honours 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.

4826 – 4849 Special Topics in Environmental Science

3 credit hours

Prerequisite: 60 credit hours and permission of the instructor.

4876 - 4899 Directed Studies in Environmental Science

3 credit hours

Prerequisite: restricted to students in the honours program or permission of the Environmental Science Program Coordinator.

The course provides an opportunity for ENVS honours 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 honours students. Major students may be admitted with permission of the Environmental Science Program Coordinator.

Classes and labs 6 hrs. a week

Bachelor of Environmental Studies

Professors: C. Conrad, R. McCalla, H. Millward,
Associate Professors: P. Giles, C. Suteanu, D. vanProosdij
Assistant Professor: J. Grek Martin

Programme website: www.smu.ca/bes

Program Mission

The Bachelor of Environmental Studies is a multidisciplinary degree programme offered by the Faculty of Arts. It is designed to prepare students for work related to environmental issues – from natural resource management and protection, to sustainable economic planning and development for the protection and preservation of the environment. The programme includes geographical, cultural, sociopolitical, economic and ecological orientations to the environment. Studies in these fields provide a strong foundational understanding of natural processes and systems that make up the environment. Students can focus their environmental interests through exposure to a broad spectrum of knowledge about the human experience and the natural world, and practice in identifying, analyzing and mitigating environmental problems from a human perspective.

Degree Requirements

The programme is a 4-year (120-credit-hour) B.E.S. It is comprised of 21 credit hours of required core foundation courses from the Faculties of Arts, Commerce and Science; 24 credit hours of core courses beyond the required foundation courses; 30 credit hours from thematic area choices; 12 credit hours from specified elective courses in both introductory and advanced-level natural sciences, environmental sciences, social sciences, and the humanities; and 33 credit hours of free electives. At the 4000-level, the two required core *capstone* courses take an integrative and applied orientation to environmental policy and practice. To graduate, students must achieve the University minimum requirement of a DGPA of at least 2.00.

Programme Structure

For course descriptions, please refer to the appropriate Department or Program section of this Academic Calendar.

Year 1 Foundation (30 credit hours):

21 credit hours of foundational courses for cultural geography and life sciences:

- BIOL 1201 Molecular and Cell Biology + BIOL 1202 Organismal and Ecological Biology
- OR - BIOL 1203 Biology and the Human Environment (cross-listed as ENVS 1203)
- ENVS 1200 Environmental Challenges
- GEOG 1100 Global Perspectives on Land and Life
- GEOG 1200 People, Place and Environment
- ECON1201 Introduction to Economics: Micro
- POLI 1201 Politics: Contemporary Issues

Three-credit-hour course in foundational social sciences chosen from:

- ANTH 1202 Introduction to Socio-Cultural Anthropology
- PSYC 1250 Social Behavior
- SOCI 1210 Introduction to Sociology

Six credit hours of foundational humanities chosen from:

- CLAS 1001 Ancient Civilizations of the Near East and Egypt
- CLAS 1002 The Ancient Civilizations of Greece and Rome
- ENGL 1205 Introduction to Literature
- HIST 1201 Civilization in the West
- HIST 1203 The Twentieth Century
- HIST 1208 Global History: 1450 to the Present
- PHIL 1200 Critical Thinking
- RELS 1211 Introduction to Religious Experience

Year 2 (30 credit hours) expands the Year One Foundation: Fifteen credit hours of core courses for cultural geography and life sciences:

- GEOG 2100 Fundamentals of Physical Geography
- GEOG 2200 Fundamentals of Human Geography
- ENVS 2300 Environmental Science: Populations and Ecosystems
- ENVS 2310 Environmental Science: Energy, Resources and Pollution
- PHIL 2305 Environmental Ethics

Three-credit-hour course in community development chosen from:

- ANTH 1202 Introduction to Socio-Cultural Anthropology
- IDST 2301 Introduction to International Development Studies: Perspectives
- SOCI 1211 Critical Issues in Social Analysis

Three-credit-hour course in environmental thought chosen from:

- ENGL 2318 The Writer and Nature
- RELS 2347 Ecology and Religion
- PHIL 2331 Business Ethics

Six-credit-hour course in policy:

- POLI 3445 Public Policy

3 credit hours of free electives

Year 3 (30 credit hours):

Three-credit-hour core course:

- GEOG 3304 Environmental Management

Three-credit-hour course chosen from:

- ENVS 3410 Environmental Impact Assessment
- ENVS 3420 Environmental Monitoring and Auditing
- ENVS 3430 Environmental Information Management

Three-credit-hour course in economic development chosen from:

- ECON 3363 Environmental Economics
- ECON 3361 Fisheries Economics

- ECON 3362 Natural Resource Economics
- Three-credit-hour course chosen from:
- GEOG 2315 The Oceans
 - GEOG 3329 Geographic Perspectives on Nature
 - GEOG 3333 Biogeography
 - GEOG 3343 Weather and Climate
- Three-credit-hour course chosen from:
- BIOL 2308 Biostatistics
 - GEOG 3326 Statistical Methods for Geographers
- 6 credit hours approved electives from BIOL, CHEM or GEOL (see below)
- 6 credit hours in approved electives from CLAS, ENGL, HIST, PHIL or RELS (see below)
- 3 credit hours of free electives

Year 4 (30 credit hours)

- Nine credit hours of core capstone courses:
- ENVS 4440 Environmental Policy
 - ENVS 4499 Seminar in Environmental Science
- 9 credit hours from approved list of elective courses (see below)
- 12 credit hours of free electives

List of Approved Courses for the B.E.S.

- ANTH 1202 Introduction to Socio-Cultural Anthropology
- ANTH 3366 Worldview: Anthropological Approaches [RELS 3366]
- BIOL 1201 Molecular and Cell Biology
- BIOL 1202 Organismal and Ecological Biology
- BIOL 2308 Biostatistics
- BIOL 2324 Ecology
- BIOL 3303 Plant Form and Function
- BIOL 3304 Animal Form and Function
- BIOL 4331 Ecosystems
- BIOL 4410 Plant Ecology
- BIOL 4422 Conservation Biology
- CHEM 1210 General Chemistry I
- CHEM 1211/12 General Chemistry II for Physical/Life Sciences
- CHEM 1220 Chemistry and Industry
- CHEM 1221 Chemistry of Life
- CHEM 2373 Environmental Chemistry I
- CHEM 2374 Environmental Chemistry II
- CLAS 1001 Ancient Civilizations of the Near East and Egypt
- CLAS 1002 The Ancient Civilizations of Greece and Rome
- CLAS 3317 Greek Sanctuaries [RELS 3314]
- ECON 1201 Introduction to Economics: Micro
- ECON 3361 Fisheries Economics
- ECON 3362 Natural Resource Economics
- ECON 3363 Environmental Economics
- ENGL 1205 Introduction to Literature
- ENGL 2318 The Writer and Nature
- ENGL 3518 Canadian Nature Writing
- ENVS 1200 Environmental Challenges
- ENVS 1203 Biology and the Human Environment [BIOL 1203]
- ENVS 2100 Green Chemistry [CHEM 2100]

- ENVS 2300 Environmental Science: Populations and Ecosystems
- ENVS 2310 Environmental Science: Energy, Resources and Pollution
- ENVS 3410 Environmental Impact Assessment
- ENVS 3420 Environmental Monitoring and Auditing
- ENVS 3430 Environmental Information Management
- ENVS 4440 Environmental Policy
- ENVS 4499 Seminar in Environmental Science
- ENVS 4450 Natural Resource Management [GEOG 4424]
- ENVS 4460 Methods of Environmental and Natural Resource Analysis [GEOG 4444]
- GEOG 1100 Global Perspectives on Land and Life
- GEOG 1200 People, Place and Environment
- GEOG 2100 Fundamentals of Physical Geography
- GEOG 2200 Fundamentals of Human Geography
- GEOG 2315 The Oceans
- GEOG 3304 Environmental Management
- GEOG 3313 Geomorphology [GEOG 3373]
- GEOG 3326 Statistical Methods for Geographers
- GEOG 3329 Geographic Perspectives on Nature
- GEOG 3333 Biogeography
- GEOG 3343 Weather and Climate
- GEOG 3454 Bay of Fundy
- GEOG 4414 Integrated Coastal Zone Management
- GEOG 4434 Watershed Management
- GEOG 4443 Natural Hazards
- GEOL 1202 Planet Earth: Atlantic Canada Perspective
- GEOL 1203 Earth History: Atlantic Canada Perspective
- GEOL 1206 Global Change
- GEOL 1207 Environment, Radiation and Society
- GEOL 1208 Environmental Geology: Atlantic Canada Perspective
- HIST 1201 Civilization in the West
- HIST 1203 The Twentieth Century
- HIST 1208 Global History: 1450 to the Present
- IDST 2301 Introduction to International Development Studies: Perspectives
- IDST 2302 Introduction to International Development Studies: Policies and Practice
- IDST 4470 Environment and Development
- PHIL 1200 Critical Thinking
- PHIL 2305 Environmental Ethics
- PHIL 2318 Science and Society
- PHIL 2331 Business Ethics
- PHYS 1370 Scientific Method [PHIL 1255]
- POLI 1201 Politics: Contemporary Issues
- POLI 2307 Provincial Government and Politics
- POLI 3321 International Organization
- POLI 3445 Public Policy
- RELS 1211 Introduction to Religious Experience
- RELS 2347 Ecology and Religion
- RELS 3348 Religion and Ecological Issues in the Developing World [IDST 3348]
- RELS 3349 Science and Religion
- SOCI 1210 Introduction to Sociology
- SOCI 1211 Social Power Relations
- SOCI 3491 Rural Sociology

Film Studies (FILM)

Program Coordinator: J. VanderBurgh, Assistant Professor, English

A minor in Film Studies is 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. This is an Inter-university program which allows students to obtain credit from any of the four participating institutions - Saint Mary's, Dalhousie, University of King's College, and the Nova Scotia College of Art and Design University.

Requirements: twenty-four (24) credit hours [twelve (12) required credit hours and twelve (12) elective credit hours].

See website at www.smu.ca/academic/arts/film for link to Halifax Interuniversity Film Studies Minor website. <http://halifaxfilmstudies.wordpress.com/>

Required courses [twelve (12) credit hours]

- (a) THEA 2301.03 Film History I (Dalhousie)
or
AHIS 2800 Film History and Criticism 1890 - 1940 (NSCAD)
- (b) THEA 3301.03 Film History II (Dalhousie)
or
AHIS 2810 History and Criticism 1940 – Present (NSCAD)
- (c) ENGL 2511 Reading Film (Saint Mary's) or THEA 2311.03 Film Analysis (Dalhousie)
- (d) THEA 3313.03 Documentary, Experimental and Animated (Dalhousie)

Elective courses [twelve (12) credit hours] currently available from the four cooperating institutions.

Recent electives offered:

Saint Mary's University

CRIM/SOSI 3546 Crime and the Media
ENGL 2313 Narrative in Fiction and Film (6.0)
ENGL 2325 The Media in Everyday Life
ENGL 3511 Film and the City
ENGL 3512 Contemporary Canadian Film and Television
HIST 3450 Film and History
RELS 3356 Religions and Film

Nova Scotia College of Art and Design

AHIS 3835 Topics in Film History: Contemporary Cinemas of Globalization
AHIS 3836 Topics in Film History: Subjectivities in Moving Pictures
AHIS 3837 Topics in Film History: Out on Screen
AHIS 3838 Topics in Film History: Sex and the Cinema
AHIS 3850 History and Criticism of Documentary Film
AHIS 3922 Topics in Film History: Hitchcock's Films
AHIS 4200 Independent Study in Film and Criticism

Dalhousie University

CHIN 3050.03 Topics in Asian Cinema
ENGL 2095.03 Narrative in the Cinema
ENGL 2313.03 Shakespeare and His Contemporaries on Film
FREN 2022.03 Aspects of French and Francophone Cinema: Analysis, History, Movements, Authors
FREN 2801.03 Cinema: The French Phenomenon II
GWST 3304.03 Through Her Eyes: Women and the Documentary Tradition
ITAL 2600.03 Survey of Italian Cinema
MUSC 2016.03 Topics in Music and Cinema
RUSN 2037.03 Russian Film II
RUSN 2046.03 East European Cinema: War, Love, and Revolutions
THEA 2360.03 Popular Cinema
THEA 2911.03 Stars and Stardom on Stage and Screen
THEA 3331.03 Film Theory II: Desire in the Cinema
THEA 3351.03 The Cinema of David Lynch
THEA 4390.03 Special Topics in Film Studies: Film Adaptation
THEA 4390.03 Special Topics in Film Studies: Irish Film

University of King's College

CTMP 3304.03 Through Her Eyes: Women and the Documentary Tradition
CTMP 3305.03 Modern Film and the Theory of the Gaz

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 Coordinator Jennifer VanderBurgh – Tel: 420-5718

The regular "Declaration of Major/Minor/Concentration" form is used to declare a minor. Students must fulfill 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 (FINA)

Chairperson	M. Zhang
Professors	F. Boabang, J.C. Dodds
Associate Professors	N. Attig, M. Moh'd, G. Ye, A. Zaman
Assistant Professors	J. Dai, M. Oancea, C. Panasian, M. Rahaman
Lecturer	L. Chen

Finance courses are offered by the Department of Finance, Information Systems, and Management Science.

The requirements for the Finance major within the Bachelor of Commerce program are described below and in Section 3 of the *Calendar*. A Master of Finance degree is offered. This graduate program is described in the Graduate Studies Academic Calendar.

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.

Upon completion of 45 credit hours, Commerce students with a cumulative grade point average of 2.0 may elect to declare a major in Finance. (In exceptional circumstances, students can also be admitted to the major by permission of the Chairperson.)

To assist students, the Year 3 and Year 4 course requirements for a Finance major and the core BComm degree program requirements are listed below. Course descriptions follow.

To complete a major in Finance, students must attain a minimum grade point average of 2.2 in FINA 4463, FINA 4466, FINA 4467 and the six (6) credit hours used to satisfy the 4000 level Finance electives requirement (as indicated below by *).

Year 3

ACCT 3343 Financial Accounting Analysis
 FINA 2360 Business Finance I
 FINA 3361 Business Finance II
 MGMT 3480 Ethical Responsibilities of Organizations
 Three (3) credit hours in Commerce electives at 3000 level or above
 Six (6) credit hours in non-Commerce electives
 Nine (9) credit hours in free electives

Year 4

*FINA 4463 Financial Management
 *FINA 4466 Investments
 *FINA 4467 Portfolio Management
 MGMT 4489 Strategic Management
 *Six (6) credit hours in Finance electives at 4000 level except FINA 4491 [ACCT 4445 and ECON 4403 may be used to satisfy this requirement.]
 Six (6) credit hours in non-Commerce electives
 Six (6) credit hours in free electives

Course Descriptions

2360 Business Finance I

3 credit hours
 Prerequisite: ECON 1201 and 1202; ACCT 2241; and MGSC 1205.

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.

3361 Business Finance II

3 credit hours
 Prerequisite: FINA 2360 and MGSC 2207.

A continuation from FINA 2360 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.

3362 Principles of Real Estate and Appraisal

3 credit hours
 Prerequisite: FINA 3361 (or concurrently)

An introduction to the study of real estate investment analysis and valuation. The course relates financial and economic principles to the examination of investment and financing decisions in real estate and mortgage markets. Topics include a discussion of the unique characteristics of real estate assets and markets, the investment process, appraisal, financing and market analysis.

3364 Canadian Securities

3 credit hours
 Prerequisite: FINA 2360 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). Substantial additional fees are required for this course.

3826 – 3849 Special Topics in Finance

3 credit hours
 Prerequisite: permission of instructor

3876 – 3899 Directed Study in Finance

3 credit hours
 Prerequisite: permission of instructor

4463 Financial Management

3 credit hours

Prerequisite: FINA 3361 and COMM 2293.

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.

4466 Investments

3 credit hours

Prerequisite: FINA 3361 and COMM 2293.

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.

4467 Portfolio Management

3 credit hours

Prerequisite: FINA 4466 and COMM 2293.

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.

4468 Financial Innovations

3 credit hours

Prerequisite: FINA 4466 and COMM 2293.

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.

4470 Fixed Income Securities

3 credit hours

Prerequisite: FINA 4466 and COMM 2293.

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.

4471 Financial Institutions

3 credit hours

Prerequisite: FINA 3361 and COMM 2293.

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.

4472 Computerized Portfolio Analysis

3 credit hours

Prerequisites: FINA 3361; COMM 2293; and ACCT 2242

This course will provide students with exposure to the use of various software packages in analyzing and tracking investment decisions. Emphasis will be on the gathering of financial and economic data, analysis of data in making investment decisions, and tracking and analyzing investment performance. In addition to common tools such as spreadsheets, the course will make use of state-of-the-art software currently used in the financial services industry.

4473 Current Trends in Capital Markets

3 credit hours

Prerequisites: COMM 2293, ACCT 2242, and FINA 3361

The purpose of this course is to provide a broad overview of the various financial instruments available and their role within investment strategies, as well as to examine current trends in the global capital markets. While some time will be allocated to the traditional asset classes (equities, bonds), the emphasis of the course is on the non-traditional, or alternative, assets classes that have recently been developed or gained popularity, such as mortgages backed securities and other fixed income securities, the myriad forms of swaps, other derivatives, real estate, private equity, etc. The emphasis is on the structure of these instruments and their risk-return characteristics. The usual context will be that of a large institutional investor such as a pension plan, insurance company or hedge fund. Also the linkages amongst the various markets in a global context will be discussed.

4476 International Financial Management

3 credit hours

Prerequisite: FINA 3361 and COMM 2293.

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.

4490 Seminar in Finance

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson.

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.

4491 Small Business Consultancy

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson.

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.smu.ca/smubdc>.

Internship 1 semester.

4571 IMPACT Program 1

3 credit hours

Prerequisite: permission of instructor

This is an introductory course in applied investment management. The course is the first of two courses that support the investment management of the Sobey School of Business's IMPACT Fund. Students who are admitted to the program will undertake a comprehensive economic analysis of the Canadian economy and use this to generate top-down portfolio allocation decisions. In addition,

students will learn how to generate financial research reports using state-of-the-art financial tools. Emphasis will be placed on generating, interpreting and applying comparative company analysis reports.

4572 IMPACT Program 2

3 credit hours

Prerequisite: FINA 4571 and permission of instructor

This is an advanced course in applied investment management. The course is the second of two courses that support the investment management of the Sobey School of Business's IMPACT Fund. Students who are admitted to this program will be responsible for making portfolio allocation decisions for the fund. Students will use comparable company analysis in conjunction with more advanced financial models, such as cash flow and real options models, in making bottom-up active portfolio management decisions.

4826 – 4849 Special Topics in Finance

3 credit hours

Prerequisite: permission of instructor

4876 – 4899 Directed Study

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson.

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.

Certificate in Financial Instrument Analysis

The Certificate in Financial Instrument Analysis is designed to meet the demand for skilled labour in the financial services sector. Capital markets, and the financial instruments traded in them, have become increasingly complex. The rapid pace of change creates the need for advanced knowledge of world capital markets and complex financial instruments. Concurrent with this, has been an increasing demand among the accounting profession for individuals with traditional accounting training and knowledge, as well as more specialized knowledge of financial instruments, their uses and effects, and capital markets in general.

The Certificate in Financial Instrument Analysis uses a combination of finance and accounting courses to provide graduates with skills necessary for courses in a wide range of jobs in the financial services sector. The Certificate will also be of interest to students intending to pursue an accounting designation, but who desire more advanced knowledge of financial instruments than is currently available through existing universities or professional association curricula.

Program Structure

The Certificate in Financial Instrument Analysis can be completed in conjunction with a Bachelor of Commerce degree or as a standalone certification for those seeking professional development in their disciplinary areas.

There are two streams within the Certificate in Financial Instrument Analysis, the Accounting stream and the Finance stream. Students may choose either the Accounting or the Financial Stream (**cannot qualify for both**). The required courses for each stream are as follows:

Accounting Stream (CFIA)

ACCT 2241	Introductory Financial Accounting
ACCT 2242	Introductory Managerial Accounting
ACCT 3341	Intermediate Financial Accounting I
ACCT 3342	Intermediate Financial Accounting II
ACCT 3345	Financial Accounting Theory
ACCT 4455	Financial Accounting Seminar
ACCT 4465	Accounting for Financial Instruments
FINA 2360	Business Finance I
FINA 3361	Business Finance II
FINA 4472	Computerized Portfolio Analysis and Reporting Systems
FINA 4473	Current Trends in Capital Markets

Financial Stream (CFIF)

ACCT 2241	Introductory Financial Accounting
ACCT 2242	Introductory Managerial Accounting
ACCT 3343	Financial Accounting Analysis
ACCT 4465	Accounting for Financial Instruments
FINA 2360	Business Finance I
FINA 3361	Business Finance II
FINA 4466	Investments
FINA 4467	Portfolio Management
FINA 4468	Financial Innovations

FINA 4472	Computerized Portfolio Analysis and Reporting Systems
FINA 4473	Current Trends in Capital Markets

Admission Requirements

For current Bachelor of Commerce students, the Certificate of Financial Instrument Analysis requires a formal application to the Office of the B.Comm. Program. Students must have completed a minimum of forty-five (45) credit hours of undergraduate study, and possess a minimum CGPA of 2.0.

Students wishing to complete the Certificate without pursuing an undergraduate degree at Saint Mary's University must meet, at a minimum, the mature admission requirement for the Bachelor of Commerce program. Application for the Certificate should be made through the Admissions Office.

Prerequisite Courses (24 credit hours)

Students pursuing only the Certificate in Financial Instrument Analysis (accounting or finance stream) will require the following courses (or their equivalents) as prerequisites. It is the student's responsibility to ensure appropriate prerequisites have been taken.

MGMT 1281	Introduction to Business Management
ECON 1201	Principles of Economics: Micro
ECON 1202	Principles of Economics: Macro
MGSC 1205	Introduction to Quantitative Methods I
MGSC 1206	Introduction to Quantitative Methods II
MGSC 2207	Introductory Statistics
CISY 1225	Introduction to Computer Applications
COMM 2293	Communications

Advanced Standing

Students with courses from previous postsecondary educational institutions will be assessed upon admission to the Certificate by the Office of the B.Comm Program. Students must complete at least 50% of all credit hours for any academic program (18 credit hours for the Certificate in Financial Instrument Analysis).

Credit will not automatically be recognized for university courses completed ten (10) or more years prior to the student's return to university study.

Requirements for Graduation

To graduate with the Certificate in Financial Instrument Analysis, students must attain a minimum GPA of 2.0 on the required courses.

Academic Requirements

All academic regulations governing students in degree and diploma courses also apply to students enrolled in this Certificate Program.

Forensic Sciences (FRSC)

Coordinator: T. Peckmann, Associate Professor,
Anthropology
Assistant Professor T. Frasier, Biology/Forensic Sciences
Adjunct Professors M. Bowes, P. Miller, M. Wood

Forensic Sciences 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, 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 [FRSC 3300].

Admission to the Diploma in Forensic Sciences

Admission to the Diploma in Forensic Sciences is by permission of the Program Coordinator in consultation with members of the Forensic Sciences Executive.

Students in Stream 1 who are currently enrolled at Saint Mary's University should apply directly to the Program Coordinator. Students must have completed thirty (30) credit hours of study by the end of the winter semester in the year in which they are applying. Deadline for application is January 15th. Late applications will be considered only if spaces are available. Non-Saint Mary's students who wish to transfer to Saint Mary's University and be considered for admission to the program must apply directly to Admissions at Saint Mary's University. Deadline for application is January 15th. Late applications will be considered only if spaces are available.

Procedures for application are described at
http://www.smu.ca/futurestudents/chs_apply.html

Graduation

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

Requirements for the Diploma in Forensic Sciences [sixty (60) credit hours]

NOTE: STUDENTS MUST SATISFY ALL PREREQUISITES FOR ENTRY INTO THESE COURSES.

1. Required courses [twenty-seven (27)]

FRSC 2200 Basic Sciences for Forensics I
FRSC 2201 Basic Sciences for Forensics II
FRSC 3300 Application of Forensic Techniques
BIOL 1201 Molecular and Cell Biology
BIOL 1202 Organismal and Ecological Biology
BIOL 2307 Genetics
BIOL 4419 Molecular Biology
or FRSC/BIOL 4001 Forensic DNA Typing
CHEM 1210 General Chemistry I
CHEM 1212 General Chemistry II for Life Sciences (note MATH pre-reqs)

2. Science-intensive courses [twenty-one (21) to twenty-four (24) credit hours]

ANTH 3373 Fieldwork in Archaeology
ANTH 3374 Archaeology Laboratory
ANTH 3471 Forensic Skeletal Identification
ANTH 3472 Forensic Skeletal Analysis
ANTH 3473 Forensic Facial Anatomy
ANTH 4464 Advanced Fieldwork in Archaeology
ANTH 4465 Advanced Archaeology Laboratory
ANTH 4701 Internship in Forensic Anthropology
BIOL 2004 Cell Physiology and Metabolism
BIOL 2005 Human Organ Systems
BIOL 2308 Biostatistics
or PSYC 2350 Psychological Statistics
BIOL 2321 Cell Biology I
BIOL 3001 Principles of Pharmacology and Toxicology
BIOL 3002 Entomology
BIOL 3003 Biological Techniques
BIOL 3006 Animal Ecophysiology
BIOL 3426 Animal Tissues
BIOL 3398 Microbiology
BIOL 4411 Medical and Veterinary Parasitology
CHEM 2332 Introductory Analytical Chemistry: Wet Methods
CHEM 2333 Introductory Analytical Chemistry: Instrumental Methods
CHEM 2344 Organic Chemistry I
or CHEM 2346 Organic Chemistry for Life Sciences
CHEM 2345 Organic Chemistry II (Note: pre-req CHEM 2344) CHEM 3451 Introductory Biochemistry
FRSC 3340 Forensic Entomology
FRSC 3350 Recent Advancement in Forensic Sciences
FRSC 4002 Wildlife Forensics
PHYS 1000 Physics for Life Sciences I
PHYS 1001 Physics for Life Sciences II

3. Electives [nine (9) - twelve (12) credit hours]. Diploma students may qualify for up to six (6) credit hours based on prior training.

ANTH 1271 Introduction to Archaeology
ANTH 1280 Introduction to Biological Anthropology
ANTH 2282 Introduction to Forensic Anthropology
CRIM 2303 Crime and Society, entry to this course may be restricted
CRIM 2304 Canadian Criminal Justice System, entry to this course may be restricted

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GEOG 2316 Map and Air Photo Interpretation
GEOG 3386 Concepts in Geographical Information Systems (G.I.S.)
LING 3350/CRIM 3313 Forensic Linguistics
PSYC 1250 Social Behaviour
PSYC 1260 Personality: Normal and Abnormal
PSYC 3320 Psychology and Law
PSYC 3338 Introduction to Forensic Psychology
PSYC 3349 Drugs and Behaviour
PSYC 4438 Advanced Forensic Psychology
PSYC 4443 Advanced Psychology and Law

The following courses are reserved exclusively for students officially accepted in the Diploma in Forensic Sciences Program at Saint Mary's University. Courses in Forensic Science cannot be used to satisfy course requirements for the major or honours in Biology.

All the following courses have 3 hour. classes and 3 hour. lab/tutorial per week.

Course Descriptions

2200 Basic Sciences for Forensics I

3 credit hours

Prerequisite: acceptance into Diploma in Forensic Sciences Program.

This course is an introduction to the biology, physics, anthropology, pathology, and psychology that forms the basic scientific background applicable to the study of forensic science.

Note: Please note that this course may not be used by B. Sc. Students to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees.

2201 Basic Sciences for Forensics II

3 credit hours

Prerequisite: acceptance into Diploma in Forensic Sciences Program.

This course is a continuation of Basic Sciences for Forensics I. Topics covered may include: principles of Biology, Chemistry, Genetics, Psychology, Statistics, and Toxicology, relevant to Forensics.

Note: Please note that this course may not be used by B. Sc. Students to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees.

3300 Application of Forensic Techniques

3 credit hours

Prerequisite: FRSC 2200 and 2201.

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 and 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

3340 Forensic Entomology

The presence of insects on cadavers after death is used in forensic science to help determine post mortem interval, among other things. Students will learn insect taxonomy, developmental biology and will apply this knowledge to understand how insects are relevant in medico-legal investigations.

Classes 3 hrs. and lab 3 hrs. a week

Note: The on-line course has a hands-on field component.

3350 Recent Advancement in Forensic Sciences

3 credit hours

Prerequisite: FRSC 2200 and 2201

The aim of this course is to provide students with an opportunity to discover and understand the founding principles of Forensic Sciences. Topics include a timeline of the discipline to the present day, current trends and recent advances in the field.

3800-49 Special Topics in Forensic Science

3 credit hours

3876-99 Directed Studies in Forensic Science

3 credit hours

4001 Forensic DNA Typing [BIOL 4001]

3 credit hours

Prerequisite: BIOL 2307

The course is designed for students interested in applying DNA analysis to the study of populations both in and outside the field of forensics. The course provides students with an opportunity to learn all aspects of common forensic DNA typing protocols, and the interpretation of results. Topics include the theory behind the practice of each step in the protocol. Protocols and procedures selected for study and practice are those currently used by the RCMP. The lab component is an integral part of the course in which the same protocols are put into practice using the students' own DNA samples. Upon completion of the course, students will have constructed their own DNA profile; it will be compared to those in existing databases.

4002 Wildlife Forensics

3 credit hours

Prerequisite: BIOL 2307

The goals of this course are for students to learn about the techniques involved in wildlife forensics, how the resulting data are interpreted, and how this information is used in a legal setting. Although many aspects of wildlife forensics will be covered, there will be a focus on DNA methods.

Classes 3 hrs. and lab 3 hrs. a week

French (FREN)

Chairperson	E. Tsedryk
Professor	J. Cauville
Associate Professors	S. Beaulé, P. Bernard, G. Nahrebecky, E. Tsedryk
Assistant Professor	R. Bannerjee,
Lecturer	S. McGuire

For student advising and information on our French program, please contact any of the professors listed above.

Courses and programs in French are offered by the Department of Modern Languages and Classics

Department Policy - Modern Languages and Classics

1. Enrollment in some language courses involves the following formal placement procedures.

Students who have not previously taken a language course at this University, but who have a background in French, must take a placement test available on-line. Students who do not have any background in French should enroll in FREN 1111 without taking the test. At the beginning of each language class, students will also be asked to complete and sign a Language Profile Form attesting their language background.

All information regarding the placement test is available at the following link:
http://www.smu.ca/academic/arts/modern/fr_test.html

- (i) Permission to register or remain in a particular language course can be refused if the Department judges that the student's knowledge exceeds the level for that course.
- (ii) Native speakers are not eligible to receive advanced credit for language courses.
- (iii) Completion of Advanced Standing (transfer) courses does not exempt a student from taking the placement test.

2. The student's eligibility to enroll 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.

3. 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 enroll in courses at the 2000 level or lower.

Students who misrepresent their knowledge of any given language by providing inaccurate or incomplete information about their linguistic educational history will

be subject to disciplinary action as laid out in Academic Regulation 19.

4. 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.

5. Students enrolling in any French course below the 3000 level are required to take a placement test (unless they have previously successfully completed a French course at this University at the 3000 level).

6. Students should note that courses in 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.

Programs in French

The following programs are available in French: Honours, 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 FREN 2235/2236. 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 2000 level or below. Courses at the 2000 and 3000 levels cannot be taken concurrently.

FREN 2235 is the normal starting point for majors. High school graduates having completed the "Core" program should enroll in FREN 2201. Students who have taken French at another university are asked to consult with the Chairperson before registering.

Students are required to do the online Placement Test (on Departmental Website) in order to find the course that best suits their needs. Students having previously taken FREN 1111 and 1112 or 2201 and 2202 at Saint Mary's are not required to take the placement test.

Students interested in doing a Major or a Minor in French or 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.

Honours in French with three possible options: Linguistics, Literature and Culture

All prospective honours students should refer to the section of this *Calendar* pertaining to honours degrees. Students with a minimum cumulative grade point average of 3.00 can apply to the Registrar for admission to the honours program after having satisfied the requirements of the

major program. In addition to the overall grade point average of 3.00 requirement, prospective honors students are expected to have demonstrated a B+ (or 3.3 of GPA) cumulative average in the French major program.

Honours degrees consist of sixty (60) credit hours. Beyond the requirements for the French major, eighteen (18) additional credit hours in French are required: FREN 4500, The Honours Essay, and twelve (12) credit hours at the 3000-4000 level (other than FREN 3307, 3308, 3350 and 3351).

The Chair of the Department will direct students to the appropriate faculty member with whom they will discuss the topic and the nature of the Honours essay. The deadline for such a meeting is May 31, prior to the year of entry into the program. For additional detail regarding Honours guidelines, please go to the department webpage.

Major in French

A major in French normally consists of at least forty-two (42) credit hours in French beyond FREN 2202 with the following requirements:

FREN 3307; 3308 and 3350; 3351

Six (6) credit hours at the 3000 or 4000 level in culture;

Six (6) credit hours at the 4000 level in literature;

Six (6) credit hours at the 4000 level in language;

Six (6) credit hours at the 4000 level in FREN electives.

Language Courses	Culture Courses	Literature Courses
1111	3310	3350
1112	3312	3351
2201	4410	4405
2202	4440	4410
2235	4827	4412
2236	4849	4418
3307		4422
3308		4426
3320		4433
3321		4451
3331		4455
3335		4460
4400		4461
4435		4826
4436		4827
4437		
4438		

Concentration in French

To obtain a concentration in French in partial fulfillment of the B.A. General Degree (i.e. one with a Double Arts Concentration and a minimum of ninety (90) credit hours), a minimum of twenty-four (24) credit hours in French is required. At most 6 credit hours can be at the 1000 level. Also, the minimum grade point average is 2.00.

Minor in French

A minor in French consists of twenty-four (24) credit hours in French beyond FREN 1112 with at least twelve (12) of these being at the 3000 level or above.

Year Abroad at the Université Catholique d'Angers, France

This study abroad program consists of two semesters: a Fall semester (October - January), and a Spring semester (February - June), during which course work in language, culture and literature is offered. One-month programs are also available in the summer during the months of July, August, and September. These are strictly language courses. Students who successfully complete their programs receive credit recognition at Saint Mary's University: fifteen (15) credit hours per semester and six (6) credit hours 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 Coordinator of the program, and must have a CGPA 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 six (6) credit hours 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 (CPF)

This certificate signifies that the student has earned twenty-four (24) credit hours beyond FREN 2201 and 2202, 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.

Course Descriptions

1111 Beginners' French Level I

3 credit hours

Prerequisite: placement test.

An introductory course for students who have not had formal training in French, or not enough to justify their admission to FREN 2201 and 2202 as demonstrated on the placement test. Students who have completed two (2) years of senior high Core French or equivalent are not eligible for enrollment in this course.

Note: This course does not count toward the French major and is not intended for immersion students or those having had enriched or extended French programs, or Francophone students.

1112 Beginners French Level II

3 credit hours

Prerequisite: FREN 1111 with a minimum grade of C and taken within the previous twelve (12) months. and/or placement test in french.

This course continues the elementary skill development started in Level I, and is intended for students who have not completed Grade 12 French.

Note: This course does not count toward the French major and is not intended for immersion students or those having had enriched or extended French programs, or francophone students.

2200 Oral Traditions in the Francophone World

Prerequisite: none.

This course delivered in English examines the oral traditions and literary genres of the Francophone world, in particular, those from Asia, Africa, Oceania and the Caribbean. Students will examine traditional rituals, the music and song styles associated with them, contemporary forms of traditional and popular culture, oral traditional narrative, prose, religious texts and poetry. No previous training in French required. This course cannot count towards a French Minor or Major.

2201 Basic University French Level I

3 credit hours

Prerequisite: placement test or FREN 1111 and 1112 with a minimum grade of C.

A student enrolling in this course should have completed three (3) years of senior high “core” French or already possess an equivalent knowledge of French, as demonstrated on the placement test. This is a general language course for non- or pre-majors with emphasis placed on developing communicative skills. Taught in French.

Note: This course cannot be counted for the French major and is not intended for immersion students or those having had enriched or extended French programs, or francophone students.

2202 Basic University French Level II

3 credit hours

Prerequisite: FREN 2201 with a minimum grade of C and taken within the previous twelve (12) months.

Taught in French, this general language course continues in the development of the basic skill set studied in Level I, with emphasis on oral functional ability.

Note: FREN 2202 must be taken within twelve (12) months of completing Level I. This course cannot be counted for the French major and is not intended for immersion students or those having had enriched or extended French programs, or francophone students.

2235 Intermediate French Level I

3 credit hours

Prerequisite: placement test or six (6) credit hours in FREN at the 2000 level or equivalent with a minimum grade of C.

Taught in French, this is a general language development course at a more intensive level involving oral and written practice and a review of grammar. This is the normal starting point for majors, immersion students, and those

having had enriched or extended French programs. Students with more developed skills, including Francophones, start at the 3000 level.

2236 Intermediate French Level II

3 credit hours

Prerequisite: FREN 2235 or equivalent with a minimum grade of C and/or placement test.

This intensive course further expands the oral and written proficiency standards covered in Level I. Level II must be taken within twelve (12) months of completing Level I. Students with more developed skills, including Francophones, start at the 3000 level.

3307 Advanced French Language Skills I

3 credit hours

Prerequisite: FREN 2235 and 2236 with a minimum grade of C.

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.

3308 Advanced French Language Skills II

3 credit hours

Prerequisite: FREN 3307 with a minimum grade of C.

Taught in French, this is a language development course focusing on written and oral communication at an advanced level and in formal contexts. Grammar points may be reviewed as required but do not form the focal point of the course. This course is compulsory for French majors. 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.

***3310 Introduction to French Culture**

3 credit hours

Prerequisite: FREN 2235 and 2236 with a minimum grade of C

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

174 French

French culture. This course is of particular interest to current or prospective French teachers.

***3312 Introduction to Quebec Culture**

3 credit hours

Prerequisite: FREN 2235 and 2236 with a minimum grade of C

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.

3320 French Phonetics [LING 2321]

3 credit hours

Prerequisite: FREN 2235 and 2236 with a minimum grade of C

A course for students beyond the intermediate level who wish to improve their pronunciation. Knowledge of intermediate level grammar is assumed.

3321 Writing in French

3 credit hours

Prerequisite: FREN 2235 and 2236 with a minimum grade of C

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.

3331 French Review Grammar

3 credit hours

Prerequisite: FREN 2235 and 2236 with a minimum grade of C

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.

3335 French for Business

3 credit hours

Prerequisite: FREN 2235 and 2236 with a minimum grade of C 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.

***3350 Introduction to Literature Written in French, I**

3 credit hours

Prerequisite: FREN 2235 and 2236 with a minimum grade of C

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 honours in French.

***3351 Introduction to Literature Written in French, II**

3 credit hours

Prerequisite: FREN 2235 and 2236 with a minimum grade of C

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 honours in French.

3826 – 3849 Special Topics in French

3 credit hours

Prerequisite: permission of instructor

3876 – 3899 Directed Study in French

3 credit hours

Prerequisite: permission of instructor

4400 French Speech Strategies: Perfecting Oral Skills

3 credit hours

Prerequisite: Six (6) credit hours in FREN credit at the 3000 level with a minimum grade of C.

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.

***4410 La France en Chansons**

3 credit hours

Prerequisite: FREN 3350 and 3351 with a minimum grade of C. FREN 3310 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.

***4416 The Eighteenth Century**

3 credit hours

Prerequisite: FREN 3350 and 3351 with a minimum grade 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.

4418 Realism and Naturalism

3 credit hours

Prerequisite: FREN 3350 and 3351 with a minimum grade 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.

4422 Introduction to Literary Analysis

3 credit hours

Prerequisite: FREN 3350 and 3351 with a minimum grade 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 film scripts. The course will serve as an introduction to formal critical analysis of literature. We will examine how a text functions at various levels: intellectual, formal and symbolic, and how the coherence of a literary work reveals itself. In addition, this course will provide opportunities for the student to learn how to organize a literature assignment (oral and written) and how to ground his/her thinking in the text.

***4426 The French Short Story**

3 credit hours

Prerequisite: FREN 3350 and 3351 with a minimum grade 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.

***4433 Women's Literature in France [WMST 4433]**

3 credit hours

Prerequisite: For FREN students, FREN 3307, 3308, and 3350, 3351 with a minimum grade of C. For WMST students, three (3) credit hours in WMST and six (6) credit hours in FREN at the 3000 level with a minimum grade of C.

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.

4435 Advanced Grammar I

3 credit hours

Prerequisite: FREN 3307 and 3308 and 3321 or 3331, each with a minimum grade of C.

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.

4436 Advanced Grammar II

3 credit hours

Prerequisite: FREN 4435 with a minimum grade of C.

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.

4437 Comparison of English and French Stylistics I

3 credit hours

Prerequisite: FREN 3307 and 3308 a minimum grade of C.

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.

4438 Comparison of English and French Stylistics II

3 credit hours

Prerequisite: FREN 3307 and 3308 a minimum grade of C.

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.

4440 Canadian French: Sociolinguistic Perspectives [LING 4440]

3 credit hours

Prerequisite: six (6) credit hours of FREN at the 3000 level or equivalent a minimum grade of C.

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.

***4451 Quebecois Literature I**

3 credit hours

Prerequisite: FREN 3350 and 3351 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.

***4452 Quebecois Literature II**

3 credit hours
Prerequisite: FREN 3350 and 3351 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.

4455 Littératures de genre

3 credit hours
Prerequisite: FREN 3350 and 3351 with a minimum grade of C.

Littératures de genre include the detective novel, science fiction, fantasy, comics, and gore. Students will analyze a combination of French and Francophone works belonging mainly to the 20th Century. Students will come to understand the social background and defining features of some of these.

***4460 20th Century French Literature**

3 credit hours
Prerequisite: FREN 3350 and 3351 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.

***4461 Contemporary French Literature**

3 credit hours
Prerequisite: FREN 3350, 3351 and 3307 and 3308, 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.

4463 French and Francophone Cinemas

3 credit hours
Prerequisites: Six (6) credit hours in FREN at the 3000 level with a minimum grade of C.

This course is an insight into diverse aspects of contemporary French and Francophone cultures and societies through the close analysis of film. Topics include notions of marginality, social exclusion, ethnicity and identity; the impact of multiculturalism and globalization; the role of feminism; and the concepts of "nation" and national cinemas.

4500 The Honours Essay

6 credit hours
French Honors' students are required to submit a substantial essay or complete a research project selected and prepared in conjunction with a faculty advisor.

4826 - 4849 Special Topics in Francophone Studies

3 credit hours
Prerequisite: French 3350 and French 3351

The purpose of these courses is to introduce students to the riches and variety of voices and contemporary Francophone cultures throughout the world, outside France and Québec. Topics to be considered include: issues of history, resistance, identity, gender and race. Students will discover the Francophone world through the media of literature, newspaper articles, art, music and film, which will enable them to develop informed perspectives on the emergence of diverse French-speaking cultures.

4876 – 4899 Directed Study

3 credit hours
A three (3) credit hour 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.

General Science (GSCI)

Dean S. Smith

General Science courses fall under the oversight of the office of the Dean of Science and do not fall under a specific department within the Faculty of Science.

Course Descriptions

1300 Introduction to Science Communication

This skills-based course covers the writing and communication techniques essential for science students. Topics include general writing and research skills, scientific writing and presenting, constructing scientific graphs and figures, and basic communication theory.

Note: B.Sc. students may use this course as either a science elective – under regulations 3(e), 6(e), and 12 (b) – or as an

Arts elective – under regulations 3 (c), and 6(c) – for B.Sc. degrees.

3300 Advanced Science Communication

This skills based course covers the methods and means of communicating scientific research to both academic and public audiences. Topics include scientific writing and presenting, funding and scholarship requests, media theory, public communications strategies, and communicating science through the media.

Note: B.Sc. students may use this course as either a science elective – under regulations 3(e), 6(e), and 12 (b) – or an Arts elective – under regulations 3 (c), and 6(c) – for B.Sc. degrees.

Geography (GEOG)

Chairperson	R. McCalla
Professors	C. Conrad, R. McCalla, H. Millward
Associate Professors	P. Giles, C. Suteanu, D. van Proosdij
Assistant Professor	J. Grek Martin
Adjunct Professors	T. Bouman, P. Bush, H. Chappells, J. Spinney
Professor Emeritus	D. Day
Co-op Educational Advisor	D. van Proosdij

General Information

Geography is the study of the Earth's surface, and of the spatial distribution and patterns of its physical and human characteristics. Geographers study how nature and culture work to create distinct spaces, places, landscapes, and regions. Geography is a subject of practical importance in such fields as urban and regional planning, industrial location, marketing, resource development, environmental monitoring and management, and geomatics. It is possible to obtain a major or honours in geography in either a Bachelor of Arts or Bachelor of Science degree program.

Departmental Policy

1. The Department regards 1000-level courses as both service courses for the university in general and basic introductory courses for geography majors.
2. The course content in most geography courses is cumulative.
3. Where a prerequisite is specified, a student wishing to take the course must have obtained at least a C grade in the stated prerequisite.
4. Normally 2000, 3000, and 4000-level courses are not open to students in their first year at university.
5. 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.
6. Majors and honours students must normally complete GEOG 2316 and GEOG 2336 before the end of their second year or, in the case of part-time students, before proceeding to other upper level courses.
7. All majors and honours students are assigned a faculty advisor with whom they should consult each year to review their progress and course selection.
8. The Department of Geography recognizes the importance of developing students' communication skills in preparation for participating in the work force and/or continuing their education at an advanced level. Therefore,

in addition to addressing geographical content, the department is committed to improving the written and oral communication skills of students in Geography courses by including evaluation of these communication skills in course work...

9. For more complete information on geography programs, students should contact the Chairperson.

10. 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 science 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 forty-eight (48) geography credit hours are required. 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 grade 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 at least six (6) credit hours in geology.

General Requirements for a Major in Bachelor of Arts Program

- i. GEOG 1100, GEOG 1200, and one of 2100 or 2200;
- ii. GEOG 2316, 2336 and three (3) credit hours from GEOG 3326, 3356, 3366, or 3386;
- iii. Students must attain a grade of C or higher in GEOG 2316 and GEOG 2336;
- iv. Nine (9) credit hours in GEOG at the 4000-level; and
- v. Twenty-one (21) credit hours in GEOG.

Note: In addition to the eighteen (18) credit hours defined in (i) and (ii), the thirty (30) additional credit hours in GEOG may be taken from any group (A, B, C, D). After the student attains forty-eight (48) credit hours in GEOG, only Group A, C, and D courses count towards the "sixty-six (66) credit hours in Arts subjects as the 2000-level or above" (Faculty of Arts Regulation 1a). Additional Group B courses could be taken as electives.

General Requirements for a Major in Bachelor of Science Program

- i. GEOG 1100, GEOG 1200, and GEOG 2100
- ii. GEOG 2316, 2336 and three (3) credit hours from GEOG 3326, 3356, 3366, or 3386;
- iii. At least fifteen (15) other credit hours from Group B courses, of which at least six (6) credit hours must be at the 4000-level; and
- iv. Fifteen (15) credit hours from any group.
- v. A total of nine (9) credit hours in GEOG must be at the 4000-level.

Note: After the student has attained the required forty-eight (48) credit hours in GEOG, any additional GEOG credits would be taken as free electives in the Faculty of Science.

Concentration in GEOG Requirements

Students registered in the ninety (90) credit hour Bachelor of Arts General Program may complete the concentration requirement in Geography by taking twenty-four (24) credit hours in Geography, to include:

- i. GEOG 1100 and GEOG 1200
- ii. GEOG 2100 or 2200
- iii. Fifteen (15) credit hours in GEOG.

Students registered in the ninety (90) credit hour Bachelor of Science General Program may complete the concentration requirement in Geography by taking thirty (30) credit hours in Geography credits, to include:

- i. GEOG 1100, GEOG 1200, and .
GEOG 2100
- ii. nine (9) credit hours from Group B or C courses
- iii. twelve (12) credit hours of GEOG that are not designated.

Double Majors and Geology/Geography Combined Programs

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 honours.

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. Students accepted into the geology minor program will be allowed to count twenty-four (24) credit hours in geology towards their Arts degree requirements.

Honours 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 honours program.
2. To be admitted to the honours 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 Honours Program Coordinator.
4. Students admitted to the program are responsible for finding a member of the Department to act as their Honours Research Project supervisor.
5. Complete details regarding the Honours Research Project are contained in *Regulations for the Honours Research Project (Geography 4520)* available from the Departmental secretary.
6. Besides meeting the respective Faculty credit hours and grade level requirements, students must complete a total of seventy-two (72) credit hours in geography to qualify for graduation with honours.

For the Bachelor of Arts degree, the seventy-two (72) credit hours are:

- i. GEOG 1100, GEOG 1200 and either GEOG 2100 or GEOG 2200;
- ii. GEOG 2316, 2336, and 3326;
- iii. Students must attain a grade of C or higher in GEOG 2316 and GEOG 2336;
- iv. One of GEOG 3356, 3366, or 3386;
- v. GEOG 4406 and 4416;
- vi. GEOG 4526; and
- vii. Thirty-nine (39) other GEOG credit hours from any group of which at least six (6) credit hours must be at the 4000-level.

For the Bachelor of Science degree, the seventy-two (72) credit hours are:

- i. GEOG 1100, GEOG 1200, and GEOG 2100;
- ii. GEOG 2316, 2336, 3326, and one of GEOG 3356, 3366, or 3386;
- iii. At least eighteen (18) other credit hours from Group B courses, of which at least six (6) credit hours must be at the 4000-level;
- iv. GEOG 4406 and 4416;
- v. GEOG 4526; and
- vi. Twenty-one (21) other GEOG credit hours from any group.

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 twenty-four (24) credit hours in geography, including:

- i. GEOG 1100 and GEOG 1200
- ii. GEOG 2100 or 2200
- iii. Fifteen (15) other GEOG credit hours

Students in a Bachelor of Science program wishing to complete a Minor in geography are required to complete at least thirty (30) credit hours in geography, including:

- i. GEOG 1100, 1200, and 2100
- ii. nine (9) credit hours from Group B and C courses
- iii. twelve (12) other GEOG credit hours that are not designated.

In addition to the programs cited above, information on graduate courses, may be found in *the Graduate Academic Calendar*.

Course Descriptions

1100 Global Perspectives on Land and Life (Group D) 3 credit hours

An introduction to the world and its major regions, focusing on traits, processes, and geographical patterns which give regions their distinctive character. These elements are derived from the complex interrelationships between human activity and the environment. Regional case studies may include: Europe, monsoon Asia, sub-Saharan Africa, the Middle East, and others.

1200 People, Place and Environment (Group D) 3 credit hours

This course introduces environmental geography through an integrative approach that explores how humans have impacted and been impacted by earth's physical systems. Human linkages with the atmosphere, biosphere, hydrosphere and solid earth will be explored. Emphasis will be placed on geographical problems and interaction between humans and environment of varying scales in order to better understand the complexity of our natural world. Where appropriate, case studies will be used to highlight specific methods of geographical analysis.

2100 Fundamentals of Physical Geography (Group B) 3 credit hours

Prerequisite: Either GEOG 1100 or GEOG 1200

This course explains fundamental patterns and phenomena in physical geography by investigating the underlying causes and processes with a quantitative approach. The concepts of systems, equilibrium, stability, and feedback will be incorporated as principal themes. Major topics include: effects of Earth-Sun cycles, radiation and water budgets, atmospheric and oceanic circulation systems, weather and climate controls, and principles of landscape and landform development.

Classes 2 hrs. and lab 2 hrs. a week

2200 Fundamentals of Human Geography (Group A) 3 credit hours

Prerequisite: GEOG 1100 or GEOG 1200.

This course introduces student to concepts and techniques that define geographical analysis of human landscapes.

Particular attention will be paid to ways in which geographical patterns both shape and are shaped by cultural, political and economic processes. A lab component introduces students to some of the basic techniques of geographical inquiry. Topics for discussion may include: cultural identities and landscapes, colonialism, state formation, geopolitics, food production, rural settlement patterns, urbanization, industrialization, transportation, economic development, and globalization.

Classes 2 hrs. and lab 2 hrs. a week

2310 Geography of Canada: Overview (Group D) 3 credit hours

Prerequisite: at least thirty (30) credit hours.

This course provides an overview of the physical, social, cultural and economic geographical characteristics of Canada taken as a whole and within its distinct regions. How humans affect and are affected by the physical environment will be a recurrent theme.

2311 Rural Geography (Group A)

3 credit hours

Prerequisite: GEOG 1100 or GEOG 1200.

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.

2315 The Oceans (Group B)

3 credit hours

Prerequisite: GEOG 1100 or GEOG 1200

A geographic study of the physical, environmental, economic and societal aspects of the world's oceans. Examination of the development of traditional and new uses of the oceans will focus attention on management issues. Regional case studies will be used to illustrate evolving concepts of oceanic management, including marine protected areas, territorial seas, and conflict of use issues.

2316 Map and Air Photo Interpretation (Group C)

3 credit hours

Prerequisite: GEOG 1100 and 1200.

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 air photo interpretation.

Classes 2 hrs. and lab 2 hrs. a week.

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2325 Sedimentology (Group B) [GEOL 2325]

3 credit hours

Prerequisite: GEOG 2100 or GEOL 1200 or GEOL 1201.

2336 Principles of Cartography (Group C)

3 credit hours

Prerequisite: GEOG 1100 and 1200.

An introduction to the design, compilation, and construction of maps as a medium for communication and research. Topics include the history of map making, cartographic critique, generalization, lettering, symbolization, and colour. The major types of thematic mapping (proportional symbols, isopleths and choropleths) are studied. Geographic Information Systems (GIS) are introduced.

Classes 2 hrs. and lab 2 hrs. a week.

2390 Geography of Ireland (Group D) [IRST 2391]

3 credit hours

Prerequisite: at least thirty (30) credit hours.

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.

3100 Geography Field School (Group D)

3 credit hours

Prerequisite: GEOG 1100 and 1200, and either GEOG 2100 or 2200, plus permission of the Department Chairperson.

The physical and human geography of a selected region will be studied primarily in the field in this experiential learning course. Trip destinations may vary in different years according to faculty interests and collaborative opportunities that may arise. An integrative regional geography perspective will be taken. Students will be required to attend orientation and preparation classes before the trip, and to complete assigned course work after the trip.

3304 Environmental Management (Group D)

3 credit hours

Prerequisite: GEOG 1100 and 1200, and at least 30 credit hours.

This course provides a framework for effective identification, analysis, and management of environmental systems at different scales. It introduces concepts and methods designed to address real-world problems characterized by complexity, uncertainty, and change. Specific geographical environments and selected management issues (such as water pollution, soil erosion, and waste management), are examined, together with methods of environmental planning and impact assessment, including practical aspects of environmental management standards.

3312 Urban Land Use (Group A)

3 credit hours

Prerequisite: GEOG 2200.

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.

3313 Geomorphology (Group B) [GEOL 3373]

3 credit hours

Prerequisite: GEOG 2100; or GEOL 1200 and 1201 (or their predecessors GEOL: 1214 and 1215).

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. Some field work may be required.

3319 Geographic Perspectives on Culture (Group A)

3 credit hours

Prerequisite: GEOG 2200

This course critically examines the complexities of culture by exploring the various ways in which culture both shapes and is shaped by geographic landscapes. Potential topics will include: landscapes of consumption, cultural imperialism in the colonial past and postcolonial present, geographies of multiculturalism, sites of heritage and commemoration, and geographic dimensions of identity formation (e.g. gender, sexuality, race, religion, nationality).

3321 Geography of Manufacturing (Group A)

3 credit hours

Prerequisite: GEOG 2200.

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.

3326 Statistical Methods for Geographers (Group C)

3 credit hours

Prerequisite: GEOG 2100 or 2200.

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.

3329 Geographic Perspectives on Nature (Group A)

3 credit hours
Prerequisite: GEOG 2200.

This course critically explores various concepts of nature and the ways in which they shape and are shaped by geographic landscapes. Potential topics will include: the socially constructed 'nature of nature, changing views of nature in Western and non-Western thought and the intellectual underpinnings of modern environmentalism. This course will also analyze several culturally produced 'natural' landscapes, including wilderness reserves, rural countryside, suburban yards, zoos and city parks.

3332 Geography of Transportation (Group A)

3 credit hours
Prerequisite: GEOG 2200.

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 modeling of transportation flows. All transport modes are considered but emphasis is placed on land and air transport.

3333 Biogeography (Group B)

3 credit hours
Prerequisite: GEOG 2100.

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.

3340 Geography of Nova Scotia (Group D) [ACST 3340]

3 credit hours
Prerequisite: at least thirty (30) credit hours.

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.

3343 Weather and Climate (Group B)

3 credit hours
Prerequisite: GEOG 2100.

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.

3353 Inquiry and Explanation in Physical Geography (Group B)

3 credit hours
Prerequisite: GEOG 2100.

This course reviews the development of physical geography by examining how knowledge has accumulated and is disseminated in the discipline. The objective is to understand better the current nature and future directions of physical geography by investigating developments in the literature and studying the work of important contributors. Emphasis is placed on improving the students ability to make inquiries and provide explanations in physical geography.

3356 Remote Sensing of the Environment (Group C)

3 credit hours
Prerequisite: GEOG 2316

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.

3360 Geography of Japan (Group D)

3 credit hours
Prerequisite: at least thirty (30) credit hours.

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.

3386 Concepts in Geographical Information Systems (GIS) (Group C)

3 credit hours
Prerequisite: GEOG 2336.

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.

3454 Bay of Fundy: Environments and Issues (Group D)

3 credit hours
Prerequisite: GEOG 1100 or 1200 and at least thirty (30) credit hours..

This interdisciplinary course examines physical, biological and human environments, processes and issues in the Bay

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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 salt marshes, settlement patterns, and resource use. Emphasis is placed on current issues and solutions.

4394 Geography of Maritime Transportation (Group A)

3 credit hours
Prerequisite: GEOG 3332.

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.

4406 Seminar in Theoretical Geography (Group D)

3 credit hours
Prerequisite: Registered major or honours students in Geography, or Geology/Geography combined program, with at least 60 university credit hours.

Students will be made familiar with major advances in theoretical and philosophical aspects of geography.

4413 Coastal Geomorphology (Group B) [GEOL 4476]

3 credit hours
Prerequisite: GEOG 3313 [GEOL 3373] or GEOL 2325 [GEOG 2325].

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. Some field work may be required.

4414 Integrated Coastal Zone Management (Group D)

3 credit hours
Prerequisite: GEOG 2336 and either GEOG 3304 or GEOG 2315.

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 3 hr lecture weekly..

4416 Seminar in Applied Geography (Group D)

3 credit hours
Prerequisite: Registered major or honours students in Geography, or Geology/Geography combined program, with at least 60 university credit hours.

Role of the geographer and geographical studies in fields such as environmental, regional and urban planning; resource management; mapping and surveys; and marketing.

4423 Glaciers and Glaciation (Group B) [GEOL 4475]

3 credit hours
Prerequisite: GEOG 3313 [GEOL 3373] or GEOL 2325 [GEOG 2325].

Glaciers have profound effects on landscapes and are an important component of global physical systems. Glaciology, causes and records of fluctuations in glacial coverage, glacial processes, glacial landforms, and the legacy of past glacial activity on earth will be examined. Broader impacts of glacial activity and changes on humans and the environment will also be investigated.

Classes 2 hrs. and lab 2 hrs. a week.

4424 Natural Resource Management (Group D) [ENVS 4450]

3 credit hours
Prerequisite: GEOG 3304 or ENVS 2300 and one of MATH 1207 or GEOG 3326 or BIOL 2308.

4432 Social Geography of the City (Group A)

3 credit hours
Prerequisite: GEOG 2200.

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.

4433 Fluvial Geomorphology (Group B)

3 credit hours
Prerequisite: GEOG 3313 [GEOL 3373] or GEOL 2325 [GEOG 2325].

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 hrs. and lab 2 hrs. a week.

4434 Watershed Management (Group D)

3 credit hours
Prerequisite: GEOG 3304 and GEOG 2100

This course explores the concept of integrated watershed management. This will include assessments of biophysical freshwater systems, implications for natural resource

development and land use on water quality and quantity, as well as institutional arrangements and the role of stakeholder involvement in watershed-scale decision-making. Field trips to local watersheds will be incorporated into the course syllabus.

4439 Urban Historical Geography (Group A)

3 credit hours

Prerequisite: six (6) Group A Geography credit hours at the 2000 or 3000 level.

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.

4442 Urban Planning (Group A)

3 credit hours

Prerequisite: GEOG 2200.

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.

4443 Natural Hazards (Group B)

3 credit hours

Prerequisite: GEOG 2100 and at least 6 credits hours in GEOG courses at 3000 level or above.

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.

4444 Environmental Pattern Analysis and Modeling [ENVS 4460]

3 credit hours

Prerequisites: 60 credit hours, including one of ENVS 1203, 2300, 2310, or GEOG 3304, and one of MATH 1216, GEOG 3326, MGSC 2207 or BIOL 2308

The focus of this course is on theory and practical methods for characterizing and modeling environmental systems, which are complex and often strongly variable in space and/or time. It includes approaches to patterns and pattern change evaluation, data mining, and dynamic system modeling. Geoscience and life science applications are studied, such as rivers, coastal areas, fisheries, forests, mineral distribution, geomorphologic features, geohazards, ecosystem dynamics, and atmospheric variables

Classes 3 hrs. and lab 3 hrs. a week.

4449 Tourist Geographies (Group A)

3 credit hours

Prerequisite: GEOG 3319.

The course concerns 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.

4452 The Geography of Urban Transportation (Group A)

3 credit hours

Prerequisite: GEOG 2312 or GEOG 3332.

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.

4459 The Power of Maps: A Social History of Cartography (Group A)

3 credit hours

Prerequisite: GEOG 2200 or at least sixty (60) credit hours.

Maps are windows on their contemporary worlds, telling us a great deal about the technical proficiencies, economic structures, social relations, political objectives and overarching belief systems of the societies that call them forth. Possible topics for discussion will include: mapping in the Ancient world, Medieval cosmological cartography, imperial/colonial cartography, cartographies of indigenous resistance, maps and national identity, cartography and literature, and mapping in the digital age.

4465 Advanced Sedimentology (Group B) [GEOL 4465]

3 credit hours

Prerequisite: GEOL 2325 [GEOG 2325] and GEOL 3326.

4496 Applications in Geographical Information Systems (Group C)

3 credit hours

Prerequisite: GEOG 3386.

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.

4526 Honours Research Project (Group D)

6 credit hours

Prerequisite: Honours standing in geography.

Honours 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.

4800 – 4825 Selected Topics in Geography

6 credit hours

Prerequisite: Vary depending on the nature of the Selected Topic

These courses will cover topics not represented by other courses in Geography. The subject matter will be selected by the instructor. If appropriate to the material, a class and

lab mode of presentation may be used instead of classes alone.

4826 – 4849 Selected Topics in Geography

3 credit hours

Prerequisite: Vary depending on the nature of the Selected Topic

These courses will cover topics not represented by other courses in Geography. The subject matter will be selected by the instructor. If appropriate to the material, a class and lab mode of presentation may be used instead of classes alone.

4850 – 4875 Directed Study (Group D)

3 credit hours

4876 - 4899 Directed Study (Group D)

6 credit hours

Geology (GEOL)

Chairperson	J. Hanley
Professors	V. Owen, G. Pe-Piper
Associate Professor	P. Jutras, J. Hanley
Assistant Professors	A. MacRae
Adjunct Professors	D. Ames, S. Gleeson, D. Piper
Professor Emeritus	J. Dostal

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 Honours 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 emphasize 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 Honours programs in geology, should take GEOL 1200 and GEOL 1201. This course provides a broad survey of the discipline, with practical experience provided through labs and field trips. Courses in mineralogy (GEOL 2301, GEOL 2302) and the history of life and sedimentary environments [GEOL 2323 and GEOL 2325] are also recommended as supporting science subjects for students majoring in other sciences.

GEOL 1202, 1203, 1206, 1207, 1208 and GEOL 1210 are designed chiefly for students in Commerce and Arts, including Atlantic Canada Studies. Of these, only GEOL 1206, 1207 and 1208 can be used as Science credits. In

exceptional cases where a student has taken GEOL 1202 and GEOL 1203 (previously GEOL 204.0) with high standing, those courses may, with the permission of the Department, be accepted in the geology Major or Honours program in lieu of GEOL 1200 and GEOL 1201.

Students in the major and Honours 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 3000 and 4000-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 Association of Professional Geologists of Nova Scotia (APGNS) requirements, which are revised every five years by the Canadian Council of Professional Geoscientists (CCPG). For the 2008-2012 period, the CCPG requirements for professional geologists are:

Three credit hours (one course) in each of the following fields:
Chemistry
Mathematics
Physics

An additional 18 credit hours (six courses) distributed in the following fields (no more than two per individual field):

Biology
Chemistry
Mathematics
Computer Programming
Physics
Statistics

Three credit hours (one course) in each of the following geoscience topics:

Field Methods
Mineralogy
Sedimentology
Structural Geology

An additional 15 credit hours (five courses) distributed in the following geoscience topics (a minimum of one per sub-group):

Principles of Geochemistry
Applied Geochemistry
Geophysics

Igneous Petrology
Metamorphic Petrology
Sedimentary Petrology

Advanced Sedimentology
Glacial Geomorphology
Remote Sensing

An additional 28 credit hours (9 courses) must be taken in courses at the second-year level or higher in geosciences (Geology, Physical Geography or Environmental Science). Also eligible are additional courses from the previously mentioned lists, or courses in Technical Writing or computer Programming. For more information, please consult the following website:

http://ccpg.ca/guidelines/recommended_minimum_requirements.html

1. Geology Major

The courses of the core program for a student majoring in geology are:

GEOL 1200	Understanding the Earth
GEOL 1201	The Dynamic Earth
GEOL 2301	Mineralogy
GEOL 2302	Optical Mineralogy
GEOL 2305	Geophysics
GEOL 2325	Sedimentology
GEOL 3300	Field Methods
GEOL 3312	Igneous Petrology
GEOL 3313	Metamorphic Petrology
GEOL 3323	Paleontology: History of Life
GEOL 3326	Sedimentary Petrology and Stratigraphy
GEOL 3413	Structural Geology
GEOL 3453	Principles of Geochemistry

At least three (3) credit hours, (one (1) course) from the following list:

GEOL 4441	Mineral Resources
GEOL 4466	Petroleum Geology

At least six (6) additional credit hours (two (2) courses) from the previous list or from the following:

GEOL 3340	Surface and Groundwater Hydrology
GEOL 3454	Applied Geochemistry
GEOL 4300	Field Geology of Eastern Canada
GEOL 4400	International Field Camp
GEOL 4414	Tectonics
GEOL 4423	Advanced Paleontology
GEOL 4400	International Field Camp
GEOL 4450	Advanced Igneous and Metamorphic Petrology
GEOL 4465	Advanced Sedimentology

It is strongly recommended that all geology major and Honours students take GEOL 3300 Field Methods, which is required by the CGSB and the APGNS (see above).

The following first and second year course selections are recommended for students in the Major and Honours programs in Geology:

Year 1

1. GEOL 1200 and GEOL 1201
2. MATH requirement (see Faculty of Science regulations, Section 3 of this *Academic Calendar*)
3. non-geology science elective [six (6) credit hours]
4. ENGL 1205 and three (3) credit hours in humanities
5. Arts elective [six (6) credit hours]

Year 2

1. GEOL 2301 and 2302 [six (6) credit hours]
2. GEOL 2325 [three (3) credit hours]
3. GEOL 2305 [three (3) credit hours]
4. 3000 or 4000 level geology course with lab [six (6) credit hours]
5. non-geology science elective [six (6) credit hours]
6. Arts elective [six (6) credit hours]

For subsequent years, students should consult the Department Chairperson.

2. Geology Honours

The Honours program requires GEOL 4550 in addition to the core courses for majors, supplemented by sufficient geology courses for a minimum of sixty (60) credit hours, of which only six (6) credit hours (two courses) may be at the 1000 level. Students must secure a supervisor for the honours project (GEOL 4550) before applying to the honours program.

3. Double Major and Double Honours

Students may pursue a double major in geology and another science subject, as outlined in Section 3 of this *Calendar* in the Faculty of Science pages. Students may also pursue a double honours in geology and another science subject, as outlined in Section 12d of the Faculty of Science pages of this *Calendar*.

Students taking a double major are required to take at least thirty-six (36) credit hours in geology from the following list, and students taking a double honours are required to take at least forty-two (42) credit hours from the same list:

** The course listing that follows has three courses added to it: GEOL 3373 Geomorphology; GEOL 4300 Field Geology of Eastern Canada; and GEOL 4400 International Field Camp:

GEOL 1200	Understanding the Earth
GEOL 1201	The Dynamic Earth
GEOL 2301	Mineralogy
GEOL 2302	Optical Mineralogy
GEOL 2305	Geophysics
GEOL 2325	Sedimentology or GEOL 3373
GEOL 3300	Field Methods
GEOL 3312	Igneous Petrology
GEOL 3313	Metamorphic Petrology
GEOL 3323	Palaeontology: History of Life
GEOL 3326	Sedimentary Petrology and Stratigraphy
GEOL 3340	Surface and Groundwater Hydrology
GEOL 3373	Geomorphology
GEOL 3413	Structural Geology
GEOL 3453	Principles of Geochemistry
GEOL 3454	Applied Geochemistry
GEOL 4300	Field Geology of Eastern Canada
GEOL 4400	International Field Camp
GEOL 4414	Tectonics
GEOL 4423	Advanced Paleontology
GEOL 4441	Mineral Resources
GEOL 4450	Advanced Igneous and Metamorphic Petrology
GEOL 4465	Advanced Sedimentology
GEOL 4466	Petroleum Geology
GEOL 4475	Glacial Geomorphology

4. Geology/Geography Combined Programs

a. Geology/Geography Major Program (Bachelor of Science)

- i. At least thirty-six (36) credit hours from the list of geology courses under 'Double Major and Honours', above.
- ii. At least thirty-six (36) geography credit hours including:

GEOG 1200	People, Place and Environment
GEOG 1100	Global Perspectives on Land and Life
GEOG 2100	Fundamentals of Physical Geography
GEOG 2325	*Sedimentology
GEOG 2316	Map and Air Photo Interpretation
GEOG 2336	Principles of Cartography
GEOG 3313	*Geomorphology

- iii. At least twelve (12) credit hours from:

GEOG 2305	The Oceans: A Physical Geography
GEOG 2333	Biogeography
GEOG 3343	Weather and Climate
GEOG 4413	Coastal Geomorphology
GEOG 4423	Glacial Geomorphology
GEOG 4433	Fluvial Geomorphology
GEOG 4443	Natural Hazards

Six (6) additional credit hours in geography from Group B or C courses.

b. Geology/Geography Honours Program (Bachelor of Science: Honours)

In addition to the above requirements, Honours students must complete:

- i. GEOL 4550 Honours Project or GEOG 4526 Honours Research Project;
- ii. six (6) additional credit hours in geology from the list of geology courses under "Double Major and Honours" above; and
- iii. GEOG 4406 Seminar in Theoretical Geography and GEOG 4416 Seminar in Applied Geography.

In the Honours Bachelor of Science geology/geography program, topics for Honours 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/Honours science degree combining a major/Honours 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 Honours degrees, under the general requirements of the Faculty of Science. For a combined major degree, students will be required to take a minimum of forty-two (42) credit hours in the Faculty of Commerce in addition to at least thirty-six (36) credit hours in geology. In the Honours program, a thesis on a field interrelating the two disciplines will be required. Students enrolled in the combined geology/business studies major/Honours 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 Honours 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 of forty-two (42) credit hours]

ACCT 2241	Introductory Accounting I
ACCT 2242	Introductory Accounting II
ACCT 3332	Planning and Control
CMLW 2201	Legal Aspects of Business - Part I
COMM 2293	Managerial Communications
ECON 1201	Principles of Economics: Micro
ECON 1202	Principles of Economics: Macro
FINA 2360	Business Finance I
FINA 3361	Business Finance II
MGMT 1281	Introduction to Business Management
MGMT 2383	Organizational Behaviour I
MGMT 2384	Organizational Behaviour II
MGMT 4489	Strategic Management
MKTG 2270	Introduction to Marketing

b. Geology Requirements [at least thirty-six (36) credit hours]

GEOL 1200	Understanding the Earth
GEOL 1201	The Dynamic Earth
GEOL 1208	Environmental Geology
GEOL 2301	Mineralogy
GEOL 2302	Optical Mineralogy
GEOL 2305	Geophysics
GEOL 2325	Sedimentology
GEOL 3300	Field Methods
GEOL 3312	Igneous Petrology
GEOL 3313	Metamorphic Petrology
GEOL 3323	Palaeontology: History of Life
GEOL 3340	Surface and Groundwater Hydrology
GEOL 3373	Geomorphology
GEOL 3413	Structural Geology
GEOL 3453	Principles of Geochemistry
GEOL 3454	Applied Geochemistry
GEOL 4300	Field Geology of Eastern Canada
GEOL 4400	International Field Camp
GEOL 4414	Tectonics
GEOL 4423	Advanced Paleontology
GEOL 4441	Mineral Resources
GEOL 4450	Advanced Igneous and Metamorphic Petrology
GEOL 4465	Advanced Sedimentology
GEOL 4466	Petroleum Geology
GEOL 4475	Glacial Geomorphology

c. Other Requirements

- ENGL 1205 and three (3) credit hours in humanities.
- MATH requirement (see Faculty of Science regulations, Section 3 of this *Academic Calendar*).
- twelve (12) credit hours in science other than Geology, e.g., Biology, Psychology, Chemistry, Physics, and Mathematics excluding MATH 1207, and BIOL 2308.
- three (3) credit hours in statistics that covers probability theory including MATH 1207, MGSC 2207, GEOG 3326, BIOL 2308 and ECON 3303.
- six (6) credit hours from Faculty of Arts offering including GEOG 3326 and ECON 3303.
- nine (9) credit hours in electives from any faculty.

Notes:

- Students must take FINA 2361, MKTG 2270 and MGMT 2384 before registering for MGMT 4489. The other prerequisites for this course are waived for students in this combined program.
- 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 Honours students must complete GEOL 4550 Honours Project as one of the Geology requirements.

6. Cooperative Education Programs**a. Cooperative Education in Geology**

This program, which is available at both the major and Honours level, integrates on-the-job experience and academic studies. Upon completion of one of the Cooperative Education programs, the student receives the

Bachelor of Science degree in geology, at the major or Honours level, with the added qualification of “Cooperative Education”.

Further details and regulations on the Cooperative Education program are found in the Faculty of Science listing in Section 3 of this Calendar.

b. Combined Cooperative Education in Geology/Geography

The students enrolled in the combined geology/geography major/Honours 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 Cooperative Education program are found in the Faculty of Science listing in Section 3 of this Calendar.

c. Combined Cooperative Education Program in General Business Studies/Geology

The students enrolled in the combined geology/business studies major/Honours 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/Honours 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 thirty (30) credit hours, including GEOL 1200 and GEOL 1201; no more than twelve (12) credit hours below the 2000-level can be counted toward the minor in Geology.

Course Descriptions**1200 Understanding the Earth**

3 credit hours

Everything that is known about the history of the solid Earth has been determined from studying rocks and minerals. This course introduces the student to major types of rocks and minerals, how they are described, classified and interpreted, and how their age can be determined. Gemstones, fossils and other Earth materials will also be described.

Classes 3 hrs. and lab 3 hrs. a week.

1201 The Dynamic Earth

3 credit hours

The study of the Earth as a dynamic and evolving planet. that has been in constant transformation since the beginning of its formation. This course introduces the students to both surface and subsurface processes which will be described using many geological examples from Atlantic Canada.

Classes 3 hrs. and lab 3 hrs. a week.

1202 Planet Earth: Atlantic Canada Perspective

3 credit hours

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.

Note: Please note that this course may not be used by B.Sc. Students to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees. This course may not be taken concurrently or subsequently to GEOL 1200 or 1201.

1203 Earth History: Atlantic Canada Perspective

3 credit hours

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.

Note: Please note that this course may not be used by B.Sc. Students to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees. This course may not be taken concurrently or subsequently to GEOL 1200 or 1201.

1206 Global Change

3 credit hours

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.

1207 Environment, Radiation and Society

3 credit hours

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.

1208 Environmental Geology: Atlantic Canada Perspective

3 credit hours

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.

1210 Dinosaurs and Their World

3 credit hours

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.

Note: Please note that this course may not be used by B.Sc. Students to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees.

2301 Mineralogy

3 credit hours

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.

2302 Optical Mineralogy

3 credit hours

Prerequisite: GEOL 2301 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.

2305 Geophysics

3 credit hours

Prerequisite: GEOL 1200 and 1201, or their predecessors (GEOL 1214 and 1215)

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.

2325 Sedimentology [GEOG 2325]

3 credit hours

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.

3300 Field Methods

3 credit hours

Prerequisites: GEOL 1200, 1201 (or their predecessors GEOL: 1214 and 1215), 2325, 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.

Lab 3 hrs. a week plus field work.

NOTE: This course involves a summer field school followed by labs 3 hrs a week in the fall term.

3312 Igneous Petrology

3 credit hours

Prerequisite: GEOL 2302.

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.

3313 Metamorphic Petrology

3 credit hours

Prerequisite: GEOL 2302.

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.

3323 Palaeontology: History of Life

3 credit hours

Prerequisite: one of GEOL 1200, GEOL 1201 (or their predecessors GEOL 1214 and 1215), GEOL 1202, GEOL 1208, BIOL 1201, BIOL1202, or GEOG 2100.

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.

3326 Sedimentary Petrology and Stratigraphy

3 credit hours

Prerequisite: GEOL 2302 and 2325 (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.

3373 Geomorphology [GEOG 3313]

3 credit hours

Prerequisite: one of GEOL 1200, GEOL 1201 (or their predecessors GEOL: 1214 and 1215) or GEOG 2100.

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. Some field work may be required.

3413 Structural Geology

3 credit hours

Prerequisite: GEOL 1200 and 1201 1201 (or their predecessors GEOL: 1214 and 1215)

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.

3453 Principles of Geochemistry

3 credit hours

Prerequisite: GEOL 1200 and 1201 1201 (or their predecessors GEOL: 1214 and 1215).

This course exposes students to the application of chemical thermodynamics for the prediction of geochemical processes in surficial and hydrothermal systems, igneous environments of the Earth and of the rest of the Solar system. Mineral formation and mineral stability are

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examined through the construction and use of phase and mineral stability diagrams for aqueous environments. The geochemical basis for the origins of life on Earth, the carbon cycle, stable and radiogenic isotopes, and the evolution of the most important reservoirs of Earth materials are evaluated through problem sets and laboratories.

Classes 3 hrs. and lab 3 hrs. a week.

Note: To fulfill the CCPG requirements for professional geologists, this course may be used as either a geosciences course or as a second chemistry course.

3454 Applied Geochemistry

3 credit hours

Prerequisite: GEOL 1200 and GEOL 1201 1201 (or their predecessors GEOL: 1214 and 1215)

The application of graphical and numerical tools for classifying Earth materials according to their chemical composition is studied through field-based and computer-based laboratories. This course examines geochemical sampling, instrumental analysis, statistical evaluation of real geochemical data, and the methods of proper reporting and quality control. The students are introduced to novel methods (fluid inclusion microanalysis, alteration mapping in ore deposits, reaction path modeling) and their application in characterizing geochemical processes on Earth.

Classes 3 hrs. and lab 3 hrs. a week.

Note: To fulfill the CCPG requirements for professional geologists, this course may be used as either a geosciences course or as a second chemistry course.

3826-49 Special Topics in Geology

3 credit hours

3876-99 Directed Study in Geology

3 credit hours

4300 Field Geology of Eastern Canada

Prerequisite: GEOL 3326 and permission of instructor.

This course is offered in the form of a 10-day field trip across Eastern Canada, starting on Precambrian rocks of the Canadian Shield and moving up stratigraphy into the successive zones of the Phanerozoic Canadian Appalachians. In this course, the students are introduced to most types of rocks and tectonostratigraphic settings in the field, and they are given the means to reconstruct some of the main elements of the geological history of eastern Canada based on the study of key sections.

NOTE: This course involves a summer field school followed by labs 3 hrs a week in the fall term.

4400 International Field Camp

3 credit hours

Prerequisite: GEOL 3300, and permission of the Department.

This course is offered on an irregular basis in the form of a Geology field trip abroad, allowing the students to be exposed to geological features that cannot be found in Canada. 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 geological report project. Students may be required to travel at their own expense.

4414 Tectonics

3 credit hours

Prerequisite: GEOL 1200, GEOL1201 (or their predecessors GEOL: 1214 and 1215), GEOL 3413 (the latter can 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.

4423 Advanced Palaeontology

3 credit hours

Prerequisite: GEOL 3323

This course focuses on more specialized areas of palaeontology and their application to geological questions. One portion of the course deals with paleobotany (fossil plants) and microfossils (palynology, conodonts, foraminifera). The remainder focuses on applications of palaeontology. Among the topics to be covered are biostratigraphic techniques in subsurface wells and outcrop, integration with radiometric and sequence stratigraphic techniques, fossil sampling and preparation, practical nomenclature and taxonomy, and the use of fossils for paleoenvironmental determination.

Classes 3 hrs. and lab 3 hrs. a week.

4441 Mineral Resources

3 credit hours

Prerequisite: GEOL 1200, 1201 (or their predecessors GEOL: 1214 and 1215), and 2301

A study of Earth's mineral resources, their classification, genesis and distribution in time and space. Important examples from Canada and abroad will be discussed. Topics will also include mineral exploration techniques, mining methods, metallurgical recovery, net smelter return, and ore reserve estimation/classification. Laboratories will examine a variety of base and precious metal ore deposit types in hand sample and thin section. Mining/exploration practice and resource exploitation are also examined in terms of their environmental impacts.

Classes 3 hrs. and lab 3 hrs. a week.

4450 Advanced Igneous and Metamorphic Petrology

3 credit hours

Prerequisite: GEOL 3312 and 3313.

The topics covered in this course include magmatic petrogenesis; magma types; petrographic provinces 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; phase equilibria in metamorphic systems; reaction balancing methods; porphyroblast-matrix relations; quantification of pressure-temperature-time trajectories. Laboratory work is centered on the acquisition and manipulation of microprobe data.

Classes 3 hrs. and lab 3 hrs. a week.

4465 Advanced Sedimentology [GEOG 4465]

3 credit hours

Prerequisite: GEOL/GEOG 2325 and GEOL 3326.

This course examines current research on sedimentary rocks and basins and the methods used to understand them. Among the topics to be covered are modern carbonate and evaporite environments, exotic chemical sedimentary rocks and diagenetic cements, volcanogenic sedimentary rocks, sequence stratigraphy in carbonate and siliciclastic successions, applications of ichnology (trace fossils), the use of stable isotopes in the study of terrestrial carbonates, and the use of detrital minerals to interpret basin evolution.

Classes 3 hrs. and lab 3 hrs. a week.

4466 Petroleum Geology

3 credit hours

Prerequisite: GEOL 1200, 1201 1201 (or their predecessors GEOL: 1214 and 1215), 2305 and 2325 (the latter two can be taken concurrently).

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.

4475 Glacial Geomorphology [GEOG 4423]

3 credit hours

Prerequisite: GEOL 3373 or GEOG 3313.

4476 Coastal Geomorphology [GEOG 4413]

3 credit hours

4550 Honours Project

6 credit hours

Prerequisite: Honours 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.

4826 – 4849 Special Topics in Geology

3 credit hours

Prerequisite: restricted to Year 4 students in the Honours 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.

4876 – 4899 Directed Study in Geology

3 credit hours

Prerequisite: restricted to Year 4 students in the Honours 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.

German (GRMN)

Chairperson, Modern Languages and Classics
 Associate Professor E. Tsedryk
 Professor E. Enns
 Associate Professor J. Plews

Courses and programs in German are offered by the Department of Modern Languages and Classics

Department Policy - Modern Languages and Classics

1. Enrollment in some language courses involves the following formal placement procedures.

All students seeking entry into language courses who have not previously taken a language course at Saint Mary's University must complete and return the Language Profile Form to the Department of Modern Languages and Classics.

Based on the information provided in the Language Profile Form, students may receive notification from the Department to appear for an oral interview and/or a written placement test at a designated time.

The Department of Modern Languages determines the appropriate course placement for each student

- (i) Permission to register or remain in a particular language course can be refused if the Department judges that the student's knowledge exceeds the level for that course.
- (ii) Native speakers are not eligible to receive advanced credit for language courses.
- (iii) Completion of Advanced Standing (transfer) courses does not exempt a student from taking the placement test.

2. The student's eligibility to enroll 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.

3. 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 enroll in courses at the 2000 level or lower.

Students who misrepresent their knowledge of any given language by providing inaccurate or incomplete information about their linguistic educational history will be subject to disciplinary action as laid out in Academic Regulation 19.

4. 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.

5. Students should note that courses in 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.

Programs in German

The following programs are available in German Studies: a minor, a concentration, and a certificate in German Language and Culture.

Concentration in German Studies

To obtain a concentration in German Studies in partial fulfillment of the B.A. General Degree (i.e. one with a Double Arts Concentration and a minimum of ninety (90) credit hours), a minimum of twenty-four (24) credit hours in German Studies is required. At most 6 credit hours can be at the 1000 level. Also, the minimum grade point average is 2.00.

Minor in German Studies

A minor in German Studies consists of twenty-four (24) credit hours, with at least twelve (12) of these being at the 3000 level or above. Normally, the first twelve (12) credit hour courses for the minor will be 1000 and 2000 level German language courses, followed by twelve (12) credit hours to be chosen from offerings in literature and cultural studies. Students entering the minor program with previous knowledge of German must consult the Coordinator for German Studies or the Chairperson of Modern Languages and Classics. A minimum grade point average of 2.00 is required for courses in the minor program.

Certificate in German Language and Culture (Cert. GLC)

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 twenty-four (24) credit hours.

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 Coordinator for German Studies. Application forms are available from the Registrar. Eighteen (18) of the twenty-four (24) credit hours must be completed at Saint Mary's.

Program Courses

The program consists of twelve (12) required credit hours in language: GRMN 1101 and 1102 and/or 2201 or 2202, and/or 3311 and a number of optional credit hours. These optional credit hours must be at the 3000 level or above, and will be chosen from among the following courses:

GRMN 3306	German Culture & Civilization
GRMN 3307	Introduction to German Literature

GRMN 3308	Modern German Culture
GRMN 3309	Contemporary German Culture
HIST 3405	Society and Culture in Early Modern Europe
HIST 4520	National Socialism, Occupied Europe and the Holocaust

Requirements

A minimum cumulative grade 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.

Course Descriptions

1101 Introduction to the German Language I

3 credit hours

An introductory language course for those beginning the study of German. Basic linguistic structures will be studied with particular emphasis on the oral communications.

1102 Introduction to the German Language II

3 credit hours

Prerequisite: GRMN 1101 or equivalent with a minimum grade of C.

This course continues the studies begun in GRMN 1101.

2201 Intermediate German I

3 credit hours

Prerequisite: GRMN 1102 (or equivalent) with a minimum grade of C.

A intermediate German language course with emphasis on grammar in context, listening comprehension, reading and writing.

2202 Intermediate German II

3 credit hours

Prerequisite: GRMN 2201 with a minimum grade of C.

A continuation of 2201.

*3306 German Culture and Civilization

3 credit hours

Readings, lectures, slide presentations, and film clips on the culture and civilization of Germany from the Germanic tribes to the present day. Discussions focus on literature, visual art, history, politics and society. This course is taught in English and satisfies the Faculty of Arts humanities 3c requirement..

*3307 Introduction to German Literature

3 credit hours

Prerequisite: None

A survey of German literature in translation from various periods. The course will provide the student with an introduction into literary analysis. This course is taught in English and satisfies the Faculty of Arts humanities 3c requirement.

*3308 Modern German Culture

3 credit hours

Prerequisite: None

A study of trends in German literature since the First World War and up to 1989. Poetry, plays and short stories are read and analyzed. This course is taught in English and satisfies the Faculty of Arts humanities 3c requirement.

3309 Contemporary German Culture

3 credit hours

Prerequisite: None

Readings. Lecture, slide presentations, and film clips on contemporary ("Postwende") culture and society of Germany. Topics include new trends in German literature, poetry, plays, and short stories as well as popular culture, music, film, advertising, the Web, festivals, social and political movements. This course is taught in English and satisfies the Faculty of Arts humanities 3 c requirement

3311 Advanced Oral and Written German I

3 credit hours

Prerequisite: GRMN 2202 or equivalent.

By combining readings, interactive tasks, and guided projects, this course offers students opportunities to expand and refine their ability to comprehend and to communicate effectively in German.

3312 Advanced Oral and Written German II

3 credit hours

Prerequisite: GRMN 3311 or equivalent.

This course is a continuation of German 3311.

3336 International Field Study in Cologne

3 credit hours

Prerequisite: Prior or simultaneous enrolment in a 3000- or 4000-level German course, OR HIST 4508.

This field study course enables students to examine insitu various aspects of German cultural history as exemplified by and in the city of Cologne. Following orientation classes on the significant position of Cologne in German culture and history, the students will depart for Germany where they will take part in educational tours of major cultural venues in and around Cologne. Further educational excursions may include a rococo palace in Brühl and Beethoven's house and the Museum of Contemporary German History in Bonn.

*4401 Post-1945 German Literature

3 credit hours

Prerequisite: GRMN 2202 with a minimum grade of C.

The study of the significant prose works and plays in German literature from 1945 to 1989. This course is taught in German.

4402 Contemporary Literature and Culture in German

3 credit hours

Prerequisite: GRMN 2202 with a minimum grade of C

The study of significant aspects of German literature and culture from the fall of the Berlin Wall in 1989 to the present day. This course is taught in German.

4826 – 4849 Special Topics

3 credit hours

Prerequisite: permission of the instructor.

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 area through directed, independent readings.

4876 – 4899 Independent Study

3 credit hours

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.

Global Business Management

This program is administered by the Department of Management.

Committee on Global Business Management

P. Fitzgerald, Coordinator	Management
H. Sceles	Accounting
B. Talukdar	Economics
L. Chen	Finance, Information Systems and Management Science
H. Ogden	Marketing
J	

Globalization has been a reality for Canadian businesses large and small for some time now. In order to survive, even small companies often have to compete directly with large international organizations. Most organizations are much more diverse than they were even a year or two ago. Many of our graduates will no doubt experience rewarding international placements and foreign travel as their careers develop. It will be unusual to work in firms without employees and clients who originate from different corners of the world. In order to develop synergy in this new business environment, it will be necessary to learn to work together, to communicate effectively, and to manage as a unit people coming from very different experiences, cultures, values, and expectations.

If managers wish to remain competitive, they must learn to adapt psychologically, to communicate effectively, and interact socially with other cultures. International 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 international career.

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.

Years 1, 2 are outlined in Section 3 of this academic calendar.

Note: In addition to all other requirements for the major, a minimum GPA of 2.2 is required in: ACCT 3357, MKTG 3375, FINA 4476, MGMT 4488, and the geographic and cognate electives completed in fulfillment of this major. (Courses included in the GPA calculation are indicated by *).

Year 3

ACCT 3332 Planning and Control – See Note (e)
*ACCT 3357 International Accounting
FINA 2360 Business Finance I
FINA 3361 Business Finance II
*MKTG 3375 International Marketing
MGMT 3480 Ethical Responsibilities in Organizations
Language electives [six (6) credit hours] (same language as Year 4 elective)
*Geographic electives [six (6) credit hours] [see note (a) below]

Year 4

*FINA 4476 International Financial Management
*MGMT 4488 International Business Management
MGMT 4489 Strategic Management
Language electives [six (6) credit hours] (same language as Year 3 elective)
*Geographic electives [six (6) credit hours] [see note (a) below]
*Cognate electives [six (6) credit hours] [see note (b) below]
Free electives [three (3) credit hours]

Notes: (a) Geographic electives must be selected from the approved lists below for any of the following regions: Africa, Americas, Asia, or Europe unless another has been approved by the Program Coordinator.

(b) Cognate electives must be selected from the approved lists below unless, on an individual basis, they have been approved by the Program Coordinator.

(c) If ECON 3310, ECON 3312, ECON 3315, ECON 3365, ECON 4406, ECON 4410, ECON 4412, ECON 4413, or ECON 4414 was used to satisfy the economics elective(s) in Year 2, the number of free electives is increased by three (3) credit hours.

(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 Coordinator.

(e) Notwithstanding the course substitutions possible in notes (b) and (c), all students must complete at least twenty-four (24) credit hours of non-commerce electives.

(f) Students cannot receive credit for both ACCT 3332 and 3333.

Approved Electives Offered at Saint Mary's University

Africa

RELS 2323 The Islamic Religious Tradition

Americas

ANTH 2316 Native Peoples of Canada
 ACST 1000 Making Sense of Atlantic Canada
 ACST 2311 The Culture of Atlantic Canada I
 ACST 2400 Health and Social Policy in Atlantic Canada
 ACST 3310 The Atlantic Fisheries
 ACST 3312 The Culture of Atlantic Canada II
 ACST 3321 African Nova Scotia Culture
 ECON 3322 Canadian Economic Issues
 ECON 3324 The Atlantic Economy
 ECON 3325 Atlantic Economy Seminar
 FREN 3312 Introduction to Quebec Culture
 GEOG 2310 Geography of Canada: Overview
 GEOG 3340 Geography of Nova Scotia
 HIST 1252 Canada to Confederation
 HIST 1253 Canada: Confederation to Present
 HIST 1255 The United States: 1865 to the Present
 HIST 1260 History of the Americas
 HIST 2318 The United States in the 20th Century
 HIST 2327 France and New France
 HIST 2340 History of Atlantic Provinces
 HIST 2375 Modern Latin America
 HIST 3100 Canadian Women
 HIST 3403 The Invention of Canada
 IDST 4421 Special Topics in Development Studies
 MGMT 4493 Business-Government Relations in Canada
 POLI 2304 Canadian Politics in the 21st Century
 POLI 3312 American Government
 POLI 3315 Canadian Foreign Policy
 POLI 3440 Canadian-American Relations
 RELS 3355 Religion and Social Issues in Canada
 RELS 3358 Religious Diversity in Canada
 SPAN 3304 Americas: The Changing Face of Latin America
 SPAN 3305 Contemporary Spanish Society

Asia

ANTH 2311 Ethnology: Melanesia
 ANTH 2326 Contemporary East Asia
 ANTH 2327 Japanese Society
 ASNT 1105 Introduction to Chinese Culture
 ASNT 1106 Introduction to Japanese Culture
 ASNT 2303 Contemporary Japan: Institutions and Culture
 ASNT 2305 Contemporary China: Institutions and Culture
 ASNT 3300 Multidisciplinary Study of Asia
 ASNT 3302 Japan in Film and Literature
 ASNT 3310 Chinese Film and Literature
 ASNT 3407 Study Abroad: Japan
 ASNT 3408 Study Abroad: China
 ASNT 4400 Seminar in Asian Studies
 ECON 3327 Asia Pacific Economics
 GEOG 3360 Geography of Japan
 GEOG 3380 Geography of China
 HIST 1222 History of Asia: East Asia
 HIST 1223 History of Asia: South and Southeast Asia
 HIST 2354 Japan before 1800
 HIST 2358 Mughal to Modern India: 500 Years of History
 HIST 2368 Japan since 1800
 HIST 2372 China since 1800
 HIST 2381 China before 1800
 HIST 2394 The Emergence of Modern Korea
 POLI 2314 Politics of the Developing Areas
 RELS 2323 The Islamic Religious Tradition
 RELS 2326 The Hindu Religious Tradition
 RELS 2327 The Buddhist Religious Tradition
 RELS 2340 Japanese Religious Traditions
 RELS 2345 Chinese Religious Traditions
 RELS 3372 Islamic Cultures and Civilizations

Europe

CLAS 1001 Ancient Civilizations of the Near East and Egypt
 CLAS 1002 The Ancient Civilizations of Greece and Rome
 CLAS 2451 [HIST 2451] Greek History I: From Minos to Medes
 CLAS 2452 [HIST 2452] Greek History II: The Golden Age of Greece
 CLAS 2454 [HIST 2454] Bloody Ceasars: Roman History II
 CLAS 3317 [RELS 3314] Greek Sanctuaries
 FREN 3310 Introduction to French Culture
 GEOG 2390 Geography of Ireland
 GRMN 3306 German Culture and Civilization
 GRMN 3307 Introduction to German Literature
 GRMN 3308 Modern German Literature
 HIST 2303 Tudor and Stuart Britain
 HIST 2336 Revolution, Reform and Respectability: Britain 1688-1870
 HIST 2397 The Lingering Death of Imperial Britain: 1870-1982
 HIST 3405 Society and Culture in Early Modern Europe
 HIST 3460 Issues in Modern Irish History
 IRST 2346 [LING 2346] A Sociolinguistic History of Ireland
 POLI 3316 Politics in the European Union

Cognate Electives

ANTH 1290 Introduction to Human Communication
 ANTH 3304 Egalitarian Societies
 ANTH 3305 Chiefdoms

196 Global Business Management

ANTH 3309	Peasant Society and Culture
ANTH 3329	The Arctic Culture Area
ANTH 3338	Medicine as Culture
ANTH 3339	Medicine in Culture
ECON 3310	Development Economics
ECON 3315	Comparative Economic Systems
ECON 3365	International Economic Issues
ECON 4410	Issues in Economic Development
ECON 4413	International Macroeconomics and Finance
ECON 4414	International Trade
GEOG 1100	Global Perspectives on Land and Life
GEOG 1200	People, Place and Environment
GEOG 2200	Fundamentals of Physical Geography
GEOG 2303	The Geography of World Affairs
GEOG 3321	Geography of Manufacturing
PHIL 2305	Environmental Ethics
PHIL 2328	Philosophy of Mind: Contemporary Issues
PHIL 2325	Philosophical Issues in International Development
PHIL 2346	Greek Philosophy: Aristotle and the Hellenists
POLI 2305	International Relations
POLI 3321	International Organization
POLI 3322	Global Political Economy

POLI 3425	Spying and International Politics
RELS 1220	Introduction to Comparative Religions, I
RELS 1221	Introduction to Comparative Religions, II
RELS 2347	Ecology and Religion
SOCI 3385/IDST 4485	Problems of Development
SOCI/IDST 3386	Sociology of Developing Societies
SOCI/WMST 3387	Women and Development
SOCI 3391	Rural Sociology
SOCI 4420	Comparative Regional Development
SOCI/IDST/WMST 4422	Gender and Development: Theory and Method
SOCI/IDST/WMST 4423	Gender and Development: Policy and Practice
SOCI 4425	Corporate Power

**Other on-campus courses may meet these requirements. In order to do so they must be approved by the coordinator of the program and this can be done only with the submission of appropriate course outlines.

*Courses may be taken at other institutions subject to the approval of the Program Coordinator and the Dean of Sobey School of Business.

History (HIST)

Chairperson	R. Barbosa
Professors	J. Morrison, J. Reid, T. Stretton, M. Vance
Associate Professors	R. Barbosa, B. Brown, K. Freeman, N. Neatby, B. Sewell, L. Warner
Assistant Professor	J. Munro, X. Sun
Adjunct Professors	L. Codignola, M. McGowan, R. Perrins, I. Saney
Professors Emeriti	O. Carrigan, C. Howell, J. MacCormack, G.F. Young

Departmental Policy

To obtain a **major** in history, students must complete at least forty-two (42) credit hours in history, as follows:

- six (6) credit hours but no more than twelve (12) credit hours at the 1000 level;
- HIST 3000 The Discipline of History;
- the remaining credit hours must be at the 2000 or 3000 level or above; and
- at least six (6) credit hours at the 4000 level.

Note: A minimum cumulative grade point average of 2.00 is required for courses designated for a major (see the general regulations concerning Arts Degree requirements).

All prospective honours students should refer to the section of this *Calendar* pertaining to honours degrees and apply to the Registrar for enrolment in that program after completing eighteen (18) credit hours or more of History courses.

For an **honours** degree, students must satisfy the requirements of the major program. They must also complete:

- six (6) additional credit hours in history at the 2000-3000 level;
- twelve (12) additional credit hours at the 4000 level, and
- HIST 4500 (the Honours Seminar). The program of each student must be approved by the Department.

Note: To qualify for the honours program, students must obtain and maintain a cumulative grade point average of 3.0 (see the general regulations governing honours degrees).

All students majoring in history are strongly advised to take twelve (12) credit hours 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), a minimum of twenty-four (24) credit hours in HIST is required with 18 or more credit hours at the 2000 level or above; at least 3 credit hours of which must be taken at the 4000 level; also a minimum grade point average of 2.00. Further details are available from the chairperson.

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.

Graduate Students

Graduate students should refer to the material entitled "Master of Arts in History Degree," in the Graduate Academic *Calendar*.

General Course Description

- a. History courses numbered at the 1000 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 enroll in a 2000 or 3000 level-course, a student must have six (6) credit hours in history, or at least thirty (30) credit hours in university courses, or the permission of the Chairperson. 2000 and 3000-level courses are usually structured to include both lectures and seminars.
- c. History courses at the 4000 level are normally seminar courses designed for advanced work by history majors and honours students in Year 2 and above.
- 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.

Course Descriptions**1201 Civilization in the West**

6 credit hours

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.

1203 The Twentieth Century

6 credit hours

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.

1208 Global History: 1450 to the Present

6 credit hours

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.

1215 Ireland: An Introduction [IRST 1215]

3 credit hours

1222 History of Asia: East Asia

3 credit hours

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 Asia is required but students who have taken HIST 1209 cannot receive another credit for this course.

1252 Canada to Confederation

3 credit hours

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.

1253 Canada: Confederation to the Present

3 credit hours

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.

1255 The United States: 1865 to the Present

3 credit hours

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.

1260 History of the Americas

3 credit hours

This is an introductory survey of the history of the Americas, focusing on the era of European colonization and subsequent independence movements. This course is designed to help students understand the different historical experiences of the societies of this region and the ramifications of these differences for the present time.

IN ORDER TO ENROLL IN THE FOLLOWING COURSES A STUDENT MUST HAVE SIX (6) CREDIT HOURS IN HISTORY, OR AT LEAST THIRTY (30) CREDIT HOURS OF UNIVERSITY COURSES, OR THE PERMISSION OF THE CHAIRPERSON.

2303 Tudor and Stuart Britain

6 credit hours

Prerequisite: Six (6) credit hours HIST or thirty (30) credit hours university credit.

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, and 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.

2317 Africa in the 20th Century: Colonialism and Independence

3 credit hours

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.

2318 The United States and the World since 1865

6 credit hours

This course traces the interaction between the United States and the rest of the world in order to understand how the US has risen to a position of unparalleled might. It focuses on structures of dominance based on gender, race, and class in order to ascertain how the world has been influenced by the US and how its projection of power has shaped the United States domestically. It pays attention to the policies of Presidents and Secretaries of State, themes of oppression, liberation, migration, consumption, globalization, and forms of popular culture (especially film) which represent and construct the transnational trajectories of US power.

2319 Canadian-American Relations

6 credit hours

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.

2327 France and New France

3 credit hours

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.

2336 Revolution, Reform and Respectability: Britain 1688 - 1870

3 credit hours

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.

2340 History of the Atlantic Provinces [ACST 2340]

6 credit hours

Commencing with the earliest Native-European contact in the Atlantic Provinces, this course begins with an examination of the interactions among the peoples who inhabited the region up until the mid-nineteenth century. Students will consider debates over the possible entry of the Atlantic colonies into the Canadian Confederation. The course ends with units that pay special attention to the social, economic, and political characteristics of the region during the twentieth century and beyond.

2354 Japan before 1800

3 credit hours

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 thematic approach, considering political, economic, intellectual, and social issues in each era. No previous study of Japan is required.

2355 The Rise and Fall of Imperial Japan: 1800-1945

3 credit hours

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 thematic approach, considering political, economic, intellectual, and social issues. No previous study of Japan is required, though either History 1222 or 2355 are recommended.

2356 Japan since 1945

3 credit hours

Considered against a background of key prewar trends, this course examines the history of Japanese society since the Pacific War. The course employs a thematic 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 1222 or 2355 or are recommended.

2375 Modern Latin America

6 credit hours

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.

2381 China before 1800

3 credit hours

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 thematic approach that considers the dynamics of political, economic, intellectual, and social change within each era. No previous study of China is required.

2382 China in Revolution: 1800-1949

3 credit hours

This course explores the collapse of imperial China and the ensuing efforts to renew Chinese society. While chronological, the course follows a thematic 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 1222 and 2381 are recommended.

2383 China Since 1949

3 credit hours

This course explores China since the founding of the People's Republic. The course follows a thematic approach examining the dynamics of political, economic, intellectual, and social change so as to provide students with amore analytical understanding of contemporary China. No previous study of China is required, but History 1222 and 2382 are recommended.

2394 The Emergence of Modern Korea

3 credit hours

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 thematic approach, considering political, economic, intellectual, and social issues in each era.

2397 The Lingering Death of Imperial Britain, 1870-1982

3 credit hours

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.

2451 Greek History I: From Minos to the Medes [CLAS 2451]

3 credit hours

2452 Greek History II: The Golden Age of Greece [CLAS 2452]

3 credit hours

2453 Republic and Revolution: Roman History I [CLAS 2453]

3 credit hours

2454 Bloody Caesars: Roman History II [CLAS 2454]

3 credit hours

2826-2849 Selected Topics in History

3 credit hours

The subject matter of particular three (3) credit hour courses will be announced from time to time. They will cover aspects of history in one or more of the major geographical areas of North America, Europe, Africa and Asia. The topics to be examined will be determined by the instructor.

3000 The Discipline of History

3 credit hours

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 interpretation.

Note: Students who have already earned credit for HIST 3400 will not be permitted to enroll in this course.

3100 Canadian Women

3 credit hours

This course offers a survey of the historical experiences, status and activities of Canadian women in all their diversity from 1900 to the present. Topics will include women's economically valuable work in the household and the paid labour force, and family life and sexuality. Special emphasis will be placed on women's struggles for economic equality and full political and social participation in Canadian society

3301 Crime and Punishment in England Before 1800

6 credit hours

Students will trace the developments of European ideas, art and culture in the Renaissance through the visual images of artists such as Michelangelo, Leonardo da Vinci, Albrecht Durer or Holbein as well as writers such as Machiavelli, Erasmus, Marguerite de Navarre or Montaigne.

3351 Class and Culture in the United States and Beyond

3 credit hours

Students proceed thematically in order to highlight how class is made and remade, and with what effects. Themes such as transnational capital, citizenship, labour movements, culture, gender, and imperialism are examined.

3352 Race and Racism in the United States

3 credit hours

The racial roots of US history are traced in order to explore the importance of struggles for racial justice as well as changes and continuities in forms of racial oppression.

3371 The Chinese Cultural Revolution in History and Memory

3 credit hours

Students explore the origins, dynamics and legacies of the Great Proletarian Cultural Revolution (1966-1976) which has been commonly viewed as the darkest era in the history of the People's Republic of China.

3402 Aspects of Global History: One Earth, Many Worlds [IDST 3403]

3 credit hours

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 Developing 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.

3403 The Invention of Canada

3 credit hours

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.

3405 Society and Culture in Early Modern Europe

3 credit hours

This course investigates the people, culture, and regions of Europe (England, France, Germany, Italy, Spain, and 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.

3406 The Renaissance in Europe

3 credit hours

Students will trace the developments of European ideas, art and culture in the Renaissance through the visual images of artists such as Michelangelo, Leonardo da Vinci, Albrecht Durer or Holbein as well as writers such as Machiavelli, Erasmus, Marguerite de Navarre or Montaigne.

3415 The Family in Europe 1400-1900

6 credit hours

How did ideas about the family develop and change over the centuries? This course traces the shifts in attitudes to love, marriage, childhood, the body, the range of sexualities, adolescence, singles, privacy and household space from the early Renaissance to the Industrial Revolution. Students will examine primary sources such as letters, diaries, novels, paintings, woodcuts and court records as well as material objects such as furniture and clothing.

3417 War and Memory in the Twentieth Century

3 credit hours

This course will explore the experience of modern war and the ways in which various twentieth-century conflicts have been remembered socially and culturally. The topics covered include the First and Second World Wars, the Holocaust, the Algerian War, the Vietnam War, and the Balkan Wars. The focus of our study of these events will be on their impact on the values, attitudes and collective memory of European and North American societies.

3420 History of Sport and Leisure in the Modern World

3 credit hours

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.

3450 Film and History

3 credit hours

Increasingly, historians use moving images as source material for their histories. Meanwhile 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.

3460 Issues in Modern Irish History [IRST 3460]

3 credit hours

This course will examine a range of topics that have been the focus of debate in Irish History. The issues to be explored will be selected by the instructor and may include such topics as: the history of the Irish Plantations, the affects of the Penal Laws, the consequences of the 1798 Rebellion, the rise of Irish Nationalism, the causes of the Great Famine, the consequences of mass Irish Emigration, the position of women in Irish society, and the significance of the Easter Rising. In addition to providing an understanding of some of the major issues in Modern Irish History, the course will also provide an overview of historical change in Ireland from the sixteenth to the twentieth centuries.

3470 The British Black Atlantic [ACST 3470]

3 credit hours

The term the "Black Atlantic" has been used to describe the interconnected nature of Black communities in the Atlantic world. This course examines the British dimension of that transatlantic experience. Among topics covered are: Britain's involvement in African slavery, the migration of Black Loyalists to Nova Scotia and Sierra Leone, and the nature of the Black community in the United Kingdom.

3480 Themes in Brazilian History

3 credit hours

This course analyses Brazil's role in the Atlantic world from the sixteenth to the twentieth centuries, focusing especially on socioeconomic and political issues. Topics include the colonial economy, slavery, the movement for independence,

consequences of colonialism, rise of nationalism, industrialization, urbanization, and the social conditions in the country.

Note: Credit cannot be given to students who already have credit for HIST 3496 Colonial and Modern Brazil.

3826 – 3849 Special Topics in History

3 credit hours

Prerequisite: permission of instructor

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.

3876 – 3899 Directed Study in History

3 credit hours

Prerequisite: permission of instructor

4000-LEVEL COURSES ARE DESIGNED FOR THE ADVANCED STUDY OF HISTORY. STUDENTS SHOULD HAVE EXTENSIVE UNIVERSITY EXPERIENCE BEFORE THEY ATTEMPT THESE COURSES.

4431 Colonialism, the Cold War, and the Origins of the Twenty-First Century World

3 credit hours

The historical development of American urban space after World War II is examined. Key themes include culture, suburbanization and neoliberalism.

4451 The United States in the 1970s

3 credit hours

The 70s were a time of transition between the radical sixties and the conservative 1980s in the US. Students will track that transition by contextualizing events within the US amid the rise of neoliberalism and postmodernism, phenomena which shifted economic sense and cultural sensibilities on a global level.

4452 The United States in the 1950s

3 credit hours

Students will examine popular culture and politics, white racism and resistance, the city and the suburbs and cold war during the US fifties.

4453 The American City Since 1945

3 credit hours

The historical development of American urban space after World War II is examined. Key themes include culture, suburbanization and neoliberalism.

4500 The Honours Seminar

6 credit hours

Prerequisite: admission to the final year of the honours program.

As part of this seminar, history honours students are required to submit and defend a substantial essay to be selected and prepared in conjunction with a faculty advisor.

4501 Public History

6 credit hours

Prerequisite: Students are required to have completed 24 credit hours in History with an average of 3.3, or obtain permission from the instructor.

This course introduces students both to the field of public history and to the application of history and historical methods in a variety of workplace settings. Public history, which involves the practices and presentation of history outside academia, involves a wide range of practitioners including historians, museum curators, film makers, researchers, journalists, and archivists. This course will examine the evolution of public history as a discipline since the 1960s and focus on the presentation of history in various films, exhibits and historic sites. The course content will be primarily Canadian and American examining questions about ethics, standards and audience.

The course will have both a classroom and workplace component. Seminar three hours per week plus successful completion of eight hours weekly of mentored volunteer work in a public history work setting.

4508 Seminar in Intellectual and Cultural History

3 credit hours

This interdisciplinary seminar will adopt a thematic approach in order to explore ideas in history across borders, cultures and centuries. Topics for exploration may include the media, the law, liberty, the family, gender and/or sexuality.

4519 Seminar in Modern European History

6 credit hours

A seminar on selected topics in the history of modern Europe, 1800 to present, intended for history majors and honours 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.

4520 National Socialism, Occupied Europe and the Holocaust

6 credit hours

In this course students will study some of the major historical and historiographical issues and debates concerning Nazi Germany, the Nazi Occupation of Europe, and the Holocaust.

4527 Biography and History

3 credit hours

This course will examine the relationship between biography and history, beginning with consideration of how far the essentials of historical methodology can be followed in biographical study. A variety of forms of biography will then be examined, including private and public approaches to biography, autobiography, and popular biography. Specific biographical subjects will be explored in detail as case studies. The central question considered throughout will be whether biography, in any of its forms, can be considered either as a form of historical enquiry or as a valid historical source.

202 History

4530 Forced and Free Migration in Latin America

3 credit hours

This course will examine the reasons and consequences of migration to Latin America since the early colonial period. It will emphasize the forced migration of Africans and the free migration of Europeans and Japanese to countries such as Argentina, Brazil, Chile, Cuba and Peru.

4565 Scottish Migration [ACST 4565]

3 credit hours

From the late eighteenth to the middle of the twentieth century, Scotland had one of the highest emigration rates in Europe. This seminar course will examine a wide range of literature that discusses Scottish migration to various overseas destinations in order to place the Scottish presence in Nova Scotia in historical context.

4566 Irish Migration [IRST 4566]

3 credit hours

During the nineteenth century Ireland had the highest emigration rate in Europe. In order to better understand this phenomenon, this seminar course will focus on the literature that discusses the nature of Irish migration and settlement from the eighteenth to early twentieth centuries. While the course will examine Irish immigrants in their various destinations, it will focus in particular on Irish settlement in North America.

4572 Memories of WW II in China

3 credit hours

The memories of the War of Resistance against Japan (1937-45) in China are explored. The focus is on the relationship between history and politics, and collective and individual memories of the war.

4826 – 4849 Selected Topics in History

3 credit hours

Prerequisite: permission of instructor

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.

4876 – 4899 Directed Readings in History

3 credit hours

Prerequisite: permission of instructor.

Each reading course will be organized by the instructor(s) involved. In general, each course will be centered 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

Human Resource Management

Management Chairperson R. Summers
Psychology Chairperson V. Catano

Students may pursue a certificate in Human Resource Management through the Faculty of Arts, Business or Science. The Certificate may be taken as part of a degree or as a stand-alone program. Students may enroll in a Certificate in Human Resource Management with either Management or Psychology options. The regulations for the different routes follow.

The certificate has been offered for over 30 years and has been developed in cooperation with professionals in Human Resource Management. It will prepare students for the Certified Human Resource Professional (CHRP) designation. Students should be aware that as of 2011, a bachelor's degree will be one of the requirements for the CHRP designation

Sobey School of Business

Bachelor of Commerce with Human Resource Management and Industrial Relations Major

Upon completion of 45 credit hours, Commerce students with a cumulative grade point average of 2.0 may elect to declare a major in Human Resource Management and Industrial Relations. This major is administered by the Department of Management. Successful completion of the

major will automatically fulfill the requirements for the Certificate.

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.

Year 1

CISY 1225 Introduction to Computer Applications
ECON 1201 Principles of Economics: Micro
ECON 1202 Principles of Economics: Macro
ENGL 1205 Introduction to Literature
MGMT 1281 Introduction to Business Management
MGSC 1205 Quantitative Methods I
MGSC 1206 Quantitative Methods II
Nine (9) credit hours in non-Commerce electives

Year 2

ACCT 2241 Introductory Financial Accounting
ACCT 2242 Introductory Managerial Accounting
CMLW 2201 Legal Aspects of Business - Part I
COMM 2293 Communications
MGSC 2207 Introductory Statistics
MGMT 2383 Organizational Behaviour Micro
MGMT 2384 Organizational Behaviour Macro
MKTG 2270 Introduction to Marketing
ECON 3340 Human Resource Economics
Three (3) credit hours in non-Commerce electives

Year 3

- *ACCT 3332 Planning and Control
 - FINA 2360 Business Finance I
 - FINA 3361 Business Finance II
 - *MGMT 3385 Human Resource Management
 - *MGMT 3386 Industrial Relations
 - MGMT 3480 Ethical Responsibilities of Organizations
- Twelve (12) credit hours in free electives

Year 4

- *MGMT 4482 Staffing and Selection
 - *MGMT 4483 Management Skills I
 - *MGMT 4485 Wage and Salary Administration
 - *MGMT 4486 Training and Development
 - MGMT 4489 Strategic Management
- Twelve (12) credit hours in non-Commerce electives
Three (3) credit hours in free electives

Note: A minimum GPA of 2.2 is required in ACCT 3332, MGMT 2383, MGMT 2384, MGMT 3385, MGMT 3386, MGMT 4482, MGMT4483, MGMT 4485 and MGMT 4486 (as indicated above by *).

Certificate in Human Resource Management - Management Option

Students may complete the Certificate alone. Students with courses from previous post-secondary study will be assessed according to the advanced standing procedures of the University (Academic Regulation 20). To be awarded the Certificate, at least twelve (12) credit hours of the compulsory courses and twelve (12) credit hours from the electives must be completed at Saint Mary's University. Credit will not automatically be recognized for university courses completed more than ten (10) years prior to the students return to university study.

A minimum cumulative grade point average of at least 2.00 in the Human Resource Management Certificate Program courses is required for graduation with the Certificate.

Students must complete the following 24 credit hours of core courses:

- MGMT 1281 Introduction to Business Management
- MGMT 2383 Micro Organizational Behavior
- MGMT 2384 Macro Organizational Behavior
- MGMT 3385 Human Resource Management
- MGMT 3386 Industrial Relations
- MGMT 4482 Staffing & Selection
- MGMT 4485 Wage & Salary Administration
- MGMT 4486 Training and Development

Students must also complete 24 credit hours (8 courses) from the following:

- ACCT 2241 Introductory Financial Accounting
- ACCT 2242 Introductory Managerial Accounting
- CMLW 2201 Legal Aspects of Business - Part I
- CISO 1225 Introduction to Computer Applications
- COMM 2293 Communications
- COMM 3394 Oral Communications and Presentation Techniques
- ECON 1201 Principles of Economics: Micro

- ECON 1202 Principles of Economics: Macro
- ECON 3340 Human Resource Economics
- ECON 3341 Labour Economics
- MGMT 3388 Business and Society
- MGMT 3392 Occupational Health and Safety
- MGMT 4481 Organization Theory: Structure Process, Analysis & Design
- MGMT 4483 Management Skills I
- MGMT 4488 International Business Management
- MGMT 4493 Business-Government Relations in Canada
- MGMT 4496 Collective Bargaining
- MGMT 4497 Issues in Industrial Relations
- MGMT 4499 Senior Management Perspectives
- PSYC 3309 Human Factors and Performance
- *PSYC 33826-3849 Special Topics in Psychology
- PSYC 4417 Interpersonal Relationships
- PSYC 4425 Psychology of Organizational Development
- PSYC 4441 Psychological Measurement
- PSYC 4446 Seminar in Psychology

***Note:** Course must be directly related to the field of Human Resource Management.

Faculties of Arts and Science

Combined Major in Psychology and Certificate in Human Resource Management - Psychology Option

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 multidisciplinary courses. The combined program offers students a sound foundation in basic and applied topics relevant to 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 forty-eight (48) credit hours as specified below. Students should be aware that they may need to take appropriate prerequisite courses before pursuing several of the required courses.

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.

Certificate in Human Resource Management - Psychology Option

Students may enroll in the certificate program in Human Resource Management as a stand-alone program, either prior to completing or following completion of a bachelor's degree. The requirements for the stand-alone program are identical to those for the combined major and certificate program. Students without previous university coursework may have to complete prerequisites that are specified for each course, in addition to the required courses. Students with previous university experience may receive up to 24 credit hours for courses that are similar to those required for the certificate.

Please note that some core and elective courses may have prerequisites that are not part of the Certificate.

Students must complete the following thirty (30) credit hours of core courses.

- MGMT 1281 Introduction to Business Management
- MGMT 3385 Human Resource Management
- MGMT 3386 Industrial Relations
- MGMT 3392 or PSYC 3392 Occupational Health and Safety
- PSYC 3327 Industrial/Organizational Psychology
- PSYC 4425 The Psychology of Organizational Development
- PSYC 4426 Personnel Training and Development
- PSYC 4427 Organizational Psychology
- PSYC 4428 Personnel Psychology
- MGMT 4485 Wage & Salary Administration

Students must also complete 9 credit hours (3 courses) from the following Psychology electives:

- PSYC 3309 Human Factors and Performance
- PSYC 3317 Group Dynamics and Intergroup Relations
- PSYC 3393 The Psychology of Leadership
- *PSYC 3826-3849 Special Topics in Psychology
- PSYC 4417 Interpersonal Relationships
- PSYC 4424 Vocational Psychology
- PSYC 4432 Attitudes and Persuasion
- PSYC 4441 Psychological Measurement
- *PSYC 4445 Directed Study in Psychology
- *PSYC 4446 Seminar in Psychology

*credit hours as an elective in the 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/PSYC electives.

Students must also complete 9 credit hours (3 courses) from the following Business electives:

- ACCT 2241 Introductory Financial Accounting
- ACCT 2242 Introductory Managerial Accounting
- CMLW 2201 Legal Aspects of Business - Part I
- CISY 1225 Introduction to Computer Applications
- COMM 2293 Communications
- COMM 3394 Oral Communications and Presentation Techniques
- ECON 1201 Principles of Economics: Micro
- ECON 1202 Principles of Economics: Macro
- ECON 3340 Human Resource Economics
- ECON 3341 Labour Economics
- MGMT 3388 Business and Society
- MGMT 4481 Organization Theory: Structure Process, Analysis & Design
- MGMT 4483 Management Skills I
- MGMT 4488 International Business Management
- MGMT 4493 Business-Government Relations in Canada
- MGMT 4496 Collective Bargaining
- MGMT 4497 Issues in Industrial Relations
- MGMT 4499 Senior Management Perspectives

International Development Studies (IDST)

Coordinator	A. O'Malley
Professor	A. Dalton, H. Veltmeyer, S. Wein
Associate Professors	S. Dansereau, G. Fridell (Canada Research Chair in IDST), A. O'Malley
Assistant Professor	K. Ervine
Adjunct Professors	K. Ahojja Patel, W. Bello, J. Cameron, J. Devlin, G. Foladori, N. Girvan, J. Kirk, E. MacLellan, J. Petras, L. Read, J. Sagebien, T. Shaw, L. Swatuk, T. Teivainen, D. Tetreault, J. Tharamangalam, S. Theunissen, R. Delgado Wise, E. Zayago Lau
Program Committee:	R. Barbosa, A. Charles, A-M. Dalton, S. Dansereau, M. Doucet, E. Enns (<i>ex officio</i>), J. Morrison, S. Novokovic, A. O'Malley (Chair), A. Spires, E. Tastsoglou, H. Veltmeyer, S. Wein

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

Graduate courses are available to students registered in the Master degree program. Other students must have approval of the IDS Coordinator. For information on graduate programs see the *Graduate Academic Calendar*.

International Development Studies is an interdisciplinary degree program which uses the concepts and research of many university disciplines to explain the startling and disturbing differences in human living conditions among the world's social groups, especially those found in what is commonly called the developing world.

Using the techniques and theories of social sciences and humanities disciplines, International Development Studies conducts research, assesses explanations, and engages in real world practices which seek to further our understanding and betterment of human living conditions in all countries throughout the world, but especially countries in the so-called developing world. International Development Studies has a strong orientation towards empirical research, fieldwork, and other forms of primary data acquisition and practice. However, there is also an important emphasis on creating useful understandings and explanations which help us make sense of the current human condition around the globe.

A degree in international development studies may be combined with a degree in another discipline recognized by the International Development Studies Program. Joint majors, and minors, may be arranged through consultation with the University department involved and the Coordinator of International Development Studies Program, or his or her designate.

Students interested in IDS, including students contemplating IDS as a possible major, are encouraged to speak with the IDS Coordinator or Undergraduate Advisor.

The International Development Studies Program strongly recommends that students in IDS gain competency in a second language relevant to their studies. Students are especially referred to the Certificates offered by the Department of Modern Languages. For example, students wishing to focus on the Latin America region should note that a number of courses leading towards the Certificate of Spanish Language and Hispanic Culture may also be counted towards IDST degree.

In addition to the general and basic requirements for the Bachelor of Arts degree set out by the Faculty of Arts, students taking a degree within the International Development Studies Program must fulfill the following requirements:

The Major Program

- a. The appropriate first year courses, including Faculty of Arts basic requirements, and at least six (6) credit hours from social science electives such as ANTH1202, POLI 1201, POLI 1220, or SOCI 1210, or SOCI 1211, as appropriate;
- b. the equivalent of forty-two (42) credit hours approved for the Program, as follows:
 - IDST 2301 Introduction to IDS: Perspectives
 - IDST 2302 Introduction to IDS: Policies and Practice
 - IDST 3401 Seminar in IDS: Conceptual Foundations
 - IDST 3402 Seminar in IDS: Contemporary Issues
 - IDST 3424 Research Methodology
 - SOCI 3386 Sociology of Developing Societies
 - ECON 1202 Principles of Economics: macro
 - POLI 2314 Politics of Developing Areas
 - 12 credit hours of approved IDS-related courses at the 2000 level or above
 - 6 credit hours of approved IDS-related courses at the 4000 level

The Minor Program

The equivalent of twenty-four (24) credit hours selected from courses approved for the program, of which:

- IDST 2301 Introduction to IDS: Perspectives
- IDST 2302 Introduction to IDS: Policies and Practice
- SOCI 3386 Sociology of Developing Societies
- ECON 1202 Principles of Economics: macro

- POLI 2314 Politics of Developing Areas
- 9 credit hours of approved IDS-related courses at the 2000 level or above

The Concentration Program

A concentration in International Development Studies in partial fulfillment of the B.A. Degree, is the same as the requirements for the IDS Minor Program.

The Honours Program

- a. To obtain an honours degree in International Development Studies, a student must first be admitted to the honours program and must then complete all requirements pertinent to the IDS honours program.

Students are encouraged to consult with the undergraduate student advisor to arrange a course schedule adequate to the demands of completing the required honours thesis. More specifically:

- (i) To be admitted to the program, a student must satisfy pertinent Faculty of Arts requirements for entry into an honours program, and must have a cumulative grade point average of 3.0 or better;
 - (ii) To graduate from the program, a student must satisfy the pertinent Faculty of Arts requirements, and must complete the equivalent of sixty-six (66) credit hours in the IDS honours program as outlined in (b) below; and
 - (iii) To graduate from the program, a student must also receive a minimum grade of B+ (3.30) in IDST 4500 (the Honours Seminar). Students should note that the Honours Seminar is a full year course; September entry only.
- b. For the Bachelor of Arts (Honours) degree in International Development Studies, all students must complete no fewer than sixty-six (66) credit hours, as follows:

- IDST 2301 Introduction to IDS: Perspectives
- IDST 2302 Introduction to IDS: Policies and Practice
- IDST 3401 Seminar in IDS: Conceptual Foundations
- IDST 3402 Seminar in IDS: Contemporary Issues
- IDST 3424 Research Methodology
- IDST 4500 Honours Seminar in IDS
- SOCI 3386 Sociology of Developing Societies
- ECON 1201 Principles of Economics: micro
- ECON 1202 Principles of Economics: macro
- POLI 2314 Politics of Developing Areas
- 3 additional credit hours in approved IDS-related POLI at the 2000 level or above
- 3 additional credit hours in approved IDS-related SOCI at the 2000 level or above
- 21 credit hours of approved IDS-related courses at the 2000 level or above
- 6 credit hours of approved IDS-related courses at the 4000 level

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Students must consult with the undergraduate advisor or the IDS Program Coordinator regarding approval for courses not in the list of approved courses appearing below;

A typical schedule of courses for an IDS Major would be:

Year 1

- ENGL 1205 Introduction to Literature
- Six (6) credit hours from one or two of the following: PHIL 1200 (no other philosophy course satisfies this requirement); Mathematics [including MGSC 1205; MGSC 1206; and CISY 1225]
- Nine (9) credit hours from at least two of the following Humanities: Classics, History, Religious Studies, English [other than ENGL 1205], Philosophy (other than PHIL 1200), and Modern Languages courses on literature and culture
- Twelve (12) credit hours from first year courses in the following social sciences: Anthropology, Economics, Geography, Linguistics, Political Science, Psychology and Sociology, with a maximum of six (6) credits in any one area. At least one should be from ANTH 1202, ECON 1201, ECON 1202, POLI 1201, POLI 1220, SOCI 1210 or SOCI 1211.

Year 2

- IDST 2301 Introduction to International Development Studies: Perspectives
- IDST 2302 Introduction to International Development Studies: Policies and Practice
- ECON 1202 Principles of Economics: Macro
- 3 credit hours in IDS approved courses at the 2000 level or above
- 9 credit hours in Arts at the 2000 level or above
- 9 credit hours of electives

Year 3

- IDST 3401 Seminar in Development Studies: Conceptual Foundations
- IDST 3402 Seminar in Development Studies: Contemporary Issues
- IDST 3424 Research Methodology
- IDST 3386 Sociology of Developing Societies
- POLI 2314 Politics of Developing Areas
- 3 credit hours in IDS approved courses at the 2000 level or above
- 9 credit hours in Arts at the 2000 level or above
- 3 credit hours of electives

Year 4

- 6 credit hours in IDS approved courses at the 2000 level or above
- 6 credit hours in IDS approved courses at the 4000 level
- 9 credit hours in Arts at the 2000 level or above
- 9 credit hours of electives

Approved IDS Courses

The courses below form a partial list of IDS approved courses. Other courses may be eligible for IDS credit – please consult the IDS Program Coordinator. Students should note that some of these courses have prerequisites.

Anthropology

- ANTH 2311 Ethnology: Melanesia
- ANTH 2326 Contemporary East Asia
- ANTH 3304 Egalitarian Societies
- ANTH 3309 Peasant Society and Culture
- ANTH 3334 Warfare and Aggression: Anthropological Approaches to Human Conflict

Asian Studies

- ASNT 3300 Multidisciplinary Study of Asia
- ASNT 3305 Contemporary China: Institutions and Culture

Criminology

- CRIM 4515 Drugs and Power in Latin America
- CRIM 3518 State, Crime, and Power in Developing Societies

Economics

- ECON 3310 Development Economics
- ECON 3315 Comparative Economic Systems
- ECON 3365 International Economic Issues

Education

- EDUC 4473 Comparative Perspectives on Innovations in Education-Reforms
- EDUC 4474 Comparative Perspectives on Innovations in Education-Alternatives
- EDUC 4476 Education and Development I: Perspectives
- EDUC 4477 Education and Development II: Policy and Practice
- EDUC 4518 Introduction to International Comparative Education: Perspectives
- EDUC 4528 Introduction to International Comparative Education: Policies

English

- ENGL 4460 Postcolonial Literature: An Overview

Environmental Science

- ENVS 3410 Environmental Impact Assessment
- ENVS 4440 Environmental Policy

Finance

- FINA 4476 International Financial Management

Geography

- GEOG 2303 Geography of World Affairs

History

- HIST 2375 Modern Latin America

Management

- MGMT 4488 International Business Management
- MGMT 4494 Entrepreneurship: Theories and Concepts

Marketing

- MKTG 3375 International Marketing

Spanish

- SPAN 3304 The Changing Face of Latin America
- SPAN 3310 Latin America Culture
- SPAN 4416 Latin American Literature of Social Change

Philosophy

PHIL 2325 Philosophical Issues in Int'l Development
PHIL 4525 International Justice

Political Science

POLI 2314 Politics of Developing Areas
POLI 3315 Canadian Foreign Policy
POLI 3321 International Organization
POLI 3322 Global Political Economy
POLI 3456 Issues in International Security
POLI 4402 Model United Nations
POLI 4451 Gender and International Relations
POLI 4493 Global Social Movements

Religious Studies

RELS 3348 Religion & Ecological Issues In the Developing World
RELS 4100 Religion and International Development

Sociology

SOCI 3319 Reform and Revolution in Latin America
SOCI 3386 Sociology of Developing Societies
SOCI 4382 Gender and International Migration

Course Descriptions**2301 Introduction to Development Studies: Perspectives**

3 credit hours

Prerequisite: one of ANTH 1202, ECON 1201/1202, POLI 1201, POLI 1220, or SOCI 1210 and SOCI 1211.

This course introduces students to the nature and scope of development studies as an interdisciplinary field. The course explores the definitions of development, development explanations of poverty and prosperity in many regions of the world and examines a wide spectrum of problems that confront the so-called developing world.

2302 Introduction to Development Studies: Policies and Practice

3 credit hours

Prerequisite: IDST 2301.

This is a continuation of IDST 2301, and explores real-world, past and current development policies and how they are formulated and applied to specific development problems through programs, institutional practices, or community initiatives. It examines the role of the state, local community organizations, and other actors who contribute to the policy-making process and critically analyzes policy successes and failures.

2325 Philosophical Issues in International Development [PHIL 2325]

3 credit hours

3348 Religion and Ecological Issues in the Developing World [RELS 3348]

3 credit hours

3386 Sociology of Developing Societies [SOCI 3386]

3 credit hours

3401 Seminar in Development Studies: Conceptual Foundations

3 credit hours

Prerequisite: IDST 2301 and 2302.

This is a core IDST mixed lecture/seminar course which examines key concepts, perspectives and theoretical approaches to dealing with issues affecting developing countries, such as industrial development, rural development, economic prosperity, community development etc. The acquisition by students of an analytical and critical assessment of these approaches will be strongly emphasized through readings, presentations, group study and lectures.

3402 Seminar in Development Studies: Contemporary Issues

3 credit hours

Prerequisite: IDST 3401.

A continuation of the core IDST 3401 lecture/seminar. In this course students will research and analyze selected problems of development in Africa, Asia, Latin America and the Caribbean, Oceania, or Middle East/North Africa. Students will read and discuss a common body of readings, discussing existing programs, policy implications, and contemporary development practices and write one or more major research papers.

3424 Research Methodology

3 credit hours

Prerequisite: IDST 2301 and 2302

Students will leave this course with the basics of research design and will acquire proficiency in the quantitative and qualitative data collection and manipulation techniques that can be applied to a selected range of development problems.

3460 Development Practice

3 credit hours

This experiential learning course will provide students with an opportunity to link development theory and development practice. This may take many forms, such as acting as a volunteer with an NGO or community-based organizations, pursuing an internship with a multilateral agency, or other forms of University and Program-approved field experience overseas, or, with approval, in Canada.

4461 South East Asia: Contemporary Development Issues

3 credit hours

Prerequisite: IDST 2301/2302 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 broader, regional issues of economic and social development. Issues include the emergence of high- growth rate, newly-industrializing countries, the impact of the Asian financial crises 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. (Note: this course is cross-listed with Asian studies at the undergraduate level.)

4462 Sub-Saharan Africa: Contemporary Development Issues

3 credit hours

Prerequisite: IDST 2301/2302 or permission of instructor.

This course explores development issues specific to Sub-Saharan Africa, focusing on the nation-state and its colonial past, development strategies, and a spectrum of broader issues of economic and social development. Such 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.

4463 Latin American: Contemporary Development Issues

3 credit hours

Prerequisite: IDST 2301/2302 or permission of instructor.

This course explores central development issues in Latin America, focusing on the nation-state and its development strategies, as well as broader issues of economic and social development. Such 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 discussed and compared.

4470 Environment and Development

3 credit hours

Prerequisite: IDST 2301 and 2302, or permission of instructor.

This seminar will explore the implications for world economic and social development of environmental problems, as well as the question of what mainstream economic development might mean in the context of tackling the growing disruption of the global ecosystem. Along with an in-depth discussion of the possible ecological outcomes of environmental modification, the importance of a sociological and political-economic analysis of the problems of environmental disruption and change will be emphasized.

4473 Comparative Perspectives on Innovations in Education – Reforms [EDUC 4473]

3 credit hours

Prerequisite: at least thirty (30) credit hours of University courses.

This course will assess, compare and contrast variations and reforms to mainstream educational systems, and will emphasize the conditions out of which such reforms are initiated. Special emphasis will be given to contrasting public systems of education with privatization initiatives, together with public/private partnerships and changes that affect access to education, gender and education, and so on. This course will draw on the considerable body of literature and concrete case studies throughout the world; however,

considerable emphasis will be given to examples and case studies from the regions or sub-regions of Asia, Africa, Latin America and the Middle East/North Africa.

4474 Comparative Perspectives on Innovations in Education – Alternatives [EDUC 4474]

3 credit hours

Prerequisite: at least thirty (30) credit hours of University courses.

This course will seek to understand the material and social conditions, practical initiatives, rationale and outcomes of radical alternatives to mainstream education and mainstream educational reforms. Above and beyond in-depth discussions of perspectives on informal and non-formal educational systems, the works of Illich, Freire, and other educational radicals will be discussed, as will the concepts of intercultural bilingual education, social capital education, and other alternative conceptions of education. The course will provide a forum for the discussion and deeper understanding of the relation between the larger social, political and economic structure and the educational goals and objectives of radical education alternatives. Considerable emphasis will be given to examples and case studies from the regions or sub-regions of Asia, Africa, Latin America, and the Middle East/North Africa.

4476 Education and Development I: Perspectives [EDUC 4476]

3 credit hours

Introduction to concepts and analysis underlying a comparative understanding of selected educational systems around the world. The course will emphasize comparisons between mainstream educational understandings in the developed world, the agenda of international education organizations, international educational funders, and the implementation of educational systems, both public and private. Specific reference will be made to access to education, curriculum and culture, gender and education, and similar issues with an emphasis on examples from the so-called *developing world* in Asia, Africa, Latin America and the Middle East/North Africa.

4477 Education and Development II: Policies and Practices [EDUC 4477]

3 credit hours

A continuation of IDST 4476. Examination and comparison of educational policies in selected countries or regions of the world with a view to assessing educational outcomes, education processes and the relation between education, the public sector, the private sector and international organizations, and the effect of such policies worldwide. Emphasis is on Asia, Africa, Latin America and the Middle East/North Africa.

4500 Honours Seminar in Development Studies

6 credit hours

Prerequisite: IDST 3401 and 3402.

Students registered in the International Development Studies Honours Program will use this seminar as an on-going forum in which to complete the required honours thesis. Using a sequence of assignments, discussions, and seminar

presentations the student will be introduced to the requirements of conducting empirical research and advanced undergraduate scholarly research writing.

The student's overall grade for this seminar will be the average of the thesis grade (provided by the thesis advisor) and the seminar instructor's grade for honours seminar participation (minimum of B+).

4518 Introduction to International Comparative Education: Perspectives [EDUC 4518]

3 credit hours

Prerequisite: at least thirty (30) credit hours of University courses.

Introduction to concepts and analysis underlying a comparative understanding of selected educational systems around the world. The course will emphasize comparisons between mainstream educational understandings in the developed world, the agenda of international education organizations, international educational funders, and the implementation of educational systems, both public and private. Specific reference will be made to access to education, curriculum and culture, gender and education and similar issues with an emphasis on examples from the so-called developing world in Asia, Africa, Latin America and the Middle East/North Africa.

4528 Introduction to International Comparative Education: Policies [EDUC 4528]

3 credit hours

Prerequisite: at least thirty (30) credit hours of University courses and IDST 4518 or permission of Instructor

This course is a continuation of IDST 4518. Examination and comparison of educational policies in selected countries or regions of the world with a view to assessing educational outcomes, educational processes and the relation between education, the public sector, the private sector and international organizations, and the effect these policies have had, or are having worldwide, with emphasis on the regions or sub-regions of Asia, Africa, Latin America and the Middle East/North Africa.

4826 – 4849 Special Topics in Development Studies

3 credit hours

Prerequisite: IDST 2301 and 2302.

These courses will investigate in-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.

4876 – 4899 Directed Study

3 credit hours

Prerequisite: IDST 2301 and 2302, or permission of Coordinator.

These courses provide an opportunity for students to pursue advanced study individually with resident or adjunct faculty concerning topics not normally covered by regular course offerings. Students are expected to demonstrate initiative and independence and will normally produce a substantial written document such as an annotated bibliography summarizing their literature research.

Irish Studies (IRST)

Program Coordinator S. Kennedy, English
 D'Arcy McGee Chair of Irish Studies P. Ó Siadhail
 Adjunct Professor J. White

The D'Arcy McGee Chair of Irish Studies was established at Saint Mary's University by Dr. Cyril J. Byrne in the spring of 1986 to form a focal point for the study of all aspects of Irish and Irish-Canadian culture, particularly language, literature, history, political science and folklore. Saint Mary's is the only University in Canada where you can complete an undergraduate degree in Irish Studies.

The Major Program

To obtain a major in Irish Studies, forty-two (42) credit hours are required, including:

- IRST 1201 An Introduction to Modern Irish
- IRST 1202 Modern Irish Language
- IRST 2325 Intermediate Irish I
- IRST 2326 Intermediate Irish II
- IRST 3460/HIST 3460 Issues in Modern Irish History
- IRST 3470 Irish Studies Seminar

Plus twenty-four (24) credit hours, twelve (12) credit hours of which must be at the 3000 level and approved by the Coordinator 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:

Six (6) credit hours in IRST at the 1000 level
 Plus eighteen (18) credit hours 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 ninety (90) credit hours), a minimum of twenty-four (24) credit hours in IRST is required; also a minimum cumulative grade point average of 2.00. Further details are available from the coordinator.

Course Descriptions

1201 An Introduction to Modern Irish

3 credit hours

This course will introduce students to Modern Irish, with emphasis on the spoken and written forms.

1202 Modern Irish Language

3 credit hours

Prerequisite: IRST 1201 or permission of instructor.

This course will develop the student's ability to speak, write and read Modern Irish.

1203 Scottish Gaelic - Introductory I [ACST 1203]

3 credit hours

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.

1204 Scottish Gaelic - Introductory II [ACST 1204]

3 credit hours

Prerequisite: IRST 1203.

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.

1215 Ireland: An Introduction [HIST 1215]

3 credit hours

The course is designed to provide students with a general introduction to Ireland through a survey of the island's history. Although it is situated on the fringes of Europe, Ireland was influenced by developments on the continent from the earliest times. In addition, the later experience of overseas migration connected Ireland to developments across the Atlantic and beyond. This course will pay particular attention to how Ireland's history reflects these broader European and transatlantic connections.

1216 Ireland: Culture and Society

3 credit hours

This course, which complements IRST 1215, 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.

2325 Intermediate Irish I

3 credit hours

Prerequisite: IRST 1201 and 1202.

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.

2326 Intermediate Irish II

3 credit hours

Prerequisite: IRST 2325 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.

2327 Scottish Gaelic - Intermediate I

3 credit hours

Prerequisite: IRST 1203 and 1204.

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.

2328 Scottish Gaelic - Intermediate II

3 credit hours

Prerequisite: IRST 2327 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.

2346 A Sociolinguistic History of Ireland [LING 2346]

3 credit hours

Prerequisite: at least six (6) credit hours in IRST, ENGL, LING or HIST

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.

2350 The Irish Musical Tradition

3 credit hours

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.

2391 Geography of Ireland [GEOG 2390]

3 credit hours

3325 The Irish and Atlantic Canada [ACST 3325]

3 credit hours

Prerequisite: 30 credit hours and ACST 1000 or permission of instructor

This interdisciplinary course will offer a survey of the history and culture of people of Irish descent in the Atlantic Region. Topics will include Irish settlement in the Atlantic Region, religion and politics, sectarian conflict, social status, community organizations and contemporary Irish identity in the Atlantic Region.

3333 Ireland in Film

3 credit hours

Prerequisite: At least 6.0 credit hours in IRST, FILM, ENGL or HIST

Beginning with a survey of the history, development and current state of Irish cinema, this course will primarily focus on literary works that have been adapted for the screen. Students will consider a selection of early 20th century texts, such as Maurice Walsh's 'The Quiet Man,' and James Joyce's 'The Dead,' as well as examples of recent fiction, such as the work of William Trevor, Elizabeth Bowen, Roddy Doyle and Patrick McCabe that have subsequently been filmed.

3443 Irish Poetry [ENGL 3443]

3 credit hours

This course examines poetry in Ireland from 1890 to the present, beginning with W.B. Yeats and the Literary Revival, and concluding with the poetry of the Northern renaissance.

3453 Irish Drama in the 20th Century [ENGL 3453]

3 credit hours

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.

3454 Irish Folklore [ENGL 3454]

3 credit hours

Prerequisite: six (6) credit hours in ENGL, IRST, ANTH or LING.

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.

3460 Issues in Modern Irish History [HIST 3460]

3 credit hours

3470 Irish Studies Seminar

3 credit hours

Prerequisite: Permission of Coordinator

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.

3500 Contemporary Canadian Irish Prose [ENGL 3500]

3 credit hours

Prerequisite: At least six (6) credit hours in Irish Studies, English or History or with permission of instructor.

This course examines the work of Canadian authors who have drawn on Ireland, Irish themes or the Irish in Canada in their writings, and the work of Irish-born authors living in Canada whose works contain significant Canadian content. Following an overview of the range of earlier Canadian Irish writings, students will read and discuss a selection of recent fiction and non-fiction texts by authors such as Charles Foran, Jane Urquhart, Brian Moore, Emma Donoghue, Peter Behrens and John Moss.

3534 Literature of Modern Ireland I: The Literary Revival, 1890-1922 [ENGL 3534]

3 credit hours

Prerequisite: 9 credit hours in ENGL in addition to ENGL 1205.

This course will examine the literature of the Irish Literary Revival with a strong emphasis on social and cultural context. Writers to be studied will include W. B. Yeats, Lady Gregory, J. M. Synge and James Joyce.

3535 Literature of Modern Ireland II: After the Revival, 1922-Present [ENGL 3535]

3 credit hours

Prerequisite: 9 credit hours in ENGL in addition to ENGL 1205.

This course will examine the literature of modern Ireland after the revival with a strong emphasis on social and cultural context. Writers to be studied will include Elizabeth Bowen, Brendan Behan, Kate O'Brien, Flann O'Brien, Patrick Kavanagh, Seamus Heaney and Medbh McGuckian.

3787 Ireland in an Age of Globalization

3 credit hours

Prerequisite: Either IRST 1215 or 1216.

This course will chart the history and progress of this half century within the context of trends in European and global dynamics, especially within the past 25 years of so-called globalization. Over the past half century, Ireland has been transformed from an essentially agrarian and rural socio-economy into a European powerhouse of industrial and IT manufacture and "knowledge economy" production. From the "frugal comfort" of the De Valera era to levels of prosperity and consumer purchasing power the equal of other European nations, from an age of rural infrastructure to modern transportation systems and digital access, from a land of myths and legends, poetry and music to a nation of business-friendly export production policies.

3788 Literature and Culture in Celtic Tiger Ireland [ENGL 3788]

3 credit hours

This course will examine the culture and literature produced in the period of economic expansion in Ireland known as the 'Celtic Tiger'. Students will examine how writers, artists, film-makers and musicians responded to the growth of a neo-liberal Irish society, in which the hitherto dominant position

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of the spiritual hegemony of the Catholic Church was replaced by an emphasis on material growth and secular individualism.

3826 – 3849 Special Topics in Irish Studies

3 credit hours

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.

4431 The Modern Irish Novel [ENGL 4431]

3 credit hours

This course will involve a study of the modern Irish novel, placing each work in its social and cultural context. It may include works by James Joyce, Elizabeth Bowen and/or Samuel Beckett, as well as a selection of contemporary novels by writers like Anne Enright and John Banville.

4441 The Irish Short Story [ENGL 4441]

3 credit hours

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.

4566 Irish Migration [HIST 4566]

3 credit hours

Prerequisite: same as History 4000 level courses

During the nineteenth century Ireland had the highest emigration rate in Europe. In order to better understand this phenomenon, this seminar course will focus on the literature that discusses the nature of Irish migration and settlement from the eighteenth to early twentieth centuries. While the course will examine Irish immigrants in their various destinations, it will focus in particular on Irish settlement in North America.

4876 - 4899 Directed Reading Courses in Irish Studies

3 credit hours

Prerequisite: Permission of Coordinator

An independent reading course in selected topics relating to Ireland and the Irish abroad. Topics include: the history and culture of Ireland; languages and literature; the Irish in Canada; and contemporary Ireland.

Japanese (JPNS)

Chairperson, Modern Languages and Classics

Associate Professor E. Tsedryk

Assistant Professors A. Avdulov, C. Beaupré

Courses and programs in Japanese are offered by the Department of Modern Languages and Classics

Department Policy - Modern Languages and Classics

1. Enrollment in some language courses involves the following formal placement procedures.

All students seeking entry into language courses who have not previously taken a language course at Saint Mary's University must complete and return the Language Profile Form to the Department of Modern Languages and Classics.

Based on the information provided in the Language Profile Form, students may receive notification from the Department to appear for an oral interview and/or a written placement test at a designated time.

The Department of Modern Languages determines the appropriate course placement for each student

- (i) Permission to register or remain in a particular language course can be refused if the Department judges that the student's knowledge exceeds the level for that course.
- (ii) Native speakers are not eligible to receive advanced credit for language courses.

(iii) Completion of Advanced Standing (transfer) courses does not exempt a student from taking the placement test.

2. 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 enroll in courses at the 2000 level or lower.

Students who misrepresent their knowledge of any given language by providing inaccurate or incomplete information about their linguistic educational history will be subject to disciplinary action as laid out in Academic Regulation 19(d).

3. 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.

Programs in Japanese

The Certificate of Japanese Studies is available as outlined below.

Certificate of Japanese Studies (CER JPST)

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 twenty-four (24) credit hours. 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 Coordinator 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 eighteen (18) credit hours at Saint Mary's University. Relevant academic courses, work experience and linguistic capability may be considered for credit recognition. Applicants should submit a resume of relevant work experience, official university transcripts and any other relevant documentation.

Program Courses

This program consists of twelve (12) required credit hours and a number of optional credit hours. All students are required to take Japanese 1100 (Introductory Japanese) and Japanese 2200 (Intermediate Japanese). Students must also select twelve (12) optional credits hours in at least two different disciplines from the following courses:

ANTH 2326; ANTH 2327; ASNT 3300; ASNT 3302; ASNT 2303; ASNT 4410; GEOG 3360; HIST 1222; HIST 1223; HIST 2354; HIST 2355; HIST 2356; HIST 4511; RELS 2327; RELS 2340.

At least twelve (12) credit hours must be at the 2000 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 grade 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.

Course Descriptions**1100 Introductory Japanese**

6 credit hours

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.

2200 Intermediate Japanese

6 credit hours

Prerequisite: JPNS 1100 or equivalent.

A continuation of introductory Japanese, intended to develop proficiency in oral, aural and written Japanese within the context of Japanese culture.

3300 Advanced Oral and Written Japanese I

3 credit hours

Prerequisite: JPNS 2200

This course offers an opportunity to build and refine students' ability to comprehend and to communicate effectively in Japanese.

3301 Advanced Oral and Written Japanese II

3 credit hours

Prerequisite: JPNS 3300

This course is a continuation of JPNS 3300.

Latin American Studies**Minor in Latin American Studies**

This program is administered by the Department of Modern Languages and Classics.

Chairperson, Modern Languages and Classics
Associate Professor E. Tsedryk

Students majoring in discipline other than Spanish may obtain a minor in Latin American Studies by completing the equivalent of twenty-four (24) credit hours approved for the program. These must include:

a) SPAN 1000 Introduction to Latin American Studies

- b) SPAN 1100 Introduction to the Spanish Language
- c) HIST 2375 Modern Latin America
- d) And twelve (12) other credit hours with a focus on Latin America in at least two different disciplines taken from the list below:

CRIM 4515, HIST 1260, HIST at the 3000 level or above, IDST 3463 SOC1 3319, SPAN 3304, SPAN 3310, SPAN 3312, SPAN 4416, SPAN 4418 and other courses approved by the program coordinator

Students are referred to the Spanish section of this Academic Calendar for the Department Policy on course placement.

Linguistics (LING)

Programs and courses in Linguistics are administered by the Linguistics Coordinator.

Committee on Linguistics

E. Asp	Coordinator of Linguistics, English and Linguistics
N. Conrad	Psychology
E. Enns	Dean of Arts; Modern Languages and Classics
D. Hall	Linguistics and English
E. Henry	Anthropology
J. Plews	German
P. Ó Siadhail	Irish Studies
E. Tsedryk	Modern Languages and Classics and Linguistics
R. Cospér	Adjunct Professor

Program in Linguistics

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 discipline in its own right, linguistics has cognate relationships with many disciplines, suggested by the interdisciplinary nature of many of the courses in the program. Faculty members from Anthropology, English, French, Philosophy, Psychology, Sociology, and other disciplines participate.

Major in Linguistics

A major in linguistics requires a minimum of thirty-nine (39) credit hours, including:

- LING 1200 Introduction to Linguistics
- LING 2309 Phonetics
- LING 2310 Phonology
- LING 2330 Syntax
- LING 2340 Semantics
- Nine (9) credit hours from
 - LING 3310 Advanced Phonology
 - LING 3320 Morphology
 - LING 3330 Advanced Syntax
 - LING 3350 Interdisciplinary Perspectives in Linguistics
- Twelve (12) additional credit hours at the 2000 level or above in LING.

Honours in Linguistics

An honours degree requires a minimum of sixty (60) credit hours including:

- LING 1200 Introduction to Linguistics
- LING 2309 Phonetics
- LING 2310 Phonology
- LING 2330 Syntax
- LING 2340 Semantics
- Nine (9) credit hours from
 - LING 3310 Advanced Phonology
 - LING 3320 Morphology

- LING 3330 Advanced Syntax
- LING 3350 Interdisciplinary Perspectives in Linguistics
- Three (3) credit hours from
 - LING 4401-4409 Topics in Linguistic Theory
 - LING 4501-4509 Topics in Applied Linguistics
- Three (3) credit hours at the 4000 level in LING
- Six (6) credit hours at the 2000 level or above in a language other than English
- Twenty-one (21) additional credit hours at the 2000 level or above in LING.

Concentration in Linguistics

A Concentration in linguistics requires a minimum of twenty-four (24) credit hours in linguistics including:

- LING 1200 Introduction to Linguistics
- Eighteen (18) additional courses at the 2000 level or above in LING or from the list of approved courses below.

Minor in Linguistics

A minor in linguistics requires a minimum of twenty-four (24) credit hours in linguistics including:

- LING 1200 Introduction to Linguistics
- Eighteen (18) additional courses at the 2000 level or above in LING or from the list of approved courses below.

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. 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 thirty (30) credit hours and is intended primarily for students already holding degrees in any discipline.

1. 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 Coordinator for Linguistics. Students majoring in Linguistics at Saint Mary's University are **not** eligible for this program.

2. Program Courses

- LING 1200 Introduction to Linguistics
- Six (6) credit hours from
 - LING 2309 Phonetics
 - LING 2310 Phonology
 - LING 2330 Syntax
 - LING 2340 Semantics
 - LING 3320 Morphology

- Three (3) credit hours at the 3000 level or above from the approved list below
- Fifteen (15) additional credit hours from the approved list below

With the permission of the Coordinator for Linguistics, one of these 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.

Fifteen (15) of the thirty (30) credit hours must be completed at Saint Mary's University. A minimum GPA of 2.00 in this Certificate Program is required for graduation.

3. 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 the program from the Registrar - Teacher Certification **prior** to registration in this program.

Approved Saint Mary's University courses:

ANTH 1290	Introduction to Human Communication
ANTH 2391	Learning a Field Language
ANTH 2392	Language, Culture and Society
ANTH 3395	Language Use and Issues in Northern Canada
ANTH 3396	Language Use and Issues in Southern Canada
ANTH 4491	Ethnography of Communication
ANTH 4492	Anthropological Analysis of Linguistic Communities
ENGL 2311	Modern English Language
ENGL 2326	Language and Gender
ENGL 3402	History of the English Language
ENGL 4427	Language, Gender, and Power
ENGL 4493	Doing Discourse Analysis
ENGL 4494	Approaches to Discourse Analysis
FREN 3320	French Phonetics
FREN 4440	Canadian French: Sociolinguistic Perspectives
IRST 2346	A Sociolinguistic History of Ireland
LING 2309	Phonetics
LING 2310	Phonology
LING 2330	Syntax
LING 2340	Semantics
LING 3310	Advanced Phonology
LING 3320	Morphology
LING 3330	Advanced Syntax
LING 3368	Linguistic Analysis
LING 3350	Interdisciplinary Perspectives in Linguistics
LING 3368	Advanced Linguistic Analysis
LING 3826-3849	Special Topics in Linguistics
LING 4401-4409	Topics in Linguistic Theory
LING 4501-4509	Topics in Applied Linguistics
LING 4826-4849	Special Topics in Linguistics
LING 4876-4899	Directed Reading in Linguistics
PHIL 3402	Philosophy of Language
SOCI 3339	The Sociology of Language
SOCI 3366	Field Methods in Sociolinguistics I

Course Descriptions

1200 Introduction to Linguistics

6 credit hours

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 courses in linguistics.

2309 Phonetics

3 credit hours

Prerequisites: LING 1200 or approval of the Linguistics Coordinator

This course provides a basis for study in phonology, and speech language. It is an introduction to the production, acoustic properties, and perception of the sounds used in English and other languages. Skills developed include: transcription of speech sounds systematically using the International Phonetic Alphabet, description of sounds in articulatory terms, and recognition of linguistically relevant properties of sounds from spectrograms and waveforms.

2310 Phonology

3 credit hours

Prerequisite: LING 1200 or approval of the Linguistics Coordinator.

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.

2311 Modern English Language [ENGL 2311]

3 credit hours

2321 French Phonetics [FREN 3320]

3 credit hours

2326 Language and Gender [ENGL 2326]

3 credit hours

2330 Syntax

3 credit hours

Prerequisite: LING 1200 or approval of the Linguistics Coordinator.

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. The fundamental similarities in sentence patterning among different languages will be addressed.

2339 The Sociology of Language [SOCI 3339]

3 credit hours

2340 Semantics

3 credit hours

Prerequisite: LING 1200 or approval of the Linguistics Coordinator.

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.

2346 A Sociolinguistic History of Ireland [IRST 2346]

3 credit hours

2391 Learning a Field Language [ANTH 2391]

3 credit hours

2392 Language, Culture and Society [ANTH 2392]

3 credit hours

3310 Advanced Phonology

3 credit hours

Prerequisite: Ling 2310

This course develops skills in recognition, description and analysis of segmental and prosodic organization, and discusses recent phonological theory.

3320 Morphology

3 credit hours

Prerequisite: LING 1200 and six(6) additional credit hours in LING.

Morphology is the study of word formation and structure. The course is an examination of how words are made up of smaller, contrastive elements. Processes of word formation such as derivation and compounding are analyzed. Inflectional morphology is investigated. The manner in which morphology relates to the other components of language is discussed. Morphologically based linguistic typologies are explored.

3330 Advanced Syntax

3 credit hours

Prerequisite: Ling 2330

This course presents recent developments in syntactic theory focusing on form and meaning of different types of sentences. Building on universal principles and specific parameters of syntactic structures, it provides necessary tools for description and advanced analysis of sentences in a cross-linguistic perspective.

3350 Interdisciplinary Perspectives in Linguistics

3 credit hours

Prerequisite: Eighteen (18) credits in LING or in a discipline associated with the special topic.

This course investigates the application of linguistics to particular fields such as forensic linguistics, clinical linguistics, clinical discourse analysis, neurolinguistics.

Students will gain experience working in an interdisciplinary context.

3366 Field Methods in Sociolinguistics I [SOCI 3366]

3 credit hours

3368 Advanced Linguistic Analysis

3 credit hours

Prerequisite: LING 1200 and at least six (6) credit hours in Linguistics at or above the 2000 level.

This course takes a practical approach to linguistic analysis. Students will explore the application of linguistic principles by analyzing data from a variety of languages or by analyzing one (in most cases) non-Indo-European language in depth. Students will examine and analyze texts considering the core areas of linguistics. The analysis will focus on at least two of the core areas of phonology, morphology, syntax and semantics. Based on the results of the analysis, the discussion will broaden to include a typological perspective.

3395 Language Use and Issues in Northern Canada [ANTH 3395]

3 credit hours

3396 Language Use and Issues in Southern Canada [ANTH 3396]

3 credit hours

3402 History of the English Language [ENGL 3402]

6 credit hours

3427 Language, Gender and Power [ENGL 4427]

3 credit hours

3826 - 3849 Special Topics in Linguistics

3 credit hours

Prerequisite: LING 1200 and at least six (6) credit hours in LING at or above the 2000 level

These courses allow students to study a special topic at an advanced level. Such topics will either (a) not be covered by other LING courses or (b) handle the subject matter in alternative models.

Seminar: 3 hrs. a week.

4420-4430 Topics in Linguistic Theory

3 credit hours

Prerequisite: LING 1200 and twelve (12) credit hours in LING

This course will examine concepts and trends in the development of linguistic theory. Perspectives may include (a) particular areas of enquiry, such as language diversity, pragmatics, neurolinguistics, etc., and how they have informed linguistic theory; (b) schools of linguistics from Saussure to the present; and (c) specific theoretical approaches such as Functionalism, Minimalism, or Optimality Theory.

4440 Canadian French: Sociolinguistic Perspective
[FREN 4440]
3 credit hours

4491 Ethnography of Communication [ANTH 4491]
3 credit hours

4492 Anthropological Analysis of Linguistic Communities [ANTH 4492]
3 credit hours

4493 Doing Discourse Analysis [ENGL 4493]
3 credit hours

4494 Approaches to Discourse Analysis [ENGL 4494]
3 credit hours

4500 Honours Thesis
6 credit hours
Prerequisite: honours standing in Linguistics.

Supervised preparation of a significant research paper for honours students in linguistics.

4510-4520 Topics in Applied Linguistics
3 credit hours
Prerequisite: At least eighteen (18) credit hours in LING, a second language, or psychology.

This course will examine topics in applied linguistics. The course may focus on linguistic approaches to literacy, first or second language acquisition, bilingualism, or a similar topic. The goal of the course is to develop knowledge of primary literature addressing linguistic contributions to the area under focus, but also to develop skills in problem based interdisciplinary thinking, research and collaboration.

4826 – 4849 Special Topics in Linguistics
3 credit hours
Prerequisite: at least eighteen (18) credit hours in LING.

These courses allow students to study a special topic at an advanced level. Such topics will either (a) not be covered by other LING courses or (b) handle the subject matter in alternative models.

4876 – 4899 Directed Readings in Linguistics
3 credit hours
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.

Management (MGMT)

Chairperson	R. Summers
Professors	C. Driscoll, P. Fitzgerald, L. Haiven, J. Helms-Mills, K. Kelloway, D. Wicks A. Mills, T. Wagar
Associate Professors	E. Farrell, J. Haiven, C. Holmvall, C. Loughlin, R. Summers
Assistant Professors	R. Fralich, C. De Fuentes, M. McKee, J. O'Brien, J. Wang
Canada Research Chairs	K. Kelloway, C. Loughlin
Professor Emeriti	J. Badawi, H. Schwind

The Department of Management offers four programs for majors:

- * Entrepreneurship
- * Global Business Management
- * Human Resource Management and Industrial Relations
- * Management

Details on the requirements for the Management major are given below. Details on the other majors can be found in the corresponding sections of this Calendar.

Management Major

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.

To assist students, the Year 3 and Year 4 course requirements for a Management Major and the core BComm degree program requirements are listed below. Course descriptions follow later in this section.

Note: In addition to all other requirements for this major, a minimum GPA of 2.2 is required in ACCT 3332, MGMT 2383, MGMT 2384, MGMT 3385, MGMT 3386, MGMT 4481, MGSC 3317, plus the courses satisfying the required ACCT, FINA, and MKTG electives (as indicated below by *).

Year 3

- *ACCT 3332 Planning and Control – see Note (i)
- FINA 2360 Business Finance I
- FINA 3361 Business Finance II
- MGMT 3480 Ethical Responsibilities of Organizations
- *MGSC 3317 Operations Management
- *Three (3) credit hours in Accounting electives
- *Six (6) credit hours in Marketing electives
- Three (3) credit hours in Commerce electives
- Three (3) credit hours in free electives

Year 4

- *MGMT 3385 Human Resource Management
- *MGMT 3386 Industrial Relations

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*MGMT 4481 Organization Theory: Structure, Process, Analysis and Design
MGMT 4489 Strategic Management
*Three (3) credit hours in Finance electives
Twelve (12) credit hours in non-Commerce electives
Three (3) credit hours in free electives

Note: (i) Students cannot receive credit for both ACCT 3332 and ACCT 3333.

Graduate Studies

For information on graduate courses and programs see *the Graduate Academic Calendar*.

Course Descriptions

1281 Introduction to Business Management

3 credit hours

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.

2383 Micro Organizational Behavior

3 credit hours

Prerequisite: MGMT 1281.

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.

2384 Macro Organizational Behavior

3 credit hours

Prerequisite: MGMT 1281.

This course focuses on macro aspects of organizational behavior. Topics covered include group processes and their relationship to effectiveness, inter-group cooperation and conflict, organizational character, structure, environment and culture, leadership, communication, decision making and organizational change and development.

3380 Family Business

3 credit hours

Prerequisite: completion of at least sixty (60) credit hours.

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.

3385 Human Resource Management

3 credit hours

Prerequisite: MGMT 2383 and 2384 or PSYC 3327 and 4427.

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.

3386 Industrial Relations

3 credit hours

Prerequisite: MGMT 2383 and 2384 or PSYC 3327 and 4427.

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.

3389 Structuring the Start-Up

3 credit hours

Prerequisite: ACCT 2242 and MKTG 2270.

This course introduces students to the challenges in starting and running a new venture. Through lectures and cases, students are introduced to the personal qualities that define an entrepreneurial mindset. The concepts necessary to finance and develop innovative ideas are discussed. Each student will create and run a business for the term, concluding with a trade fair of all student businesses.

Classes and case study 3 hrs. a week.

3392 Occupational Health and Safety

3 credit hours

Prerequisite: completion of at least sixty (60) credit hours.

This course examines current issues in occupational health and safety including employee/union involvement, government regulation, inspections and compliance auditing.

3480 Ethical Responsibilities of Organizations

3 credit hours

Prerequisite: completion of at least sixty (60) credit hours.

The purpose of the course is to help students bring ethics into their decision making. Ethics will be defined in a broad, contextual, and practical sense. 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.

4481 Organization Theory: Structure, Process, Analysis and Design

3 credit hours

Prerequisite: COMM 2293 and MGMT 2383 and 2384 or PSYC 3327 and 4427.

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.

4482 Staffing and Selection

3 credit hours

Prerequisite: COMM 2293 and MGMT 3385 or PSYC 3327 and PSYC 4427.

This course examines the issues involved in recruiting applicants for job vacancies and the procedures for assessing the match between candidates and the requirements of the position. The examination of the topic will include consideration of statistical and scientific issues and the practical implications.

Note: Students cannot receive credit for both MGMT 4482 and PSYC 4428.

4483 Management Skills I

3 credit hours

Prerequisite: COMM 2293 and MGMT 2383 and 2384 or PSYC 3327 and 4427.

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.

4485 Wage and Salary Administration

3 credit hours

Prerequisite: COMM 2293 and MGMT 3385 or PSYC 3327 and 4427.

This course is designed to integrate compensation systems with employment planning, career development, and organizational planning concepts.

4486 Training and Development

3 credit hours

Prerequisite: COMM 2293 and MGMT 3385 or PSYC 3327 and 4427.

This course examines the organizational procedures for analyzing training needs and the subsequent phases of developing and evaluating training program effectiveness. The course will also address organizational activities associated with preparing and developing employees as part of their careers in an organization.

Note: Students cannot receive credit for both MGMT 4486 and PSYC 4426.

4487 New Venture Opportunities

3 credit hours

Prerequisite: COMM 2293 and MGMT 3389.

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.

4488 International Business Management

3 credit hours

Prerequisite: completion of at least sixty (60) credit hours and COMM 2293.

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, Middle East, South-East Asia, China, and Japan.

4489 Strategic Management

3 credit hours

Prerequisite: COMM 2293, FINA 3361, MKTG 2270, MGMT 2383, MGMT 2384, and six (6) additional credit hours at the 3000-level from ACCT, ECON, MGMT, FINA, MKTG, or MGSC.

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.

4494 Entrepreneurship: Theories and Concepts

3 credit hours

Prerequisite: COMM 2293 and completion of at least sixty (60) credit hours.

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.

4495 Small Business Performance Improvement

3 credit hours

Prerequisite: COMM 2293 and completion of at least sixty (60) credit hours.

This course requires students to work with a small business owner/manager to identify a small business problem, to

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develop a workable solution to the problem, and to implement that solution.

4496 Collective Bargaining

3 credit hours

Prerequisite: COMM 2293 and MGMT 3386.

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.

4498 Small Business Consultancy

3 credit hours

Prerequisite: COMM 2293 and 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.

4826 – 4849 Special Topics/Seminars in Management

3 credit hours

Prerequisite: COMM 2293 and completion of at least sixty (60) credit hours and permission of instructor.

These courses deal 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.

4876 – 4899 Directed Study

3 credit hours

Prerequisite: COMM 2293 and 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.

Management Science (MGSC)

Chairperson

M. Zhang

Professors

T. Charles, P. Dixon, E. Lee, H. Millar

Associate Professors

S. Amirkhalkhali, M. Wang, M. Zhang

Management Science courses are offered by the Department of Finance, Information Systems, and Management Science.

Course Descriptions

1205 Quantitative Methods I

3 credit hours

Prerequisite: Nova Scotia Pre-Calculus Mathematics or Mathematics 12 Academic; 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.

1206 Quantitative Methods II

3 credit hours

Prerequisite: Nova Scotia Pre-Calculus Mathematics or Mathematics 12 Academic; or equivalent.

Note: No credit will be given for MGSC 1206 if taken subsequently to or concurrently with MATH 1210.

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.

2207 Introductory Statistics

3 credit hours

Prerequisite: MGSC 1206.

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 CISY 1225 be completed beforehand.

Note: Students may receive credit for only one of the following towards the Bachelor of Commerce: MGSC

2207, PSYC 2350, SOCI 2365, GEOG 3326, BIOL 2308, EGNE 2309, MATH 1207, or MATH 1216.

3317 Operations Management

3 credit hours

Prerequisite: MGMT 1281, MGSC 1205 and MGSC 2207.

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.

4491 Small Business Consultancy

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson.

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.

4826 – 4849 Special Topics/Seminars in Management Science

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson.

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.

4876 – 4899 Directed Study

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson.

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.

Marketing (MKTG)

Chairperson
Professor
Associate Professors

G. Fullerton (acting)
C. Kim
V. Creelman, G.
Fullerton, M. Morales H.
Ogden, R. Venkat
K. Grandy, M. Wei
E. Prancer

Assistant Professors
Lecturer

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 MKTG 3376 (Consumer Behaviour), MKTG 3378 (Marketing Research), MKTG 3379 (Marketing Management), MKTG 4479 (Marketing Policy) and six (6) credit hours additional electives. For additional information, students should consult the Chairperson and/or faculty advisors. The Department administers the communications courses [COMM 2293 and COMM 3394] described earlier in this *Calendar*.

Graduate Studies

For information on graduate courses see the *Graduate Academic Calendar*.

Upon completion of 45 credit hours, Commerce students with a cumulative grade point average of 2.0 may elect to

declare a major in Marketing. (In exceptional circumstances, students can also be admitted to the major by permission of the Chairperson.)

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.

To assist students, the Year 3 and Year 4 course requirements for a General Business Studies major and the core BComm degree program requirements are listed below. Course descriptions follow.

To complete a major in Marketing, students must attain a minimum grade point average of 2.2 in MKTG 2270 and the 3rd and 4th year MKTG courses (as indicated below by *).

Year 3

FINA 2360	Business Finance I
FINA 3361	Business Finance II
MGMT 3480	Ethical Responsibilities of Organizations
*MKTG 3376	Consumer Behaviour
*MKTG 3378	Marketing Research
*MKTG 3379	Marketing Management

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Nine (9) credit hours in non-Commerce electives
Three (3) credit hours in free electives

Year 4

MGMT 4489 Strategic Management

*MKTG 4479 Marketing Policy

*Six (6) credit hours in Marketing electives

Six (6) credit hours in non-Commerce electives

Twelve (12) credit hours free electives

Course Descriptions

2270 Introduction to Marketing

3 credit hours

Prerequisite: MGMT 1281, and ECON 1201 and 1202.

Students are introduced to the basic marketing tools - segmentation, positioning, product, price, distribution, and promotion. Marketing research, buyer behaviour, 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.

3375 International Marketing

3 credit hours

Prerequisite: MKTG 2270.

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.

3376 Consumer Behaviour

3 credit hours

Prerequisite: MKTG 2270.

Students gain an understanding of the social, cultural, and psychological factors influencing consumer behaviour and of the implications of consumer behaviour to marketing strategies. Topics include consumers' needs, attitudes, learning, decision making, consumption patterns, cultures, and life styles.

3378 Marketing Research

3 credit hours

Prerequisite: MGSC 2207 and MKTG 2270.

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.

3379 Marketing Management

3 credit hours

Prerequisite: MKTG 2270, ACCT 2242, and COMM 2293.

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.

4462 Services Marketing

3 credit hours

Prerequisite: MKTG 3379 and COMM 2293.

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.

4471 Integrated Marketing Communications

3 credit hours

Prerequisite: MKTG 3379 and COMM 2293.

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.

4473 Management of Marketing Channels

3 credit hours

Prerequisite: MKTG 3379 and COMM 2293.

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.

4474 Personal Selling and Sales Management

3 credit hours

Prerequisite: MKTG 3379 and COMM 2293.

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.

4478 Retail Management

3 credit hours

Prerequisite: MKTG 3379 and COMM 2293.

Students undertake a comprehensive study of the activities involved in retailing goods and services to consumers. Topics include the evolution of retailing, shopping behaviour, retail marketing strategies, and emerging trends.

4479 Marketing Policy

3 credit hours

Prerequisite: COMM 2293, MKTG 3376, 3378, and 3379.

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.

4495 Business Consultancy

3 credit hours

Prerequisite: COMM 2293 and MKTG 3379 (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.smu.ca/smubdc>.

Internship. 1 semester.

4826 – 4849 Special Topics/Seminars in Marketing

3 credit hours

Prerequisite: MKTG 3379 and COMM 2293.

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 hours when topics vary.

4876 – 4899 Directed Study

3 credit hours

Prerequisite: COMM 2293 and 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.

Mathematics (MATH)

Chairperson	N. Linney
Professors	R. Dawson, A. Finbow, B. Hartnell, S. Konstantinidis, P. Lingras, P. Muir
Associate Professors	W. Finbow-Singh, J. Irving, B. Khan, N. Linney, M. Mastnak, S. Oore, P. Scobey
Lecturer	A. Hare
Adjunct Professor	R. Haynes
Computing Science Advisor	S. Oore
Co-op Advisor	B. Khan

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.

Notes:

- (i) Students must obtain formal Departmental approval of their program at the time of their declaration to enter the major or honours program, as well as for any subsequent changes.
- (ii) Students taking a major or honours in mathematics are permitted credit for at most one of BIOL 2308, MATH 1207, MGSC 2207, or PSYC 2350; and shall not be

permitted credit for any of these courses simultaneously with or subsequent to MATH 1216 or 2316.

- (iii) Major and honours students in mathematics can use CSCI courses to satisfy Faculty of Science regulation 6e or 12b.

Requirements for a Major in Mathematics

A Major in Mathematics can be completed in either a Bachelor of Arts or Bachelor of Science Program. In the latter case, students must receive a minimum grade of C in each of the required courses listed below [see Faculty of Science Regulation 6 (h)].

1. MATH 1210/1211
2. Either CSCI 1226 and 1227; or b) CSCI 1228 and one of MATH 1216 or any 3 credit hour CSCI course.
3. MATH 2310
4. MATH 2311
5. MATH 2320/2321
6. MATH 4420 and MATH 4441
7. Six(6) credit hours in mathematics at the 3000 level or above
8. Twelve (12) additional credit hours in mathematics courses numbered 1216 or 2305 or above, chosen by the student in consultation with the Department.

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A suggested program sequence for a B.Sc. with major in Mathematics is as follows:

Year 1

MATH 1210 Introductory Calculus I
MATH 1211 Introductory Calculus II
CSCI 1226 Intro to Computing Science
CSCI 1227 Intermediate Programming
ENGL 1205 Introduction to Literature
Three (3) credits hours Humanities electives
Six (6) credits hours Arts electives
Six (6) credit hours non-Mathematics Science electives

Year 2

MATH 2310 Intermediate Analysis
MATH 2311 Intermediate Calculus
MATH 2320 Linear Algebra I
MATH 2321 Linear Algebra II
Six (6) hours Mathematics electives (1216 or 2305 and above)
Six (6) credits hours Arts electives
Six (6) credit hours non-Mathematics Science electives

Year 3

Six (6) hours Mathematics electives (1216 or 2305 and above)
Twenty-four (24) credit hours electives

Year 4

MATH 4420 Abstract Algebra I
MATH 4441 Real Analysis I
Six (6) hours Mathematics electives at 3000 level or above
Eighteen (18) credit hours electives

Requirements for a Double Major in Mathematics and a subject other than Computing Science or Physics

The Departmental requirements for a double major in mathematics and a subject other than computing science or physics are the same as the requirements for a major in mathematics. Students enrolled in a double major in mathematics and a subject other than computing science or physics may substitute another mathematics course approved by the department chair in lieu of MATH 4420 and MATH 4441.

Requirements for Honours in Mathematics

The honours 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 honours program, and are advised to consult with the Department before making a final decision. Students are required to achieve a degree GPA of at least 3.00 to graduate with Honours.

The Departmental requirements for honours in mathematics are:

1. MATH 1210/1211
2. Either a) CSCI 1226 and 1227 or b) CSCI 1228 and one of MATH 1216 or any 3 credit hour CSCI course.
3. MATH 2310/2311
4. MATH 2320/2321

5. MATH 4420, 4421, 4441 and 4442.
6. A minimum of thirty (30) additional credit hours in mathematics courses numbered 1216 or 2305 or above, chosen by the student in consultation with the Department. At least twelve (12) credit hours must be at the 3000 level or above.

A suggested program sequence for a B.Sc. with honours in Mathematics is as follows:

Year 1 and 2 same as for Major above

Year 3

Six (6) hours Mathematics electives at 3000 level or above
Twelve (12) hours Mathematics electives (1216 or 2305 and above)
Twelve (12) credit hours electives

Year 4

MATH 4420 Abstract Algebra I
MATH 4421 Abstract Algebra II
MATH 4441 Real Analysis I
MATH 4442 Real Analysis II
Six (6) hours Mathematics electives at 3000 level or above
Twelve (12) credit hours electives

Requirements for a Double Honours in Mathematics and a subject other than Computing Science or Physics

The Departmental requirements for a double honours in mathematics and a subject other than computing science or physics are the same as the requirements for a major in mathematics plus six (6) additional credit hours in mathematics courses numbered 3000 level or above.

Concentration in Mathematics (B.A.-3 year)

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 ninety (90) credit hours), a minimum of twenty-four (24) credit hours in MATH is required; also a minimum cumulative quality point average of 2.00 is required. Further details are available from the chairperson.

NOTE: Only one of MATH 1250 or MATH 1210 may be used to satisfy the requirements for a concentration in Mathematics in partial fulfillment of the B.A. General degree.

Concentration in Mathematics (B.Sc. – 3 year)

To obtain a B.Sc. General with a concentration in Mathematics, a student must complete the equivalent of thirty (30) credit hours in mathematics in addition to satisfying Faculty of Science regulations for the B.Sc. These courses must include:

- a. MATH 1210, 1211, 2310, 2311, 2320, and 2321 (18 credit hours)
- b. An additional twelve (12) credit hours in mathematics numbered 1200 or above.

Requirements for a Minor in Mathematics

It is possible to minor in mathematics by completing the equivalent of thirty (30) credit hours in mathematics in addition to satisfying Faculty of Science regulations for a minor. These courses must include:

- a. MATH 1210, 1211, 2310, 2311, 2320, and 2321 (18 credit hours)
- b. An additional twelve (12) credit hours in mathematics numbered 1200 or above.

Requirements for a Double Major or Double Honours 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 MATH 1210. (Among possible equivalents are MATH 1190 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 MATH 1202.

Students must register in the actual program before starting courses.

3. Courses

Students must take at least thirty (30) credit hours 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, MATH or CSCI courses numbered 1200 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.)

MATH 1190	Pre-Calculus Review
MATH 1202	Concepts and Topics in Mathematics
MATH 1203	Concepts in High School Mathematics
MATH 1204	Introduction to Geometry
MATH 1210	Intro Calculus I
MATH 1211	Intro Calculus II
MATH 1216	Intro Mathematical Statistics

CSCI 1226	Introduction to Computing Science and Programming
MATH 2320	Linear Algebra I
EDUC 2523	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 MATH 1210 and then receiving credit for MATH 1190 does not apply to the 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.

Course Descriptions

1190 Pre-Calculus Review

3 credit hours

Prerequisite: the equivalent of Nova Scotia pre-calculus Grade 12 which is the prerequisite for MATH 1210.

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.

Notes:

- (i) Students who have passed MATH 1190 are exempted from writing the pre-test for MATH 1210.
- (ii) MATH 1190 is given in the fall and summer of each year; MATH 1210 is given in the winter of each year; and MATH 1211 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 MATH 1190 and still complete the Calculus in one calendar year.
- (iii) Students receiving a grade of less than C are advised not to proceed with MATH 1210.
- (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 honours 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.

(vi) Math 1190 cannot be taken for credit after MATH 1210 except as part of the Certificate in the Mathematical Sciences for Education.

1202 Concepts and Topics in Mathematics

3 credit hours

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 MATH background for elementary teachers. Please note that this course may not be used by B. Sc. Students to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees.

Classes 3 hrs. and recitation 1.5 hrs. a week

1203 Concepts in High School Mathematics

3 credit hours

Prerequisite: MATH 1202 and Nova Scotia Grade 12 Pre-Calculus MATH 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 MATH 1202 and other courses, is intended to provide the necessary MATH 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

Note: Please note that this course may not be used by B. Sc. Students to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees.

1204 Introduction to Geometry

3 credit hours

Prerequisite: MATH 1203 or Math 1210

This course is an introduction to Euclidean geometry. It will cover coordinate, axiomatic, constructive, and transformational geometry with some emphasis on the concept of mathematical proof.

Note: This course is intended for secondary school teachers. It cannot be used as a science course as part of the Faculty of Science requirements.

1210 Introductory Calculus I

3 credit hours

Prerequisite: The equivalent of Nova Scotia Grade 12 Pre-calculus Mathematics.

This is a first course in calculus, intended for science and engineering students. Core topics include: functions, limits, continuity, differentiability; derivatives of algebraic and transcendental functions, L'Hôpital's Rule; curve sketching; optimization problems; antiderivatives; area under curves; the fundamental theorem of calculus.

Classes 3 hrs. plus recitation 1 1/2 hrs. a week.

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 MATH 1190.

1211 Introductory Calculus II

3 credit hours

Prerequisite: MATH 1210.

This is a continuation of MATH 1210, and is intended for science and engineering students. Core topics include: techniques of integration, applications of the definite integral (e.g. area, volume, arc length); improper integrals, separable differential equations; parametric equations, polar coordinates, sequences and series; power series; Taylor and Maclaurin series.

Classes 3 hrs. plus recitation 1 1/2 hrs. a week.

1216 Introduction to Mathematical Statistics

3 credit hours

Prerequisite: MATH 1210.

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—Specific methodologies such as regression and analysis of variance are discussed.

Classes 3 hrs. plus recitation 1 1/2 hrs. a week.

NOTE: Students will not receive credit for both MATH 1216 and any of BIOL 2308, PSYC 2350, or GEOG 3326.

1250 Calculus for Life Sciences I

3 credit hours

Prerequisite: Nova Scotia Grade 12 Pre-Calculus Mathematics (or equivalent)

This course is an introduction to applied calculus intended for students interested in the life sciences. Topics include: differentiation and antidifferentiation of common functions, general differentiation rules, curve sketching, limits at infinity, growth of functions, implicit differentiation, related rates, and optimization.

Classes 3 hrs. and recitation 1.5 hrs. per week.

Note: Students may not receive credit for both MATH 1250 and either of MATH1190 or MGSC1206; or for MATH1250 taken after or concurrently with MATH1210. Only one of MATH 1210 or MATH1250 may be used to satisfy regulation 3.b or 6 b of the Faculty of Science.

1251 Calculus for Life Sciences II

3 credit hours

Prerequisite: MATH 1250 or MATH 1210

This course is a continuation of MATH 1250. Topics include: the integral; methods and applications of integration; differential equations; and an introduction to multivariable calculus (functions of several variables, partial derivatives).

Classes 3 hrs. and recitation 1.5 hrs. per week.

Note: Students may not receive credit for both MATH 1251 and MATH 1211.

2301 Linear Algebra for Engineers

3 credit hours

Prerequisite: MATH 1211

Geometric vectors in three dimensions, dot product, norm cosine formulas, Schwartz inequality, and 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, and Gram-Schmidt orthogonalization process.

Classes 3 hours plus recitation 1 1/2 hours a week.

Note: Students cannot receive credit for both MATH 2301 and MATH 2320.

2303 Differential Equations I

3 credit hours

Prerequisite: MATH 1211 and 2301. Students must co-register in MATH 2311.

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.

2305 Survey of Discrete Mathematics

3 credit hours

Prerequisite: MATH 1211.

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 by contradiction, elementary counting techniques, networks, and applications.

Classes 3 hrs. plus recitation 1 1/2 hrs. a week.

2308 Introduction to Numerical Analysis [CSCI 2308]

3 credit hours

Prerequisite: MATH 1210/1211, CSCI 1226 or equivalent programming experience.

Discussion of errors in numerical analysis. Theoretical and practical considerations of numerical procedures in non-linear equations in one variable, systems of linear equations, and systems of non-linear equations, interpolation, polynomial approximation and integration.

Classes 3 hrs. plus recitation 1.5 hrs. a week.

2309 Selected Topics in Numerical Analysis [CSCI 2309]

3 credit hours

Prerequisite: MATH 2308 [CSCI 2308] or permission of instructor.

Select topics for MATH 2308 [CSCI 2308] may be further explored. Other topics may include linear least squares, eigenvalues and eigenvectors and optimization.

Classes 3 hrs. plus recitation 1.5 hrs. a week.

2310 Introductory Analysis

3 credit hours

Prerequisite: MATH 1211.

This course consists of the study of the "epsilon-delta" definition of limits and continuity; the least upper bound axiom; completeness of the real line; the intermediate value theorem; and the monotone convergence theorem. This course also provides an introduction to compactness in various forms. Infinite sequences and series are discussed from a more rigorous perspective than MATH 1211. These ideas are extended to two-dimensions and to the complex numbers. Additional topics may include: elementary asymptotics; the big-Oh notation; power series as generating functions; uniform convergence and uniform continuity; and Riemann sums and integration.

Classes 3 hrs. plus recitation 1 1/2 hrs. a week.

2311 Intermediate Calculus

3 credit hours
Prerequisite: MATH 1211

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.

2315 Introduction to Probability Theory

3 credit hours
Prerequisite: MATH 1210.

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.

2320 Linear Algebra I

3 credit hours
Prerequisite: MATH 1211.

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.

Note: Students cannot receive credit for both MATH 2320 and MATH 2301.

2321 Linear Algebra II

3 credit hours
Prerequisite: MATH 2320.

This course continues MATH 2320 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.

3406 Differential Equations II

3 credit hours
Prerequisite: MATH 2311; MATH 2303 or MATH 3405; MATH 2301 or MATH 2320; or 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.

3415 Mathematical Statistics

3 credit hours
Prerequisite: MATH 2311 and a course in 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.

3826 – 3849 Special Topics in Mathematics

3 credit hours
Prerequisite: permission of instructor.

Approved seminar courses dealing with specialized subject-matter that are announced from time to time by the Department.

4408 Numerical Solution of Initial Value Problems [CSCI 4408]

3 credit hours
Prerequisite: MATH 2308 [CSCI 2308] or permission of instructor.

This course considers the numerical solution of initial value ordinary differential equations. Topics may include multi-step methods, Runge-Kutta methods, stability, stiffness, step-size selection, local error, etc.

4409 Numerical Solution of Boundary Value Ordinary Differential Equations [CSCI 4409]

3 credit hours
Prerequisite: MATH 2308 [CSCI 2308] or permission of instructor.

This course is concerned with the numerical solution of boundary value ordinary differential equations. Topics may include finite difference methods, shooting methods, collocation methods, conditioning, mesh selection, error estimation, etc.

4420 Abstract Algebra I

3 credit hours
Prerequisite: MATH 2321 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.

4421 Abstract Algebra II

3 credit hours

Prerequisite: MATH 4420 or permission of instructor.

The further study of algebraic structures and their applications.

4426 Introduction to Combinatorics

3 credit hours

Prerequisite: MATH 2311 or 2320 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.

4427 Computational Methods in Graph Theory

3 credit hours

Prerequisite: MATH 2311 or 2320 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.

4430 Set Theory

3 credit hours

Prerequisite: MATH 2311 or 2320.

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.

4432 Elementary Topology

3 credit hours

Prerequisite: MATH 2311 and 2321; MATH 4430 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.

4434 Geometry

3 credit hours

Prerequisite: MATH 2320 or 4420 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.

4436 Theory of Functions of a Complex Variable I

3 credit hours

Prerequisite: MATH 2310 and 2311.

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.

4437 Theory of Functions of a Complex Variable II

3 credit hours

Prerequisite: MATH 4436.

A continuation of MATH 4436. Further study of analytic functions and conformal mapping theory.

4441 Real Analysis I

3 credit hours

Prerequisite: MATH 2310 and 2311.

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.

4442 Real Analysis II

3 credit hours

Prerequisite: MATH 4441.

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.

4500 Thesis

6 credit hours

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 honours students.

Directed study 6 hrs. a week. 2 semesters.

4826 – 4849 Special Topics in Mathematics

3 credit hours

Prerequisite: permission of instructor.

Approved seminar courses dealing with specialized subject-matter that are announced from time to time by the Department.

4876 - 4899 Directed Study in Mathematics

3 credit hours

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.

Philosophy (PHIL)

Chairperson	J. MacKinnon (acting)
Undergraduate Advisor & Graduate Program	
Coordinator	S. Crooks
Professors	S. Crooks, S. Wein
Associate Professors	L. Gannett, J. MacKinnon, M. Mercer
Assistant Professors	R. Ansell, T. Calder
Professor Emeritus	W. Grennan

Website: www.smu.ca/academic/arts/philosophy

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 counseling. Philosophy graduates also attest to the indispensable value of their education to 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 honours 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, a double-honours with physics, and a master's degree.

PHIL 1200 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 thirty-six (36) credit hours in philosophy. At least twenty-four (24) of these credit hours must be above the 1000 level, and of these twenty-four credit hours, at least twelve (12) credit hours must be at the 3000 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:

PHIL 1200	Critical Thinking
PHIL 2302	Ethics
PHIL 2332	Ethics and the Law
PHIL 2333	Philosophy of Law

3. Double Major

A student may major in philosophy and another subject. The student normally completes thirty-six (36) credit hours in philosophy and should consult the undergraduate advisor.

4. Honours Program

To qualify for the degree of Bachelor of Arts (Honours) 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 sixty (60) credit hours in philosophy, no more than twelve (12) credit hours at the 1000 level and a minimum of twenty-four (24) credit hours at or above the 3000 level. Typically, an honours graduate will have completed PHIL 1201, twenty-four (24) credit hours in 2000-level credits, and thirty (30) credit hours in 3000- and 4000-level credits. Students have the option of completing an Honours Thesis (PHIL 4599). The Chairperson or the Undergraduate Advisor will assist the student in selecting courses.

5. Double Honours in Philosophy and Physics

Students pursuing a Bachelor of Arts (Honours) in philosophy and physics or a Bachelor of Science (Honours) in physics and philosophy must complete a minimum of forty-two (42) credit hours of courses in each discipline.

Philosophy course recommendations include nine (9) credit hours in core courses (PHIL 1255/PHYS 1255, PHIL 2318, PHIL 3448, or PHIL 4515/PHYS 4515 [counting as nine (9) hours from PHIL and three (3) hours from PHYS], twelve (12) credit hours in history of philosophy, twelve (12) credit hours in contemporary philosophy, and nine (9) additional credit hours. It is recommended that Bachelor of Arts (Honours) students also complete the honours thesis, PHIL 4599, while Bachelor of Science (honours) students are required to complete PHYS 4500. Please consult the Astronomy and Physics Calendar entry for detailed four-year plans for each of these combined degree options. Students are also encouraged to consult each department's undergraduate advisor for further details.

6. Minor in Philosophy

A minor in philosophy requires a minimum of twenty-four (24) credit hours, at least twelve (12) credit hours of which must be above the 1000 level.

7. Concentration in Philosophy

To obtain a concentration in Philosophy in partial fulfilment of the B.A. General degree [i.e., one with Double Arts Concentrations and a minimum of ninety (90) credit hours], a student must acquire twenty-four (24) credit hours in PHIL, at least twelve (12) of which are above the 1000 level, and attain a minimum cumulative grade point average of 2.00. Further details are available from the Undergraduate Advisor.

8. Master's Program

The general requirements for a Master of Arts in Philosophy are set out in the *Graduate Academic Calendar*.

9. Prerequisites

Except where otherwise stated, the prerequisite for 2000 level courses is at least twenty-four (24) credit hours in the University; the prerequisite for 3000 level courses is six (6) credit hours in philosophy; and the prerequisite for 4000 level courses is twelve (12) credit hours in philosophy, at least six (6) credit hours above the 1000 level.

Course Descriptions

1200 Critical Thinking

6 credit hours

This course is an introduction to essential principles of reasoning and critical thinking. It is designed to develop students' abilities to evaluate various forms of reasoning, 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.

1201 Introduction to Philosophy

6 credit hours

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.

1222 Ethics for Modern Life

6 credit hours

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.

1244 Human Freedom

3 credit hours

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.

1245 Philosophies of Life

3 credit hours

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.

1246 Sex and Sexuality

3 credit hours

The philosophy of sex and sexuality concerns the nature and moral significance of sexual behaviors. Topics may include the concept of sex, sexual identity, sex and love, sex and marriage, rape, and prostitution.

1255 Scientific Method [PHYS 1370]

3 credit hours

This course provides a historical and logical analysis of methods commonly used in science. Possible topics include science vs. pseudo-science, natural vs. social sciences, modes of reasoning, observation and experimentation, construction and empirical testing of theories and models, and thought experiments.

2301 Introduction to Symbolic Logic

3 credit hours

This course introduces the fundamentals of symbolic logic. Both the propositional and predicate calculus are covered as well as various standard proof techniques.

2302 Ethics

6 credit hours

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 ultimately why I ought 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?

232 Philosophy

2304 Evil

3 credit hours

This course is about the nature and significance of evil events, actions, characters, and institutions. Topics include historical accounts of evil, suffering, skepticism about evil, evil and mental illness, terrorism, torture, and genocide.

2305 Environmental Ethics

3 credit hours

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.

2311 Political Philosophy: The Classic Texts

3 credit hours

A critical examination of core works in the history of political philosophy. Philosophers discussed often include Plato, Aristotle, Machiavelli, Hobbes, Locke, Mill, Rousseau, Marx, and Nietzsche.

2312 Contemporary Political Philosophy

3 credit hours

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.

2318 Science and Society

3 credit hours

This course studies science in its social context. Contemporary and historical case studies provide a basis for examining effects of scientific and technological innovation on society, whether social values are implicated in scientific discovery and justification, and ways in which social and economic institutions shape scientific practice.

2325 Philosophical Issues in International Development [IDST 2325]

3 credit hours

This course will examine various philosophical issues concerning international development. Among the issues addressed will be the nature of development, how to measure development, 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 receipt of aid, and the extent to which it is appropriate for developing countries to protect their cultures from the forces of globalization.

2327 Classic Readings in Philosophy of Mind

3 credit hours

Students will study writings on mind by important philosophers from antiquity to the twentieth century.

2328 The Mind-Body Problem

3 credit hours

What is the relation between your thoughts and feelings and whatever is happening simultaneously in your brain and the rest of your body? This course introduces students to arguments for and against a variety of answers to this question.

2329 Thoughts, Emotions, and Intentions

3 credit hours

Students in this course investigate the nature of consciousness, feelings and motivation.

2330 Philosophy of Religion

3 credit hours

A philosophical examination of the nature and rationality of religious belief.

2331 Business Ethics

3 credit hours

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.

2332 Ethics and the Law

3 credit hours

This course will be concerned with topics such as punishment, the legislation of morality, the notion of mitigating circumstances, and the role of the victim in legal proceedings.

2333 Philosophy of Law

3 credit hours

Topics covered often include natural Law Theory, legal positivism, the separability thesis, relations between law and morality, legal interpretation, the economic analysis of the law, and legal skepticism.

2345 Greek Philosophy: The Presocratics and Plato

3 credit hours

A brief examination of Greek philosophy before the time of Socrates followed by careful readings of selected dialogues by Plato.

2346 Greek Philosophy: Aristotle and The Hellenists

3 credit hours

A study of Aristotle's views (focusing on topics in metaphysics, psychology, knowledge, and ethics), together with a brief examination of several Hellenistic philosophers.

2348 The Classical Tradition in Philosophy of Art

3 credit hours

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, and Dewey.

2349 Contemporary Debates in Philosophy of Art

3 credit hours

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, and art and emotion.

2358 Philosophy of Human Nature

3 credit hours

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.

2362 Philosophy and Literature

3 credit hours

Works that have been discussed in recent years 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?

2365 Philosophy of Education: Classic Texts [EDUC 2365]

3 credit hours

A critical examination of influential works in the history of educational thought.

2368 Bioethics

3 credit hours

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.

2385 Philosophical Issues in Feminism [WMST 2385]

3 credit hours

This course examines philosophical issues in feminism, such as sexism, oppression, social construction, essentialism, gender, race, and class. Attention is paid to ties between theory and practice.

3000 Metaphysics

6 credit hours

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.

3200 Environmental Aesthetics

3 credit hours

Environmental Aesthetics is concerned with aesthetic appreciation of nature and human-made or human-influenced environments. Topics will include the nature and value of natural beauty, the relationship between art appreciation and nature appreciation, the role of knowledge in the aesthetic appreciation of nature, and the importance of environmental participation to the appreciation of environments.

3317 Philosophy of Economics

3 credit hours

This course examines the basic assumptions on which economic theory rests, asks whether economics is a science, and explores the extent to which economic analysis can be used in other areas (for example, in medicine and law). No knowledge of economics is presupposed or required.

3365 Philosophical Foundations of Education [EDUC 3365]

3 credit hours

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.

3375 Philosophy and Film

3 credit hours

This course will deal with philosophical questions concerning, or arising in, film. These include general issues of perspective, evidence, knowledge, and objectivity, as well as more specific questions, such as: What is the nature of representation in film? Can film be construed as a language? What constitutes uniqueness in film? What constitutes excellence? What is the logic of film criticism? These and other questions will be addressed in an effort to clarify the nature of the relation between philosophy and film.

3402 Philosophy of Language [LING 3402]

3 credit hours

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.

3404 Theory of Knowledge: Foundations

3 credit hours

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.

3405 Theory of Knowledge: Ethics of Belief

3 credit hours

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.

3413 Intermediate Logic

3 credit hours

Prerequisite: PHIL 2301

This course continues and develops the work of PHIL 2301. 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 PHIL 2301. 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.

3415 Argumentation Theory

3 credit hours

Prerequisite: PHIL 1200

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.

3442 Early Modern Philosophy: The Rationalists

3 credit hours

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.

3443 Early Modern Philosophy: The Empiricists

3 credit hours

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.

3444 Later Modern Philosophy: Kant

3 credit hours

A lecture and seminar course on Kant's theory of knowledge.

3448 Philosophy of Science

3 credit hours

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.

3454 Philosophy of History [HIST 3454]

3 credit hours

A critical study of the philosophical views on the course of human history (its pattern, purpose, and value) and an examination of the aim, nature, and validity of historical knowledge.

3455 Existentialism: The 19th Century

3 credit hours

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.

3456 Existentialism: The 20th Century

3 credit hours

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.

3457 Continental Philosophy

3 credit hours

This course is a study of one or more topics or figures in recent or contemporary phenomenology, hermeneutics, or deconstruction. Philosophers discussed in the course may include Husserl, Heidegger, Gadamer, Levinas, Foucault, and Derrida.

3471 Meta-Ethics

3 credit hours

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'.

3472 Foundation of Ethics

3 credit hours

The course will involve the study of the nature of moral judgments and the logic of moral reasoning.

3850-3875 Directed Study: Reading Courses in Philosophy

6 credit hours

Prerequisite: Six (6) credit hours in PHIL, consent of instructor, and permission of Chairperson.

The subject matter of this course will be determined by the student in consultation with the instructor.

3876-3899 Directed Study: Reading Courses in Philosophy

3 credit hours

Prerequisite: Six (6) credit hours in PHIL, consent of instructor, and permission of Chairperson.

The subject matter of this course will be determined by the student in consultation with the instructor.

4510 Advanced Topics in Applied Ethics

3 credit hours

Prerequisite: Any of the following ethics courses: PHIL 1222, 2302, 2305, 2331, 2332, 2368, 3471, 3472, or permission of the instructor.

This course will deal with advanced issues in applied or practical ethics. It will focus on ethical issues in a particular domain (e.g., business, health care, the environment, international development) or on a particular ethical problem that might be faced in any of those domains (e.g., conflict of interest, racism, justice). Interested students should contact the Instructor to find out what this year's topic will be.

4514 Philosophy of Biology

3 credit hours

The course explores methodological, conceptual, metaphysical, and epistemological questions that arise in modern biology. Possible topics include scientific revolutions, experimentation, biological laws, theoretical modeling, objectivity, reductionism, species concepts, evolution vs. creationism, human nature, and biological theories of gender, race, and sexuality.

4515 Philosophy of Physics [PHYS 4370]

3 credit hours

Prerequisite: PHYS 2400, 3500 and PHIL prerequisites as outlined in paragraph 8 in the Philosophy Calendar entry; or permission of the instructors.

This course explores methodological, conceptual, metaphysical, and epistemological questions that arise in modern physics. Possible topics include scientific revolutions, experimentation, laws of nature, space, time, matter, causality, indeterminism, non-locality, thought experiments, and theoretical unification.

4525 International Justice

3 credit hours

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.

4566 Analytic Philosophy

3 credit hours

A lecture and seminar course that examines the origins, expressions, and significance of the contemporary analytic movement in philosophy.

4585 Feminist Philosophy [WMST 4585]

3 credit hours

This course examines the contributions of feminist philosophers to historical and contemporary philosophical thought in diverse areas of inquiry, such as ethics, political theory, metaphysics, epistemology, philosophy of science, and philosophy of mind.

4599 Honours Thesis

6 credit hours

Prerequisite: Honours standing in philosophy.

Honours 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.

4826-4849 Special Topics

3 credit hours

These courses focus on a topic of research interest to the professor. The topics will vary from year to year.

Physics (PHYS)

Physics courses are offered by the Department of Astronomy and Physics (<http://www.ap.smu.ca>).

Chairperson	R. Thacker
Observatory Director	D. Lane
ICA Director	R. Deupree
Undergraduate Co-ordinator	L. Gallo
Graduate Co-ordinator	D. Guenther
Professors	D. Clarke, R. Deupree, D. Guenther, A. Sarty, M. Sawicki
Associate Professors	R. Austin, L. Gallo, R. Kanungo, I. Short, R. Thacker
Adjunct Professors	P. Bennett, L. Edwards
Professors Emeriti	W. Lonc, G. Mitchell, D. Turner, G. Welch

Note: This segment lists undergraduate courses and programs in physics only. Course and program descriptions for astronomy and astrophysics may be found in the Astronomy (ASTR) segment of Section 5 in this *Calendar* while graduate course descriptions and programs in

astronomy may be found in the *Graduate Academic Calendar*.

History

Physics, the most fundamental of the natural sciences, forms the foundation for all other sciences. Physics deals with motion, the structure of matter, and the underlying forces responsible for that motion and structure. It deals with phenomena at all length and time scales, from the subatomic to the cosmological, from the Planck time to the age of the Universe. With their ability to understand complex phenomena at the most fundamental level, physicists are uniquely qualified to pursue careers and postgraduate studies in a wide variety of fields, including engineering, computer science and modelling, visualisation, aerospace and aeronautics, financial forecasting, communications, meteorology, the energy and health sectors, astronomy, mathematics, and the list goes on. In short, physicists are trained and hired to think.

Physics has been taught at Saint Mary's at least as far back as 1907, and was first offered as a three-year undergraduate major in 1963 under the watch of the Jesuits, who controlled the University between 1940 and 1970. It was also during the Jesuit period when the Faculty of Science was formally organized (1951, with Father M. J. Burke-Gaffney S.J. as its first designated Dean), and when the Department of Physics was first established as a separate academic unit (1963, under its first and only chair for thirty years, Dangety Murty). The four-year honours program in physics was introduced in 1970. In 1993 the Department of Physics was joined with the Department of Astronomy, and the combined department of eight faculty members expanded its physics offerings to include joint programs with Mathematics and Chemistry. In 1995, Father William Lonc S.J., one of only two Jesuit priests still on the University faculty at the time, retired from the Department of Astronomy and Physics heralding an end of an era. He remains with the Department as Professor Emeritus.

Degree Programs in Physics

The Department offers three different levels of undergraduate study in physics. These include a physics concentration and minor suitable for general science students who want a basic understanding of the fundamentals of physics, a physics major suitable for students who want a solid physics education but who do not necessarily intend to practice physics professionally or go on to graduate school, and a physics honours program for those who require a rigorous training in classical and quantum physics who intend to pursue physics professionally or in postgraduate studies. The major and honours programs are virtually identical through the third year, and students don't need to commit to the honours program until the fourth year if they so choose. Among other differences in the final year, the honours program requires the student to secure a supervisor for the honours thesis (PHYS 4790) before applying in the honours program.

In addition to the physics concentration, major, and honours programs, there are double major physics programs with mathematics, chemistry, and philosophy at both the major and honours levels consistent with the regulations governing double major and double honours programs in science and in arts and sciences as outlined in Section 3. These suggested programs of study are suitable for students who want a broader academic background than the pure physics degrees provide while minimising the compromise to the physics content or the content of the other subjects of concentration.

a. Physics Concentration/Major/Honours

Year 1

1. PHYS 1100 and 1101
2. three (3) credit hours in science electives [CSCI 1226 recommended]; and PHYS 1500
3. MATH 1210 and 1211
4. six (6) credit hours in science electives [CHEM 1210/1211 recommended]
5. ENGL 1205 and three (3) credit hours in humanities electives

Year 2

1. PHYS 2300 and 2301
2. MATH 2311 [three (3) credit hours in science electives] and PHYS 2400
3. MATH 2301 and 2303 [six (6) credit hours in science electives]
4. twelve (12) credit hours in Arts or ECON electives

Year 3 (Concentration)

1. twelve(12) credit hours from PHYS at the 3000 level
2. eighteen (18) credit hours in electives

Year 3 (Major and Honours)

1. PHYS 3200 and 3201
2. PHYS 3300 and 3210
3. PHYS 3500; and either PHYS 3350 or 3400
4. PHYS 3600; and three (3) credit hours in electives
5. six (6) credit hours in electives

Year 4 (Major)

1. PHYS 4500; and either PHYS 3350 or 3400
2. Twenty-four (24) credit hours in electives

Year 4 (Honours)

1. PHYS 4500; and either PHYS 3350 or 3400
2. six (6) credit hours drawn from PHYS 4380, 4390, 4501, and 4510
3. PHYS 4600 and three (3) credit hours in electives
4. PHYS 4790.0
5. six (6) credit hours in electives

b. Double Major/Honours in Physics and Mathematics

Year 1

1. PHYS 1100 and 1101
2. ENGL 1205 and PHYS 1500
3. CSCI 1226 and 1227
4. MATH 1210 and 1211
5. six (6) credit hours in science electives [CHEM 1210/1211 recommended]

Year 2

1. PHYS 2300 and 2301
2. MATH 3405 and PHYS 2400
3. MATH 2311 and 2310
4. MATH 2320 and 2321
5. six (6) credit hours in Arts or ECON electives

Year 3 (Major)

1. PHYS 3300 and 3210
2. PHYS 3500; and either PHYS 3350 or 3400
3. MATH 4436 and MATH 3406
4. six (6) credit hours in science electives
5. six (6) credit hours in Arts or ECON electives

Year 3 (Honours)

1. PHYS 3300 and 3210
2. PHYS 3500; and either PHYS 3350 or 3400
3. MATH 4436 and 4437
4. either MATH 4436 and 4437; or MATH 3456 and 3457
5. six (6) credit hours in Arts or ECON electives

Year 4 (Major)

1. PHYS 4500; and either PHYS 3350 or 3400
2. six (6) credit hours from MATH courses numbered 4404 or above
3. three (3) credit hours from MATH courses numbered 4404 or above and three (3) credit hours in humanities electives
4. twelve (12) credit hours in electives

Year 4 (Honours)

1. PHYS 4500; and either PHYS 3350 or 3400
2. six (6) credit hours drawn from PHYS 4380, 4390, 4501, and 4510
3. six (6) credit hours drawn from MATH 4420, 4421, 4441, and 4442
4. six (6) credit hours from MATH courses numbered 4404 or above
5. PHYS 4790 or MATH 4500

c. Double Major/Honours in Physics and Chemistry

Students should be aware of the specific requirements for double majors in chemistry noted in the Chemistry segment in Section 4 of the Calendar.

Year 1 (major)

1. PHYS 1100 and 1101
2. three (3) credit hours in science electives [CSCI 1226 recommended] and PHYS 1500
3. CHEM 1210 and 1211
4. MATH 1210 and 1211
5. ENGL 1205 and three (3) credit hours in humanities electives

Year 1 (honours)

1. PHYS 1100 and 1101
2. three (3) credit hours in arts/ECON electives and PHYS 1500
3. CHEM 1210 and 1211
4. MATH 1210 and 1211
5. ENGL 1205 and three (3) credit hours in humanities electives

Year 2

1. PHYS 2300 and 2301
2. MATH 2311 [three (3) credit hours in science electives] and PHYS 2400
3. MATH 2301 and 2303 [six (6) credit hours in science electives]
4. CHEM 2312 or 2313; and three (3) credit hours in arts/ECON electives

5. CHEM 3322 and 3324; or CHEM 2332 and 2333; or CHEM 2344 and 2345;

Year 3

1. PHYS 3200 and 3201
2. PHYS 3300 and 3400
3. PHYS 3500 and three (3) credit hours in Arts or ECON electives
4. CHEM 2312 or 2313; and three (3) credit hours in Arts or ECON electives
5. CHEM 3322 and 3324; or CHEM 2332 and 2333; or CHEM 2344 and 2345

Year 4 (Major)

1. PHYS 4500; and three (3) credit hours in Arts or ECON electives
2. twelve (12) credit hours from CHEM numbered 4400 or above
3. twelve (12) credit hours in electives

Year 4 (Honours)

1. PHYS 4500; and three (3) credit hours drawn from PHYS 4380, 4390, 4501, and 4510
2. CHEM 4499
3. twelve (12) credit hours from CHEM numbered 4400 or above
4. PHYS 4790 or CHEM 4500

Note: MATH 2303 is counted as three (3) credit hours in PHYS for the PHYS/CHEM double honours programme only.

d. Double Major/Honours in Physics and Philosophy (B.Sc)**Year 1**

1. PHYS 1100 and 1101
2. PHYS 1370/PHIL 1255 and PHYS 1500
3. PHIL 1200 or 1201.0
4. MATH 1210 and 1211
5. ENGL 1205; and three (3) credit hours in humanities electives other than PHIL

Year 2

1. PHYS 2300 and 2301
2. MATH 2311 [three (3) credit hours in science electives] and PHYS 2400
3. MATH 2301 and 2303 [six (6) credit hours in science electives]
4. PHIL 2318 and three (3) credit hours in Arts or ECON electives
5. three (3) credit hours drawn from courses in the history of philosophy[†] and three (3) credit hours drawn from courses in contemporary philosophy[‡]

Year 3

1. PHYS 3200 and 3201
2. PHYS 3300 and three (3) credit hours in arts/ECON electives
3. PHYS 3500 and PHIL 3448
4. six (6) credit hours drawn from courses in the history of philosophy[†].
5. six (6) credit hours drawn from courses in contemporary philosophy^{*}

Year 4 (Major)

1. three (3) credit hours drawn from PHYS numbered 4000 or greater and three (3) credit hours in science electives
2. PHIL 4515/PHYS 4370 and three (3) credit hours drawn from PHIL numbered 2000 or greater.
3. six (6) credit hours in Arts or ECON electives
4. twelve (12) credit hours in electives.

Year 4 (Honours)

1. PHYS 4500; and three (3) credit hours drawn from PHYS numbered 3000 or greater
2. PHIL 4515/PHYS 4370 and three (3) credit hours drawn from PHIL numbered 2000 or greater.
3. three (3) credit hours drawn from courses in the history of philosophy and three (3) credit hours drawn from courses in contemporary philosophy
4. six (6) credit hours in arts/ECON electives
5. PHYS 4790.0

Courses in the history of philosophy include PHIL 2345, PHIL 2346, PHIL 3442, PHIL 3443, PHIL 3444, PHIL 4565.0

Courses in contemporary philosophy include PHIL 2301, PHIL 3000, PHIL 3404, PHIL 3413, PHIL 4565.0

e. Double Major/Honours in Philosophy and Physics (B.A.)

A B.A. (major or honours) in Philosophy and Physics is identical to the corresponding B.Sc. degree in Physics and Philosophy with the following modifications:

1. All Arts or ECON electives become social science electives.
2. Science electives become free electives, although MATH 2301/2303/2311 should still be taken in the second year.
3. PHYS 4790 (Honours Thesis) becomes PHIL 4599 (Honours Thesis) and, with the permission of the Undergraduate Advisor of the Department of Philosophy, may be replaced with six (6) credit hours of PHIL courses not already taken and numbered 4000 or above.

Note: MATH 2303 is counted as three (3) credit hours in PHYS for the PHYS/PHIL double honours programmes only.

In addition to physics courses offered to support the degree programs, the Department offers two courses (PHYS 1000

and 1001) for non-majors, suitable for students wishing a non-calculus based introduction to physics for a science elective.

f. Minor in Physics

The requirements for a Minor in Physics are the same as those listed for Bachelor of Science – Major and Minor in Section three of this Academic Calendar. A total of thirty (30) credit hours in the minor subject are required. The physics course requirements for the physics minor are:

1. PHYS 1100 University Physics I
2. PHYS 1101 University Physics II
3. PHYS 1500 Modern Physics
4. PHYS 2300 Waves, Oscillations and Optics
5. PHYS 2301 Analytical Mechanics
6. PHYS 2400 Electricity and Magnetism
7. Twelve (12) credit hours in PHYS at the 3000 level

Courses Descriptions**1000 Physics for Life Sciences I**

3 credit hours

Prerequisites: Nova Scotia grade 11 physics and Nova Scotia grade 12 math, or equivalent.

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. This course does not satisfy the physics requirements for programs in Astrophysics, Chemistry, Engineering, or Physics. Students in these programs should take University Physics I and II.

Classes 3 hrs. and lab/tutorial 3 hrs. per week

Note: Students who wish to take PHYS 1101 following PHYS 1000 must obtain a grade of at least A in PHYS 1000 and receive the permission of the chair in order to waive the standard prerequisite requirements for PHYS 1101.

1001 Physics for Life Sciences II

3 credit hours

Prerequisite: PHYS 1000.

This algebra-based physics course builds on the foundation of PHYS 1000, 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. This course does not satisfy the physics requirements for programs in Astrophysics, Chemistry, Engineering, or Physics. Students in these programs should take University Physics I and II.

Classes 3 hrs. and lab/tutorial 3 hrs. per week

1100 University Physics I

3 credit hours

Prerequisites: Nova Scotia Grade 12 physics and Nova Scotia grade 12 math pre-calculus, or equivalent.

This calculus-based physics course is intended primarily for (astro) physics and chemistry 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. per week

1101 University Physics II

3 credit hours

Prerequisites: PHYS 1100; and either MATH 1210 or 1190

This calculus-based physics course is a continuation of PHYS 1100, and covers the topics of oscillations and waves, thermodynamics, and electricity and magnetism.

Classes 3 hrs. and lab/tutorial 3 hrs. per week

1370 Scientific Method [PHIL 1255]

3 credit hours

Prerequisites: Nova Scotia grade 11 physics or chemistry and Nova Scotia grade 12 math or equivalent; or permission of the instructors.

This course provides a historical and logical analysis of methods commonly used in science, and is normally taught by faculty from both the Department of Astronomy and Physics and the Department of Philosophy. Topics include science vs. pseudo-science, natural vs. social sciences, modes of reasoning, observation and experimentation, construction and empirical testing of theories and models, and thought experiments.

1500 Introduction to Modern Physics

3 credit hours

Prerequisites: PHYS 1100; and either MATH 1210 or 1190

The special theory of relativity and early ideas in quantum mechanics are introduced. Topics in relativity include departures from Newtonian theory, Lorentz transformations, space and time dilation, the "Twin Paradox", and 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 applied to simple one-dimensional problems.

2300 Vibrations, Waves and Optics

3 credit hours

Prerequisites: PHYS 1101 and MATH 1211.

This course focuses on the production, propagation and manipulation of waves including light. Topics include geometric optics, forced damped oscillators, elasticity and distortion, the wave equation, wave speed and propagation, polarisation, wave packets, interference and diffraction 3-D waves, plane and circular waves and physical optics.

Classes 3 hrs. and lab 3 hrs. per week.

2301 Analytical Mechanics

3 credit hours

Prerequisites: PHYS 2300, MATH 2311, and either MATH 2301 or 2320 .

This course continues on some of the ideas introduced in PHYS 2300, and introduces the student to a broad range of other areas in classical mechanics. Topics include coupled and 3-D oscillators, non-inertial reference frames, central forces (celestial mechanics), N-body dynamics, rigid bodies, angular momentum and torques, deformation and vibration of beams.

Note: Credit cannot be given to students who already have a credit for PHYS 2305, Newtonian Mechanics.

2400 Electricity and Magnetism

3 credit hours

Prerequisites: PHYS 1101, MATH 2311 and either MATH 2301 or 2320.

This course gives a comprehensive introduction to the self-consistent mathematical theory for electric and magnet fields which was developed during the latter half of the 19th century. Topics include electric field and potential, Gauss' law, capacitance, elementary circuit analysis, Ampère's law, the Law of Biot and Savart, magnetisation of matter, Faraday's law of inductance, and Maxwell's equations in integral and differential form.

Classes 3 hrs. and lab 3 hrs. per week.

3200 Mathematical Methods in Physics I

3 credit hours

Prerequisites: PHYS 2301 and MATH 2303.

This course provides the student with the mathematical techniques needed to solve problems in advanced physics courses. Topics in complex analysis include the Cauchy-Riemann conditions, Cauchy Theorem and Integrals, Laurent expansions, and the calculus of residues. Topics in differential equations and the separation of variables, the Method of Frobenius and Sturm-Liouville theory.

Note: Credit for PHYS 3200 cannot be given to students who have completed MATH 4436 and either MATH 2303 or 3405.

3201 Mathematical Methods in Physics II

3 credit hours

Prerequisite: either PHYS 3200 or MATH 3405/4436.

This course is a continuation of PHYS 3200 and covers additional topics in mathematical physics, including special functions (Bessel, Neumann, Lagrange, etc.), Green's functions, Fourier series and transforms, Laplace transforms, integro-differential equations, and Hilbert-Schmidt theory.

3210 Computational Methods in Physics

3 credit hours

Prerequisites: PHYS 3500 and either PHYS 3200 or MATH 3405.

This course introduces the student to methods of solving mathematically difficult or tedious problems using the computer. After a brief introduction to Unix and Fortran or C, the course focuses on some of the algorithms most useful to a physicist, including root-finding, spline fitting, Richardson extrapolation, Romberg integration, Runge-

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Kutta and Monte Carlo methods. Student complete a term project which applies learned algorithms to problems in computational (astro) physics.

3300 Classical Mechanics

3 credit hours

Prerequisites: PHYS 1500, 2301, MATH 2311 and either 2303 or 3405

This advanced course in Classical Mechanics introduces the student to the calculus of variations, constrained problems, and generalised Lagrangian and Hamiltonian dynamics. Applications are made to oscillations, the “brachistochrone problem”, central force problems, rigid bodies, and the motion of tops. Additional topics include relativistic mechanics, canonical perturbation theory, and chaos.

3350 Thermal Physics

3 credit hours

Prerequisites: PHYS 3500 and either PHYS 3200 or MATH 3405/4436.

This course gives a comprehensive overview of thermodynamics and statistical mechanics. Topics in thermodynamics include equations of state, the three laws of thermodynamics, the Maxwell relations, and the kinetic theory of gases. Topics in statistical mechanics include the idea of particle ensembles and the partition function, classical and quantum statistics, thermodynamics of magnetism, Bose-Einstein and Fermi-Dirac gases, and information theory.

3400 Electrodynamics

3 credit hours

Prerequisites: PHYS 1500, 2400, and either PHYS 3200 or MATH 3405/4436.

This course is a continuation of PHYS 2400 which focused primarily on electro- and magnetostatics, and turns to the more general theory of electrodynamics. Topics include Maxwell’s equations in vacuo and matter, the Poynting vector, electromagnetic waves, wave guides, scalar and vector potentials, gauge transformations, Lienardt-Wiechart potentials, radiation from moving charges, and relativistic electrodynamics.

3500 Quantum Mechanics I

3 credit hours

Prerequisites: PHYS 1500, 2300, MATH 2311, and either MATH 2303 or 3405.

This course builds on the foundations set in PHYS 1500. Topics in this course include the (time-independent) Schrodinger equation, one-dimensional potentials, barriers and tunnelling, the Heisenberg Uncertainty Principle, Dirac notation, expectation values, the three-dimensional Schrodinger equation, single-electron atoms, spin, and identical particles.

3600 Experimental Physics I

3 credit hours

Prerequisites: PHYS 2300 and 2400

This course provides the student with the necessary skills to be a successful experimental (astro)physicist. Students assemble labs from advanced experimental equipment including computers and other digital devices, perform the experiment possibly over several weeks, and communicate their results in a scientifically useful fashion.

Note: While this is a three (3) credit course, it will be taught over two semesters.

4370 Philosophy of Physics [PHIL 4515]

3 credit hours

Prerequisite: PHYS 2400, 3500 and PHIL prerequisites as outlined in paragraph 8 in the Philosophy Calendar entry; or permission of the instructors.

This course explores methodological, conceptual, metaphysical, and epistemological questions that arise in modern physics. Possible topics include scientific revolutions, experimentation, laws of nature, space, time, matter, causality, indeterminism, non-locality, thought experiments, and theoretical unification.

4380 Fluid Dynamics

3 credit hours

Prerequisites: PHYS 3300, and either PHYS 3201 or MATH 3406/4437.

This course introduces students to the fundamentals of fluid dynamics. Discussion embraces both compressible and incompressible fluids and includes the continuity equation, the Navier-Stokes equation, Bernoulli’s theorem, viscosity, the Reynolds number, vorticity, and numerous applications to “real world” problems. Some specialized numerical techniques for solving complex problems in fluid dynamics may also be discussed.

4390 General Relativity

3 credit hours

Prerequisites: PHYS 3300, and either PHYS 3201 or MATH 3406/4437.

This is 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.

4500 Quantum Mechanics II

3 credit hours

Prerequisites: PHYS 3300, 3500, and either PHYS 3201 or MATH 3406/4437.

This course is a continuation of PHYS 3500, 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.

4501 Quantum Mechanics III

3 credit hours

Prerequisite: PHYS 4500.

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.

4510 Subatomic Physics

3 credit hours

Prerequisite: PHYS 4500.

This course provides 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

4600 Experimental Physics II

3 credit hours

Prerequisite: PHYS 3600

This course is designed primarily for honours physics students to study advanced topics in physics and/or astrophysics in the laboratory. Students are responsible for setting up and performing the experiments, writing computer programs to aid the analysis, and preparing and presenting their results in a professional manner. The majority of work will be project-based, each project conceived and built by the students from equipment available in the lab.

Note: While this is a three (3) credit hour course, it will be taught over two semesters.

4790 Research Thesis

6 credit hours

Prerequisite: honours standing.

A research project carried out by the student under the supervision of a faculty member in the Department throughout the Honours year. The project should be in the area of astrophysics for students in the honours astrophysics program. Results are written up in a formal thesis that adheres to standard University-set guidelines.

Directed study 3 hrs. per week; 2 semesters.

4826 – 4849 Special Topics in Physics

3 credit hours

Prerequisite: permission of instructor

4876 – 4899 Directed Study in Physics

3 credit hours

Prerequisite: permission of instructor

Political Science (POLI)

Chairperson	E. Keeble
Professors	A. Dobrowolsky, E. Keeble, R. Landes
Associate Professors	M. Doucet, G. Fridell, S. Gaon, D. Naulls
Assistant Professors	K. Ervine, L. Preyra (on leave)
Professor Emeritus	E. McBride

The Political Science Department offers students with diverse interests a wide range of topical, thought-provoking courses in four fields of study: *Canadian Politics*, *Comparative Politics*, *International Relations*, and *Political Thought*. The Department's aim is to provide students with a rich and rewarding learning experience, one that sharpens their critical skills, engages them in political ideas and practices, and grounds them in the world, locally and globally. The program thereby provides students with a solid foundation on which to build their future careers. For all these reasons, students are strongly encouraged to Major in Political Science and, for those interested in pursuing more advanced study, to apply to the Political Science Department's Honours program.

Departmental Policy for Majors

To earn a Major in Political Science, students must complete a minimum of forty-two (42) credit hours in Political Science courses. The Department requires six (6) credit hours at the 1000-level. Of these, three (3) credit hours must be in Political Science. The remaining three (3) credit hours may be either in Political Science or in one of the following cognate disciplines: Economics, History, Philosophy or Sociology. Students who intend to graduate with a Major in Political Science must complete a minimum of eighteen (18) credit hours (of the forty-two

(42) required credits) at the 2000-level, chosen from among the courses surveying the core fields of the discipline: POLI 2304 Canadian Politics in the 21st Century, POLI 2380 Comparative Politics, POLI 2305 International Relations, and POLI 2335 History of Political Thought. The remaining eighteen (18) of the forty-two (42) required credits must be completed in 3000-level and 4000-level Political Science courses.

Students require a minimum grade of C (2.00) in 1000 level Political Science Courses in order to declare a Major. Upon declaring a Major, students are also required to meet with the Department Chair, to review program requirements and course selection options.

Departmental Policy for Honours

The objective of the Bachelor of Arts Honours 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 Honours program upon the completion of their 1000 and 2000-level Political Science course requirements. Forms are available from the Registrar's/Records Office. As part of the admissions process, the Department, in consultation with the Honours applicants, will assign an Honours advisor and will approve the major area of concentration.

In order to be considered for admission to the Political Science Honours program, a student must normally have a

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cumulative grade 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 Honours in Political Science

In order to continue in and to graduate with Honours standing, students must meet the Faculty of Arts requirements for the Honours Bachelor of Arts degree. Honours students must also achieve and maintain a minimum yearly and cumulative grade point average of 3.33 in both Political Science and non-Political Science courses.

Honours students must complete a minimum of sixty (60) credit hours in Political Science, beginning with the 1000-level requirements of the Major (three (3) credit hours in Political Science and an additional three (3) credit hours in either Political Science or in one of the cognate disciplines listed above). Honours students must also complete a minimum of eighteen (18) credit hours at the 2000-level chosen from among the courses surveying the core fields of the discipline: POLI 2304 Canadian Politics in the 21st Century, POLI 2380 Comparative Politics, POLI 2305 International Relations, and POLI 2335 History of Political Thought. A maximum of six (6) credit hours in Political Science at the 1000-level, and twenty-four (24) credit hours in Political Science at the 2000-level, may be taken towards the Honours degree. The remaining credit hours of the sixty (60) required credits must be completed in 3000-level and 4000-level Political Science courses, including those specified below.

Honours students must complete at least three (3) credit hours in the POLI 4510 Honours Seminar course as well as three (3) credit hours in the POLI 4520 Honours Colloquium course, in addition to POLI 4500 (the Honours Essay course). The Department may consider as equivalent either two three (3) credit hour seminar courses, or a six (6) credit hour seminar in a cognate discipline, or upgraded senior-level courses in the Department, in lieu of the Honours seminar and/or colloquium requirements.

Honours students must submit an Honours essay (10,000 words) in their major area of concentration by March 15 of their final Honours year. The Honours advisor and Department must approve the Honours essay before a degree is recommended.

Honours students are encouraged to register for thirty (30) credit hours in the final Honours year.

Departmental Policy for Minors

To earn a Minor in Political Science students must complete at least twenty-four (24) credit hours in Political Science courses, including at least three (3) credit hours at the 1000-level in Political Science and an additional three (3) credit hours at the 1000-level either in Political Science or in one of the cognate disciplines listed above. A maximum of six (6) credit hours at the 1000-level may be taken toward the Minor. Remaining degree requirements

must be drawn from Political Science courses at the 2000-level or higher.

In order to continue in and to graduate with a Minor in Political Science, students must achieve and maintain a minimum yearly and cumulative grade point average of 2.00 in both Political Science and non-Political Science courses.

Departmental Policy for Concentration

Students who intend 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 ninety (90) credit hours), must complete at least twenty-four (24) credit hours in Political Science, of which a maximum of six (6) may be taken at the 1000-level. The student must also obtain a minimum cumulative grade point average of 2.00.

IMPORTANT

In order to enroll in any Political Science course at the 2000-level or higher, students must have successfully completed a minimum of six (6) credit hours at the 1000-level. Of these, three (3) credit hours must be in Political Science. The remaining three (3) credit hours may be either in Political Science or in one of the following cognate disciplines: Economics, History, Philosophy or Sociology. Selected courses at the 3000 and 4000-levels may have additional prerequisites as well. Please consult the course list below for further requirements.

Students are urged to be extremely careful not to register again for a course for which they have already earned credit. Academic Regulation 17(b) is extremely important to this matter.

Course Descriptions

1201 Politics: Contemporary Issues

3 credit hours

This course explores the multi-faceted nature of contemporary politics, and, in so doing, introduces student to various aspects of the Political Science discipline. The aim of the course is to convey how ideas, frameworks, institutions and actors relate to current political debates and ongoing democratic challenges, both locally and globally. Through a critical examination of significant political theories and practices students will develop a broad and general understanding of the nature, scope and range of political action in the contemporary world.

1210 Political Ideas: "Isms" and Beliefs

3 credit hours

An introduction to political ideologies (including liberalism, conservatism, socialism, fascism, feminism, anti-racism and green ideology) and their role in shaping modern political life. Particular attention is 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.

1220 Political Analysis

3 credit hours

An introduction to the theoretical approaches and techniques used in analyzing political events and claims. Emphasis is

placed on critical and institutional perspectives, as well as on debates over various approaches to political analysis and to the question of the interpretation of political issues and conflicts.

1230 Law and Politics

3 credit hours

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.

1240 Politics and Business

3 credit hours

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.

1250 Politics and Globalization

3 credit hours

This course will introduce student to the political, economic, social and cultural processes which commonly fall under the term *globalization*. The objective is to introduce students to some of the central global forces that are shaping our contemporary political world.

2304 Canadian Politics in the 21st Century

6 credit hours

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.

2305 International Relations

6 credit hours

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.

2307 Provincial Government and Politics

3 credit hours

An analysis of the dynamics and structure of selected provincial government in Canada. Provincial political parties, voting behaviour, legislatures, bureaucracies and policy formulation constitute the core of this course. Inter-provincial and federal-provincial relations are examined.

2310 Government and the Media

3 credit hours

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.

2314 Politics of the Developing Areas

3 credit hours

An examination of political development in selected states in Asia, Africa, Latin America, or the Middle East.

2335 History of Political Thought

6 credit hours

A survey of significant developments in Western political thought from the classical period of Athens to the 20th century through a focus on major Western political theorists. Key thinkers may include Socrates, Plato, Aristotle, Augustine, Machiavelli, Hobbes, Locke, Rousseau, Kant, Wollstonecraft, Marx, Goldman and Nietzsche.

2380 Comparative Politics

6 credit hours

This course is designed as an introduction to the field of Comparative Politics, which will emphasize the comparative analysis of both political institutions and political processes.

3205 Politics and Sex

3 credit hours

This course introduces students to the interconnections between gender and sexual practices, including an examination of prostitution and international sex trafficking. It will examine such matters as morality, liberation, and exploitation, drawing from multiple understandings of female sexuality.

3302 Democratic Theory and Cosmopolitanism

6 credit hours

An examination of such fundamental concepts in democratic theory as 'rights', 'equality', 'liberty', 'reciprocity', 'deliberation', and 'cosmopolitanism' from the modern era to the present. Special emphasis is placed on the shift of both theoretical and practical focus: from questions of the equality of citizens in a nation-state to those of human diversity and difference in a cosmopolitan, global arena.

3312 American Government

3 credit hours

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 behaviour, and the Presidency.

3315 Canadian Foreign Policy

3 credit hours

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.

3316 Politics in the European Union

3 credit hours

A study of the institutions and policy-making processes of the European Union.

3318 A Politics of the Middle East

3 credit hours

The politics of the Middle East Region are addressed, including a survey of the regional states and non-state actors, the international dynamics of politics within and among the Arab states, Turkey, Israel, and Iran, as well as the impact of Western interactions with the region.

3321 International Organizations

3 credit hours

This course examines the concept of international organizations. 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.

3322 Global Political Economy

3 credit hours

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).

3330 Public Administration

6 credit hours

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.

3425 Spying and International Politics

6 credit hours

An analysis of the development, role, techniques, and impact of spying on the conduct of international relations.

3440 Canadian-American Relations

3 credit hours

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.

3445 Public Policy

6 credit hours

A critical analysis of public policy formation, the content of public policies, and their impact upon society.

3447 Canadian Political Parties

3 credit hours

The purpose of this course is to identify and explain continuity or change in Canadian political party beliefs and behaviour. Particular emphasis will be placed on the ability

of political parties to adapt to social change and to meet challenges posed by new social movements and interest groups.

3456 Issues in International Security

3 credit hours

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.

3462 Political Ideas of the Enlightenment

3 credit hours

Prerequisite: POLI 2335, or permission of instructor.

A critical examination of the political ideas and theories that grew out of the modern European Enlightenment. Special attention is paid to Immanuel Kant's understanding of the nature, role and effects of "public reason" and to his assessment of the conditions necessary for international cooperation and peace. Other thinkers to be discussed may include John Locke, the Baron of Montesquieu, David Hume, G.W.F. Hegel, Harriet Taylor and John Stuart Mill.

3463 Counter-Enlightenment Thought

3 credit hours

Prerequisite: POLI 2335, or permission of instructor.

A survey and critical investigation of modern responses to liberal Enlightenment thought, from the analyses first undertaken by Jean-Jacques Rousseau and Edmund Burke, through to the crucial contributions to this tradition made by Friedrich Nietzsche, Karl Marx, and the critical theorists who followed in their wake. Special attention is paid to the critique of individualism and to alternative ideals of community and civil society.

3470 Empirical Democratic Theory

6 credit hours

Prerequisite: six (6) credit hours in POLI, or permission of instructor.

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.

3501 Research Methods

3 credit hours

This course is an examination of contemporary methodologies in political science. Included is a discussion of theories and approaches developed by the empirical school of political scientists. Emphasis is placed on the selection of methods as related to theory and research questions.

3546 Political Parties and Democratic Change

3 credit hours

The historical evolution, as well as the contemporary promises and pitfalls of political parties are compared. The party ideal is appraised in relation to changing political and representational realities. Given growing public dissatisfaction with political parties as democratic vehicles, representational and democratic alternatives are examined.

4311 Nations & Nationalism: Identities, Orders, Borders

3 credit hours

This course provides a survey of the theories of and approaches to the study of nationalist thought and practice. Phenomena of nations, nation-states, and nationalist ideologies and nationalist movements are explored.

4317 Charter Politics and Constitutional Change

3 credit hours

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.

4402 Model United Nations

3 credit hours

Prerequisite: POLI 3321, or permission of instructor

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.

4449 Public Policy Challenges: Gender, Race and Class [WMST 4449]

3 credit hours

This course examines a number of contemporary public policy debates and dilemmas in light of gender, race and class dynamics. The aim is to gain a better appreciation of the complexity of approaches to, and experiences of, various policy areas. The course begins by unpacking the nature and effects of the state and state policies and then moves to explore a range of economic, social, political and legal policy concerns.

4451 Gender and International Relations [WMST 4451]

3 credit hours

This course explores theoretical and empirical issues raised by a "gender-based analysis" of international relations.

4465 Modern Theories of the State

3 credit hours

Prerequisite: POLI 2335, or permission of instructor

An investigation of modern thought concerning the roles, scope, and limits of the state in society. This course emphasizes the historical roots of state theory through the study of such essential theorists as Jean Bodin, Thomas Hobbes, GWF Hegel, Mikhail Bakunin, Karl Marx and Friedrich Engels.

4466 Contemporary Theories of the State

3 credit hours

Prerequisite: POLI 4465

A survey of contemporary theories concerning the nature of the state in the present global, 'transnational' moment. The diversity of the theoretical field will be emphasized through

an examination of liberal, Marxist, structuralist, feminist and continental approaches to state theory.

4470 Marx and Marxism I

3 credit hours

This course examines Karl Marx's early political and philosophical writings to explore how Marx reinterprets and transforms the liberal democratic values of rights, freedom and equality. The focus on primary and selected secondary texts is intended to provide students with an introduction to Marx's political-philosophical thought.

4471 Marx and Marxism II

3 credit hours

Prerequisite: POLI 4470

This course is an examination of the later writings of Karl Marx, including his advanced political economic theories. Close readings of primary texts, along with an introduction to 20th century developments in Marxist political theory, will provide students with an understanding of how Marx's political, philosophical and economic thought fundamentally challenges the liberal democratic tradition.

4493 Global Social Movements

3 credit hours

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) and the institutions of global governance.

4494 UK Politics in Transition

3 credit hours

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.

4500 Honours Reading Course

6 credit hours

Prerequisite: open to honours students in political science.

Through regular meetings with their Honours Supervisor, students will use this course to prepare an honours essay in their major area of study.

4510 Honours Seminar

3 credit hours

The Honours Seminar will examine selected aspects of one of the fields of the discipline: Canadian Politics, Comparative Politics, International Relations and Political Thought.

4520 Honours Colloquium

3 credit hours

The Honours Colloquium will expose honours students to specialized dimensions of the discipline of Political Science,

and offer opportunities to develop advanced research and writing skills.

4826 – 4849 Selected Topics in Political Science

3 credit hours

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.

4850 – 4875 Directed Reading in Political Science

6 credit hours

Prerequisite: permission of Department.

These courses, with the department's approval, are organized by an individual faculty member in agreement

with the department as a whole, and are 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.

4876 – 4899 Directed Reading in Political Science

3 credit hours

Prerequisite: permission of Department.

These courses, with the department's approval, are organized by an individual faculty member in agreement with the department as a whole, and are 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.

Psychology (PSYC)

Chairperson	V. Catano
Graduate Coordinator	L. Francis
Professors	V. Catano, A. Day, K. Kelloway, R. Konopasky, S. Smith, V. Stinson
Associate Professors	J. Cameron, N. Conrad, M. Fisher, M. Fleming, L. Francis, D. Gilin Oore, C. Holmvall, J. Ivanoff, M. Patry, P. Street
Assistant Professors	D. Bourgeois, L. Closson, L. Kocum, D. O'Keefe
Lecturer	S. Carroll
Adjunct Professors	M.S. Aftanas, J. Hurrell,
Professors Emeriti	J. Chadwick-Jones
Canada Research Chairs	A. Day, K.Kelloway

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 and Bachelor of Arts degrees, a major and honours 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 and a Doctor of Philosophy in Industrial/Organizational Psychology.

The Undergraduate Program in Psychology

The psychology undergraduate curriculum consists mainly of semester courses worth three (3) credit hours 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 behaviour, (2) biology, evolution, and behaviour, 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 behaviour, and (3) personality and psychopathology. Courses in Group C are representative of psychology in general and include PSYC 1200, and statistics and research methods courses, among others.

Psychology at the 1000 Level

Students who wish to major in psychology should begin by selecting foundation courses from PSYC 1210, 1220, 1230, 1235, 1240, 1250, and 1260. Although recommended for majors, these 1000-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 2000- and 3000-level courses. Additionally, students in the Faculty of Arts should be mindful of the need to complete at least forty-eight (48) credit hours at the 2000 level or higher.

PSYC 1200 is NOT a prerequisite for other 1000-level psychology courses.

Psychology as an Elective Subject

Students who wish to take psychology as an elective should begin with PSYC 1200, Introduction to Psychology, which is a broad survey of the discipline. Completion of PSYC 1200 will permit enrolment in selected psychology courses at the 3000 level. 4000-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 4000-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 six (6) credit hours from courses in Group A and at least six (6) credit hours from courses in Group B; (b) at least twelve (12) credit hours at the 3000 level or higher; and (c) an additional number of credit hours 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 credit

hours required is twenty-four (24); in the Bachelor of Science degree program, thirty (30).

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) thirty (30) credit hours but not more than forty-two (42) credit hours in psychology; (2) at least six (6) credit hours from courses in Group A and six (6) credit hours from courses in Group B; (3) completion of PSYC 2340 and PSYC 2350; and (4) at least three (3) credit hours from 4000-level psychology courses. For students seeking a concentration in psychology, PSYC 2350 is a prerequisite for all 4000-level psychology courses. Biology 2308 Biostatistics is an acceptable equivalent prerequisite for all 4000-level courses. Students who have taken another statistics class may check with the Department Chairperson to determine its equivalency. Students seeking a concentration in psychology are required to complete PSYC 2340 and PSYC 2350 or BIOL 2308.

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 three (3) credit hours at the 4000-level, PSYC 2340 and PSYC 2350. In addition, the Faculty of Arts requires students fulfilling a B.A. degree with Double Arts Concentration to complete a minimum of ninety (90) credit hours with at least twenty-four (24) credit hours in Psychology; as well, students must maintain a minimum cumulative grade 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 forty-two (42) credit hours in psychology;
2. at least twelve (12) credit hours from courses in Group A and twelve (12) credit hours from courses in Group B;
3. completion of PSYC 2340 and PSYC 2350; and
4. at least eighteen (18) credit hours from 4000-level psychology courses.

For students majoring in psychology, PSYC 2350 is a prerequisite for all 4000-level psychology courses. Students who have taken another statistics class may check with the Departmental Chairperson to determine its equivalency. 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 hour 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 are completing a

double major in Psychology and Sociology/Criminology may substitute SOCI 2100 Social Research Methods, but no other Sociology research methods courses, in place of PSYC 2340. Students who are completing a double major in Psychology and Biology may substitute BIOL 2308 in place of PSYC 2350.

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.

Psychology as an Honours Program

The Psychology Department offers honours study leading to a Bachelor of Arts (Honours) degree, a Bachelor of Science (Honours) degree, and a Certificate of Honours Standing (Honours Equivalency)—academic regulation 26. The honours 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 honours 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 eighteen (18) credit hours in psychology, including PSYC 2350. These requirements are minimum standards only. Because the Department has limited resources for offering the honours program, some students who meet the minimum standards may have to be denied admission. The Department reviews applications for admission to honours 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 honours 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 sixty (60) credit hours in psychology, including at least twelve (12) credit hours from courses in Group A and twelve (12) credit hours from courses in Group B. Of the minimum sixty (60) credit hours, at least thirty-six (36) must be at the 4000 level or above, including PSYC 4401 Advanced Statistics; 4421 History of Psychology; and PSYC 4500 Honours Seminar. Honours students who wish to enrol in PSYC 4549, Honours 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 Service Centre. To determine a program of study that is appropriate to their future plans, honours students should consult with the Chairperson of the Department.

Cooperative Education in Psychology

The cooperative 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 "Cooperative 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 Cooperative 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 Certificate in Human Resource Management

Students may enrol in the certificate program in human resources management as a stand-alone program, either prior to completing or following completion of a bachelor's degree. 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. Details on this certificate can be found under Human Resource Management in this *Calendar*.

THE GRADUATE PROGRAM IN PSYCHOLOGY

The Department offers a Master of Science degree in applied psychology with a concentration in Industrial/Organizational Psychology and a Ph.D. in Industrial/Organizational Psychology. There are a limited number of placements available in the program and competition for these positions is extremely high. For additional information on graduate programs see the *Graduate Academic Calendar*.

Course Descriptions**1200 Introduction to Psychology (Group C)**

3 credit hours

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. Please note that this course may not be used by B. Sc. Students to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees.

1210 Mind and Brain (Group A)

3 credit hours

An overview of the biological foundations of attributes of the brain including consciousness, memory, language, and perception.

1220 Evolutionary Psychology (Group A)

3 credit hours

An analysis of the biological events that shape human behaviour. Topics include evolution and social, sexual, and aggressive behaviour.

1230 Memory (Group A)

3 credit hours

A review of research and theory in memory.

1235 Learning (Group A)

3 credit hours

A review of the fundamental principles of learning and their applications to human behaviour.

1240 Human Development (Group B)

3 credit hours

An examination of theories of human development across the life span.

1250 Social Behaviour (Group B)

3 credit hours

An introduction to the study of social behaviour and to contemporary theory and research in the field.

1260 Personality: Normal and Abnormal (Group B)

3 credit hours

History, concepts, models and methods in personality theory and research.

2340 Research Methods in Psychology (Group C)

3 credit hours

Prerequisite: six (6) credit hours in PSYC.

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.

2350 Psychological Statistics (Group C)

3 credit hours

Prerequisite: PSYC 2340 or SOCI 2364 if doing a double major in Psychology and Sociology/Criminology.

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 1.5 hrs. a week.

NOTE: Students will not receive credit for both PSYC 2350 and any of BIOL 2308, MATH 1216, or GEOG 3326.

3307 Biological Origins of Behaviour (Group A)

3 credit hours

Prerequisite: three (3) credit hours in psychology at the 1000 level.

An examination of the evolutionary origins of language, parent-child relationships, courtship, mating, aggression, motivation, and emotion.

3309 Human Factors and Performance (Group A)

3 credit hours

Prerequisite: three (3) credit hours in PSYC.

An examination of human performance in technological environments including the design of tools, systems, and environments.

3310 An Introduction to Cognitive Neuroscience (Group A)

3 credit hours

Prerequisite: (PSYC 1210 or 1230) and 2350.

A review of the empirical research and theory in cognitive neuroscience, a sub-discipline of psychology that concerns the linkage between mind and brain. Students will be exposed to topics concerning the neural bases of sensation, object recognition, action, emotion, memory, language, attention, and executive control.

Classes 3 hrs. a week and lab 3 hrs a week.

3316 Social Cognition and Emotion (Group B)

3 credit hours

Prerequisite: one of PSYC 1240, 1250, or 1260.

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 behaviour.

3317 Group Dynamics and Intergroup Relations (Group B)

3 credit hours

Prerequisite: PSYC 1250

An examination of key topics in social psychology of group dynamics and intergroup relations. These include conceptualizations of groups and group behaviour, the roots and consequences of prejudice and stereotyping, theories of intergroup relations, social identity, and responses to discrimination.

3320 Psychology and Law (Group B)

3 credit hours

Prerequisite: three (3) credit hours in PSYC

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.

3327 Industrial/Organizational Psychology (Group B)

3 credit hours

Prerequisite: three (3) credit hours in PSYC

Introduction to methods and problems in industrial/organizational psychology. Representative topics will be drawn from the area of organizational behaviour, personnel psychology, human factors, and consumer behaviour.

3329 Child Development (Group B)

3 credit hours

Prerequisite: three (3) credit hours in PSYC

A survey of physical, perceptual, cognitive, and social development of the child from infancy to preadolescence.

3332 Adolescent Development (Group B)

3 credit hours

Prerequisite: three (3) credit hours in PSYC

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.

3335 Abnormal Psychology: History and Theory (Group B)

3 credit hours

Prerequisite: PSYC 1260

A focus on the essentials of history, theories of etiology, assessment, diagnosis and methods of treatment.

3336 Abnormal Psychology: Specific Disorders (Group B)

3 credit hours

Prerequisite: PSYC 3335 which may be taken concurrently..

A course which focuses on the description, etiology, diagnosis and treatment of specific disorders.

3338 Introduction to Forensic Psychology (Group B)

3 credit hours

Prerequisite: PSYC 3335, or equivalent; which may be taken concurrently.

A review of psychological methods, research and theory that is applied to legal system tasks; an introduction to forensic assessment, and treatment in a legal context.

3347 Longevity and Aging (Group B)

3 credit hours

Prerequisite: three (3) credit hours in PSYC.

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.

3348 Gender Roles (Group B) [WMST 3348]

3 credit hours

Prerequisite: three (3) credit hours in PSYC

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.

3349 Drugs and Behaviour (Group A)

3 credit hours

Prerequisite: PSYC 1210

Effects of psychoactive drugs on normal and abnormal behaviour and on consciousness. Explanations are in terms of brain functioning. Discussion of methods used in the study of drug effects on animals and humans.

3351 Prevention and Treatment of Addictions (Group B)

3 credit hours

Prerequisite: three (3) credit hours in PSYC.

An introduction to the field of addictions including the full continuum from low harmful involvement to chemical dependency and problem gambling, including a review of the major perspectives or models used to conceptualize addiction problems. The strategic process related to planning, delivering, and evaluating addiction-related prevention and treatment programs and services will also be reviewed.

3355 Cognitive Psychology (Group A)

3 credit hours

Prerequisite: one of the following courses: PSYC 1210, 1230, or 1235.

A survey of basic perceptual and cognitive processes including attention, sensation, perception, pattern recognition, learning, and memory.

3360 Applied Sport Psychology (Group B)

3 credit hours

Prerequisite: three (3) credit hours in PSYC

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.

3386 Behavioral Analysis and Change (Group B)

3 credit hours

Prerequisite: PSYC 1235 and 2340 [2340 may be taken concurrently.]

A review of the principles, procedures, and empirical and theoretical underpinnings of behaviour modification.

3392 Occupational Health Psychology (Group B)

3 credit hours

Prerequisites: three (3) credit hours in PSYC

This course examines current issues pertinent in occupational health psychology including workplace stress, violence in the workplace, and occupational safety. In addition to these content areas, the course will consider relevant legislation, preventive strategies, and the management of occupational health and safety issues in today's workplaces.

3393 The Psychology of Leadership (Group B)

3 credit hours

Prerequisite: PSYC 1250

An examination of leadership theories in the context of organizational systems. Special topics include, but are not limited to, women and leadership, team leadership, and leadership ethics. Practical applications are considered with respect to leadership in organizations.

3826 – 3849 Special Topics in Psychology (Group C)

3 credit hours

Prerequisite: three (3) credit hours in PSYC.

Courses on selected psychological topics.

4401 Advanced Statistics (Group C)

3 credit hours

Prerequisite: PSYC 2350

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.

4407 Introduction to Ethology (Group A)

3 credit hours

Prerequisite: PSYC 2350 and PSYC 1220 or PSYC 3307 or permission of instructor.

Introductory study of the principles of early and modern ethology. Topics include instinct and learning, communication, navigation, and behavioral genetics.

Classes 3 hrs. a week.

4410 Human Neuropsychology (Group A)

3 credit hours

Prerequisite: PSYC 3310.

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.

4411 Advanced Cognitive Neuroscience (Group A)

3 credit hours

Prerequisite: PSYC 2350 and PSYC 3310

A seminar on contemporary cognitive neuroscience research and theory. Topics may include any of the following: perception, attention, consciousness, executive control, decision-making, memory, emotion, social neuroscience, neuroeconomics, neurolaw, and applied neuroscience.

4413 Thinking and Reasoning (Group A)

3 credit hours

Prerequisite: PSYC 2350 and 3355. Completion of 4401 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.

4414 Environmental Perception and Cognition (Group A)

3 credit hours

Prerequisite: PSYC 2350 and 3355.

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.

4417 Interpersonal Relationships (Group B)

3 credit hours

Prerequisite: PSYC 2350 and one of: PSYC 1220, 1240, 1250, or 1260.

Intensive coverage of aspects of interpersonal behaviour. 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 behaviours and attitudes.

4418 Environmental Psychology (Group A)

3 credit hours

Prerequisite: PSYC 2350.

The study of behaviour in its relation to the environment. Topics include personal space, crowding, the city, architectural design, and behaviour.

4420 Disabilities (Group A)

3 credit hours

Prerequisite: Twenty-four (24) credit hours in PSYC including PSYC 2350.

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.

4421 History of Psychology (Group C)

3 credit hours

Prerequisite: twenty-four (24) credit hours in PSYC including PSYC 2350.

An examination of the origins and development of modern psychology.

4424 Vocational Psychology (Group B)

3 credit hours

Prerequisite: PSYC 2350 and PSYC 4441 (May be taken concurrently)

An examination of career development and vocational behaviour theories in the context of entering, adjusting to, and exiting the world of work. Special topics include, but are not limited to, career assessment practices, job search, and adjustment issues such as youth employment, unemployment, retirement and outplacement. The students

are guided through a self assessment process that results in the construction of a personal career development plan.

4425 The Psychology of Organizational Development (Group B)

3 credit hours

Prerequisite: PSYC 2350 and either PSYC 3327 or MGMT 2383.

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.

4426 Personnel Training and Development (Group B)

3 credit hours

Prerequisite: PSYC 2350 and either PSYC 3327 or MGMT 2383

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.

4427 Organizational Psychology (Group B)

3 credit hours

Prerequisite: PSYC 2350 and PSYC 3327

Extended coverage of topics in organizational behaviour 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 and decision-making.

4428 Personnel Psychology (Group B)

3 credit hours

Prerequisite: PSYC 2350 and 3327.

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.

4432 Attitudes and Persuasion (Group B)

3 credit hours

Prerequisite: PSYC 1250 and 2350

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.

4434 Personality (Group B)

3 credit hours

Prerequisite: PSYC 1260 and 2350.

Examination of selected theories of personality through intuitive, rational, historical, and empirical methods.

4436 Counselling and Psychotherapy (Group B)

3 credit hours

Prerequisite: PSYC 2350 and PSYC 3336 which may be taken concurrently.

A review of theory, method, and practice in counselling and psychotherapy.

4438 Advanced Forensic Psychology (Group B)

3 credit hours

Prerequisite: PSYC 2350 and 3338.

A review of research on assessment tools, intervention effectiveness and epidemiology of criminal behaviour; the application of such research in forensic assessment, and treatment in a legal context.

4441 Psychological Measurement (Group B)

3 credit hours

Prerequisite: PSYC 2350.

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.

4443 Advanced Psychology and Law (Group B)

3 credit hours

Prerequisite: PSYC 3320; 2340 and 2350.

A closer examination of the research on several topics in the area of psychology and law that may include eyewitness testimony, children in the courts, police selection and procedures, workplace harassment and discrimination, jury decision-making, and alternative dispute resolution.

4445 Directed Research in Psychology (Group C)

3 credit hours

Prerequisite: twenty-four (24) credit hours in PSYC including PSYC 2350.

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.

4446 Seminar in Psychology (Group C)

3 credit hours

Prerequisite: twenty-four (24) credit hours in psychology including PSYC 2350.

A seminar for advanced students on specialty areas in psychology. Extensive reading, oral presentations, and written reports or projects will ordinarily be required.

4450 Behaviour Problems of Children (Group B)

3 credit hours

Prerequisite: PSYC 2350 and PSYC 3329.

A review of emotional and behavioral problems exhibited by children, including a survey of classification systems, assessment, and treatment.

4456 Advanced Counselling and Psychotherapy (Group B)

3 credit hours

Prerequisite: PSYC 2350 and PSYC 4436.

Extended study of selected theories and related techniques. Course work may involve supervised, simulated practice in dyads or small groups.

4489 Positive Psychology (Group B)

3 credit hours

Prerequisite: PSYC 2350 and 3389.

A comprehensive series of presentations covering the application of "positive" psychological concepts and principles to personal growth and well-being. Topics include communication, relationships, support, and authenticity.

4490 Health Psychology (Group B)

3 credit hours

Prerequisite: PSYC 2350

An examination of the psychological factors involved in health, illness, and treatment. Topics include health research methods, health promotion, modification of health behaviours, stress, coping, social support, and personality.

4497 Community Psychology (Group B)

3 credit hours

Prerequisite: PSYC 1250 and 2350.

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.

4500 Honours Seminar (Group C)

3 credit hours

Prerequisite: at least forty-two (42) credit hours in PSYC and final year of honours program.

This is a seminar designed for honours students. It reviews the current state of theory and research in psychology and prepares honours students for study in graduate and professional programs related to psychology. Extensive reading, oral presentations, and reports or projects will be required.

Seminar.

4549 Honours Thesis (Group C)

6 credit hours

Prerequisite: honours standing.

A research project in psychology that will serve as the basis for a written thesis. Honours students must secure the consent

of a member of the Department to supervise their work before attempting to register for the course.

4826-49 Special Topics in Psychology
3 credit hours

Classes and lab 6 hrs. a week. 2 semesters.

4876-99 Directed Study in Psychology
3 credit hours

Religious Studies (RELS)

Chairperson	TBA
Professors	A. Dalton
Associate Professors	N. Erhard, M. Abdul-Masih, A. Soucy
Assistant Professor	M. Hale
Adjunct Professors	E. Chung, R. Ramjii, A. Sandness
Professor Emeritus	E. Stieglman

The Religious Studies Department offers courses on the religious dimensions of human life in contemporary societies and cultures. Courses on religion and culture are offered as a way to explore various disciplines and their approaches 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. Courses on the comparative study of religions include surveys of the major religious traditions of the world as well as courses which compare characteristics of religious life across several religious traditions. Examining religious diversity in Canada and around the world is also part of the study of comparative religions. By virtue of its character and history, Saint Mary's University has a special responsibility to teach courses on Christianity. The Religious Studies Department offers 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 1000 or 2000 level. Students who have completed 60 credit hours of university course work and have completed a minimum of three (3) credit hours at the 1000 level and 3 credit hours at the 2000 level may register for a 3000 level course in Religious Studies to complete a degree requirement for an elective at the 3000 level.

Religious Studies courses at the 3000 level or above are normally for students completing a Religious Studies Major or Honours, a Religious Studies BA Concentration or a Minor in Religious Studies. Students are advised to check specific courses at the 3000 level for prerequisites.

Degree Requirements

Religious Studies courses at the 1,000, 2,000 or 3,000 level satisfy a humanities requirement in the Arts Faculty; non-Commerce electives in the Sobey School of Business and the humanities requirements in the Faculty of Science.

A Minor in Religious Studies

A minor in Religious Studies may be completed by taking twenty-four (24) credit hours in Religious Studies. Six (6) credit hours may be at the 1000 level; eighteen (18) of the credit hours must be at the 2000 level or above. An overall grade point average of 2.00 must be maintained in the twenty-four (24) credit hours. In a Religious Studies minor students must complete at least twelve (12) of the twenty-four (24) required credit hours at Saint Mary's.

B.A. Concentration Requirement in Religious Studies.

Only students in the ninety (90) credit hour B.A. may complete the concentration requirement in Religious Studies. The requirement may be completed by taking twenty-four (24) credit hours in Religious Studies. The credits toward the concentration requirement in Religious Studies must include the following:

1. Three (3) credit hours from the courses in Group A;
2. Three (3) credit hours from the courses in Group B;
3. Three (3) credit hours from the courses in Group C;
4. In the twenty-four (24) credit hours, six (6) credit hours may be at the 1000 level; no more than 12 credit hours may be at the 2000 level, and six (6) credit hours at the 3000 level or above. Students may take one (1) of the 4000 level seminars in religious studies: RELS 4050 Religious Traditions in Canada; RELS 4390; Religion and Society in Atlantic Canada; RELS 4100 Religion and International Development; RELS 4300 Gender and Asian Religious Traditions, RELS 4387 Religious Pluralism; RELS 4400 Comparative Religious Ethics; RELS 4500 Religions and Orientalism.
5. An overall grade point average of at least 2.00 must be maintained in the twenty-four (24) credit hours in Religious Studies.

Major in Religious Studies

Students majoring in Religious Studies must fulfill the following requirements:

1. The equivalent of thirty-nine (39) credit hours in the Department. Normally, these will be distributed as follows:
 - a) Six (6) credit hours at the 1000 level;
 - b) Fifteen (15) credit hours at the 2000 level or above;
 - c) Twelve (12) credit hours at the 3000 level;
 - d) At least six (6) credit hours from each of Group A, Group B, and Group C as described at the end of the Religious Studies course listing;

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2. An overall minimum grade point average of 2.00 in the courses counted toward the major;
3. Majors must complete the designated seminar for Majors from among the following courses in Religious Studies: RELS 4050 Religious Traditions in Canada; RELS 4390; Religion and Society in Atlantic Canada; RELS 4100 Religion and International Development; RELS 4300 Gender and Asian Religious Traditions, RELS 4387 Religious Pluralism; RELS 4400 Comparative Religious Ethics; RELS 4500 Religions and Orientalism.
4. Majors must also complete RELS 4481 Theories and Methods in the Study of Religions. Normally this course is only offered in alternating academic years.
5. While not required for the completion of the major, the Department of Religious Studies recommends the completion of six (6) credit hours in a second language from among Hebrew, Greek, Latin, Chinese, Japanese, Arabic, French, Spanish or German (or an alternative acceptable to the Department).

Honours in Religious Studies

An honours student must complete sixty-three (63) credit hours in Religious Studies courses which include:

1. All of the requirements for a Religious Studies major [thirty-nine (39) credit hours];
2. An additional twelve (12) credit hours at the 3000 level in Religious Studies and an additional six (6) credit hours at the 4000 level either in the Religious Studies seminars (RELS 4050 Religious Traditions in Canada; RELS 4390; Religion and Society in Atlantic Canada; RELS 4100 Religion and International Development; RELS 4300 Gender and Asian Religious Traditions, RELS 4387 Religious Pluralism; RELS 4400 Comparative Religious Ethics; RELS 4500 Religions and Orientalism) or in directed reading or special topics courses at the 4000 level
3. In addition to the sixty-three (63) credit hours in Religious Studies students must complete at least six (6) credit hours in a language chosen from among: Hebrew, Greek, Latin, Chinese, Japanese, Arabic, French, Spanish and German or other language acceptable to the department;
4. Religious Studies 4000 Honours Thesis Research and 4001 Honours Thesis Writing.

Admission to an honours program normally requires Department approval no later than when a student has completed sixty (60) credit hours. In addition to the Faculty of Arts requirements for honours, a minimum grade point average of 3.00 in Religious Studies courses is required for admission to, and continuation in, the honours program.

Student Counseling

Students completing a minor, a concentration, a major and honours must have their Religious Studies courses

approved by the Chairperson on an annual basis. In some instances, majors and honours 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:

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.

Course Descriptions

1210 Introduction to Religion

3 credit hours

Religion as a subject of study is relatively new, starting only in the nineteenth century. This course will deal with how religion became an object of study and the approaches and theories that have been used to come to grips with how religion fits into people's lives. It will also look at characteristic ways that the ultimate reality is approached and how religious life fits into contemporary culture.

1211 Introduction to Religious Experience

3 credit hours

The course will introduce students to the many dimensions of the human experience of the sacred inspired by religious texts, ritual, chant and music; by mysticism, sacred places either in nature or in temples and in art of all kinds.

1220 Introduction to Asian Religions

3 credit hours

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.

1221 Introduction to Comparative Religions

3 credit hours

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.

1251 Religion in Contemporary Culture

3 credit hours

This course explores the role of religion in contemporary culture, particularly North American culture. Portrayals of religious people as well as the employment of symbols and themes from various world religions will be identified within selected pieces of contemporary art, film, literature, music, Internet, and other media. We will also consider emerging religious trends and whether certain cultural practices are functioning in a religious role.

Courses at the 2000 level may be used by students to complete their humanities requirement or as an elective in their degree program.

2305 Women in Christianity [WMST 3305]

3 credit hours

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?

2323 The Islamic Religious Tradition

3 credit hours

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.

2325 Myth and Story

3 credit hours

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 stories and myths from a variety of literary and oral traditions and cover major theories of approach to mythic narrative. Myths and stories will be studied within the religious context of religious traditions. Major theses will be analyzed and compared across religious traditions.

2327 The Buddhist Religious Tradition

3 credit hours

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.

2330 Spirituality and Work

3 credit hours

Is the emerging (or re-emerging) interest in spirituality in the workplace enabling more individual fulfillment and better decision-making or is it creating new conflicts and more exclusionary workplace practices? What influences do religious traditions and worldviews have on how we work together? The increasing globalization of business and communication, the need for more qualified immigrants to Canada, and the growing diversity of people in many workplaces is forcing re-examination of inherited attitudes and expectations about work. These changes require deep understanding of what spirituality, as the deepest source of values, can mean as workplaces change and people make choices about work, vocation, or calling. This course explores the potential, the benefits and the dangers of bringing spirituality into the workplace.

2333 Women and Religion Today [WMST 2333]

3 credit hours

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.

2343 Jewish Religious Tradition

3 credit hours

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.

2345 Chinese Religious Traditions

3 credit hours

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.

2347 Ecology and Religion

3 credit hours

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.

2350 Faith in Action: Religion and Social Movements

3 credit hours

Students explore the religious dimensions of important social movements throughout the world, such as Engaged Buddhism and the Abolitionist, Anti-colonialism, Peace, Social Gospel, Temperance, and Civil Rights movements. Students will examine the stories of such important activists as Louise McKinney, Mohandas K. Gandhi, Dorothy Day, Martin Luther King Jr., The Dalai Lama, and Thich Nhat Hanh. The emphasis will be on social justice movements. The causes of the rise of reactionary, so-called “fundamentalist” movements will also be considered.

2351 Love

3 credit hours

Our culture has represented love, variously, as effecting self-fulfillment, 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 RELS 2352 where a coordinate theme is studied in a similar manner.

2352 Death

3 credit hours

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.

2375 The Catholic Tradition in Modern Literature [ENGL 2328]

3 credit hours

2376 The Bible and English Literature [ENGL 2327]

3 credit hours

2377 Introduction to the Bible

3 credit hours

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.

2378 Introduction to the Bible

3 credit hours

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.

2380 Vietnamese Religious Traditions

3 credit hours

This course explores religion in the Vietnamese context and how it relates to social issues, like the construction of a national identity, politics and gender. The course will also examine the role religion has played in the lives of overseas Vietnamese.

3303 Christian Origins

3 credit hours

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.

3306 Women in Antiquity I [CLAS 3352]

3 credit hours

3307 Women in Antiquity II [CLAS 3353]

3 credit hours

3311 Jesus of Nazareth

3 credit hours

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?"

3312 Theologies of Liberation

3 credit hours

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?

3313 Art in Late Antiquity and Europe to 14th Century [CLAS 3313]

3 credit hours

3314 Greek Sanctuaries [CLAS 3317]

3 credit hours

Prerequisite: 3 credit hours in CLAS and 3 credit hours in one of CLAS, HIST. ANTH or RELS

This course explores ancient Greek religion and the role of the sanctuary in Greek culture. Students will study the archaeological remains and documentary evidence for the role and function of domestic, civic, and pan-hellenic sanctuaries (e.g., household cults, the Athenian Acropolis, Olympia, Delphi). Students will also consider sites which provide examples of specialty cults (healing, oracular, mystery religions) or which illustrate particular social, political or archaeological issues.

3316 Anthropology of Religion [ANTH 3316]

3 credit hours

Prerequisite: any one of ANTH 1202, RELS 1210, 1211, 1220, 1221, 1251

This course surveys major developments in the anthropological study of religions. The course will provide a solid theoretical foundation for the field study of contemporary religions.

3318 Ghosts: A Cultural Approach

3 credit hours

Virtually all cultures hold beliefs of human souls lingering after death and having an effect on the living. Students explore beliefs in ghosts in a cross-cultural context, examining a range of cultural products related to ghosts including movies, folktales, and ghost tourism from around the world. Students also explore anthropological theories regarding beliefs and practices related to ghosts.

3328 The Catholic Church Today

3 credit hours

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.

3330 Spirituality in the Workplace

3 credit hours

Through case studies in the literature, and guest lecturers engaging in practices that support spirituality in the workplace, students will make the connection between the theory and practical developments in real workplaces. Class seminars will explore need for spirituality in the workplace, corporate responses to that need, and the external influences shaping the future of work. Guest

lecturers will contribute first-hand experience of the challenges and dilemmas facing business leaders, managers and employees seeking ways to “bring their whole selves to work.” Transformative learning exercises will enable students to explore their own responses to challenges and dilemmas around spirituality in the workplace.

3336 Creation and Evolution: The Religious Issues

3 credit hours

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?

3337 Religions and Art: The East

3 credit hours

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.

3348 Religion and Ecological Issues in the Developing World [IDST 3348]

3 credit hours

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.

3349 Science and Religion

3 credit hours

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.

3351 Field Research Methods

3 credit hours

Prerequisite: Students must be declared majors or honours students in Religious Studies or Anthropology. Students completing a BA Concentration in Religious Studies may register in this course with the permission of the instructor.

This course provides students with the appropriate tools for conducting field-based research on contemporary religions. It will involve hands-on application of the research techniques.

3352. The Black Church in Canada

3 credit hours

Students investigate the “Black Church” tradition and how its theologies, history, worship, music, biblical interpretation and social role have manifested in Canada. The “Black Church” is not a single entity, but a connected tradition, with relations that cross denominations and national boundaries. It includes denominations formed and led by people of African descent, and Black congregations within white denominations.

3354 Aboriginal Peoples, Religion, and the Justice System

3 credit hours

This course will focus on the elements of religious and spiritual systems that are relevant in relations between aboriginal people and the Canadian criminal justice system. It will examine the historical and political context, key religious and ethical concepts and practices of aboriginal peoples, and the movement to employ Native spirituality in shaping responses.

3355 Religion and Social Issues in Canada

3 credit hours

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.

3356 Religions in Film

3 credit hours

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.

3358 Religious Diversity in Canada

3 credit hours

Prerequisite: at least six (6) credit hours in RELS.

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.

3359 The Buddhist Path: Ritual, Meditation and Wisdom

3 credit hours

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.

3360 Engaged Buddhism

3 credit hours

Prerequisite: RELS 2327 or 3359 or permission of instructor.

This course will examine Buddhist principles and practices as they have been and are applied to social, economic and political problems around the world. Topics include Buddhist perspectives on ethical relativism and absolutism, the relationship of social change and personal transformation, community development vs. globalization, what “progress” and “best practices” mean across cultures, health and wellbeing, environment, education, nonviolence and peace activism. Students will explore the essential roles of meditation, contemplation, critical thinking, and compassionate action individually and in small group interaction. Term paper topics will be decided on an individual basis according to students’ interests.

3366 Worldview: Anthropological Approaches [ANTH 3366]

3 credit hours

3370 Introduction to the Qur’an

3 credit hours

An examination of the Qur’an as scripture. The course includes its sources, structure, style, transmission, sciences, interpretation and basic themes.

3371 Life of Muhammad

3 credit hours

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.

3826 - 3849 Special Topics in Religious Studies

3 credit hours

3876 - 3899 Directed Readings in Religious Studies

3 credit hours

Prerequisite: Declared major, concentration, or minor in Religious Studies.

Directed Reading courses permit students to pursue independent research topics which are not part of the normal curriculum. Students must apply to department faculty to enroll in a directed reading course.

4000 Honours Thesis Research

3 credit hours

Prerequisite: Declared in the Honours degree program in Religious Studies

Under the supervision of faculty in religious studies, students will develop and honours thesis topic and complete the research for an honours thesis. Normally students will present their topic and research findings in a departmental seminar.

4001 Honours Thesis Writing

3 credit hours

Prerequisite: Declared in the Honours degree program in Religious Studies

Under the supervision of faculty in religious studies, students will write an honours thesis based on the topic and research completed in RELS 4000. Evaluation of the thesis will be by all faculty in religious studies.

4050 Religious Traditions in Canada

3 credit hours

Prerequisite: Declared Major or Honours in Religious Studies and completion of a minimum of 60 credit hours of university courses or permission of the instructor.

This course is a research seminar examining themes about historical and current issues involving religions in Canada and especially Atlantic Canada. Special emphasis will be given to comparative studies of Canadian themes in relation to North American and International patterns.

4100 Religion and International Development

3 credit hours

Prerequisite: Declared Major or Honours in Religious Studies or International Development Studies and completion of a minimum of 60 credit hours of university courses, or permission of instructor.

This course explores the role of religions in development. Historical, theoretical and practical dimensions are studied under such topics as: religion and colonialism, religion and social capital in developing countries, the manner of presence of religions in developing societies, religion based NGOs, engaged religion, indigenous religions today, and the increase of evangelical and fundamentalist religions in the developing world. The course requires a high level of seminar participation and research.

4300 Gender and Asian Religious Traditions

3 credit hours

Prerequisite: Declared Major or Honours in Religious Studies, International Development Studies, or Women and Gender Studies and completion of a minimum of 60 credit hours of university courses, or permission of instructor.

In this course we will examine the gender aspects of religious traditions in South, Southeast and East Asia. Women are often portrayed in such roles as daughters, mothers, wives, goddesses, demonesses, temptresses, Buddhas and bodhisattvas. This portrayal is upheld by cultural systems in which both men and women participate, and can best be understood by a critical analysis of the societies in which these religions are embedded. Attention will be given to the ways that gender informs religious institutions, individual identity and practice, and the historical development of Asian religious traditions.

4365 Myth: Anthropological Approaches [ANTH 4365]

3 credit hours

4387 Religious Pluralism

3 credit hours

Prerequisite: Declared Major or Honours in Religious Studies and completion of a minimum of 60 credit hours of university courses, or permission of instructor.

In Canada and in countries around the world, interpreters religious pluralism frequently situate their analysis of religion within social theories about secularism, pluralism, globalization, multiculturalism and human rights. This course will examine those theories and their impact on the social location of religions and religious diversity in multicultural societies.

4390 Religion and Society in Atlantic Canada

3 credit hours

Prerequisite: Declared Major or Honours in Religious Studies and completion of a minimum of 60 credit hours of university courses or permission of the instructor.

An historical examination of the relationship between religion and society in Atlantic Canada from the beginning of European settlement to the present. Themes to be considered include religion and the formation of regional/ethnic identities, religion and politics, religion and movements of social reform, and the impact of secularization on Atlantic Canadian society. Topics will be examined in the broader context of Canadian history and the evolution of the trans-Atlantic world.

4400 Comparative Religious Ethics

3 credit hours

Prerequisite: Declared Major or Honours in Religious Studies, International Development Studies, or Women and Gender Studies and completion of a minimum of 60 credit hours of university courses.

First, we will explore and compare formative stories of exemplary lives that embodied basic moral teachings of Judaism, Christianity, Islam, Indigenous Traditions, and Buddhism. We will work from these stories to determine what moral sources and frameworks inform their lives. In this research seminar, the students will investigate the relationship between these models and a contemporary theme informed by complex, real-life situations. The specific theme will vary but will include such topics as distributive justice, families and sexual moralities, freedom and responsibility, and war/terrorism and peace. We will examine methodological issues of comparative religious ethics in light of the above explorations.

4481 Theories and Methods in the Study of Religions

3 credit hours

Prerequisite: Declared Major or Honours in Religious Studies and completion of 42 credit hours of university courses.

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.

4500 Religions and Orientalism

3 credit hours

Prerequisite: Prerequisite: Declared Major or Honours in Religious Studies and completion of a minimum of 60 credit hours of university courses, or permission of instructor.

The course will explore Orientalist representations of religious traditions as an objective “other”. Special focus will be given to the ways in which scholars in the humanities, religious writers, and the interpreters of sacred texts contribute to the formation of various forms of Orientalism.

4590 - 4595 Honours Seminars in Religious Studies

6 credit hours

Prerequisite: fourth-year honours 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. Since this is only a partial list, please consult the Chairperson for updates and further clarifications.

4826 - 4849 Special Topics in Religious Studies

3 credit hours

These courses will investigate in depth a specific topic or set of topics in Religious Studies. The topic will vary from year to year.

4850 – 4875 Directed Readings in Religious Studies

6 credit hours

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.

4876 – 4899 Directed Readings in Religious Studies

3 credit hours

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.

Group A (Religion and Culture)

- 1210 Introduction to Religion
- 1211 Introduction to Religious Experience
- 1251 Religion in Contemporary Culture
- 2325 Myth and Story

260 Religious Studies

2330	Spirituality and Work	3359	The Buddhist Path: Ritual, Meditation and Wisdom
2333	Women and Religion Today	3360	Engaged Buddhism
2347	Ecology & Religion	3370	Introduction to the Qur'an
2351	Love	3371	Life of Muhammed
2352	Death	3372	Islamic Cultures and Civilizations
3306	Women in Antiquity I	4050	Religions in Canada
3307	Women in Antiquity II	4300	Gender and Asian Religious Traditions
3314	Greek Sanctuaries	4365	Myth: Anthropological Approaches
3316	Anthropology of Religion	4387	Religious Pluralism
3318	Ghosts: A Cultural Approach	4500	Religions and Orientalism
3330	Spirituality in the Workplace		
3336	Creation and Evolution: The Religious Issues		
3348	Religion and Ecological Issues in the Developing World		
3349	Science and Religion		
3351	Field Research on Religions		
3355	Religion and Social Issues in Canada		
3356	Religions in Film		
3366	Worldview: Anthropological Approaches		
4100	Religion and International Development		
4365	Myth: Anthropological Approaches		
4387	Religious Pluralism		
4400	Comparative Religious Ethics		
4429	Psychology and Religion: A Survey		
Group B (Comparative Religions)			
1220	Introduction to Comparative Religion I		
1221	Introduction to Comparative Religion II		
2323	The Islamic Religious Tradition		
2325	Myth and Story		
2326	The Hindu Religious Tradition		
2327	The Buddhist Religious Tradition		
2343	Jewish Religious Tradition		
2345	Chinese Religious Traditions		
2380	Vietnamese Religious Traditions		
3316	Anthropology of Religion		
3337	Religions and Art: The East		
3351	Field Research on Religions		
3354	Aboriginal Peoples, Religion and the Justice System		
3358	Religious Diversity in Canada		
Group C (Christianity and Culture)			
1221	Introduction to Comparative Religion 2		
1251	Religion in Contemporary Culture		
2305	Women in Christianity		
2334	Christian Spirituality Today		
2350	Faith in Action: Religion and Social Movements		
2375	The Catholic Traditions in Modern Literature		
2376	The Bible and English Literature		
2377	Introduction to the Bible		
2378	Introduction to the Bible		
3303	Christian Origins		
3306	Women in Antiquity I		
3307	Women in Antiquity II		
3311	Jesus of Nazareth		
3312	Theologies of Liberation		
3313	Art in Late Antiquity and Europe to 14 th Century		
3314	Greek Sanctuaries		
3328	The Catholic Church Today		
3329	Christianity and Contemporary Moral Issues		
3338	Religions and Art: The West		
3351	Field Research on Religions		
3352	The Black Church in Canada		
3357	Being Human: Christian Understanding		
4050	Religions in Canada		
4390	Religion and Society in Atlantic Canada		
4500	Religions and Orientalism		

Sociology (SOCl)

Chairperson	R. Westhaver
Professors	G. Barrett, J. McMullan, E. Tastsoglou, M. VanderPlaat
Associate Professors	S. Bell, M. Byers, D. Crocker, V. Johnson, A. MacNevin, S. Schneider, A. Schulte-Bockholt, R. Westhaver
Assistant Professors	A. Carver, D. Leroux, D. Stefanovic
Lecturer	E. van der Veen
Coordinator of Criminology: Graduate Studies	D. Crocker
Adjunct Professors	B. Cottrell, J. Flint, L. Liebenberg, S. Lord, X. Petrinioti
Professor Emerita	L. Christiansen-Ruffman

Department website:
<http://www.smu.ca/academic/arts/sociology/>

Department Mission

The Department offers programs that provide students with a strong undergraduate experience in both Sociology and Criminology. Majors and honours programs are offered in each field. Students are particularly encouraged to complete a double major program in sociology and criminology. The Department also offers a Master's degree in Sociology. 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. For details on graduate programs, refer to the Graduate Academic Calendar.

Major Program

The major in Sociology requires the completion of the following forty-eight (45) credit hours:

- SOCI 1210 Introductory Sociology (minimum grade of C)
- SOCI 1211 Social Power Relations (minimum grade of C)
- SOCI 2010 Principles of Social Theory
- SOCI 2100 Social Research Methods
- SOCI 2124 Social Inequality & Justice
- SOCI 3010 Classical Theory
- SOCI 3012 Contemporary Sociological Theory
- SOCI 3100 Qualitative Research Methods
- SOCI 3102 Quantitative Research Methods
- Twelve (12) credit hours in Sociology at the 3000 level or above
- Six (6) credit hours seminar in Sociology at the 4000 level – note that directed readings courses in Sociology do not satisfy this requirement

FOR STUDENTS COMPLETING A DOUBLE MAJOR IN SOCIOLOGY AND CRIMINOLOGY, ONLY SIX (6) CREDIT HOURS OF CROSS-LISTED COURSES CAN BE DOUBLE COUNTED.

Suggested Schedule

The following schedule is suggested for students majoring in Sociology:

Year 1:

- ENGL 1205 Introduction to Literature
- 9 credit hours of introductory courses in the following humanities (except PHIL 1200): Classics; History; Religious Studies; Modern Languages courses on literature and culture (a maximum of 6 credit hours can be counted from any one area).
- SOCI 1210 Introductory Sociology (minimum grade of C)
- SOCI 1211 Social Power Relations (minimum grade of C)
- Six (6) credit hours from a social science other than Sociology.
- Six (6) credit hours of from one or two of the following: PHIL 1200 Critical Thinking, Mathematics, a language other than English, or a science other than Psychology.

Year 2:

- SOCI 2010 Principles of Social Theory
- SOCI 2100 Social Research Methods
- SOCI 2124 Social Inequality and Justice
- Six (6) credit hours in SOCI at the 3000 level
- Twelve (12) credit hours in Arts at the 2000 level or above
- Three (3) credit hours of electives

Year 3:

- SOCI 3010 Classical Theory
- SOCI 3012 Contemporary Sociological Theory
- SOCI 3100 Qualitative Research Methods
- SOCI 3102 Quantitative Research Methods
- Twelve (12) credit hours in Arts at the 2000 level or above
- Six (6) credit hours of electives

Year 4:

- Six (6) credit hours SOCI at the 4000 level – note that directed readings courses in Sociology do not satisfy this requirement
- Six (6) credit hours SOCI at the 3000 level
- Three (3) credit hours in Arts at the 2000 level or above
- Fifteen (15) credit hours of electives

Honours Program

This is a selective program. Applicants for admission must:

- have completed at least 60 credit hours;
- have a cumulative GPA of at least 3.00;
- have a cumulative GPA in Sociology courses of 3.30;
- have a faculty member's written agreement to serve as a supervisor for the honours thesis, SOCI 4530.

In exceptional circumstances, the Department may consider applicants who do not have a CGPA of 3.30 in Sociology courses (but who have a 3.00 overall).

The deadline for application is 1 April of the year before students wish to begin the honours program.

For honours in Sociology, students must complete sixty-three (63) credit hours as follows:

a. Core Courses:

- SOCI 1210 Introductory Sociology (minimum grade of C)
- SOCI 1211 Social Power Relations (minimum grade of C)
- SOCI 2010 Principles of Social Theory
- SOCI 2100 Social Research Methods
- SOCI 2124 Social Inequality & Justice
- SOCI 3010 Classical Theory
- SOCI 3012 Contemporary Sociological Theory
- SOCI 3100 Qualitative Research Methods
- SOCI 3102 Quantitative Research Methods

b. Twelve (12) credit hours in Sociology at the 3000 level or above

c. Twelve (12) credit hours in Sociology at the 4000 level

- SOCI 4501 Advanced Theory
- SOCI 4502 Advanced Research Methods
- SOCI 4600 Honours Thesis Research Preparation

SOCI 4601 Honours Thesis Writing

To graduate, student must maintain a cumulative GPA of 3.30 in Sociology courses as well as earn a grade of B+ (3.30) in SOCI 4601.

Concentration in Sociology

Students in a ninety (90) credit hour B.A. program with a concentration in Sociology are required to complete twenty-four (24) Sociology credit hours with a minimum grade point average of 2.00. Courses cross-listed with Criminology may not be double counted. Required courses include:

- SOCI 1210 Introductory Sociology (minimum grade of C)
- SOCI 1211 Social Power Relations (minimum grade of C)
- SOCI/CRIM 2010 Principles of Social Theory

262 Sociology

- SOCI/CRIM 2100 Social Research Methods
- SOCI/CRIM 2124 Social Inequality & Justice

Minor Program

The minor in Sociology requires twenty-four (24) credit hours in Sociology completed with a minimum grade point average of C. Required courses include:

- SOCI 1210 Introductory Sociology (minimum GPA of 2.00)
- SOCI 1211 Social Power Relations (minimum GPA of 2.00)
- • 6 credit hours from: SOCI/CRIM 2010 Principles of Social Theory, SOCI/CRIM 2100 Social Research Methods, or SOCI/CRIM 2124 Social Inequality & Justice
- An additional 12 credit hours in SOCI at the 2000, 3000, or 4000-level.

Note: For students enrolled in the minor program in Sociology and the major program in Criminology, only 6 credit hours of cross-listed courses may be double counted to meet program requirements.

Course Descriptions

1210 Introductory Sociology

3 credit hours

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.

1211 Social Power Relations

3 credit hours

Prerequisite: SOCI 1210 with a grade of C

This course is required for majors in Sociology & Criminology. It introduces the many dimensions of social inequality and power. This course prepares students for the required 2000 and 3000-level theory and methods courses in Sociology & Criminology.

2010 Principles of Social Theory [CRIM 2010]

3 credit hours

Prerequisite: SOCI 1211

This course introduces students to the basic theoretical frameworks and tools through which we seek to understand key variables and patterns in social life. The course will examine the key frameworks through which sociologists and criminologists analyze issues of social justice, crime, identity, power, social inequality, culture, technology etc.

Note: Students may not receive credit for CRIM 2010 if they have already received credit for CRIM 2300 or SOCI 2362.

2100 Social Research Methods [CRIM 2100]

3 credit hours

Prerequisite: SOCI 1211

This course introduces students to basic social research

methods by examining positivist, interpretivist, and critical research strategies, different forms of research design, and a range of methods of evidence collection. While the course is intended as a general introduction to the language of social research methods, it will emphasize that choice of methods are closely related to theory and the nature of particular research questions. Students will assess and critique Sociological and Criminological scholarly research.

Note: Students may not receive credit for CRIM 2100 if they have already received credit for CRIM 2364 or SOCI 2364.

2124 Social Inequality and Justice [CRIM 2124]

3 credit hours

Prerequisite: SOCI 1211

Students will examine major structures of social inequality and how these structures intersect in the lives of individuals and groups. Patterns in opportunity, disadvantage, regulation, and access to justice emerge from those structures.

3010 Classical Theory [CRIM 3010]

3 credit hours

Prerequisite: SOCI/CRIM 2010

This course introduces students to the major themes of classical Sociological and Criminological theory. Students will examine key debates from the 18th and 19th century which have influenced contemporary Sociological and Criminological Theory.

Note: Students may not receive credit for CRIM 3010 if they have already received credit for CRIM 2300 or SOCI 2362.

3012 Contemporary Sociological Theory

3 credit hours

Prerequisite: SOCI/CRIM 3010

A critical examination of the major themes of social analysis in the 20th and 21st century, with particular emphasis on current theoretical issues and differences in theoretical approaches to problems in sociological analysis.

Note: Students who have completed SOCI 2363 will not receive credit for this course.

3020 Introduction to Science and Technology Studies

3 credit hours

Prerequisite: SOCI 2011

This course is an introduction to some of the central ideas in the newly emergent field of Science and Technology Studies (STS). STS is the interdisciplinary study of the multiple ways in which science, technology, and society shape each other for better or worse. The course will draw from various perspectives in the social sciences and humanities to provide students with ways to think about and evaluate scientific and technological changes. Topics covered may include definitions and critiques of science and technology; gendered, raced, and classed based stratification and discrimination in science, the role of interest and bias in

science, and the socially constructed nature of science and technology.

3100 Qualitative Research Methods [CRIM 3100]

3 credit hours

Prerequisite: CRIM/SOCI 2100

This course introduces students to sociological and criminological research that uses qualitative methods. The course will examine qualitative methodology, research strategies, designs and methods of qualitative data collection and analysis, including the contributions of feminist scholarship. Students will also learn different ways of interpreting qualitative data. Approaches covered in this class may include grounded theory, participatory action research, historical and textual methods, and participant-observation/ethnography, among others.

Class 3 hrs and Lab 75 min/week

Note: Students may not receive credit for CRIM 3100 if they have already received credit for CRIM 2302 or SOCI 2365.

3102 Quantitative Research Methods [CRIM 3102]

3 credit hours

Prerequisite: CRIM/SOCI 2100

This course introduces students to quantitative methodology, research strategies, designs, methods of quantitative data collection and statistical analysis. A key feature of this class will involve interpreting and critiquing statistical data, which is a major source of information for sociologists and criminologists.

Class 3 hrs and Lab 75 min/week

Note: Students may not receive credit for CRIM 3100 if they have already received credit for CRIM 2302 or SOCI 2365.

3220 Race, Racism and Colonialism [CRIM 3220]

3 credit hours

Prerequisites: One of SOCI/CRIM 2010, 2100, 2124

Students in this course will critically examine the history, social production, and ongoing impacts of race, racism and colonialism.

3306 Sociology of Education [EDUC 3307]

3 credit hours

Prerequisite: SOCI 1211

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.

3336 Sociology of Work

3 credit hours

Prerequisite: SOCI 1211

This course is designed to help students cultivate a sociological imagination for one of the most important parts of our lives: work. Following an introduction to the concepts and issues that relate to work, labour and employment, we will explore the nature of work in other cultures comparatively and historically. The course then focuses on the nature of work in modern society. This is followed with a detailed examination of three factors that shape the experience of work in people's lives: class, gender and race.

3339 The Sociology of Language [LING 2339]

3 credit hours

Prerequisite: SOCI 1211

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.

3343 Society as Drama

3 credit hours

Prerequisite: SOCI 1211

This course explores the features of social life that depend on the human ability to imagine ourselves as others see us. Drawing specifically from the theoretical perspectives of George Herbert Mead and Erving Goffman, this course investigates symbolic interactionist approaches to the (re)construction of the self and the self-society relationship as a process of symbolic communications between social actors. Central to this course is the notion that as social actors we attempt to shape the impressions that others have of us by projecting images of ourselves that best serve our own objectives. In so doing, we both define the social situation and create appropriate expectations of ourselves and others.

3366 Field Methods in Sociolinguistics [LING 3366]

3 credit hours

Prerequisite: SOCI 1211 or 6 hours in LING

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.

A continuation of SOCI 3366. Students gain experience in the actual collection of data on a language.

3386 Sociology of Developing Societies [IDST 3386]

3 credit hours

Prerequisite: SOCI 1211 or six (6) credit hours in ECON or POLI.

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).

3387 Women and Development [WMST 3387]

3 credit hours
Prerequisite: SOCI 1211

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.

These courses are designed to enable a student to examine a particular criminological issue in detail.

3402 Social Problems

3 credit hours
Prerequisite: SOCI 1211

Major social problems affecting Canadians will be analyzed. These range from alcohol use and sexual behaviour 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.

3408 Urban Sociology: Introduction & History

3 credit hours
Prerequisite: SOCI 1211

Students in this survey will be introduced to the sociological study of the city, with particular attention paid to how human beings produce and interact in cities through unequal power relations, and in historically specific ways.

3423 Ethnic Conflict

3 credit hours
Prerequisite: SOCI 1211

Ethnic conflict is a social force that is shaping our lives, society, and world history. We will use sociological theories and research to tackle some of the current debates and controversies related to ethnic conflicts, such as opposition to Canadian multiculturalism, Aboriginal protests in Canada, the rise of Islamophobia, the resurgence of the Far Right in Europe, attitudes towards and prevention of Islamic terrorism, and the impact of globalization on ethnic conflict escalation

3425 Modern Greed

3 credit hours
Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

Students in this survey course explore the social organization of exploitation and profit, and its links with modern institutions.

3431 Women, Migration and Identity

3 credit hours
Prerequisite: SOCI 1211.

This course will explore how immigration was an essential part of building the Canadian nation, but women's experiences, struggles and contributions in this process have been largely neglected in mainstream historical accounts. We will examine the issues shaping women's identities, such as acculturation; problems with family and community; economic difficulties and job discrimination; and the role race, ethnicity, class, region and generation in shaping women's diverse realities.

3491 Rural Sociology

3 credit hours
Prerequisite: SOCI 1211.

Using the contrasting concepts of 'community' and 'locality' as focal points, the first part of the course examines key sociological concepts and theories related to cohesion, exclusion, identity, gender, class and power. The second part of the course explores the theme of rural revitalization in the global context within which rural communities struggle for survival.

3505 Prisons and Punishment [CRIM 3505]

3 credit hours
Prerequisite: SOCI 1211

Drawing upon literature from the sociology of punishment, this course situates Western penal regimes within historically-specific economic, socio-political, and cultural frameworks. The emergence and re-emergence of a broad range of practices for punishing and regulating 'problem populations' will be a central theme for the course.

3506 Gender, Race and Justice [CRIM 3506]

3 credit hours
Prerequisite: SOCI 1211

The course examines the effects of the intersection of gender and race on the administration of justice. Students will look into how issues relating to gender and race play out in the criminal justice system at various levels including police, courts and corrections.

3507 Policing and Society [CRIM 3507]

3 credit hours
Prerequisite: SOCI 1211

In this course students will explore issues related to the policing of modern societies. Topics will include the exercise of police powers and discretion, police misconduct, and policing in a multicultural society.

3508 Corporate Crime [CRIM 3508]

3 credit hours
Prerequisite: SOCI 1211

Students in this course will examine and analyze 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.

3509 Victims and Criminal Justice [CRIM 3509]

3 credit hours
Prerequisite: SOCI 1211

In criminal justice systems, the role of the victim has expanded considerably. It is not clear if these developments have resulted in better treatment of victims or more justice in broader ways. To explore these issues students will learn about the historic roots of "victimology", and critical theoretical perspectives on the social construction of victims and their needs and rights.

3510 Criminal Law [CRIM 3510]

3 credit hours
Prerequisite: SOCI 1211

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.

3511 Youth Crime and Moral Panics [CRIM 3511]

3 credit hours
Prerequisite: SOCI 1211

This course takes a historical/comparative approach to the study of youth crime in Canada. It examines changing definitions and perceptions of youth crime, contemporary crime patterns, correlates and their explanations. The course emphasizes a critical approach to understanding youth crime statistics and their changes over the last 100 years. The overall objective of the course is to develop in students a critical appreciation of moral panics about youth crime.

3512 Youth Justice Philosophy, Models and Systems [CRIM 3512]

3 credit hours
Prerequisite: CRIM/SOCI 3511

This course takes a historical/comparative approach to the study of youth justice in Canada. It examines social responses to youth crime and how philosophies and systems have changed over the last 100 years. The course focuses on legislative change from the creation of the juvenile justice system under the Juvenile Delinquents Act to its reform with the Young Offenders Act, Youth Criminal Justice Act and the introduction of reformatory justice principles. The overall objective of the course is to develop in students a critical understanding of youth governance and justice.

3518 State, Crime, and Power in Developing Countries [CRIM 3518]

3 credit hours
Prerequisite: SOCI 1211

This course is an interdisciplinary exercise designed for students in Criminology, International Development Studies, Political Science, and Sociology. Students will: (a) learn about the colonial origins of crime in Latin America; (b) be introduced to the basics of Latin American criminological thinking such as Liberation Criminology; (c) explore the various dimensions of criminal activity (street, organized, state and corporate) in developing countries; and (d) study the detrimental effects of crime, corruption and abuse of power on the societies of the South.

3519 Terrorism: Perspective and Policy [CRIM 3519]

3 credit hours
Prerequisites: CRIM 2010, 2100, 2124

This course is a comprehensive examination of how terrorism movements have comparatively developed. This includes an analysis of methods, typical motivations, and outcomes. Academic studies on terrorism and counter-terrorism are contrasted with responses to terrorism.

3526 Organized Crime [CRIM 3526]

3 credit hours
Prerequisite: SOCI 1211

This course provides an introduction to the subject of organized crime and its control in North America. The course applies sociological, criminological, and economic theory to understand the rise and proliferation of criminal organizations and organized crime activities. It also explores dominant organized crime genres, activities, and recent trends. The course also explores strategies and laws to combat organized crime.

3546 Crime and the Media [SOCI 3546]

3 credit hours
Prerequisite: SOCI 1211

This course focuses on the depiction of crime in various media of mass communication. Areas of study include 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

3800 – 3825 Special Topics in Criminology [CRIM 3800 – 3825]

6 credit hours
Prerequisites: One of SOCI/CRIM 2010, 2100, 2124.

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.

3826 – 3849 Selected Issues in Criminology [CRIM 3826-3849]

3 credit hours
Prerequisites: One of SOCI/CRIM 2010, 2100, 2124

These courses are designed to enable a student to examine a particular criminological issue in detail.

3876 – 3899 Contemporary Issues in Sociology

3 credit hours

Prerequisite: SOCI 1211.

The course will provide an opportunity for students to study contemporary substantive issues in considerable depth and detail.

4210 Forced Migration and Refugees [CRIM 4210]

3 credit hours

Prerequisites: SOCI/CRIM 3010, SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

This course will critically examine the key determinants, processes, and consequences of internal displacement and forced migration across borders through the analysis of case studies from around the world. Topics in the course will include, selectively, contemporary refugee issues, gender violence in conflict zones, resettlement, repatriation, refugees and development, asylum-seekers, and the Canadian and UN refugee protection systems and various international conventions.

4220 Power, Equity and Global Issues

3 credit hours

Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

This course is designed to examine power, equity, and global issues through a critical anti-racist lens. A critical anti-racist discursive framework/praxis demands unequivocal democratic citizenship rights, qualitative social justice, and respect for human rights and freedoms promised by the International Human Rights Laws and Conventions. It addresses questions such as: What is power? Is it the domination of individuals, socio-racial groupings, geographical locations, and societies at large? How does power manifest itself in a global context?

4382 Gender and International Migration [WMST 4482/IDST 4452]

3 credit hours

Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

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 trans-nationalism.

4420 Genocide [CRIM 4420]

3 credit hours

Prerequisite: Completion of the Criminology core program requirements.

Genocide as a sociological and criminological phenomenon prevalent through history is examined. Different types of genocide are identified, as well as the many challenges in responding to it.

4421 War as Crime [CRIM 4421]

3 credit hours

Prerequisite: CRIM/SOCI 3010, 3100, 3102 and (SOCI 3012 or CRIM 3011)

The 20th century as seen two world wars and numerous other conflicts. The so-called ‘Cold War’ turned hot in many parts of the developing world and cost the lives of tens of millions and maimed countless others. With the new millennium, novel forms of warfare and military technologies have been introduced which again largely victimize the societies of the ‘Global South’. Students will analyze the criminal dimensions and true costs of military conflict.

4422 Women, Gender and Development: Theory and Method [WMST 4422]

3 credit hours

Prerequisite: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011.

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.

4423 Women, Gender and Development: Policy and Practice [WMST 4423]

3 credit hours

Prerequisite: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

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.

4432 Gender and Law [CRIM 4432, WMST 4432]

3 credit hours

Prerequisites: CRIM/SOCI 3010, 3100, 3102 and SOCI 3012 or CRIM 3011

Students will examine how the social construction of femininity and masculinity intersect with other forms of identity and power to shape law. The course will include investigation of the creation, interpretation and enforcement of law.

4501 Advanced Theory [CRIM 4501]

3 credit hours

Prerequisite: enrolment in honours program.

Presentation of various topics of interest to advanced criminology and sociology students. Attention is given to the critical theoretical accomplishments of various writers, including feminist scholars. 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.

Note: Students are advised to enrol in SOCI 4495 - 4496 in years when CRIM 4501 is not offered.

4502 Advanced Research Methodology [CRIM 4502]

3 credit hours

Prerequisite: enrolment in honours program.

Students examine a range of quantitative and qualitative research methods in areas reflecting the interests of students in the class. Students explore the strengths and weaknesses of different approaches of data collection and analysis used in sociology and criminology. Topics covered may include survey research, experimental design, interview techniques, field research, historical and documentary analysis.

4512 Issues in Juvenile Justice [CRIM 4512]

3 credit hours

Prerequisites: CRIM/SOCI 3010, 3100, 3102, (SOCI 3012 or CRIM 3011), and CRIM/SOCI 3512

This course that explores contemporary issues associated with the concept, philosophy and practice of juvenile justice. Students will examine children and youth as theoretical constructs in the context of the discourse surrounding children's rights and governance of the young. The course aims to develop students' critical understanding of the politics and philosophy of youth justice in postmodern society.

4515 Drugs and Power in Latin America [CRIM 4515]

3 credit hours

Prerequisite: CRIM/SOCI 3010, 3100, 3102 and (SOCI 3012 or CRIM 3011)

Students in this course will become familiar with 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.

4519 Environment and Community

3 credit hours

Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

The course explores the social context of environmental experience. We examine the everyday practices in which communities encounter and utilize the environment, how identities are shaped by this, and the factors that frame how environmental changes are perceived. The course examines community environmental conflict and action through topics such as watershed stewardship, sustainable energy, agro-forestry, co-management of the fishery, and eco-tourism.

4525 Crime Prevention: Theory and Practice [CRIM 4525]

3 credit hours

Prerequisite: SOCI/CRIM 3010, SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

This course introduces students to the field of crime prevention, which can be defined as "the anticipation, recognition, and appraisal of a crime risk and the initiative of some action to remove it." Topics include situational, social developmental, and community-based approaches to crime prevention as well as community policing, problem-oriented policing, and restorative justice. The course also teaches students how to plan and implement a crime prevention project and the final assignment is the development of a crime prevention plan for a real community.

4543 Law in Society [CRIM 4543]

3 credit hours

Prerequisites: CRIM/SOCI 3010, 3100, 3102 and SOCI 3012 or CRIM 3011

Students will explore the social issues and power relations inherent in the creation, enforcement, and reform of law.

4548 Feminist Analysis [WMST 4548]

3 credit hours

Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

Using a range of feminist theories and methodologies, students in this course explore issues that arise when studying women and gender relationships. Students will pay particular attention to the ways in which research can replicate and reinforce sex and gender biases.

4600 Honours Thesis Research Preparation [CRIM 4600]

3 credit hours

Prerequisite: enrolment in honours program.

This course is restricted to students who have been accepted into the honours program. Its purpose is to aid students in the preparation of their honours thesis through workshops related to proposals, research and writing.

4601 Honours Thesis Writing [CRIM 4601]

3 credit hours

Prerequisite: Completion of SOCI/CRIM 4600

Students will work closely with their supervisor to complete their thesis. To obtain an honours degree in sociology and criminology, the student must earn a grade of B+ (3.30) in CRIM 4601

4800-4825 Selected Topics

6 credit hours

Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

A seminar course which examines questions within an area of specialization and enables a student to study a particular sociological issue in detail.

4826 – 4849 Selected Topics

3 credit hours

Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

A seminar course which examines questions within an area of specialization and enables a student to study a particular sociological issue in detail.

4876 – 4899 Directed Reading: Advanced Studies in Sociology

3 credit hours

Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

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 4000-level seminar in fulfillment of requirement (c) for majors.

Spanish (SPAN)

Chairperson, Modern Languages and Classics

Associate Professor E. Tsedryk

Associate Professor A. Spires

Assistant Professor A. Arteaga

Courses and programs in Spanish are offered by the Department of Modern Languages and Classics

Department Policy - Modern Languages and Classics

1. Enrollment in some language courses involves the following formal placement procedures.

All students seeking entry into language courses who have not previously taken a language course at Saint Mary's University must complete and return the Language Profile Form to the Department of Modern Languages and Classics.

Based on the information provided in the Language Profile Form, students may receive notification from the Department to appear for an oral interview and/or a written placement test at a designated time.

The Department of Modern Languages determines the appropriate course placement for each student

- (i) Permission to register or remain in a particular language course can be refused if the Department judges that the student's knowledge exceeds the level for that course.
- (ii) Native speakers are not eligible to receive advanced credit for language courses.
- (iii) Completion of Advanced Standing (transfer) courses does not exempt a student from taking the placement test.

2. The student's eligibility to enroll 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.

3. 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 enroll in courses at the 2000 level or lower.

Students who misrepresent their knowledge of any given language by providing inaccurate or incomplete information about their linguistic educational history will be subject to disciplinary action as laid out in Academic Regulation 19.

4. 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.

5. Students should note that courses in 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.

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, a Certificate in Spanish Language and Hispanic Culture and a Minor in Latin American Studies.

Major in Spanish and Hispanic Culture

A major in Spanish and Hispanic Culture consists of thirty-six (36) credit hours:

- 12 credit hours at any level
- 12 credit hours at the 2000-level and above, and
- 12 credit hours at the 3000-level and above.

Courses counting towards the major are normally chosen from among the SPAN courses in language, literature, culture. After consultation with the Coordinator for Spanish or the Chairperson of Modern Languages and Classics, these can be supplemented [to a maximum of twelve (12) credit hours] by courses from other disciplines whose principal subjects are the arts, history or current reality of Spain and Spanish-speaking Latin America.

Concentration in Spanish

To obtain a concentration in Spanish in partial fulfillment of the B.A. General Degree (i.e. one with a Double Arts Concentration and a minimum of ninety (90) credit hours), a minimum of twenty-four (24) credit hours in Spanish is required. At most 6 credit hours can be at the 1000 level. Also, the minimum grade point average is 2.00.

Minor in Spanish

A minor in Spanish consists of twenty-four (24) credit hours, with at least twelve (12) of these being at the 3000 level or above. Normally, the first twelve (12) credit hour courses for the minor will be 1000 and 2000 level Spanish language courses, followed by twelve (12) credit hours be chosen from offerings in literature and cultural studies. Students entering the minor program with previous knowledge of Spanish should consult the Coordinator for Spanish. A minimum cumulative grade point average of 2.00 is required for courses in the minor program.

Minor in Latin American Studies

Students majoring in a discipline other than Spanish may obtain a minor in Latin American Studies by completing the equivalent of twenty-four (24) credit hours approved for the program. These must include:

- a) SPAN 1000 Introduction to Latin American Studies
- b) SPAN 1100 Introduction to the Spanish Language
- c) HIST 2375 Modern Latin America
- d) And twelve (12) other credit hours with a focus on Latin America in at least two different disciplines taken from the list below:

CRIM 4415, HIST 1260, HIST at the 3000 level or above, IDST 3463 SOCI 3319, SPAN 3304, SPAN 3310, SPAN 3312, SPAN 3313, SPAN 3314, SPAN 3320, SPAN 4400 and other courses approved by the program coordinator

Students without prior knowledge of Spanish will need the prerequisite 6 credit hours of SPAN 1100, or the equivalent. Students with beginner-level knowledge of Spanish can receive advanced placement into SPAN 2204/2205. Students with intermediate-level knowledge or higher are not eligible to enroll in SPAN 2204 or 2205, but will be required to substitute an additional six (6) credits decided in consultation with the program coordinator.

Certificate in Spanish and Hispanic Culture (Cert. H.C.)

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 twenty-four (24) credit hours 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 Coordinator for Spanish. Application forms are available from the Registrar. Students majoring in Spanish at Saint Mary's University are not eligible for this program.

Eighteen (18) of the twenty-four (24) credit hours must be completed at Saint Mary's.

Program Courses

The program consists of twelve (12) required credit hours in language, SPAN 1100 and/or 2204, 2205, 2206, 3303, 3306 and/or and a number of optional credit hours. These optional credit hours must be at the 3000 level or above and will be chosen from the following courses:

SPAN1000	Introduction to Latin American Studies
SPAN 3304	Americas: The Changing Face of Latin America
SPAN 3310	Latin American Culture
SPAN 3312	Introduction to Latin American Literature
SPAN 3313	20th Century Latin American Literature
SPAN 3314	Latin American Dystopias
SPAN 3320	Latin American Travel Literature
SPAN 4400	Dictatorship and Memory in Latin American Modern Fiction
HIST 2375	Modern Latin America
HIST 3402	Aspects of Global History

Other courses are possible, subject to the approval of the Coordinator for Spanish.

Requirements for Graduation

A minimum cumulative grade 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.

Course Descriptions**1000 Introduction to Latin American Studies**

3 credit hours

This course is an introduction to the peoples and cultures of Latin America. Topics include pre-Columbian civilizations, conquest and colonization, ethnicity, economics, politics, migration, urbanization, revolution, the environment, and the arts. This course will be conducted in English.

1100 Introduction to the Spanish Language

6 credit hours

Designed to offer a firm initial competency in speaking and writing Spanish. This course requires regular attendance and a willingness to participate.

2204 Intermediate Spanish I

3 credit hours

Prerequisite: SPAN 1100 with a minimum grade of C (or equivalent).

This course is a continuation of elementary Spanish, with emphasis on comprehension, conversation, reading, and writing.

2205 Intermediate Spanish II

3 credit hours

Prerequisite: SPAN 2204 with a minimum grade of C (or equivalent).

270 Spanish

This course is a continuation of Intermediate Spanish I, SPAN 2204.

2206 Intermediate Spanish Communication Skills

3 credit hours

Prerequisite: SPAN 1100 with a minimum grade of C.
Concurrent enrollment in SPAN 2204 and/or SPAN 2205 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.

3303 Advanced Oral and Written Spanish I

3 credit hours

Prerequisite: SPAN 2204 and 2205 with a minimum grade of C.

This course is designed to build upon and refine the students' ability to comprehend and to communicate effectively in Spanish.

***3304 Americas: The Changing Face of Latin America**

3 credit hours

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, and the role of women, religion, and the work of creative artists, national sovereignty, and revolution. This course contributes to satisfying the Faculty of Arts humanities 3c requirement but does not fulfill the 3b requirement.

3306 Advanced Oral and Written Spanish II

3 credit hours

Prerequisite: SPAN 3303.

This course is a continuation of Advanced Oral and Written Spanish I, SPAN 3303.

SPAN 3307 Advanced Spanish Conversation Through Film

3 credit hours

Prerequisite: SPAN 2204 and 2205 with a minimum grade of C

Designed for students who are learning Spanish as a second language, this course uses current Spanish-language films produced in Latin America and Spain as a springboard for in-class conversation about Hispanic culture, while also providing a review of grammatical structures at the advanced level. This course is taught entirely in Spanish.

***3310 Latin America Culture**

3 credit hours

Prerequisite: SPAN 2204 and 2205 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.

3312 Introduction to Latin American Literature

3 credit hours

Prerequisite: 6 credit hours in Spanish at the 2000-level or equivalent, with a minimum grade of C.

Designed for students who are learning Spanish as a second language, this course provides an overview of Latin American literature across a range of possible genres: narrative, poetry, theatre, and the essay. In addition to introducing students to the dynamics of these various forms of literary expression, this course uses literary texts as windows for looking into their historical backdrop, and the social, political, and cultural issues that they raise. This course is conducted entirely in Spanish.

3313 20th Century Latin American Literature

3 credit hours

Prerequisite: Any 2000-level or above course about Latin America

A study of 19th and 20th Century major works in Modern Latin American literature. Topics may include: Hispanic modernismo, the avant-garde movements of the 1920s, the Hispanic American neo-baroque and the Latin American boom. Close analysis of texts by Dario, Rulfo, Paz, Fuentes, Carpentier, García Márquez, Vargas Llosa, Borges, Machado de Assis, and others. Consideration will be given to historical context and contemporary ideological currents. The course will be conducted in English.

3314 Latin American Dystopias

3 credit hours

Given in English, this course explores the literature of Latin America, focusing on a shift from utopian to dystopian writings. The spatial dynamics of this dual representation will be weighed against an historical backdrop and current socio-political developments: from pre-Columbian civilizations to modern day urban sprawl, and into projections of cultural decay in nightmarish future.

3320 Latin American Travel Literature

3 credit hours

Prerequisite: Any 2000-level or above course in Latin America.

This course aims to introduce students to Latin American travel literature and raises questions about nature, identity and culture. We will focus on selected chronicles of 16th century Spanish missionaries, the accounts of 19th century European scientific explorers and contemporary Latin American authors whose narratives focus on travel. The course will be conducted in English.

4400 Dictatorship and Memory in Latin American Modern Fiction

3 credit hours

Prerequisite: Any 2000-level or above course in Latin America

Students will analyze power, politics and gender through modern Latin American literature. Short stories and novels from contemporary Latin American authors will illuminate our discussion about the presence of dictators in 20th century Latin American politics. The course will be conducted in English.

4876 – 4899 Independent (Directed) Study

3 credit hours

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

Women and Gender Studies (WMST)

Program Coordinator: A. MacNevin, Sociology and Criminology

Adjunct Professors S. Alfoldy, A. Anis,

The Saint Mary's Women and Gender Studies program offers an interdisciplinary Bachelor of Arts degree and an Honours degree, as well as a minor for students majoring in other disciplines.

Courses in Women and Gender Studies lead to a fuller understanding of how gender and intersecting variables of power shape individuals and groups, cultures, ways of knowing, and struggles for social justice and change. This involves scrutinizing not just how gender shapes and has shaped everyday practices, but also how sexual norms, racism, class, geo-politics, ableism, and age-related power shape people's lives in conjunction with gender. Students in the program learn feminist theories and methods with which to transform the norms and forms of domination that socially construct women in oppressive ways, and that discourage practices of femininity and masculinity that hinder all genders from participating fully in society. Women and Gender Studies programs and departments throughout Canada and internationally are widely recognized as playing an important role in broadening and problematizing our definitions of knowledge and helping to amend the bias and narrowness of many academic disciplines and social practices and institutions beyond the academy. Governments and many large and small institutions and organizations acknowledge the need to work towards gender, sexual and related forms of equity; our graduates demonstrate their expertise in this area through a range of practical and professional applications of their knowledge.

NOTE: ADMISSIONS TO THE CONCENTRATION, MINOR, MAJOR AND HONOURS IN WOMEN AND GENDER STUDIES ARE SUSPENDED INDEFINITELY.

For details on the Joint Master of Arts in Women and Gender Studies see the *Graduate Academic Calendar*.

Course Descriptions

1200 Introduction to Women and Gender Studies

3 credit hours

This course introduces students to the discipline of women and gender studies, emphasizing the interdisciplinary nature of debates that inform the field. Topics may include: ideologies of

femininity and masculinity; gender and psychology, language, sexuality, inequities; women and gender in the context of history, culture, literature, politics, economics; women, gender and intersecting identities, including ethnicity, class, race, disability, workforce and parenting.

2305 Women in Christianity [RELS 2305]

3 credit hours

2333 Women and Religion Today [RELS 2333]

3 credit hours

2385 Philosophical Issues in Feminism [PHIL 2385]

3 credit hours

2800 – 2825 Special Topics in Women and Gender Studies

6 credit hours

Prerequisite: at least three (3) credit hours in WMST.

These are combined lecture-seminar courses on a selected topic in Women and Gender 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 and Gender Studies degree.

2826 - 2849 Special Topics in Women and Gender Studies

3 credit hours

Prerequisite: at least three (3) credit hours in WMST.

These are combined lecture-seminar courses on a selected topic in Women and Gender 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 and Gender Studies degree.

3303 Sex, Gender and Society [ANTH 3303]

3 credit hours

Prerequisite: ANTH 1202, 1290, or 3 credit hours in a social science.

3317 Writing by Women [ENGL 2317]

6 credit hours

Prerequisite: at least six (6) credit hours, or permission of instructor.

3321 Women, Law and the State [CRIM/SOCI 3520]
3 credit hours

3341 Women and the Media [SOCI 3341]
3 credit hours

3348 Gender Roles [PSYC 3348]
3 credit hours
Prerequisite: one of PSYC 1200, 1240, 1250, and 1260.

3349 Women and the Economy [ECON 3349]
3 credit hours

3352 Women in Antiquity I [CLAS 3352]
3 credit hours

3387 Women and Development [SOCI 3387]
3 credit hours
Prerequisite: SOCI 1211

3393 Women Battery and the Criminal Justice System [CRIM 3393]
3 credit hours

4220 Power, Equity and Global Issues [SOCI 4220]
3 credit hours
Prerequisites: SOCI 2363 or SOCI 3351

4300 Gender and Asian Religious Traditions [RELS 4300]
3 credit hours

4404- 4405 Contemporary Issues of Feminism
3 credit hours
Prerequisite: at least twelve (12) credit hours in WMST 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.

4406 Contemporary Issues of Feminism
6 credit hours
Prerequisite: at least twelve (12) credit hours in WMST 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.

4417 Feminist Literary Theory [ENGL 4417]
3 credit hours

4420 Feminist Traditions in Scholarship
Prerequisite: at least seventy-eight (78) credit hours 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.

4421 Seminar on Women and Gender Studies
3 credit hours
Prerequisite: at least twenty-four (24) credit hours in WMST courses.

Students will develop their analytic skills and apply feminist methodologies and analysis in carrying out their proposed research.

4422 Women, Gender and Development: Theory and Method [SOCI 4422]
3 credit hours
Prerequisite: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

4423 Gender and Development: Policy and Practice [SOCI 4423]
3 credit hours
Prerequisite: theory and methods courses in WMST or SOCI or permission of instructor.

4427 Language, Gender and Power [ENGL 4427/LING 3427]
3 credit hours
Prerequisite: at least nine (9) credit hours at the 300-level or above.

4432 Gender and Law [SOCI 4432/CRIM 4432]
3 credit hours

4433 Women's Literature in France [FREN 4433]
3 credit hours

4449 Public Policy Challenges: Gender, Race and Class [POLI 4449]
3 credit hours

4482 Gender and International Migration [SOCI 4382]
3 credit hours

4514 - 4515 Advanced Directed Readings in Women and Gender Studies
3 credit hours
Prerequisite: admission into honours in Women and Gender Studies or permission of instructor.

4516 Advanced Directed Readings in Women and Gender Studies
6 credit hours
Prerequisite: admission into honours in Women and Gender Studies or permission of instructor.

4520 Honours Seminar

6 credit hours

Prerequisite: admission into honours in Women and Gender Studies.

The purpose of the honours seminar is to aid students in the preparation of their honours theses. Students will deepen their knowledge of feminist theory, methodology, historical, and theoretical perspectives in the disciplines related to the topic of their honours theses. They will develop their research proposals and complete their honours theses within the context of this course.

4548 Feminist Analysis [SOC 4548]

3 credit hours

Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

Using a range of feminist theories and methodologies, students in this course explore issues that arise when studying women and gender relationships. Students will pay particular attention to the ways in which research can replicate and reinforce sex and gender biases.

4585 Feminist Philosophy [PHIL 4585]

3 credit hours

4850 – 4875 Directed Readings In Women and Gender Studies

6 credit hours

Prerequisite: at least twenty-four (24) credit hours in WMST courses.

These courses offer students an opportunity to pursue advanced readings and research in a particular area of Women and Gender Studies. The students and professors will design the programs of study together.

4876 - 4899 Directed Readings In Women and Gender Studies

3 credit hours

Prerequisite: at least twenty-four (24) credit hours in WMST courses.

These courses offer students an opportunity to pursue advanced readings and research in a particular area of Women and Gender Studies. The students and professors will design the programs of study together.

Financial Information
Student Awards and
Financial Aid

Section
5

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 2012-2013 academic year had not been determined. The fees and financial policies listed in this Section are those for last year 2011-2012 and are subject to change before September 1, 2012. All fee calculations are made at registration without prejudice and are subject to confirmation and adjustment at a later date.

Visit our website for more current information:
Web site: www.smu.ca/servicecentre

Payment dates for upcoming 2012-2013 are:

Fall Term: September 14, 2012
Winter Term: January 16, 2013

(Fees and Policies listed below were those in effect for the year 2011-2012)

1. Tuition Fees – Undergraduate Level Courses

See Note 1 for **reduced** rates for Nova Scotia Residents and Canadian Residents.

	Domestic (Note 1 for discount)	International (Note 2)
Tuition per 3 credit hour course *		
Arts	\$575.00	\$1,150.00
Business	\$575.00	\$1,150.00
Science	\$585.00	\$1,160.00
Engineering:		
1000 level	\$436.00	\$1,011.00
2000 level	\$585.00	\$1,160.00
Co-Op Work Term	\$500.00	\$500.00
Campus Renewal	\$33.00	\$33.00

Note 1:

Nova Scotia residents received the Nova Scotia University Student bursary which **decreased** tuition costs per 3 credit hour course as follows: \$128.30 in 2011-12 & 2010-11, \$102.20 in 2009-10 and \$76.10 in 2008-09.

Under the same program, domestic non Nova Scotia residents received a discount of \$26.10 per half credit in 2011-2012.

At the time of publication it was not known if the bursary program will continue in 2012-2013.

Nova Scotia Resident - Two criteria are used to identify students as residents of Nova Scotia:

- Students in receipt of a Nova Scotia student loan

- For Canadian and Permanent Resident students without a Nova Scotia student loan, Nova Scotia residency is determined using the following guidelines:
 - Students entering university immediately after Nova Scotia high school completion (i.e. within the last twelve (12) months), or
 - Students whose province of permanent home address on the date of application for admission is Nova Scotia.

Further clarification is available at studentloans.ednet.ns.ca/

Note 2: International fees above include **Differential Fees**, explained in paragraph 4, below.

Students seeking additional information on matters related to undergraduate fee assessments should address their inquiries and correspondence to:

The Service Centre, Enrolment Services
923 Robie Street
Saint Mary's University
Halifax, Nova Scotia
B3H 3C3 Canada

Telephone: 902.420.5582
Fax: 902.420.5151
E-mail: servicecentre@smu.ca

2. Tuition Fees – Graduate Level Courses

Please see the Graduate Calendar for details.

3. Compulsory Student Fees

3.1 Campus Renewal Fee

This mandatory fee provides for campus renewal and renovation. The fee is assessed based on the number of registered credit hours. For example in 2011-12, the fee for each 3 credit hour course was \$33.00.

3.2 Student Fees

Students' Association and Journal fees are compulsory for all students. Compulsory medical plan details are described in Section 7 of this *Calendar*. Fees applied in 2011-12 were as follows:

		Per Term	Per Academic Year
Students' Association	Full Time	\$67.50	\$135.00
	Part Time	22.00	44.00
The Journal Newspaper		2.00	4.00
U-Pass Metro Bus	4 months	72.50	
	8 months		145.00
Canadian Medical	Single		137.00
	Family		289.00
International Medical	Single		903.50
	2 person Family		1,822.00
	3 or more Person		2,588.50
	Family		
Canadian / Intl Dental	Single		70.00
	Family		140.00

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4. International Differential Fees and International Status

Any student who is not a Canadian Citizen or a Permanent Resident must pay an international differential fee. In 2011-12 the fee was \$ 575.00 per 3 credit hour course however the fee is subject to change in 2012-2013.

Landed Immigration or Permanent Citizenship papers that support a change to a student's file must be presented to the Service Centre (Enrolment Services). The international differential fee will be removed for the term 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 will have the funds returned to their country of origin less any required University deposits, administrative fees and service charges assessed by financial institutions.

5. Sample Fee Calculations - 2011-2012

5.1 Canadian Student: Undergraduate Arts Program

24 credit hours in Arts and 6 credit hours in Science.

	1 st Term	2 nd Term	Total
Tuition: See Note 1 above for discounts for NS & Canadian Residents			
24 credit hrs in Arts	\$2,300.00	\$2,300.00	\$4,600.00
6 credit hours Science	585.00	585.00	1,170.00
Medical	137.00	0.00	137.00
Dental	70.00	0.00	70.00
Student Fees & Upass	214.50	69.50	284.00
Campus Renewal Fees	165.00	165.00	330.00
Total	\$3,471.50	\$3,119.50	\$6,591.00

5.2 International Student: 30 credit hours in Business

	1 st Term	2 nd Term	Total
Tuition	\$2,875.00	\$2,875.00	\$5,750.00
Medical	903.50	0.00	903.50
Dental	70.00	0.00	70.00
Student Fees & Upass	214.50	69.50	284.00
Campus Renewal Fees	165.00	165.00	330.00
Differential	2,875.00	2,875.00	5,750.00
Total	\$7,103.00	\$5,984.50	\$13,087.50

5.3 Part time Canadian Student taking 6 credit hours in Science (3 credit hours in each term).

	1 st Semester	2 nd Semester	Total
Tuition*	\$585.00	\$585.00	\$1,170.00
Student Fees	24.00	24.00	48.00
Campus Renewal Fees	33.00	33.00	66.00
Total	\$642.00	\$642.00	\$1,284.00

6. Class Withdrawal and Refunds

6.1 The deadlines for academic withdrawal differ from those for financial adjustment of tuition and related fees. Please refer to the refund schedule.

6.2 Non-attendance in class does not constitute an official withdrawal. You must drop your courses online through Self Service Banner (<http://selfservice.smu.ca>) or you will be responsible for all tuition and related charges.

6.3 Students who officially withdraw from all courses on or before the last day to add or drop courses will receive a refund less a \$50.00 administrative processing fee.

6.4 Students who officially withdraw after the last day to add or drop courses are eligible for a proportional adjustment of tuition and differential fees over a four week period. Student fees, medical, dental and U-Pass are non-refundable after this date. See the refund schedule for details.

6.5 The following tuition and differential refund schedule will be in effect for 2012-2013.

	1 st Term Fall – 2012	2 nd Term Winter – 2013
Refund 70%	Sep 15 - Sep 21	Jan 17 - Jan 23
Refund 55%	Sep 22 – Sep 28	Jan 24- Jan 30
Refund 40%	Sep 29 – Oct 5	Jan 31 - Feb 6
Refund 25%	Oct 6 - Oct 12	Feb 7 - Feb 12

Please note: Student fees, medical, dental and U-Pass are non-refundable after the last day to add courses.

6.6 Where a student withdrawal results in a credit balance, the student may be eligible for a refund. Prior to refunding a credit balance, the Service Centre will review the student's funding arrangements to determine if a third party (e.g., Canada Student loan, US Student loan program, or sponsor) has a claim on the credit balance. Where the credit balance has no priority claims or if the credit balance exceeds those claims, a refund will be made upon request.

6.7 Students who leave the University without officially withdrawing and who subsequently officially apply for and are granted a retroactive withdrawal by the University, will be charged a \$50.00 administration processing fee in addition to the regular University fees assessed up to the official withdrawal date established by the Registrar. Student service fees such as medical, dental metro transit pass, student union and Journal fees are non-refundable for retroactive withdrawals.

7. Special Fees

Complete Withdrawal – processing fee	\$50.00
Binding of Master's Thesis (3 copies)	50.00
Academic Appeal	30.00
NSF Cheque Fee	20.00
Identification Card Replacement	15.00

Parking - Sept 1, 2011- Aug 31, 2012

Students	General	\$355.00
	Underground	\$600.00

8. Residence Fees

8.1 Accommodations and Meal Plans are described in Section 7 of the Calendar. The residence application fee is \$25.00.

8.2 Room Rates

The following are the rates for 2011-2012. Rates for 2012-2013 had not been set at time of publication.

Room and Board	Per Term	Per Academic Year
Single Room plus		
10 Meal Plan	\$4,325.00	\$8,650.00
5 Day Freedom Plan	4,590.00	9,180.00
14 Meal Plan	4,542.50	9,085.00
7 Day Freedom Plan	4,642.50	9,285.00
Double Room plus		
10 Meal Plan	\$3,832.50	\$7,665.00
5 Day Freedom Plan	4,097.50	8,195.00
14 Meal Plan	4,050.00	8,100.00
7 Day Freedom Plan	4,150.00	8,300.00
Room Only		
Rice		
Shared Apartment	\$2,250.00	\$4,500.00
Single room, kitchen	2,805.00	5,610.00
Private room, shared bath	2,920.00	5,840.00
Senior Suites		
Shared Bath, kitchen	\$2,920.00	\$5,840.00
Private Bath, no kitchen	2,830.00	5,660.00

8.3 Residence Withdrawal and Refunds

At time of publication, the withdrawal/refund schedule for residence fees was being reviewed for the 2012-2013 academic year. Check our website for current information.

9. Payment of Fees

Payment due dates for 2012-2013 are as follows

Fall: September 14, 2012

Winter: January 16, 2013

9.1 Methods of Payment: For domestic students the quickest and easiest way to make a payment is to use the **Interac** Online payment option in Banner Self Service. Four major banks participate: Royal Bank, Scotiabank, Bank of Montreal and TD Canada Trust. Visit: <http://selfservice.smu.ca>

The second best way for domestic students to make a payment is using Online or Tele-banking. Set Saint Mary's University up as a vendor (or Payee) and use your Banner "A" number as your account number.

Other methods include; debit card or money order, bank draft and cheques drawn on Canadian banks can be mailed to the Service Centre.

International Payments

The quickest and most economical way to make a payment from another country is to use Travelex. Visit <http://www.smu.ca/epayment/travelex.html> and pay in your own currency at your local bank.

Students whose fees are to be paid by government or third party sponsors(excluding Student Loan Programs) are required to present a signed statement, certificate or other appropriate supporting document to the Service Centre office before the payment due date.

9.2 Students paying all or part of their tuition with a loan must meet University fee deadlines.

9.3 Students paying with Canada Student Loan Assistance are strongly encouraged to make application early so the loan arrives before the payment due date. Loans arriving after the deadline are subject to interest charges.

9.4 The University reserves the right to require full payment at the time of registration.

9.6 Second Semester Fee Payment:

New and continuing students are required to pay tuition fees on or before January 16, 2013.

9.8 Late Payment or Unpaid Accounts

Students who have not paid all fees may have their registration cancelled at the discretion of the Associate Registrar – Service Centre. 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 consideration of reinstatement by the Associate Registrar.

Students whose accounts are in arrears will not be permitted to register until their account has been paid in full.

9.9 Interest Charges

Accounts outstanding after the payment due dates will be charged weekly interest at a rate of (12.68% per annum).

Students paying with loans should note University fee deadlines are applicable and interest charges apply equally to all students.

Students whose accounts are in arrears will be denied marks, transcripts, tuition tax receipts and may be denied graduation.

9.10 Late Registration: Payment deadlines must be met.

In special circumstances, the University reserves the right to require pre-payment in excess of the first semester portion of tuition

Student Awards and Financial Aid Programs

1. Entrance Awards

We understand that financing your education can be challenging, but remember, it's an investment in your future. We are committed to ensuring your success by providing **\$4.2 million in scholarships, bursaries, and awards** each year to students.

Renewable Entrance Scholarships: Saint Mary's University guarantees a minimum total scholarship offer to any high school graduate with a Scholarship Average of 80% and higher. Apply by March 15 to be automatically considered. Students with an 80% average and above who apply by March 15 are also guaranteed a space in residence!

\$14,000 total value/ \$3,500 per year (renewable) - Scholarship Average 95%+.

\$8,000 total value/ \$2,000 per year (renewable) - Scholarship Average 90-94.99%. Should the recipient achieve a GPA of 4.0 or above in any academic year, the value of their award will be increased for that year.

\$4,000 total value /\$1,000 (renewable) – Scholarship Average 85-89.99%. Should the recipient achieve a GPA of 3.8 or above in any academic year, the value of their award will be increased for that year.

\$3,500 total value/\$500 (renewable) - Scholarship Average 80-84.99%. This scholarship is valued at \$500 (CAD) for the first year and \$1,000 per year for three additional years.

The award will be continued during the recipient's undergraduate program provided the student maintains a minimum 3.67 grade point average each year in the required number of credit hours. **Students admitted in September with a Renewable Entrance Scholarship must have completed a minimum of 24 credit hours by April 30th.** Returning students must have completed 30 credit hours in the preceding 12 Month Period of Study **May 1 to April 30.** All courses are used within this time frame for GPA calculations. Successful recipients must be registered as full-time (9 credit hours per semester) at Saint Mary's University in the following academic year. No application is required.

Entrance Scholarships (non- renewable) are also awarded to high school students who begin their studies in January.

Students who apply after March 15 will be considered for Entrance Scholarships as resources permit.

Saint Mary's University encourages and rewards continuous improvement. Students may be eligible for a higher valued Entrance Scholarship should their final grades place them in a higher scholarship band. Students may even be considered for an Entrance Scholarship if they did not

receive one upon application. If applicable, students should request reassessment or consideration by July 31.

To calculate a Scholarship Average: A scholarship average is determined by using the admission average then adding bonus points for AP, IB, or grade 12 enriched courses. Scholarship averages are calculated to two decimal points and are not rounded. Please note that Saint Mary's calculates an admission average by using the five required courses for the program the student has applied. Averages may vary from one program to another.

Transfer (Achievement) Scholarships: Saint Mary's University awards Entrance Scholarships to transfer students who:

- Have obtained a minimum GPA of 3.67 in a minimum of 30 credit hours of full time enrollment in their previous university.
- Begin their studies in September.
- Register in a minimum of 30 credit hours.
- Transfer from a Canadian university or a university outside Canada where Saint Mary's University has established a formal articulation agreement.

Presidential Scholarships - \$36,000 total value/ \$9,000 per year (renewable)

Santamarian Scholarships - \$20,000 total value/ \$5,000 per year (renewable)

A limited number of Presidential and Santamarian Scholarships are awarded on the basis of:

- A **very high aggregate score** (as calculated by the Admissions Office). Successful candidates typically have a Scholarship average of 95% or above. Recipients of these awards will be determined by their overall placement in relation to other candidates.
- A **résumé**, which should comment on such things as involvement in community service, participation in student government, athletic achievement, extra-curricular activities and volunteer and /or paid work.

The Presidential/Santamarian Recommendation Form can be downloaded from the Saint Mary's University web site <http://www.smu.ca/scholarships> or obtained by telephoning the Admissions Office at 902.420.5415.

Students will be considered for these scholarships when all of the above information has been received by March 15.

International Baccalaureate Scholarship- \$32,000 total value/ \$8,000 per year (renewable)

An International Baccalaureate Recommendation Form is to be completed by the IB Coordinator once the overall predictor score is available. Diploma candidates will be considered for this scholarship once this form has been submitted to the Admissions Office, Saint Mary's University. Please fax no later than **March 15.** Fax: 902.496.8100.

The award is available to both domestic and international IB Diploma candidates. It is awarded on the basis of an overall predictor score of 36 or above

Applicants should also include a résumé with information on such things as involvement in community service, participation in student government and athletic achievement. In addition, the completed International Baccalaureate Recommendation Form must be submitted under separate cover, by the high school IB Coordinator.

Recipients of this award will be determined by their overall placement in relation to other Diploma candidates. A candidate's overall ranking will be determined by the Admissions Office.

A minimum grade point average of 3.8 is required for renewal of this scholarship.

Note: The deadline for all Presidential, Santamarian and International Baccalaureate Scholarship consideration is March 15 (Only applications accompanied by supporting documentation are considered). Scholarships are announced no later than April 15.

Donor Sponsored Entrance Awards

Saint Mary's University offers a number of prestigious Donor-Sponsored Entrance Scholarship/ Bursary awards. These awards are open to potential high school graduates. The Donor-Sponsored Entrance Scholarship/Bursary application form is available online at: www.smu.ca/canadianscholarships or www.smu.ca/internationalscholarships

Note: Students will be considered for the most appropriate award; therefore no additional application is required.

The deadline for Donor-Sponsored Entrance Scholarship/Bursary consideration is March 15 (Only complete applications are considered). Scholarships are announced no later than April 15.

For information on scholarships and admission status, please contact admission.status@smu.ca.

2. Achievement Scholarships

Value: \$1,000.00 to \$3,500.00

Students who qualify for the Dean's List are considered each year as they progress satisfactorily toward a **FIRST** undergraduate degree.

Please note that students who receive a Renewable Entrance Scholarship are not eligible to receive an Achievement Award.

To be eligible for an Achievement Award, students must maintain a minimum 3.67 grade point average each year in the required number of credit hours. **Students admitted in September must have completed a minimum of 24 credit hours by April 30th. Returning** students must have

completed 30 credit hours in the preceding 12 Month Period of Study **May 1 to April 30**. All courses are used within this time frame for GPA calculations. Successful recipients must be registered as full-time (9 credit hours per semester) at Saint Mary's University in the following academic year. No application is required.

Students are responsible for notifying the Service Centre - Financial Aid and Awards of late course completions, grade changes and courses completed on Letter of Permission. These must reach the Service Centre - Financial Aid and Awards by August 1.

3. Donor-Sponsored 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 Service Centre - Financial Aid and Awards or by accessing Financial Aid and Awards through the Saint Mary's University homepage.

The scholarship application deadline is May 1.

Saint Mary's University Undergraduate Scholarship Regulations and Application Procedures

a. By 1 May, candidates for scholarships must apply each year to the Service Centre - Financial Aid and Awards. Donor-Sponsored Undergraduate Scholarships, Alumni Leadership Awards, and Faculty Union Scholarships require applications. Application packages are available from early February until the deadline of 1 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 re-qualify.

Only one-half of the value of any scholarship or bursary awarded by the University will be credited to the student's account during each of the two semesters. Unless the value of the scholarship or bursary is equal to or greater than the total fees for the year, payment is required by the student (section 3a & 3b). If the award exceeds the total semester's charges, refunds will be given by the Service Centre, Enrolment Services, to those students requesting them, after 15 November for the first semester and after 28 February for the second semester.

280 Student Awards and Financial Aid

c. Students are responsible for notifying the Service Centre - Financial Aid and Awards of **late course completions and grade changes** which were not recorded at the time when scholarship applications were filed. These must reach the Service Centre - Financial Aid and Awards by August 1st.

Note: The criteria for awarding entrance and continuing scholarships is currently under review, which may result in revisions to these criteria.

d. In order to be considered for an undergraduate scholarship, students must be registered in an undergraduate degree program at Saint Mary's University. 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 August 1st or that the student notifies the Service Centre - Financial Aid and Awards in writing of any possible transfer credits by that date.

e. Students who receive Named Undergraduate Scholarships from Saint Mary's must register according to the criteria outlined in the letter from the Service Centre - Financial Aid and Awards.

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 re-qualify.

h. Scholarships can be considered 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

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.

6. Awards Administered by the Donor (External Awards)

For information concerning these external awards application procedures, eligibility, and addresses, please contact the Service Centre - Financial Aid and Awards or

access Financial Aid and Awards through the Saint Mary's University website.

7. 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 apply online at <http://studentloans.ednet.ns.ca>

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.

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 or through Provincial Student Aid offices.

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 Financial Aid & Awards Office.

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
www.studentloans.ednet.ns.ca

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)
www.studentaid.gnb.ca

Newfoundland and Labrador

Student Financial Services
709-729-4244 Recording
709-729-5849 Information and Assistance
1-888-657-0800

www.edu.nov.nl.ca/studentaid

Ontario

Student Assistance Program
Ministry of Colleges and Universities
Student Support Branch
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
www.studentloans.pe.ca

Quebec

Direction generale de l'aide
financiere aux etudiants
1035, de la Chevrotiere
Quebec, Quebec
G1R 5K9
418-643-3750
24-hour automated service 418-646-4505 or
1-888-345-4505
www.meq.gouv.qc.ca/afe

Note: Addresses for Student Aid Offices in other provinces are available upon request from the Financial Aid and Awards Office.

United States Student Loan Programs

Saint Mary's University is a certified institution for the United States Direct Loan Program. Specific documentation is required from students to administer this loan program. Please contact the Service Centre - Financial Aid and Awards for detailed instructions on applying for the United States Direct Loan Program.

Centres and Institutes

Section

6

Centres and Institutes

Atlantic Centre for Green Chemistry

The Atlantic Centre for Green Chemistry was established in March, 2010 to advance basic and applied research in the area of Green Chemistry and to provide opportunities for both undergraduate and graduate students to study and innovate in Green Chemistry, both in the classroom and research lab. Contact the Office of the Dean of Science for more information.

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.

The Canadian Centre for Ethics in Public Affairs

In the spring of 2003, Saint Mary's University and the Atlantic School of Theology (AST) established the Canadian Centre for Ethics in Public Affairs (CCEPA), located on the

AST campus in Halifax. CCEPA provides an arena for critical thinking, public discussion and research into current ethical challenges in our society. The platform is a collaborative one, focusing on building connections across disciplines and communities. CCEPA partners with the major shapers of public life – government, business, NGOs and public service agencies.

The Centre joins the expertise of academics with the experience of community leaders and policy-makers to assist its partners as they seek to integrate ethics into their public practices and policies. CCEPA advances ethical practices in public affairs through public awareness, programming, education, research, resource access, as well as consultation and training. The Centre has been designated as a high priority in the strategic plans of both AST and Saint Mary's and is sponsored by the two institutions.

The Centre is located at 630 Francklyn St., Halifax, NS, B3H 3B5; Tel 902.428.4731; Email: info@CCEPA.ca; Website: www.ccepa.ca

Centre for Leadership Excellence

The Centre for Leadership Excellence (CLE) at Saint Mary's University is unique in Atlantic Canada.

The Centre was co-founded by the Department of Psychology, which maintains the largest faculty in Industrial/Organizational Psychology in the country, and the Department of Management at the Sobey School of Business, renown for its expertise in human resource management programs.

The CLE is supported in part by the Strategic Initiative Fund of the Office of the Vice-President, Academic and Research.

Leadership is essential if businesses are to achieve and sustain productivity and growth, inspire investor confidence and attract and retain talent.

Globalization and technological advances have produced an environment in which business and government continually need respond rapidly to changing demands. Developing and executing an effective corporate strategy in such an environment requires leadership excellence.

Demographic data show that we are moving towards a leadership shortage. Identifying and developing the leaders of tomorrow must be at the top of today's business agenda.

The CLE:

- helps business, industry, government and other organizations identify and develop leadership potential among their current workers and new recruits;
- assists leaders in learning new skills and enhancing those they already have so that they can better respond to the challenges they face every day in a business environment that is constantly shifting and making new demands;

- provides best practice advice and information in organizational development, giving leaders the people management infrastructure they need to sustain a motivating, productive and healthy workplace;
- offers opportunities for graduate students in Industrial-Organizational Psychology, Management and the EMBA program to gain experience in consulting and applied research.

The expertise of the CLE is leadership. The CLE provides consulting and research services in the fields of leadership identification, leadership development and leadership performance.

- Identify leadership needs
- Define promotion and recruitment needs
- Develop and train leaders
- Assess leadership effectiveness
- Plan strategic succession
- Provide leadership coaching

The CLE also provides a diverse range of services to help leaders maximize the performance of managers and employees while building a better workplace.

- Develop performance assessment, review and performance processes
- Measure and increase motivation, morale and job satisfaction
- Assess and improve team function
- Manage culture and diversity
- Assess and minimize workplace stress
- Measure and enhance occupational health and safety

Further information is available at www.smu.ca/cle

Centre for the Study of Sport and Health

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 Centre maintains an active program of attracting short-term visiting research associates. It is located in Room 202 at the Homburg Center. Telephone: 491-6454 Fax: 420-5844 e-mail: cssh@smu.ca.

Centre of Excellence in Accounting and Reporting for Cooperatives (CEARC)

CEARC was formed in 2007 and is located in the management department of Sobey School of Business, Saint Mary's University, Halifax, Nova Scotia. The Centre's work is overseen by a Board of Directors, with an Executive Director managing the day to day work of CEARC. An

advisory board directs the research goals and oversees the use of resources.

The Centre's research work is a collaborative effort and includes partnering with other researchers and universities on particular projects. One example is the Centre's involvement in an international research project looking at the issue of classification of cooperative member's shares as equity or liabilities and in particular in identifying the characteristics and economic behaviour of cooperative member shares. A major project being undertaken by CEARC over the next three years is the development of a draft voluntary international Statement of Recommended Practice (iSORP) for Accounting and Reporting by Cooperatives.

The CEARC approach to research is one aimed at improving communication and discourse between researchers and practitioners. The dissemination of papers, encouragement of comment and suggestions from the cooperators and accountants, and reconsideration of papers and proposals following analysis, forms an integral part of the process of researching and developing understanding of cooperative accounting. Website: www.coopaccounting.coop

CN Centre for Occupational Health and Safety

The CN Centre for Occupational Health and Safety was created in 2002. The CN Centre is the only centre of its kind in Canada and fits the missions of both CN and Saint Mary's. Building on Saint Mary's strengths in human resource management and industrial and organizational psychology, the CN Centre conducts interdisciplinary research in occupational health and safety. Faculty members and students from a diverse range of disciplines such as psychology, sociology and management, collaborate to conduct innovative research.

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 academic occupational health psychologist in the country. Two Canada Research Chairs and a Senior Research Fellow specializing in occupational health and safety research are appointed to the Centre. The CN Centre has expertise in assessing occupational stress, safety leadership training, promoting a positive safety culture, and investigating workplace violence.

The activities of the CN Centre can be classified under three broad headings, namely, Research, Education and Intervention. As a Saint Mary's University centre of research excellence, our primary role is to coordinate and conduct research and build research capacity through education. In addition, the CN Centre undertakes intervention projects in order to directly influence occupational health and safety. Through these activities the CN Centre aims to be a 'centre of influence' to enhance the health and safety of Canadians.

Public and private sectors benefit from educational, job training, assessment and program development opportunities

provided by the CN Centre for Occupational Health and Safety.

The Centre is located at Saint Mary's University, 5960 Inglis St., Halifax, NS, B3H 3C3; Tel: 902-491-6253; Fax: (902) 496-8135; Email: cncohs@smu.ca; Website: www.smu.ca/CN/

The Confucius Institute

The Confucius Institute was established at Saint Mary's University in the fall of 2010. It is a joint venture between the Office of Chinese Language Council International (Hanban), Xiamen University, and Saint Mary's University. The institute provides students and the community access to learning opportunities focused on the Chinese language, culture and business. The Institute builds upon the strengths of the long-established Asian Studies Programme in the Faculty of Arts and reflects long-standing linkages between Saint Mary's and Xiamen Universities. The Institute is located in McNally Building (MM205), Tel: 902-496-8255; FAX: 902-491-6230; Email: confucius.institute@smu.ca; Website: www.smu.ca/ci.

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. The Institute offers a research fellowship each year to a full-time graduate student in ACS.

Objectives

The aims of the Gorsebrook Research Institute are to encourage and facilitate interdisciplinary 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 collaborative research; to promote interdisciplinary and interuniversity cooperation, and to encourage university community outreach through collaborative research projects.

The Gorsebrook Research Institute houses the Canada Research Chair in Atlantic Canada Studies, a Senior Research Fellow, and affiliated researchers. The GRI also has a number of inter-related research centres.

The Centre for New Media Qualitative Research

facilitates inter- and transdisciplinary qualitative research using traditional and new media. 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 **Austin Willis Moving Images Centre** is a multimedia service facility and research centre focusing on the collection, preservation and analysis of film.

The **Office of Aboriginal and Northern Research** is 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. This new Office now includes collaborative research projects with other Aboriginal groups in Atlantic Canada, as well as ongoing participation in international networks such as the University of the Arctic.

Additional activities of the Institute 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 at 5960 Inglis Street on the Saint Mary's campus, and can be reached at 902 420-5668; fax: 902 496-8135; or email: gorsebrook@smu.ca

The Institute for Computational Astrophysics (ICA)

The Institute for Computational Astrophysics was established in December, 2001 as a partial fulfillment of Saint Mary's new vision for research and graduate studies. The ICA has six full time faculty members, all of whom are members of the Department of Astronomy and Physics. The faculty members include the University's first Tier 1 Canada Research Chair (CRC) and a Tier 2 CRC. Other members include post doctoral fellows and graduate students, and two external scientific members. The ICA graduated its first Ph. D. in 2008.

The ICA is also the focus of ACEnet at Saint Mary's. ACEnet is a consortium of nine Atlantic Canadian universities formed to provide high performance computational facilities for academic researchers and is part of the national organization, Compute Canada, to manage jointly the activities of ACEnet and the other six consortia covering the other regions of the country. While Saint Mary's researchers may use any ACEnet computational capability, Saint Mary's is distinguished by having ACEnet high quality visualization tools on campus, including an immersive environment called a data cave. One key ability of a data cave is to allow the three dimensional visualization of complex astrophysical calculations performed by ICA members.

The aim of the ICA is to utilize the highest levels of computational capability to model objects of astronomical interest from the relatively small sizes of objects in the solar system to the size of the universe as a whole. Members of the ICA work to develop and utilize state of the art computational tools to simulate astrophysical phenomena on these scales. Unlike most other areas of science in which the researcher can actively design and perform experiments to test hypotheses on how the items being experimented upon respond, astronomers and astrophysicists can only examine the information that comes to us from the object. Progressively better models of astrophysical phenomena produced by computer simulations allow us to compare with observed results to confirm or reject the models and to deduce new observations to make. The interactions between

ICA members and observationally oriented faculty of the Department of Astronomy and Physics allow us to continually refine, improve, and understand our simulations.

The ICA is located in the Atrium 319G and can be reached by phone at 902-420-5105; by fax at 902-496-8218; or by email at icaadmin@ap.smu.ca. The ICA home page may be found at www.ica.smu.ca

Regional Analytical Centre

The Regional Analytical Centre is administrated directly under the Faculty of Science. The centre consists of two units: the Electron Microscopy Unit and the Geochemical Unit. With state-of-the-art analytical facilities, the centre provides high-quality micro-morphological, micro-structural and chemical analyses to researchers and teaching groups at universities as well as scientists in government and industry throughout the region.

The EM lab is equipped to perform scanning and transmission electron microscopy analyses of most geological, chemical and biological materials. The geochemical lab is equipped with an X-ray fluorescence spectrometer and a Carbon Nitrogen, Sulfur analyzer. The principal focus of the geochemical lab is to utilize non-destructive analytical x-ray fluorescence (XRF) to determine elemental concentrations in environmental samples.

Professional assistance is available for consultation, service needs, customization of techniques, and training. The main office of the centre is located in the Science Building, Room 422. The technician can be reach by telephone at 902-420-5709; fax: 902-496-8268; or e-mail: xiang.yang@smu.ca. Website – Electron Microscopy lab: <http://fgsr.smu.ca/emc/> - Geochem. Lab: <http://www.smu.ca/institutes/rgc/>

Section

7

Resources and Services

Resources and Services

Alumni Association

When you graduate from Saint Mary's University, you become part of one of the most active and loyal alumni networks in the country boasting more than 40,000 members around the world. The Alumni Association is committed to helping you stay connected to Saint Mary's and to your fellow graduates through a wide range of events, programs and services.

The Mission of the SMU Alumni Association is to create value, goodwill and affinity with Saint Mary's University and is supported by five key pillars that drive all Association activities:

1. Connect alumni to Saint Mary's and to each other
2. Build solid relationships to support student recruitment and contribute to the financial health of Saint Mary's
3. Raise the profile of Saint Mary's alumni and increase the worth of a Saint Mary's degree
4. Provide support and inspiration to current students and alumni
5. Participate in university governance and advance the mission of Saint Mary's University

The Alumni Association Council is a group of volunteers who are selected by their alumni peers. They are responsible for planning and implementing the Association's programs and services. The Association Council consists of a President, Past President, Vice-President, Treasurer, and up to 20 other members. Members usually serve three-year terms, and meet quarterly as well as do committee work. Six Association representatives also serve on the University's Board of Governors.

The Alumni Association hosts an Annual Meeting and Dinner which is usually held in September each year as part of Alumni Homecoming Weekend. All alumni are encouraged to attend what has become one of the most anticipated events each year.

The Association is involved in and oversees a wide range of activities and events to help alumni stay connected. They are:

- **Alumni Benefits & Services.** These include, but are not limited to, access to or discounts to services on campus, diploma/degree framing, and special insurance group rates for health, auto and life. A full listing of benefits and services may be found on the Alumni website at www.smu.ca/alumni.
- **Student / Young Alumni** Alumni volunteers focus on providing current students with direction, mentoring and support by connecting them with recent graduates.
- **Awards** The Alumni Association recognizes faculty and alumni through an awards program. They include: Father William A. Stewart, S.J. Teaching Award, Leadership Awards, and Distinguished Community Service Awards

Golf Tournament : The annual tournament happens in August and is always a sold out and fun event. More than 20 students receive bursaries thanks to this event

Homecoming/One World Alumni Dinner This weekend provides an opportunity for alumni to come back to campus

and celebrate a major milestone of graduation, see their old classmates, take in a football game and attend the alumni dinner. Lots of great memories and a good time is guaranteed. The Alumni Association is always pleased to hear from alumni members who are interested in participating. To make sure you receive the latest happenings and are up to date on Alumni Association activities and events, please send us your updated address and email. You can always check out the latest information at www.smu.ca/alumni or for further details or to become more involved, contact the Alumni Office at 902.420.5420 or email us at alumnioffice@smu.ca.

Art Gallery

Metcalfe, Robin, B.A. (Hons.) (Dalhousie), Director/Curator
Pam Corell, M.A. Museum Studies (UNL), Assistant Curator

Harry Hamm, B.F.A. (NSCAD University), Collections Coordinator

Brigitte Aucoin, M.A. Fine Arts (Universite de Provence), Administrative Assistant

Constructed to National Gallery of Canada standards and opened in October, 1971, Saint Mary's University Art Gallery was the first purpose-built university art gallery in Halifax. It is located on the ground floor of the Loyola Building.

The Gallery focuses on contemporary art, featuring both emerging and established artists active on the regional, national and international levels. Occasional historical exhibitions provide depth and context. New exhibitions open every 6-8 weeks, with a total of 10-12 exhibitions a year. The Gallery produces publications for all temporary exhibitions that it originates, and hosts frequent panels, lectures and artists' presentations. Boasting one of the finest pianos in the region, the gallery also serves as a venue for performances, concerts, readings multicultural events and lectures on various subjects.

From its inception, the gallery has maintained a permanent collection, currently comprising over 1,500 individual works, primarily by contemporary Canadian artists. The collection houses many works by Nelly Beveridge Gray, including watercolours and rubbings of historic reliefs in Mesoamerica, Europe and Asia. Gray's collection of pre-Columbian ceramics is complemented by works of Nova Scotia ceramists such as Alma and Ernst Lorenzen. Saint Mary's University Art Gallery is also home to a collection of Irish High Cross rubbings by Aileen Meagher.

Many works from the collection are on display on campus, including commissioned works by John Greer and Matthew Reichertz. Recent acquisitions represent contemporary artists associated with NSCAD University, such as Gerald Ferguson, Kelly Mark, Mitchel Wiebe, Lucy Pullen and Matt Wedel.

Gallery hours are Tuesday to Friday, 11:00 a.m. to 5:00 p.m., and Saturday and Sunday 12:00 to 5:00 p.m.

Website: www.smuartgallery.ca
Phone: 902.420.5445

Athletics and Recreation

The Department of Athletics & Recreation organizes and runs a variety of activities, providing an opportunity for all students, faculty and staff of Saint Mary's University to participate on a number of different levels. For complete details on the Department of Athletics & Recreation, please visit our website at www.smuhuskies.ca

Varsity Sports

Saint Mary's University 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. We compete in the following sports: Men's & Women's Soccer, Basketball, Hockey, Cross Country & Track & Field, Women's Volleyball, Rugby, Field Hockey and Men's Football.

Athletic Facilities

The centre of activity at Saint Mary's University is the **Homburg Centre for Health & Wellness**. The Centre provides for the total well being of its students and the University community. The Centre houses a double-sided gymnasium with running track, squash courts, cardio centre, weight room, studios, Centre for the Study of Sport & Health, Sports Medicine Clinic, classroom, seminar rooms and offices. Along with the **Alumni Arena** and **Huskies Stadium**, these facilities are home for the Huskies' 12 varsity programs and also serve as the location for Intramural & Club Programs.

Intramurals and Recreation

Intramural and recreational programs focus on participation, fun and the opportunity to meet new people! Whatever type of activity you are looking for you will find in Intramural and Recreation sports. From beginners to advanced, all are welcome to participate in these programs. For a complete list of intramural teams, please visit our website.

Club Sports

Sport Clubs are organized and led by Saint Mary's University students motivated by a common interest to participate in a specific sport or physical activity.

Different Sports Clubs have different focuses, such as league or tournament play, socialization, or instruction and skill development.

Joining a club is a great way to meet new people, learn new skills, and enjoy a sport or activity that interests you! They are also a great way for student-organizers to gain valuable leadership, management and organizational skills.

Clubs are responsible for their own internal organization and conduct, following policies and procedures established by the Department of Athletics & Recreation. For a complete list of Club Sports, please visit our website.

Sport Hall of Fame and Heritage Centre

Established in 1995, the Saint Mary's University Sport Hall of Fame & Heritage Centre is located on the 2nd Floor of the **Homburg Centre for Health & Wellness** and was designed to celebrate the rich tradition and heritage of sport and recreation at Saint Mary's University. The Induction Ceremony is normally a part of Homecoming Weekend. Inductions are held annually with anywhere from one to four individuals or teams being honored.

Since its inception, the Sport Hall of Fame has been generously supported, especially financially, by the Presidents of the University and the Directors of Athletics.

A Sport Heritage Centre is also an integral part of the operation of the Sport Hall of Fame and Heritage Centre. This provides a space to house memorabilia depicting the rich tradition and success of athletes and builders at Saint Mary's University.

The three categories of inductees are – individual varsity athletes; varsity teams; builders – all of whom have contributed immensely to the solid reputation of Saint Mary's University in the field of athletics and recreation. Deadline for submission of Nominations is March 31st of each year. For a complete listing of SMU Hall of Fame Inductees or to download the Nomination Form, please visit our website.

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
1999	Jamie Bone Elizabeth A. Chard Bob Warner 1964 Football Team
2000	Roy Clements Mickey Fox Kathleen Mullane
2001	Chris Flynn Elmer MacGillivray Angelo Santucci 1973 Hockey Team
2002	Frank Archambault Harold "Babe" Beazley Dianne Chiasson Michael Hornby
2003	Al Keith Dr. Greg McClare Larry Uteck 1978 Men's Basketball Team
2004	Leslie K. Goodwin Ross Webb Susan Beazley Bill Robinson
2005	Frank Arment

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	Brian Heaney
	Bill Mullane
2006	Mike Curry
	Reginald Joseph MacDougall
	Dr. Robert (Bob) Ruotolo
2007	Fr. George Leach, S.J.
	John Gallinaugh
	Lee A. Thomas, Jr.
2008	Paul Puma
	Andrew Conrad
	1956 Football Saints
2009	Ken Clark
	Doug Wright
	1979 Men's Basketball Team
2010	Brian Burgess
	Charles (Chuck) Goddard
	1988 Football Team
2011	Dr. David Petrie
	Al Brown, Jr
	1977-78 Field Hockey Team – “The Belles”
2012	Robert “Puddy” Reardon
	Don Murphy
	Bill Scollard

Bookstore

Situated on the second floor of the O'Donnell-Hennessey Student Centre, our campus store is owned and operated by Saint Mary's University.

Our course material specialists work year-round to provide required and recommended textbooks, coursepacks, e-books and access codes for Fall, Winter and Summer semesters.

The campus store also carries a wide range of stationary, course supplies, crested clothing and imprinted giftware. Our website, bookstore.smu.ca, provides detailed information on selecting your course-material, operating hours, refund deadlines, as well as our web-catalogue for clothing and giftware.

Used Book Program – Used books are bought and sold during annual Buy Backs for each semester. Current titles, re-ordered by instructors, are purchased from students for half price during our Used Book Buy-Backs in December, April, June and August. Titles that have not been confirmed for upcoming semesters are bought back at lower wholesale prices and shipped off-campus. All half-price course material purchased during the Buyback is sold at 25% off the new price, and used books are tax-free.

Special Orders - Personal copies of any book in print can be ordered through Customer Service.

Graduation Rings - Saint Mary's graduation rings may be ordered from the campus store's ring representative at the following times: Tuesdays 3:30 pm – 4:30 pm in February, March, April, October, November and December. Watch for campus posters and our website for special Ring Days during each semester.

Parchment/Diploma Framing - Customized diploma frames are available in two styles, each with crested mattes. Following Spring and Fall Convocations, an on-site framing service is provided during the convocation reception.

The campus store is open -

Sept. to May: Monday to Friday 9:00-4:30
June to August: Monday to Friday 9:00-4:00

Extended Hours:

During the first two weeks of each semester, we are open extended hours as posted on our website.

Contact:

902-420-5562

E-mail: bookstore@smu.ca

Center for Academic & Instructional Development (CAID)

University Teaching Centres are designed to address the needs and interests of all members of an academic community in the education of students. In keeping with this mandate, the Centre for Academic and Instructional Development (CAID) has played a key role in the support of teaching and learning at Saint Mary's since its inception in October, 1998 (formerly called the Office of Instructional Development).

The Centre, located within the Global Learning Commons in the Atrium Building, provides programs and services for professional development in teaching to full and part time faculty. In addition to administrative offices, the Centre consists of a Resource Library (AT106); a Studio Classroom (AT212) for pedagogical training, workshops, and meetings; and the Centre for Academic Technologies (CAT) a computer training lab.

The CAT (AT107) is a division of CAID focused on providing support and services to faculty, staff and students in the development and use of technology for teaching and learning.

For more information on programs and services:

<http://www.smu.ca/administration/caid/welcome.html>

Information Technology Systems and Support

Information Technology Systems and Support (ITSS) provides the technology and related services to support the teaching, learning, and research of students. Technology is viewed as a basic necessity and spans the campus from the classrooms to residence rooms.

Data communication and Internet services are provided through a network providing students with ready access to wired and wireless connections in all buildings and many outdoor spaces on campus. This network supports over 6,700 student devices in addition to the 1,900 university computers in labs, classrooms, and faculty and administrative offices. As well as the network services, students living in residence are provided with telephone and voice mail services.

Most on-line services are supported by ITSS including SMUport and Self-service. In SMUport, the university's web portal, students can connect with the campus community, and obtain on-line course information through

Blackboard. Self-service provides students with on-line course information and registration.

The department supports the classroom learning environment by equipping them with the latest multimedia presentation tools.

Six general access computer labs and several departmental labs across campus hold over 400 workstations. Some general access labs are open 24 hours per day, 7 days a week. In the labs, students and faculty can find a wide range of software for their purposes including statistics, graphics, charting and map drawing, CAD, financial and mathematical applications, and business productivity suites. Labs are also equipped with laser printers, and colour printing is provided through the campus Print Centre.

The University's Evergreen program allows our technology to be replaced on a scheduled basis to keep it current. As a result, all computer lab, classroom and office systems are less than 3 years old. Audio Visual projectors and large TV's or monitors in teaching classrooms are on a 4 year refresh cycle.

Assistance is provided to all students by ITSS in a number of ways. The department maintains documentation on how to use the technology services on campus. Lab assistants are on hand through the day and evening during the academic year to aid students in the labs. ITSS operates two Help Desk locations to provide support in person, by telephone or email.

For further information visit the ITSS web page (www.smu.ca/its), phone (902) 496-8111, or email HelpDesk@smu.ca.

International Activities Office

The primary role of the International Activities Office is to support the broader goal of the internationalization of the Saint Mary's campus. We are dedicated to enriching the lives of students, faculty and staff through the development and enhancement of international experiences and perspectives. We create opportunities for you to select the exact international experience to suit your needs, whether on campus or in other parts of the world. Through our international network of contacts, we are able to provide a high level of support to anyone in the Saint Mary's community who is interested in becoming involved in a broad range of activities with an international focus.

What do we offer?

- Student mobility – For students looking for an international learning experience, either on-campus or elsewhere.
- Youth internships – We oversee international work placements, funded by the Canadian government, for Canadian university and college graduates.
- Group training – Saint Mary's offers short-term training programs (language, cultural, academic, and professional) to a variety of clients. These programs can be offered either in Halifax or on an external site selected by the client.

- International projects – Throughout the years, Saint Mary's has participated in international projects with partners in more than 25 countries, generally funded by external agencies.
- International consultancies and research – Faculty and staff interested in opportunities for international research funding, consulting/ volunteer placements, or international teaching possibilities can contact us for information.
- Travel information – Our office provides pre-departure briefings and a travel registration service to Saint Mary's travelers.

For more information, please visit our website or contact us by telephone at 902-420-5177 or by e-mail at international.activities@smu.ca. We look forward to hearing from you. Or you can visit us in person – our offices are in The Oaks, 5920 Gorsebrook Avenue.

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 aluminum dome measures five meters 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.

Office of Conflict Resolution

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.

Saint Mary's provides an advisory service to all members of the University Community. The Office of the Conflict Resolution Advisor is located on the fourth floor of the Students Centre. The Advisor is available by appointment by calling 420-5113.

The Advisor is available to answer all inquiries concerning organizational conflict, discrimination, harassment and to provide educational programs for various departments and groups on campus. 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, such as mediation, facilitation and/or conciliation.

Patrick Power Library and Global Commons

The Patrick Power Library is the main research centre at Saint Mary's, dedicated to meeting the academic needs of the University's students, faculty and staff. Its three floors are home to more than 400,000 books and other resources and Saint Mary's students can borrow from the collections (over two million items) of other universities in the region as well. The library also offers 24/7 access to more than 16,000 electronic scholarly journals and e-books in the arts, business and science disciplines, either on-campus or off, via its web site. To facilitate this access, the library makes 50 desktop computers and 20 laptops available for student use (the entire building is a wi-fi zone).

The library provides an informal and welcoming space where you can do your research in a variety of environments. Renovations to the main and upper floors, including new flooring and furniture, are in response to students' desire for both group work rooms and quiet, individual study space, a reflection of the ways they conduct research and communicate. Even food and drinks are permitted in the library.

Our service desks open onto the new Global Commons, a student-centred space in the adjacent Atrium which provides an additional 60 computers and collaborative work areas.

In the library you will find knowledgeable staff who are eager to help you get the most out of its resources. Reference service is available more than 90 hours per week during each semester and an extensive information literacy program offers classroom or individual instruction for students to help them learn how to use both traditional and electronic information sources. During the school year the library is open seven days a week, every night (except Saturdays) until 11pm.

The library is also home to the Ferguson Library for print-handicapped students and the University Archives, the official repository for documents related to the history of Saint Mary's.

For more information on everything the Library has to offer, just phone (902) 420-5544 or visit www.smu.ca/library.

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, literacy, educational,

social and recreational activities intending to promote the highest quality of life for Saint Mary's students.

The Mission

The Association strives to maximize the positive university experience for its students and provide assistance in overcoming any challenges they may face. The Student Association makes an ongoing commitment to maintain open communication with its members while providing valued services, dedicated representation, and effective advocacy.

The Vision

Saint Mary's University Students' Association shall ensure the highest quality of life for each and every student at Saint Mary's University.

The Association is governed by a 9 member Board of Directors, elected by the student body. Also elected is our President and CEO who manages the Corporation. The President hires Vice Presidents such as the Vice President of University Affairs, the Vice President of Academic Affairs and the Vice President of Student Life. All students are encouraged to get involved by running for the Board of Directors, for President, 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 societies and organizations students can get involved with that are governed and funded by SMUSA.

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 Events and Promotions Department and we have a Volunteer Coordinator for anyone seeking volunteer opportunities as well. We produce the Yearbook, 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 honors and recognizes those students, student groups and faculty who have made outstanding contributions to student life and teaching throughout the year. SMUSA also offers a U-Pass for the HRM transit system as well as the student Health Plan. Please contact SMUSA for further information at www.smusa.ca or call (902) 496-8700.

Medical Insurance (Student Health Plan)

The Saint Mary's University Students' Association coordinates and provides a Health Plan for all full time Canadian and all International students each year. The policy year begins September 1st and ends August 31st. The Students' Association, in consultation with the Health Plan Committee, administers the plan through the Student Health Plan Office (Room 529 – 5th floor Student Centre). This program is compulsory for all full time Canadian students and all International students. Students are assessed the medical fee upon registration, however students with comparable and alternative coverage may opt-out of the Health and Dental plan. Canadian students can opt out online at smuport.smu.ca/cp/home/loginf. International students can opt out by visiting the Health Plan Office and

signing a medical waiver form and also providing proof of their own comparable coverage. The opt out deadline for academic year 2013/2014 will be September 25, 2013 for first semester enrolments and January 25, 2014 for second semester enrolments. Canadian students who were part time in the fall semester but register as full time in the winter semester are automatically enrolled into the Health Plan beginning in January. Inquiries about waiving the Health and Dental Plan can be made by calling the Health Plan Office at (902) 496-8754.

1. Full-Time Canadian Students and International 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 International students. Extended Health Care can be defined as medical coverage supplementary to any provincial or provincial equivalent medical coverage and includes benefits such as prescription drugs, physiotherapy, massage therapy and eye exams.

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/her provincial health care system. For premium amounts, see Section 6 of this *Calendar*.

b.) International Students

The Student Health Plan coverage for International students consists of two parts:

The first part being the Basic Health or Provincial Health Care coverage equivalent (e.g. hospital care and surgical care) and the second part being the Supplemental Health 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 international students have provincial health insurance (such as MSI) they may waive that portion of the Health Plan by September 30, 2013 for a full refund and after September 30, 2013 for a partial refund by completing a waiver form at the Health Plan Office (Room 529, Student Centre). International 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 eligibility for Nova Scotia Provincial Health Care (MSI) please call MSI at (902) 496-7008.

c.) Family Coverage (Canadian and International students)

Students covered by the Students' Association Health Plan may add their spouse and eligible dependents to the Health Plan by completing an "Application for Family Coverage" form. These forms are available on the website <https://www.studentvip.ca/smusa/> or at the Student Health Plan Office (Room 529, 5th floor Student Centre) and must be completed by the September 25, 2013 for fall semester

enrollment or by January 25, 2014 for eligible winter semester enrolments.

For premium amounts see Section 6 (Financial Information) of this calendar.

2. Part-Time Canadian Students

Part-time Canadian students must complete a Opt-In application form for the Students' Association Health Plan coverage before September 25, 2013.

For additional information on medical premiums, benefits, waivers, claims processing, family coverage and general inquiries please contact the SMUSA Health Plan Office (5th floor Student Centre Room 529) Tel: (902) 496-8754 Email: healthplan.smusa@smu.ca

U-Pass

The U-Pass is a special transit pass that provides full-time students with unlimited access to HRM's Metro Transit services. This service is provided from September through April. This is a mandatory program for all full-time students. Part-time students are not eligible. There is no opt-out or opt-in service for this program.

Student Services

At Saint Mary's University the Department of Student Services includes the Office of the Director, Athletics and Recreation, Chaplaincy, The Counselling Centre, Career Services, Atlantic Centre of Support for Students with Disabilities, Health Services, Black Student and Aboriginal Student Advising, 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. A full description of all services can be viewed on our web site: www.smu.ca/students

Chaplaincy

Saint Mary's Chaplaincy offers some great pathways towards discovering the best of what faith and spirituality has to offer. To live life in 3D we help students, staff and faculty to 'discover, develop and discern' all God has for them.

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 educators 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 Loyola Room 183 where weekday mass is offered. In addition, a special University Mass is held at 5 p.m. every Sunday at St. Mary's Cathedral Basilica located on the corner of Spring Garden and Barrington. A Multi-faith prayer room is also available in room 145 of the Loyola Residence. Faith services are available in nearby churches, synagogues, and mosques.

Pastoral guidance is available from the University Chaplain.
Contact : chaplain@smu.ca ph 420 5502

The Counselling Centre

The Counselling Centre staff at Saint Mary's provide free, professional counselling to full and part time students using a short term therapy model. To make an appointment, students may drop by the Centre (4th floor, Student Centre) between 9:00 a.m. and 4:00 p.m., Monday to Friday, call 420-5615 or email counselling@smu.ca. Students may come to the Counselling Centre on their own, or they may be referred by a member of the University or outside community. The Counselling Centre is not an emergency walk in clinic and all emergencies will be referred to the local emergency department.

A variety of services are offered through the Counselling Centre. While some students request counselling to deal with personal issues, others come to improve their learning strategies and succeed academically. The following describes the various services available through counselling.

Personal Counselling

Students are seen individually for assistance with a range of personal issues, 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.

Academic Coaching

Academic coaching is useful for students on academic probation, for those who need advanced study skills education and for students wishing to improve their academic performance. Through individual sessions, students can learn new strategies to map out academic goals and work towards achieving these goals.

F.Y.I. (first year information) Boot Camp is overseen by the Student Success Coordinator and is structured to help new students become familiar with the services and resources available to them and to develop University-level academic skills. This program provides an opportunity for new students to become comfortable on campus, confident in their academic abilities, learn a variety of success strategies, and meet other students and members of the campus community.

Black Student Advisor/Aboriginal Student Advisor

Separate Advisors are available during the academic year to Black and Aboriginal Students studying at Saint Mary's University. Fellow students provide support, education, and resources to students seeking information and referrals. Both Advisors work to educate the University community on cultural issues, promote understanding among groups and create awareness in all students.

Pride in Your Shared Neighbourhood

Pride in Your Shared Neighbourhood is a University Committee made up of students, staff, neighbours, and HRM representatives who care about the neighbourhood in which they live, work and study and want to add to the great community that already exists. The Committee works year

round to educate students on the responsibilities of being a good neighbour and to make neighbours aware of the contributions students make to the community. Getting to know one another and working together to make the community the best it can be are main themes of the work of the Pride in Your Shared Neighbourhood Committee. The Committee uses educational material, awareness sessions, meetings and fun activities to create a sense of community, encouraging all to take "Pride in Your Shared Neighbourhood".

The Committee is receptive to hearing suggestions on ways to create partnerships and to resolve issues within the community. Neighbours are invited to campus throughout the academic year to share their experiences and meet students.

Orientation

Summer, fall and winter orientation programs are available to new and transfer students. Orientation is coordinated through the partnership of SMUSA and Student Services, providing both social and academic programming to ease the transition of University life.

Career Services

Career Services provides access to services and resources that will assist students in making decisions throughout their academic career. Career Services will work with students individually or via the Career Development Centre to discuss identified areas of concern. Individual career counselling and various career assessment instruments are used to help students better understand themselves and determine their future academic and career related goals. We also assist students with resume and cover letter creation and critiques, volunteer and internship opportunities as well as help prepare students for the job market (mock interviews, job search, labour market information, networking, etc.). All full and part time students of Saint Mary's University, as well as Alumni, can access Career Services.

Career Services is located on the 4th floor of the Student Centre and we are open from 9 a.m. to 5:00 p.m. (Monday – Friday). To schedule an appointment please contact us at 420-5761 or visit our website at www.smu.ca/career.ca

The Student Employment Centre

The Student Employment Centre serves both student and employer needs. It sources, builds, and maintains important relationships with employers throughout the region, across the country and around the globe so that students can access a myriad of job/career opportunities from casual and part time, summer and internships through to career opportunities. Students learn where the opportunities are and how to access Labour Market Information (LMI). The Student Employment Centre facilitates a major career fair each year (Halifax Career Fair), in early fall, aimed at graduating students and for any student who wants to learn as early as possible how to network, and who wants to learn more from career professionals about the opportunities they may access upon graduation.

The Centre also offers an annual summer job fair, and other important networking opportunities including diversity

networking events, where students can expand their knowledge and confidence of how to prepare for a career, and where they can meet potential employers.

The staff is adept in addressing students' preparation needs and offer guidance about how to best prepare for entry into the workforce. Staff is also skilled in assisting students who face employment challenges.

The Student Employment Centre is located on the 4th floor of the Student Centre and is open year round, Monday to Friday. Winter hours: 9am – 4:30 pm. Summer hours: 9am – 4 pm. Services are open to all students and to alumni. Inquiries via, sec@smu.ca or at 902 420-5499.

Atlantic Centre of Support for Students with Disabilities

Saint Mary's University is committed to providing reasonable academic accommodation to students with disabilities, enabling them to access university services, programs, and facilities in a supportive environment. To this end, the Atlantic Centre of Research, Access and Support was founded in 1985, and is housed on the 3rd floor of the O'Donnell-Hennessey Student Centre at Saint Mary's University.

Services provided by the Atlantic Centre include a variety of supports designed to enhance the educational experience for students with disabilities attending Saint Mary's. Reasonable academic accommodations appropriate to the individual student's disability-related needs are provided, while maintaining academic integrity and standards expected of all Saint Mary's students.

Atlantic Centre staff members provide services to student clients that include disability-specific and academic-related counselling, volunteer note taking services, assistive technology training and advising, ASL/English interpreting services, and test and examination accommodations. As well, the Centre can act as a resource for assisting students with securing disability-related grant and student funding. Atlantic Centre staff embrace a collaborative approach with Saint Mary's University's professors, administration and other Student Services divisions to help ensure that students are aware of the wide range of options and services available to them. Atlantic Centre counsellors act as a crucial liaison between students and faculty to promote best practices when planning for individual student needs and academic accommodations.

The Liberated Learning Project is a world-first initiative that is testing the viability of automated speech recognition in the classroom for the production of multi-media lecture notes for students with disabilities.

If you are a student with a disability and wish to access Atlantic Centre services while studying at Saint Mary's University, please visit us in person or on our website at: <http://www.smu.ca/administration/atlcentre/welcome.html>.

Student Health Services

Student Health Services is located on the 4th floor of the Student Centre and is a scent-free clinic. Students are provided with the same services they would receive from

their family doctor. Blood work is done by the nurse by appointment. Confidentiality is guaranteed.

The staff consists of one RN/ Manager, four doctors, and two secretaries. Appointments are required and are available from 8:30 am – 12 noon and 1:00 to 4:30p.m., Monday to Friday. Please call 420-5611 to book an appointment. After hours, the nurse can be reached for medical advice or information at 471-8129. For a medical emergency only, please go directly to the Halifax Emergency Department at the QEII (new Halifax Infirmary), 1796 Summer Street. International students should call Jane at 471-8129 before they go to the Emergency Room if they are unsure that their condition requires emergency care.

International Centre

The International Centre provides support, assistance, advice, information and referral services in response to questions or problems international students may encounter during their adjustment to the university and Canada.

The Centre organizes orientations and social programs for our international students. Our weekly news "Fusion" provides information about events and activities at Saint Mary's and the community in general.

Our Students Acting for Global Awareness (SAGA) volunteers is a group of international and Canadian students who come together to create events and activities on and off-campus to promote awareness of the different cultures represented at University.

The Centre provides weekly immigration help sessions to assist our international students with their study permit, work permit and entry visa applications. International students with questions, concerns, or problems are encouraged to meet with the Centre's staff.

The International Centre is located in room 300 on the 3rd floor of the Student Centre and houses the office of the Manager of International Student Services, the International Student Advisor and the Office Coordinator.

The Centre is a comfortable and relaxing meeting place where everyone is WELCOME!!!.

Ysaac Rodriguez, Manager of International Student Services
Tel: 902-491-8692
Shanshan Luo, International Student Advisor
Tel: 902-420-5436
Nicholas Reyes, Office Coordinator
Tel : 902-420-5525
Office Email: international.centre@smu.ca
Website: <http://internationalcentre.smu.ca>

University Housing & 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. Advantages include no damage deposits, no hook-up fees, and no monthly power, phone, cable, or internet charges. Residence students sign an 8-month lease

so there is no need to sublet during summer months. 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. Our 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, with two double bedrooms, kitchen, bathroom and living room. Some apartments have been recently renovated to include three single rooms with a shared bathroom and kitchen. Students in Rice can either opt for a meal plan or cook for themselves. Ignatius Loyola Residence houses men and women on 19 floors with single and double rooms in suites for six with shared bathrooms. Students must purchase a meal plan. Vanier House is a co-ed 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 (included in fees).

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 graduates and 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 Centre for Housing & Residence Life**

Application for Residence Accommodation

Further information about housing & residence options is available from The Centre for Housing & Residence Life (residence.life@smu.ca or 902.420.5598) or on the Residence Department website: <http://www.smu.ca/administration/resoffic/>

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 dining hall (Fresh Food Company), Loyola colonnade (C-Store & full service Tim Horton's), Student Centre Cafeteria (Extreme Pita, Pizza Pizza, Tim Horton's, etc), Gorsebrook lounge and just us! cafe.

Meal Plans

Residents of Vanier House and Loyola Residence are required to purchase a meal plan, and there are also

voluntary meal plans available for students who live in Rice, Loyola senior suites and off-campus.

All You Care To Eat

Students can choose three meal plan options. The Freedom Plan offers students unlimited access to the Residence Dining Hall from 7:30am to 8:30pm Monday to Thursday and 7:30-7:30pm on Friday. It opens 9:00am to 7:30pm on weekends and holidays and students can eat as much and as often as they like throughout these meal times.

Students may also choose a 14 Meal plan and 10 Meal plan allow 14 and 10 entries into the dining hall respectively. Flex Dollars are included in all meal plans as well as 4 guest passes per term. These Flex Dollars can be spent at other food service locations on campus. Students can also purchase additional flex dollars from the Food Service Office.

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 Meal Plans is sent to Residence students during the summer. Inquiries may be directed to the Food Service Office at 420-5599 or 420-5602 or the Food Services web site: www.smu.ca/campusdish.com.

Child Care Services

Childcare services are available from two sites on campus, and one site located a short distance away. The newest campus site provides care for twenty-three children, six months to two years of age. This facility is located in the hallway between Loyola and Rice. The Rice Residence facility is located at the base of this residence and caters to children two to four years of age. There are thirty-six spaces at this site. The off-campus site, located on Ogilvie Street, provides care for forty-five children, eighteen months to five years of age.

All programs are licensed and inspected regularly by fire, health and Early Childhood Development Services officials. Programs are developmentally appropriate, child centred and delivered by qualified Early Childhood staff. The Centre employs a Special Needs Resource Coordinator to provide support to children and families with special needs.

A limited number of subsidized seats are available to families who qualify. Priority is given at all locations to Saint Mary's University students, staff and faculty.

Child care services are provided by Point Pleasant Child Care Centre, a nonprofit organization. Information may be obtained by contacting the Executive Director at 422-2293 or by visiting the childcare centre's web site at www.ppccc.ca.

Teaching English as a Second Language (TESL) Centre

English as a Second Language Programs

Many students who speak English as a second (or additional) language begin their studies at Saint Mary's in the TESL Centre's Intensive English Program (IEP). The IEP is accredited by the prestigious Languages Canada association and offers a range of full-time study options to meet individual needs such as English for Academic Purposes (EAP), English for Personal and Professional/Practical Communication (EPPC), a One-month Immersion program (IMM) and the University Bridging Program (UBP). Students may also select from a variety of part-time evening ESL programs.

English Language Support Services for Undergraduate and Graduate Students

Through the office of the Coordinator of International Student Success ((902) 491-6472, email: kathi.thompson@smu.ca), the TESL Centre offers a variety of EAP and study skills workshops, on-line resources, and drop-in clinics to Saint Mary's students who speak English as an additional language.

Corporate and Group Training

In addition to regularly-scheduled programs, the TESL Centre provides custom-designed general language and culture or discipline specific language programs for individuals, companies and educational institutions. In addition to the language component, programs may include academic, social, and cultural components and provision for either on-campus residence or homestay accommodation. Interaction with the surrounding English-speaking community is emphasized in all programs so that students feel at home in their new environment.

Teaching English as Second Language Programs

The TESL Centre also offers a certificate course and diploma program in Teaching English as a Second or Foreign Language for those who wish to gain knowledge and skills in the field of teaching ESL or EFL. Students in these programs gain practical experience working with students learning English in the TESL Centre. The diploma program is recognized by TESL Canada.

English Language Testing

The TESL Centre is the official Halifax testing site for the Canadian Academic English Language Assessment (CAEL) which is offered every month, 12 times annually.

Conversation Partner/Language Exchange Program

Saint Mary's students who wish to learn more about and practice cross-cultural communication skills are welcome to join this program which matches them with students learning English in the TESL Centre. Students learning a foreign language on campus also find this a wonderful way to exchange conversation and fluency practice.

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. More information on TESL Centre programs can be found at www.smu.ca/academic/tesl.

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; Fax: 902-491-8641

Writing Centre

The Writing Centre supports and promotes the development of academic writing skills to Saint Mary's students. The Writing Centre also provides consultation and support to faculty, including workshops on pedagogical methods and writing curricula.

- What can I expect at the Writing Centre?
The centre is not a remedial service, though remedial help is offered. You receive free, one-on-one tutoring at any phase of the writing process to help you to understand how to strengthen your writing to become a better writer. Our services are available for all Saint Mary's University students (undergraduate, graduate; part-time, fulltime), as well as alumni. The centre's tutors will work with you to determine a direction for your paper, how to strengthen your thesis statement, how to identify reoccurring grammatical errors or structural problems, or how to develop a lab report.
- What I should not expect during a tutorial?
The purpose of a tutoring session is to improve your writing skills and to become a better writer. Therefore, the Writing Centre does not proofread or edit papers. In addition, we do not comment on the content. We do not offer suggested grades a paper may or may not receive. However, the more prepared you are for a tutorial, the more we can help you to convey your ideas clearly in your writing.
- What should I bring with me to the tutorial?
Bring your student card, the assignment instructions, and a hardcopy of the writing you want to examine. We do not work from electronic documents. In addition, thinking about the appointment ahead of time and determining what questions you want to ask or specific areas that you feel need improvement will maximize the time you have with the tutor. It is also very helpful if you bring a marked paper, so we can better recognize issues and problems in your writing.

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- How long do tutorials last?
A drop-in appointment is 20 minutes, and a scheduled appointment 50 minutes.
- How do I sign-up?
Book online at to www.rich37.com/smu or call (491-6202) or email (writing@smu.ca). You can also drop by the office (Burke 115).
- When can I come by?
The centre is open Monday to Friday, 10:00 am to 5:00 pm and Saturday and Sunday, 12:00 pm to 3:00 pm. Drop-in is offered 5:00 pm to 8:00 pm, Monday to Thursday in the Atrium.
- What else does the Writing Centre offer?
We have extensive online resources, workshops, guides, and handouts, as well as annual events, such as the [Scrabble Smackdown](#). Go to our [webpage](#), like us on [Facebook](#), and follow us on [Twitter](#) ([@SMUWritCentre](#)) for more academic help.

Writing Centre
115 Burke Building
writing@smu.ca
902-491-6202, 6203
smu.ca/academic/writingcentre/
Director: Brian Hotson, MTS

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.

The Centre is located in room 526 of the Student Centre.

Section
8

Academic Officers and Faculty
Officers and Faculty Emeriti
Administrative Officers
Awards to Faculty and Staff

Academic Officers and Faculty

Academic Officers

Vice-President, Academic and Research

Gauthier, David, B.A. (Calgary), M.A., Ph.D. (Waterloo), Professor of Geography

Faculty of Arts

Enns, Esther E., B.S.L. (Hons.) (Laurentian), M.A. (McMaster), M. Ed., Ph.D. (Toronto), Dean and Professor of German and Linguistics

Naulls, Donald J., B.A. (Hons.), M.A. (Wilfrid Laurier), Ph.D. (York), Associate Dean and Associate Professor of Political Science

Sobey School of Business

Bradshaw, Patricia J., B.Comm. (Queen's), Ph.D. (York), Dean and Professor of Management

Kozloski, Thomas M., BBA (Notre Dame), MBA (Pittsburgh), Ph.D. (Drexel), CPA, Associate Dean Academic and Associate Professor of Accounting

Faculty of Science

Smith, Steven, B.A. (Hons.) (Bishops), M.A., Ph.D. (Queen's), Associate Professor of Psychology and Dean of Science

Sarty, Adam J., B.Sc. (Eng.), Ph.D. (Saskatchewan), Professor of Astronomy and Physics and Associate Dean of Science – External & Student Affairs

Singfield, Kathy L., B.Sc. (St. Francis Xavier), M.Sc., Ph.D., (McGill), Associate Professor of Chemistry and Associate Dean of Science - Curriculum

Faculty of Education

Enns, Esther E., B.S.L. (Hons.) (Laurentian), M.A. (McMaster), M. Ed., Ph.D. (Toronto), Acting Dean and Professor of German and Linguistics

Faculty of Graduate Studies and Research

Vessey, J. Kevin, B.Sc. (Hons.), M.Sc. (Dalhousie), Ph.D. (Queens), Dean, Associate Vice President Research and Professor of Biology

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

Aftanas, Marion S., B.A., M.A. (Manitoba), Ph.D. (Alberta), Adjunct Professor of Psychology

Agbeti, Michael, B.Sc. (Hons.) (Ghana), M.Sc. (Brock), Ph.D. (Queens), Adjunct Professor of Biology

Ahooja-Patel, Krishna, B.A. (Aligarh, India), LLB (London), Ph.D. (Geneva), Ph.D.(SMU), Adjunct Professor of International Development Studies

Akbari, Ather H., B.Sc., M.B.A. (Karachi), M.A., Ph.D. (Simon Fraser), Professor of Economics

Alfody, Sandra, B.F.A. (Victoria), M.A., Ph.D. (Concordia), Adjunct Professor of Women and Gender Studies

Al Zaman, Ashraf, B.S., B.A., M.A. (Ohio University), M.Sc., Ph.D. (KGSM, Purdue), Associate Professor of Finance

AmirKhalkhali, Saleh S., B.A. (Hons.) (Shiraz), M.A., Ph.D. (Dalhousie), Professor of Economics

Amirkhalkhali, S. Samad, B.Sc. (National University of Iran), M.A., Ph.D. (Dalhousie), Associate Professor of Management Science

Anderson, Bruce, B.Sc. (Hons.) (Dalhousie), B.A. (Distinction) (Mount Saint Vincent), B.F.A. (NSCAD), M.T.S. (Harvard), LL.B. (Dalhousie), Ph.D. (Edinburgh), Professor of Commercial Law

Ames, Doreen E., B.Sc.(Hons) (Waterloo), M.Sc., Ph.D. (Carleton), Adjunct Professor of Geology

Anis, Azza, B.A. (Khartoum), M.A. (University of Lyon), M.A. (Saint Mary's), D.E.A., Ph.D. (Sorbonne, Paris), Adjunct Professor of Women and Gender Studies

Ansell, Robert N., B.A. (Cambridge), Ph.D. (Glasgow), Assistant Professor of Philosophy

Ansong, Granville, B.A. (Hons.) (Ghana), M.A. (Queen's), M.Acc. (Waterloo), Ph.D. (Queen's), Assistant Professor of Accounting

Antwi, Phaniel, B.A. (Guelph), Dipl. TESL (George Brown), M.A., Ph.D. (McMaster), Assistant Professor of English

Arteaga, Andres, B.Sc. (Universidad de Antioquia), Master Intercultural Management (ICHEC Bruxellers, Belgium), D.E.A. (Psychoanalysis and Clinics) (University de Paris VIII Saint Denis), PhD (Ottawa), Assistant Professor of Spanish

Arya, Pyare L., B.A., M.A., Ph.D. (Delhi), Professor of Economics

Asp, Elissa, B.A., M.A., Ph.D. (York), Associate Professor of English and Coordinator of Linguistics Program

Attig, Najah, B.A. (I.H.E.C.), M.B.A., Ph.D. (Laval), Associate Professor of Finance and Canada Research Chair in Finance

Austin, Roby A., B.Sc., M.Sc., Ph.D. (McMaster), Associate Professor of Astronomy and Physics

Avdulov, Alexandre, B.A., M.A. (Moscow State U), Ph.D. (Russian Academy of Sciences), Assistant Professor of Japanese and Asian Studies.

Aydede, Yigit, BS (Istanbul U), MBA, Ph.D. (U of Delaware), Associate Professor of Economics

Bain, Keith, B.Ed (Alberta), MBA (Saint Mary's), Adjunct Professor of Information Systems

Bannerjee, Rohini, B.Sc., MA (Dalhousie), Ph.D. (Western), Assistant Professor of French

Barber, Colleen A., B.Sc. (Hons.) (Guelph), M.Sc. (Manitoba), Ph.D. (Queen's), Professor of Biology

Barbosa, Rosana, B.A. (Universidade Santa Ursula), M.A., Ph.D. (Toronto), Chairperson and Associate Professor of History

Barclay, Alison E., B.A. (Alberta), M.A., Ph.D. (Toronto), Assistant Professor of Classics

Barr, Mark, BA, LLB (U of Victoria), M.Phil (Oxford), Ph.D. (Vanderbilt U), Associate Professor of English

Barrett, L. Gene, B.A. (King's College), M.A. (Dalhousie), D.Phil. (Sussex), Professor of Sociology

Bartlett, Brian, B.A. (New Brunswick), M.A. (Concordia), Ph.D. (Montreal), Professor of English

Basquill, Sean P., B.A. (Concordia), M.Sc. (Acadia), Adjunct Professor of Biology

Bateman, David H., B.B.A. (New Brunswick), M.B.A. (Dalhousie), C.A.-I.T., Associate Professor of Accounting and Co-Chairperson of the Department of Accounting

Beaubien, Louis, BSc, BA (Dalhousie), M.B.A. (Saint Mary's), Ph.D. (Western Ontario), CMA, Assistant Professor of Accounting

Beaulé, Sophie, B.A., M.A., Ph.D. (McGill), Associate Professor of French

Beaupré, Charles P., B.A., M.A., Ph.D. (McGill), Assistant Professor of Japanese, Chinese and Asian Studies

Bell, Sandra J., B.A., M.A. (Western Ontario), Ph.D. (Toronto), Associate Professor of Criminology

Bello, Walden, B.A., (Ateneo de Manila), M.A., Ph.D. (Princeton), Adjunct Professor of International Development Studies

Bennett, Paul W., B. Ed. (Toronto), H.S.A. Type A Specialist Certificate, Ed.D. (OME), Adjunct Professor of Education

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

Bjornson, Susan, B.Sc. (Hons.) (Guelph), Ph.D. (Alberta), Associate Professor of Biology

Boabang, Francis, B.A., M.Sc. (Ghana), M.A. (Saskatchewan), Ph.D. (Simon Fraser), Professor of Finance; Coordinator of Master of Finance Program

Bouman, Thomas, Diploma of Forest Science, Ph.D. (U of Göttingen), Adjunct Professor of Geography

Bourgeois, David, B.Ps., (Hons) (Moncton), M.A. (Psyc) (Laval), Ph.D. (Maine), Assistant Professor of Psychology

Bowes, Matthew J., B.Sc. (High Dist) (Toronto), Ph.D. (Queen's), Adjunct Professor of Forensic Sciences

Bowron, Tony M., B.Sc., M.Sc. (Dalhousie), Adjunct Professor of Environmental Science

Bradshaw, Patricia J., B.Comm. (Queen's), Ph.D. (York), Dean of Sobey School of Business and Professor of Management

Broders, Hugh, B.Sc. (Hons.) (Acadia), M.Sc. (Memorial University of Newfoundland), Ph.D. (New Brunswick), Chairperson and Professor of Biology

Brosseau, Christa L., B. Sc. (comb Hons) (Dalhousie), M.Sc. (Acadia), Ph.D. (Guelph), Assistant Professor of Chemistry

Brown, Blake, BA (Acadia), MA (Toronto), LLB (Toronto), M.A. (York), Ph.D. (Dalhousie), Associate Professor of History

Bush, Peter, B.A. (Hons) (Laurentian), M.Sc.F. (Lakehead U), Ph.D. (Western), Adjunct Professor of Geography

Byers, Michele, B.F.A. (Concordia), B.S.W., M.S.W. (McGill), Ph.D. (Toronto) Associate Professor of Sociology

Calder, Todd, B.A. (Dalhousie), M.A. (Calgary), Ph.D. (Western), Assistant Professor of Philosophy

Cameron, James E., B.A. (Queens), M.A., Ph.D. (York), Associate Professor of Psychology

Cameron, John, B.A. (Hons) (Dalhousie), M.A. (Simon Fraser), Ph.D. (York), Adjunct Professor of International Development Studies

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Campbell, Linda M., B.Sc (Hons)., M.Sc. (Alberta), Ph.D. (Waterloo), Associate Professor of Environmental Science and Biology

Carroll, Steven R., B.A.H., M.A., Ph.D. (Carleton), Lecturer in Psychology

Carver, Ashley, B.A. (Regina), M.A. (Katholieke – Belgium), Ph.D. (Melbourne), Assistant Professor of Sociology & Criminology

Catano, Victor M., B.S. (Drexel), M.S., Ph.D. (Lehigh), Professor and Chairperson of the Department of Psychology

Cauville, Joelle, M.A. (Paris), M.A., Ph.D. (British Columbia), Professor of French

Chappells, Heather M., B.Sc., (Hull, UK), M.Sc. (Stirling), Ph.D. (Lancaster, UK), Adjunct Professor of Geography

Charles, Tony, B.Sc. (Hons.) (Carleton), Ph.D. (British Columbia), Professor of Management Science and Environmental Science

Chen, Liqiang, B.Bus. (Sichuan), M.App.Econ. (Cincinnati), Ph.D. (in progress) (McMaster), Lecturer in Finance

Chung, Edward Y.J., B.A., M.A., Ph.D. (Toronto), Adjunct Professor of Religious Studies

Clarke, David, B.Sc., M.Sc. (Queen's), Ph.D. (New Mexico), Professor of Astronomy and Physics

Closson, Leanna M., B.A. (Hons.) (Saskatchewan), M.A. (Carleton), Ph.D. (UBC), Assistant Professor of Psychology

Clyburne, Jason A. C., B.Sc. (Hons.) (Acadia), Ph.D. (Dalhousie), Professor in Environmental Science and Chemistry, Canada Research Chair [Tier II] in Environmental Science & Materials

Codignola, Luca, Laurea (Modern History), Lettere e Filosofia (Università di Roma), Ph.D., Adjunct Professor of History

Cone, David, B.Sc., M.Sc. (Guelph), Ph.D. (New Brunswick), Professor of Biology

Conrad, Catherine T., B.A. (Hons.) (Saint Mary's), M.E.S., Ph.D. (Laurier), Professor of Geography

Conrad, Nicole, B.A. (Hons.) (Saint Mary's), M.A., Ph.D. (McMaster), Associate Professor of Psychology and Linguistics

Corrigan, Lawrence, Dip. P.A., B.Comm. (Dalhousie), M.B.A. (Saint Mary's), Dip. in App. Bus. (Ryerson), F.C.G.A., F.C.C.A., Ph.D. (Candidate – Saint Mary's), Assistant Professor of Accounting

Cosper, Ronald Lee, B.A. (Purdue), M.A. (Cornell), Ph.D. (Rutgers), Adjunct Professor of Linguistics

Cote, Daniel, B.Sc. (HEC Montreal), Master Agribusiness & Economics, Ph.D. (Louisiana State), Adjunct Professor of MMCCU Program

Cottrell, Barbara, B.A. (Hons) (MSVU), B.Ed, M.A. (Dalhousie), Adjunct Professor of Sociology and Criminology

Creelman, Valerie, B.A. (Hons.) (Mount Saint Vincent University), M.A. (Dalhousie), Ph.D. (Waterloo), Associate Professor of Communications

Crocker, Diane, B.A. (Memorial), M.A., Ph.D. (York), Associate Professor of Criminology

Crooks, Shelagh, B.A. (Saint Mary's), M.A. (Dalhousie), Ph.D. (Edinburgh), Professor of Philosophy and Education and Graduate Coordinator of Philosophy

Dai, Jie, B.Sc., M.A. (Nankai), MBA, Ph.D. (Laval), Assistant Professor of Finance

Dalton, Anne M., B.S., B.Ed. (Conjoint) (Memorial), M.A. (Fordham), Ph.D. (Catholic University of America), Professor of Religious Studies and International Development Studies and Coordinator, M.A. Theology & Religious Studies

Dansereau, David, B.Sc., PhD (Alberta), Lecturer in Biology

Dansereau, Suzanne, B.A., M.A. (McGill), Ph.D. (Québec), Associate Professor of International Development Studies

Dar, Atul A., B.A. (Hons.), M.A. (Delhi), M.A., Ph.D. (McMaster), Professor and Chairperson of Department of Economics

Daveluy, Michelle, B.Sc., M.Sc., Ph.D. (Montreal), Adjunct Professor of Anthropology

Dawson, Robert J. M., B.Sc. (Hons.) (Kings College, Dalhousie), Cert. of Advanced Study in Mathematics, Ph.D. (Cambridge), Professor of Mathematics and Computing Science

Day, Arla L., B.A. (Manitoba), M.A.Sc., Ph.D. (Waterloo), Professor of Psychology and Canada Research Chair in Industrial Organizational Psychology

De Fuentes, Claudia, B.Sc., M.Comm, Ph.D. (Universidad Autónoma Metropolitana-Xochimilco), Assistant Professor of Management

Deupree, Robert, B.A. (Wisconsin), M.S. (Colorado), Ph.D. (Toronto), Professor of Astronomy and Physics; Canada Research Chair in Astrophysics; and Director of Saint Mary's University Institute of Computational Astrophysics

Devlin, John F., B.A. (Dalhousie), M.A. (Calgary), M.A. (Carleton), Ph.D. (Guelph), Adjunct Professor of International Development Studies

Dixon, Paul S., B.A. (New Brunswick), M.Math., Ph.D. (Waterloo), Associate Vice President (Enrolment Management) & Registrar and Professor of Management Science

Dobrowolsky, Alexandra Z., B.A. (Hons.) (Toronto), M.A. (Dalhousie), Ph.D. (Carleton), Professor of Political Science

Dodds, J. Colin, B.A. (Open University), B.Sc. (Hull), M.A., Ph.D. (Sheffield), President and Professor of Finance

Dong, Zhongmin, B.Sc. (Shaanxi), M.Sc. (Peking), Ph.D. (Carleton), Professor of Biology

Doucet, Marc, B.A. (Moncton), M.A., Ph.D. (Ottawa), Associate Professor of Political Science

Driscoll, Catherine, B.A. (Hons.) (Toronto), M.B.A. (Dalhousie), Ph.D. (Queen's), Professor of Management

Dutcher, Stephen, B.A., M.A., Ph.D. (New Brunswick), Adjunct Professor of Master of Management – Cooperatives and Credit Unions

Edwards, Louise O. V., B.Sc. (Victoria), M.Sc. (Saint Mary's), Ph.D. (Laval), Adjunct Professor of Astronomy and Physics

Enns, Esther E., B.S.L. (Hons.) (Laurentian), M.A. (McMaster), M. Ed., Ph.D. (Toronto), Dean of Arts, Acting Dean of Education and Professor German and Linguistics

Erhard, Nancie, B.A. (Saint Mary's), M.T.S. (Atlantic School of Theology), M.Phil., Ph.D. (Union Theological Seminary), Associate Professor of Religious Studies

Erickson, Paul A., B.A. (Michigan), M.A. (Indiana), M.A. (Wayne State), Ph.D. (Connecticut), Professor and Chairperson of the Department of Anthropology

Ervine, Kathryn, B.A. (Hons.) (Toronto), M.A. (Guelph), Ph.D. (Toronto), Assistant Professor of International Development Studies and Political Science

Farrell, Ellen, B.P.R. (Mount Saint Vincent), M.B.A. (Saint Mary's), Ph.D. (Nottingham), Associate Professor of Management

Field, Richard, B.A. (Eastern), M.A. (Toronto), Ph.D. (Dalhousie), Adjunct Professor of Atlantic Canada Studies

Finbow, Arthur S., B.Sc., M.A. (Dalhousie), Ph.D. (Washington), FTICA, Professor of Mathematics and Computing Science

Finbow-Singh, Wendy, B.Sc. (Hons.) (Saint Mary's), M.Sc. (Dalhousie), Ph.D. (Calgary), Associate Professor of Mathematics and Computing Science

Fisher, Maryanne, B.A. (Hons.) (York), M.Sc. (McMaster), Ph.D. (York), Associate Professor of Psychology

Fitzgerald, Patricia A., B.B.A. (St. Francis Xavier), M.A. (North Dakota), Ph.D. (Northern Colorado), Professor of Management

Fleming, Mark, M.A., M.Sc. (Aberdeen), Ph.D. (The Robert-Gordon University, Aberdeen), Associate Professor of Psychology

Flint, J. David, B.A. (Vermont), M.A. (Memorial), Ph.D. (Dalhousie), Adjunct Professor of Sociology and Criminology

Foladori, Guillermo R., B.A. (Escuela Nacional de Antropología e Historia), M.A., Ph.D. (Mexico), Adjunct Professor of International Development Studies

Fowler, Jonathan, B.A. (Hons.) (Saint Mary's), B.Ed. (Acadia), M.A. (Sheffield), Ph.D. (Oxford), Assistant Professor of Anthropology

Fralich, Russell, B.Eng., MEng. (McMaster), Ph.D. (HEC Montreal), Assistant Professor of Management

Francis, Lori, B.Sc. (St. Francis Xavier), M.Sc. (McMaster), Ph.D. (Guelph), Associate Professor and Graduate Coordinator of Psychology

Franz-Odendaal, Tamara, B.Sc. (Hons.), M.Sc., Ph.D. (Cape Town), Adjunct Professor of Biology

Frasier, Timothy R., B.Sc. (North Dakota), Ph.D. (McMaster), Associate Professor of Biology and Forensic Science

Freeman, Kirrily, B.A. (Guelph), M.A. (Edinburgh), Ph.D. (Waterloo), Associate Professor of History

Fridell, Gavin, B.Sc., M.A. (Manitoba), Ph.D. (York), Associate Professor of and Political Science, International and Development Studies and Canada Research Chair in International Development Studies

Fullerton, Gordon L., B.Comm. (Mount Allison), M.B.A. (Dalhousie), Ph.D. (Queen's), Associate Professor and Acting Chairperson of Marketing

Gallo, Luigi, B.Sc., (U of Calgary), M.Sc. (San Diego State U), Ph.D. (Ludwig-Maximilians U), Assistant Professor of Astronomy and Physics

Gamble, Donald S., B.Sc., M.Sc. (Dalhousie), Ph.D. (Buffalo), Adjunct Professor of Chemistry

Gannett, Lisa A., B.Sc., M.A., Ph.D. (Western Ontario), Associate Professor of Philosophy

Gaon, Stella, B.A., M.A. (Concordia), Ph.D. (Toronto), Associate Professor of Political Science

Giles, Philip T., B.Sc. (Hons.), M.Sc. (McMaster), Ph.D. (Calgary), Associate Professor of Geography

Gilin Oore, Debra A., B.A. (Northern Michigan), Ph.D. (Missouri), Associate Professor of Psychology

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Girvan, Norman, Ph.D. (London School of Economics), Adjunct Professor of International Development Studies

Gleeson, Sarah A., B.A. (Trinity, Dublin), Ph.D. (Imperial College, London), Adjunct Professor of Geology

Grandy, Karen, B.A. (Dalhousie), M.A., Ph.D. (Western Ontario), Assistant Professor of Communications

Grek Martin, Jason, BA (Queens), MA (U of Wisconsin-Madison), Ph.D. (Queens), Assistant Professor in Geography

Grimes-MacLellan, Dawn, B.A., B.S., Journalism (Boston University), M.A. (Cornell), Ph.D. (University of Illinois), Adjunct Professor of Anthropology

Guenther, David, B.Sc., M.Sc. (Simon Fraser), Ph.D. (Yale), Professor of Astronomy and Physics

Haiven, Judith, M.A., Ph.D. (Warwick), Associate Professor of Management

Haiven, Larry, B.Sc. (Toronto), M.P.M. (Alberta), Ph.D. (Warwick), Professor of Management and Director of Master of Management – Cooperatives and Credit Unions

Hale, Mary I., B.A. (California), M.Div (Boston), Ph.D. (Concordia), Assistant Professor of Religious Studies

Hall, D.C., B.A.(Hons), M.A., Ph.D. (Toronto), Assistant Professor of English

Hanley, Jacob J., B.Eng. (Hons), M. Sc., Ph.D. (Toronto), Associate Professor and Chairperson of Department of Geology

Hare, Andrew F., B.Educ (U of Ontario), B.Sc., (Toronto), M.Sc. (UBC), Lecturer in Mathematics and Computing Science

Harper, Karen, B.A. (Middlebury College), M.Sc., Ph.D. (Alberta), Adjunct Professor of Biology

Hartnell, Bert L., B.Math., M.Math., Ph.D. (Waterloo), Professor of Mathematics and Computing Science

Hassanali, Serida S., B.A. (Mount Saint Vincent), M.A., Dipl TESL (Saint Mary's), Adult Education (Henson College), Ph.D. (Toronto), Adjunct Professor of Education

Haynes, Ronald D., B.Sc. (Memorial), M.Sc., Ph.D. (Simon Fraser), Adjunct Professor of Mathematics and Computing Science

Heckerl, David, B.A. (Pitzer College), M.A. (New Brunswick), Ph.D. (McGill), Associate Professor of English

Heffernan, Teresa, B.A., M.A. (Ottawa), Ph.D. (Toronto), Professor of English

Helms Mills, Jean, B.A. (Hons.) (Saint Mary's), M.A., Ph.D. (Lancaster), Professor of Management

Henry, Eric S., B.A. (Wilfrid Laurier), M.Sc. (Oxford), Ph.D. (Cornell), Assistant Professor of Anthropology

Higgins, Rylan G., B.Sc. (Baker U), M.A. (Kansas), Ph.D. (Arizona), Assistant Professor of Anthropology

Hlongwane, Gugu, B.A. (Sarah Lawrence College), M.A. (Guelph), Ph.D. (York), Assistant Professor of English

Holmvall, Camilla M., B.A. (Hons.) (Guelph), M.A., Ph.D. (Waterloo), Associate Professor of Management and Psychology

Hulan, Renee, B.A. (Acadia), M.A. (Guelph), Ph.D. (McGill), Professor of English and Chairperson of the Department of English

Hurrell, Joseph J., B.A. (Miami), M.A. (Xavier), Ph.D. (Miami), Adjunct Professor of Psychology

Irving, John C., B.Math., M. Math., Ph.D. (Waterloo), Associate Professor of Mathematics and Computing Science

Ivanoff, Jason, B.Sc. (Hons), M.A. (Guelph), Ph.D. (Dalhousie), Associate Professor, Psychology

Johnson, Val M., B.A., M.A. (Toronto), Ph.D. (New School for Social Research), Associate Professor of Sociology and Criminology

Jones, Martha, B.Sc. (Hons) (Western), M.Sc. (Guelph), Ph.D. (Windsor), Adjunct Professor of Biology

Jonsyn-Ellis, Felixina, B.Sc. (Nazareth College, Michigan), M.Sc. (Hons.) (Muenster), Ph.D. (Liverpool), Adjunct Professor of Biology

Jutla, Dawn, B.Sc. (West Indies), M.Comp.Sc., Ph.D. (Technical University of Nova Scotia), Professor of Information Systems

Jutras, Pierre, B.Sc. (Montréal), M.Sc. (Québec), Ph.D., (Université de Québec à Montréal), Associate Professor of Geology

Kanungo, Rituparna, B.Sc. (Hons), M.Sc., Ph.D. (Calcutta), Associate Professor of Physics

Keeble, Edna, B.A. (Hons.) (DePaul), M.A., Ph.D. (Dalhousie), Professor and Chairperson of Political Science

Kelloway, Kevin, B.Sc. (Dalhousie), M.Sc. (Saint Mary's), Ph.D. (Queen's), Professor of Management and Psychology and Canada Research Chair in Occupational Health Psychology

Kennedy, Deborah, B.A., M.A. (Windsor), Ph.D. (Toronto), Professor of English

Kennedy, Seán, B.A. (Trinity Dublin), M.A., Ph.D. (National University of Ireland – Galway), Associate Professor of English and Coordinator of Irish Studies

Kernaghan, Gavin, B. Sc., M.Sc. (British Columbia), Ph.D. (Alberta), Adjunct Professor of Biology

Khan, Bashir, M.S. in Statistics (University of Karachi), M.S. in Statistics (Rutgers), Ph.D. (Regina), Associate Professor of Mathematics and Computing Science

Kim, Chankon, B.Comm. (Calgary), M.B.A., Ph.D. (Indiana), Professor of Marketing

Kimery, Kathryn, B.A. (Tulsa), Ph.D. (Oklahoma), Associate Professor of Information Systems

Kirk, John M., B.A. (Hons.) (Sheffield), M.A. (Queen's), Ph.D. (British Columbia), Adjunct Professor of International Development Studies

Kocum, Lucie, B.A. (Hons.) (Carleton), Ph.D. (Ottawa), Assistant Professor of Psychology

Konopasky, Robert J., M.A. (Western Ontario), B.A., Ph.D. (Windsor), Professor of Psychology

Konstantinidis, Stavros, B.Sc. (Athens), M.Sc., Ph.D. (Western Ontario), Professor of Mathematics and Computing Science

Kochetova- Kozloski, Natalia, B.Sc. (Hons.) (South Alabama), Ph.D. (Georgia State), CMA, Associate Professor of Accounting

Kozloski, Thomas M., BBA (Notre Dame), MBA (Pittsburgh), Ph.D. (Drexel), CPA, Associate Professor, Accounting and Associate Dean of Business

La Berge, Leigh C., B.A. (Hampshire College), M.A., Ph.D. (New York), Assistant Professor of English

Lamoureux, Marc M., B.Sc. (Hons.) (Ottawa), Ph.D. (Carleton), Associate Professor of Chemistry and acting Chairperson of Chemistry

Landes, Ronald G., B.Sc. (Oregon), M.A., Ph.D. (York), Professor of Political Science

Lee, Eric, B.A., M.A., Ph.D. (Victoria), Professor of Management Science

Leroux, Darryl R.J., B.A. (Hons.) (Trent), M.A. (Toronto), Ph.D. (Carleton), Assistant Professor of Sociology and Criminology

Liebenberg, Linda, B.A. (Hons.), M.A., Ph.D. (Stellenbosch), Adjunct Professor of Sociology & Criminology

Lightstone, Karen, B.A. (Queens), Ph.D. (Portsmouth), C.A., Associate Professor of Accounting

Lingras, Pawan, B.Tech. (Civil Engineering) (Indian Institute of Technology), M.Sc. (Civil Engineering), M.Sc., Ph.D. (Regina), Professor of Mathematics and Computing Science

Linney, Norma C., B.Sc. (Mount Allison), B.Eng., M.A.Sc. (T.U.N.S.), Ph.D. (DalTech), P.Eng., Associate Professor and Chairperson of Department of Mathematics and Computing Science

Lord, Stella, M.A., Ph.D. (Carleton), Adjunct Professor of Sociology and Criminology

Loughlin, Catherine, B.Sc. (Calgary), M.A., Ph.D. (Queens), Associate Professor of, and Canada Research Chair in Management

Lundholm, Jeremy T., B.Sc. (Hons.) (Queens), MES (York), Ph.D. (Guelph), Associate Professor of Biology and Environmental Science and Coordinator of Applied Science

MacDonald, Martha, B.A. (Dalhousie), M.A., Ph.D., (Boston College), Professor of Economics

MacKinnon, John E., B.A. (Hons.) (McGill), M.A. (Toronto), M.Phil (Exeter), Ph.D. (Cambridge), Associate Professor of Philosophy and Acting Chairperson of Philosophy

MacLellan, Edwin, B.Sc. (Dalhousie), B.Eng., M.Eng. (TUNS), Ph.D. (Waterloo), Adjunct Professor of International Development Studies

MacLeod, Alexander, B.A. (Windsor), M.A. (Notre Dame), Ph.D. (McGill), Associate Professor of English and Undergraduate Coordinator of Atlantic Canada Studies

MacLeod-Leslie, Heather, B.A. (Hons.) (Saint Mary's), M.A. (Carleton), Ph.D. Candidate (Memorial), Adjunct Professor of Anthropology

MacNeil, Donald, TOEFL Cert, Dipl Engineering (Saint Mary's), B. Eng (TUNS), M.Sc (Åbo Akademi University, Finland & Universidad Complutense de Madrid), Ph.D (Åbo Akademi University, Finland). Lecturer in Engineering

MacNeil, James D., B.A., M.Sc. (St. Francis Xavier), Ph.D. (Dalhousie), Adjunct Professor of Chemistry and the M.Sc. in Applied Science Program

MacNevin, Audrey, B.Sc., B.Ed. (Mount Saint Vincent), M.A. (Dalhousie), Ph.D. (Memorial), Associate Professor of Sociology and Program Coordinator of Women and Gender Studies

MacRae, R. Andrew, B.Sc. (Hons.) (Dalhousie), M.Sc., Ph.D. (Calgary), Assistant Professor of Geology

Malton, Sara, B.A. (Victoria), M.A. (Ottawa), Ph.D. (Toronto), Assistant Professor of English

Mastnak, Mitja, Dip. (U. Ljubljana), M.Sc., Ph.D. (Dalhousie), Associate Professor of Mathematics and Computing Science

Masuda, Jason D., B.Sc., M.Sc. (Lethbridge), Ph.D. (Windsor), Associate Professor of Chemistry

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Matta, Chérif F., Bachelor of Pharmaceutical Science (Hons.) (Alexandria), Ph.D. (McMaster), Adjunct Professor of Chemistry

McCalla, Robert J., B.A. (Western Ontario), Ph.D. (Hull), Professor and Chairperson of Geography

McCallum, Myles, BA (Alberta), M.A., Ph.D. (SUNY, Buffalo), Associate Professor of Classics

McGowan, Mark G., BA (Hons) (Ottawa), MA., Ph.D. (Toronto), Adjunct Professor of History

McGuire, Shana, Certificat (Sorbonne), B.A. (Acadia), M.A., Ph.D. (Dalhousie), Lecturer in French

McKee, Margaret C., B.P.R. (Mount Saint Vincent), MBA (Toronto), Ph.D (Saint Mary's), Assistant Professor of Management

McMullan, John, B.A. (Hons.), M.A. (Sir George Williams), Ph.D. (London School of Economics and Political Science), Professor of Sociology and Criminology and Coordinator of Criminology Program

Merabet, Adel, Bachelor in Automation (annaba, Algeria), Master in Automation (Nantes, France), Ph.D. Engineering (Quebec), Assistant Professor and Director, Division of Engineering

Mercer, Mark D., B.A. (Hons.), M.A. (Carleton), Ph.D. (Toronto), Associate Professor of Philosophy

Millar, Harvey H., B.Sc. (West Indies), M.A.Sc., Ph.D. (Technical University of Nova Scotia), Professor of Management Science

Miller, Paul, B.Sc. (St. Francis Xavier), D.D.S. (Dalhousie), Adjunct Professor of Forensic Science

Mills, Albert J., B.A. (Hons.) (Durham), M.A. (Sheffield), M.Sc. (Southern California), Ph.D. (Durham), Professor of Management and Director of the Ph. D. in Business Administration (Management) Program

Millward, Hugh A., B.A. (Lancaster Polytechnic), M.A., Ph.D. (Western Ontario), Professor of Geography

Mohd, Mahmoud A., B.A. (Yarmouk), M.B.A. (Wisconsin-Madison), Ph.D. (Arkansas), Associate Professor of Finance

Morales, Miguel, B.Eco., M.B.A. (Lima), M.Sc., Ph.D. (Laval), Associate Professor of Marketing

Morley, Stephanie, B.A. (McGill), M.A., Ph.D. (McMaster), Assistant Professor of English

Morrison, James H., B.A., B.Ed. (Acadia), Ph.D. (Ibadan), Professor of History

Muir, Paul, B.Sc. (Hons.) (Saint Mary's), M.Sc., Ph.D. (Toronto), Professor of Mathematics and Computing Science

Munro, John, B.A., M.A., (Simon Fraser), Ph.D. (U of California), Assistant Professor of History

Nahrebecky, George, B.A. (Saint Mary's), M.A. (Dalhousie), Ph.D. (Queen's), Associate Professor of French

Naulls, Donald J., B.A. (Hons.), M.A. (Wilfrid Laurier), Ph.D. (York), Associate Dean of Arts and Associate Professor of Political Science; Chairperson, Academic Senate

Neatby, Nicole, B.A. (Ottawa), M.A. (Queens), Ph.D. (Montreal), Associate Professor of History, Graduate Coordinator of History

Novkovic, Sonja, B.A. (Novi Sad), M.A. (Guelph), Ph.D. (McGill), Professor of Economics

Oancea, Michael, CFI (CFI Institute), M.Eng. (Politechnica U), M.B.A. (Quebec), Ph.D. (Concordia), Assistant Professor of Finance

Ogden, Harold, Dip. in Bus. Ad., M.B.A. (Wilfrid Laurier), Ph.D. (Queen's), Associate Professor of Marketing

O'Brien, James P., B.A. (RMC), M.A. (Queens), MBA (Memorial), Ph.D. (Western), Assistant Professor of Management

O'Keefe, Damian, B.A. (Hons) (Royal Roads), M.Sc. (Saint Mary's), Ph.D. (Guelph), Assistant Professor of Psychology

O'Malley, Anthony H., B.A. (Hons.) (New Hampshire), Ph.D. (Dalhousie), Associate Professor of International Development Studies, Education and Anthropology, and Coordinator of the International Development Studies Program

O'Neill, Timothy J., B.A. (St. Francis Xavier), M.A. (Columbia), Ph.D. (Duke), Adjunct Professor of Executive Master of Business Administration Program

Oore, Sageeve, B.Sc. (Hons.) (Dalhousie), M.Sc., Ph.D. (Toronto), Associate Professor of Mathematics and Computing Science

Ó Siadhail, Pádraig, B.A. (Hons.), Ph.D. (Trinity College, Dublin), Professor and The Thomas D'Arcy McGee Chair of Irish Studies

Owen, J. Victor, B.Sc. (Concordia), M. Applied Sc. (Québec), Ph.D. (Memorial), Professor of Geology

Panasian, Christine A., B.Comm., M.Sc. (Concordia), Ph.D. (Texas Tech), Assistant Professor of Finance

Pardy, A. Blair, B.Sc., M.Sc. (New Brunswick), Adjunct Professor of Biology

Patry, Marc, B.A. (Castleton), M.A., M.L.S., Ph.D. (Nebraska-Lincoln), Associate Professor of Psychology

Peckmann, Tanya R., B.Sc., B.A. (Hons.) (Winnipeg), M.A. (Manitoba), Ph.D. (University of Cape Town Medical School), Associate Professor of Anthropology and Coordinator of Forensic Sciences

Pe-Piper, Georgia, B.Sc. (Athens), Ph.D. (Cambridge), Professor of Geology

Perkin, J. Russell, B.A. (Hons.) (Acadia), M.A. (Oxford), Ph.D. (Toronto), Professor of English

Perrins, Robert J., B.A. (McMaster), M.A., Ph.D. (York), Adjunct Professor of History

Petras, James, M.A., Ph.D. (California), Adjunct Professor of International Development Studies

Petrinioti, Xanthi (Sandi), B.A. (Concordia), M.A. (Carleton), Ph.D. (Panteion U), Adjunct Professor of Sociology and Criminology

Piorko, Adam, B.Sc., M.Sc. (Silesian Technical), Ph.D. (Silesian, Poland), Associate Professor of Chemistry

Piper, David, B.A., Ph.D. (Cambridge), Adjunct Professor of Geology

Plews, John L., B.A. (Hons.) (Manchester), M.A., Ph.D. (Alberta), Associate Professor of German.

Pottie, Ian, B.Sc. (Hons.) (Saint Mary's), Ph.D. (Memorial), Adjunct Professor of Chemistry

Power, Jeffrey, B.Comm. (Hons.), M.B.A. (Saint Mary's), Ph.D. (Purdue), C.M.A., F.C.M.A., Assistant Professor and Co-Chairperson of the Department of Accounting

Prancer, Ethan, B.Comm., M.Sc., Ph.D. (Queens), Lecturer in Marketing

Preyra, Leonard C., B.A., M.A. (Toronto), Ph.D. (Queen's), Assistant Professor of Political Science (on leave)

Pye, Cory C., B.Sc. (Hons.), Ph.D. (Memorial), Associate Professor of Chemistry

Qaderi, Mirwais W., B.Sc., M.Sc. (Kabul), M.Sc., Ph.D. (Western), Adjunct Professor of Biology

Rahaman, Mohammad M. BA (IIUM, Malaysia), M.A. (York), MPhil (Cambridge), Ph.D. (Toronto), Assistant Professor of Finance

Ramji, Rubina, B.A., M.A. (Wilfrid Laurier), Ph.D. (Ottawa), Adjunct Professor of Religious Studies

Rand, Thomas G., B.Sc. (Saint Mary's), M.Sc., Ph.D. (New Brunswick), Professor of Biology

Rankaduwa, Wimal, B.A., M.Sc. (U of Peradeniya), M.A., Ph.D. (Dalhousie), Adjunct Professor of Economics

Raymond, Mark, B.A., M.A. (Windsor), Ph.D. (Guelph), Assistant Professor of Economics

Read, Lorna M., B.Sc. (Dalhousie), M.A. (Saint Mary's), Ph.D. (Columbia), Adjunct Professor of International Development Studies

Reid, John G., F.R.S.C., B.A. (Hons.) (Oxford), M.A. (Memorial), Ph.D. (New Brunswick), Professor of History and Senior Fellow of the Gorsebrook Research Institute for Atlantic Canada Studies

Rixon, Daphne, B.A., B.Comm (Hons), M.B.A. (Memorial), Ph.D. (Warwick), C.M.A., F.C.M.A., Associate Professor of Accounting and Executive Director, Centre of Excellence in Accounting and Reporting for Co-operatives

Robb, Alan J., B.Comm., M. Comm. (Canterbury), A.C.A.N.Z. (Associate Chartered Accountant – New Zealand), C.M.A. (New Zealand), A.N.Z.I.M. (New Zealand Institute of Management), Adjunct Professor of Master of Management of Cooperatives and Credit Unions Program

Rothfuss, Melissa, B.A. (Macalester College), M.A. (U of Buffalo, SUNY), Ph.D. (U of Buffalo, SUNY), Adjunct Professor of Classics

Russell, Ronald W., B.Sc. (Hons.), M.Sc., B.Ed., Ph.D., Associate Professor of Biology

Sable, Trudy, B.A., M.A. (Saint Mary's), Ph.D. (New Brunswick), Adjunct Professor of Anthropology

Sagebien, Julia A., BA (Hampshire College), MA (Naropa U), MBA (Simmons College), Ph.D (Dondon School of Economics and Political Science), Adjunct Professor of International Development Studies

Sandness, Adela, B.A. (Hons.) Cert. French as a Second Language (Laval), B.A. (Regina), D.E.A., Ph.D. (cum laude) (Sorbonne), Adjunct Professor of Religious Studies

Saney, Isaac, B.A., M.A. (Saint Mary's), LL.B. (Dalhousie), Ph.D. (candidate – London), Adjunct Professor of History

Sarty, Adam J., B.Sc. (Eng.), Ph.D. (Saskatchewan), Professor of Astronomy and Physics and Associate Dean of Science - External and Student Affairs

Sawicki, Marcin, B.Sc. (McMaster), M.Sc., Ph.D. (Toronto), Professor of Astronomy and Physics

Sceles, Heather, B.B.A. (Acadia), C.A., Lecturer in Accounting and Business Co-op Advisor

Schneider, Stephen, B.A. (Carleton), M.Sc. (Pennsylvania), Ph.D. (British Columbia), Associate Professor of Criminology

Schulte-Bockholt, Alfred, B.A. (Hons.), M.A. (Guelph), Ph.D. (Carleton), Associate Professor of Criminology

308 Academic Officers and Faculty

Scobey, Porter, B.Sc., M.A., Ph.D. (Dalhousie), Associate Professor of Mathematics and Computing Science

Secord, Peter C., B.Comm. (Hons.), M.B.A., M.P.A. (Dalhousie), Ph.D. (Reading), C.M.A., CGA, C.I.A., F.C.M.A., Associate Professor of Accounting

Sewell, Bill, B.Sc. (Wisconsin), M.A. (California), Ph.D. (British Columbia), Associate Professor History

Sharif, Najma, B.A. (Punjab), M.A. (Dacca), M.A., Ph.D. (McMaster), Associate Professor of Economics and International Development Studies

Shaw, Timothy, B.A. (Sussex), M.A. (East Africa), M.A., Ph.D. (Princeton), Adjunct Professor of International Development Studies

Sheppard, Mary, B.Sc. (Hons), M.Sc. (Alberta), Lecturer in Chemistry

Short, C. Ian, B.Sc. (Hons.) (New Brunswick), M.Sc., Ph.D. (Toronto), Associate Professor Astronomy and Physics

Singer, Robert D., B.Sc. (Saint Mary's), Ph.D. (Simon Fraser), Professor of Chemistry

Singfield, Kathy L., B.Sc. (St. Francis Xavier), M.Sc., Ph.D., (McGill), Associate Professor of Chemistry and Associate Dean of Science - Curriculum

Sivakumar, Shyamala C., B.Eng. (Bangalore), M.A.Sc., Ph.D. (Technical University of Nova Scotia), Professor of Information Systems

Smith, Steven, B.A. (Hons.) (Bishops), M.A., Ph.D. (Queen's), Professor of Psychology and Dean of Science

Song, Xiaofei, B.Sc. (Fudan), M.Sc. (Shanghai Jiao Tong), M.B.A. (Saint Mary's), Ph.D. (Baruch, CUNY), FCGA, Associate Professor of Accounting

Soucy, Alexander, B.A., M.A. (Concordia), Ph.D. (The Australian National University), Associate Professor of Religious Studies and Coordinator of Asian Studies

Spinney, Jamie E. I., B.A. (Saint Mary's), B. Ed., M. Urban/Rural Planning (Dalhousie), Ph.D. (McMaster), Adjunct Professor of Geography

Spires, Adam C., B.A.H. (Acadia), M.A., Ph.D. (Alberta), Associate Professor of Spanish

Stanivukovic, Goran V., B.A. (Novi Sad), M.A., Ph.D. (Belgrade), Professor of English

Stefanovic, Djordje, B.A. (Hons.) (Simon Fraser), M.A., Ph.D. (Toronto), Assistant Professor of Criminology and Sociology

Stinson, Veronica, B.A., M.S., Ph.D. (Florida International University), 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), Professor of History

Strongman, Douglas, B.Sc. (New Brunswick), M.Sc. (Victoria), Ph.D. (New Brunswick), Professor of Biology

Summers, Russel J., B.A. (British Columbia), M.A., Ph.D. (Waterloo), Associate Professor and Chairperson of the Department of Management

Sun, Genlou, B.Sc. (Anhui Laodong University), M.Sc., Ph.D. (Sichuan Agricultural University), Professor of Biology

Sun, Xiaoping, B.A. (Qiqihar Normal University), M.A. (Liaoning University), M.A., Ph.D. (U of California), Assistant Professor of History

Suteanu, A. Cristian, B.Eng. (Politehnica University, Bucharest), Ph.D. (Romania Academy), M.A. (University of Bucharest), Associate Professor of Geography and Environmental Science and Coordinator of the Environmental Science Program

Swatuk, Larry, B.A., M.A. (Windsor), Ph.D. (Dalhousie), Adjunct Professor of International Development Studies

Swingler, David N., B.Eng., Ph.D. (Sheffield), Professor of Engineering

Taheri, Javid, B.Sc. (Pahlavi), M.A. (York), Ph.D. (Dalhousie), Associate Professor of Economics

Takseva, Tatjana, B.A. (Hons.) (York), M.A., Ph.D. (Toronto), Associate Professor of English

Talukdar, Bidyut K., B.S.S., M.S.S. (Shah Jalal University), M.A. (Manitoba), Ph.D. (McMaster), Assistant Professor of Economics

Tastsoglou, Evangelia, LL.B. (National University of Athens), Ph.D. (Boston University), Professor of Sociology

Teivainen, Teivo, Ph.D. (Helsinki), Adjunct Professor of International Development Studies

Tetreault, Darcy V., B.Sc. (Sackatchewan), MA (SMU), Ph.D. (University of Guadalajara), Adjunct Professor of International Development Studies

Thacker, Robert J., B.Sc. (Nottingham), M.Sc. (London), Ph.D. (Alberta), Associate Professor of Astronomy and Physics and Chairperson of Astronomy and Physics

Tharamangalam, Joseph, L.Ph (Sacred Heart Jesuit College, India), M.A. (Delhi), M.A., Ph.D. (York), Adjunct Professor of International Development Studies

Theunissen, Shane, B.A. (Western), B.Ed (Hons) (Lakehead), M. Ed (Queen's), Adjunct Professor of International Development Studies

Tingling, Peter M., MBA (Wilfrid Laurier), Ph.D. (Western), Adjunct Professor of Accounting

Tsedryk, Egor, BA (Universite Linguistique d'Etat de Mi), MA and Ph.D. (Western), Associate Professor of French and Linguistics and Chairperson of the Department of Modern Languages and Classics

Twohig, Peter L., B.A., M.A. (Saint Mary's), Ph.D. (Dalhousie), Associate Professor of Atlantic Canada Studies, Executive Director of the Gorsebrook Research Institute and Graduate Coordinator of Atlantic Canada Studies

Vance, Michael, B.A. (Hons.) (Simon Fraser), M.A. (York, U.K.), M.A. (McMaster), Ph.D. (Guelph), Professor of History

VanderBurgh, Jennifer A., BA (Hons) (Queen's), M.A., Ph.D. (York), Assistant Professor of English

VanderPlaat, Madine, B.A. (Hons.), M.A., Ph.D. (Dalhousie), Professor of Sociology

Van Grup, Hendrika, B.A., B.Ed. M.Ed. (Mount Saint Vincent), Adjunct Professor of Education

van der Veen, Elisabeth W., B.Sc. (Hons.), M.Sc. (Waterloo), Ph.D. (Royal Melbourne Institute of Technology, Australia), Lecturer in Sociology and Criminology

van Proosdij, Danika, B.Sc. (Hons.), M.Sc., Ph.D. (Guelph), Associate Professor of Geography

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 International Development Studies

Venkat, Ramesh, B.Comm., M.B.A. (Madurai-Kamaraj), M.B.A. (Simon Fraser), Ph.D. (British Columbia), Associate Professor of Marketing

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

Walmsley, Daniel, B.Sc., B.Sc. (Hons), M.Sc. (University of Natal), Ph.D. (University of the Free State, South Africa), MAP (University of the Witwatersrand, South Africa), Adjunct Professor of Environmental Science

Wan, Zeying, Dip. Comp. Eng., M.Phil.Sc. (Zhejiang), Ph.D. (Western Ontario), Assistant Professor of Information Systems

Wang, Hai, B. Comp. Sc. (Hons.) (New Brunswick), M.Sc., Ph.D. (Toronto), Associate Professor of Information Systems

Wang, Jing, B.A. (Beijing), MILR (Cornell), Ph.D. (Toronto), Assistant Professor of Management

Wang, Muhong, B.A.Sc. (Xian Jiaotong), M.A.Sc. (Xian Jiaotong), Ph.D. (Waterloo), Associate Professor of Management Science

Warner, Lyndan, B.A. (Hons.) (McGill), Ph.D. (Cambridge), Associate Professor of History

Watson, Ariel, B.A. (Hons.) (N. Carolina), M.A., Ph.D. (Yale), Assistant Professor of English

Webb, J. Tom, B.A. (St. Francis Xavier), M.A. (Carleton), Adjunct Professor of Master of Management – Cooperatives and Credit Unions

Wei, Mei-Ling, B.Comm. (Hons.) (McMaster), MBA (Dalhousie), Ph.D. (York), Assistant Professor of Marketing

Wein, Sheldon, B.A., M.A., Ph.D. (Waterloo), Professor of Philosophy and International Development Studies

Westhaver, Russell, B.A. (Hons.), M.A. (Saskatchewan), Ph.D. (Simon Fraser), Associate Professor of Sociology and Chairperson of the Department of Sociology and Criminology

White, Jerry, BA (Oregon), MA & Ph.D. (Alberta), Adjunct Professor of Irish Studies

White, Michael J., B.Sc. (Hons.) (McMaster), Ph.D. (British Columbia), Associate Professor of Biology

White, Peter, B.Sc. (Hons.) (Saint Mary's), M.Sc., Ph.D. (York), Adjunct Professor of Environmental Science

Wicks, David, B.Comm. (Carleton), M.B.A., Ph.D. (York), B.A. (Dalhousie), Professor of Management

Wise, Raul D., Ph.D., Adjunct Professor of International Development Studies

Wood, Marnie Jane, B.Sc. (St. Francis Xavier), MD (Dalhousie), Adjunct Professor of Forensic Science

Ye, L. George, B.Sc. (Peking), M.Eng. (Beijing), M.A. (York), Ph.D. (Queen's), Associate Professor of Finance

Young, Nicola, B.Comm., M.B.A. (Dalhousie), F.C.A., Professor of Accounting

Zayago Lau, Edgar, B.Sc. (Universidad Autónoma del Estado de Hidalgo), M.A. (Saint Mary's), Ph.D. (Universidad Autónoma de Zacatecas), Adjunct Professor of International Development Studies

Zelenietz, Martin C., B.A. (Northeastern Illinois), M.A. (Manitoba), Ph.D. (McMaster), Assistant Professor of Anthropology

Zhang, Michael, B.S. (Zhejiang), M.A. (Xiamen), Ph.D. (Western Ontario), Associate Professor of Management

Science and Chairperson of the Department of Finance,
Information Systems and Management Science

Academic Officers and Professors Emeriti

Badawi, Jamal A., B.Comm. (Ain-Shams), M.B.A., Ph.D. (Indiana), Professor Emeritus of Management

Bridgeo, William A., B.Sc. (St. Francis Xavier), Ph.D. (Ottawa), Dean Emeritus of Science

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

Chesley, G. Richard, B.Comm. (Mount Allison), M.A., Ph.D. (Ohio State), Professor Emeritus of Accounting

Christiansen-Ruffman, Linda, B.A. (Hons.) (Smith College), Ph.D. (Columbia), Professor Emerita of Sociology

Connelly, Patricia, B.A. (Saint Mary's), Dip. Ed., M.A. (Dalhousie), Ph.D. (Toronto), Professor Emerita of Sociology

Davis, Stephen A., B.A. (New Brunswick), M.A. (Memorial), D.Phil. (Oxford), Professor Emeritus of Anthropology

Day, E. E. Douglas, B.A., Dip. Ed. (Leicester), Ph.D. (Sheffield), Professor Emeritus of Geography

Dostal, Jaroslav, Dip. Geol. (Prague), Ph.D. (McMaster), Professor Emeritus of Geology

Dougherty, Frank P., B.Comm. (Sir George Williams), M.Sc. (Clarkson College of Technology), Ph.D. (Pennsylvania State), C.A., Professor Emeritus of Accounting

Gorman, Barry F., B.Comm. (Saint Mary's), M.B.A. (Dalhousie), Ph.D. (Bath), C.A., T.E.P., Professor Emeritus of Accounting

Grennan, Wayne, B.Eng. (Nova Scotia Technical College), B.A., M.A. (Dalhousie), D.Phil. (Oxford), Professor Emeritus of Philosophy

Harvey, Andrew S., B.A. (Maine), M.A., Ph.D. (Clark), Professor Emeritus of Economics

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

Haysom, John T., B.Sc. (London) Ph.D. (Cambridge) Professor Emeritus of Education

Hill, Janet, B.A. (Hons.) (Sheffield), M.A., Ph.D. (Dalhousie), Professor Emerita of English

Howell, Colin D., B.A., M.A. (Dalhousie), Ph.D. (Cincinnati), Professor Emeritus of History;

Katz, Wendy R., B.A. (Skidmore College), M.A., Ph.D. (Dalhousie), Professor Emerita of English

Larsen, Michael J., B.A. (Saint Mary's), M.A. (Dalhousie), Ph.D. (Toronto), Dean Emeritus of English

Lonc, William, S.J., B.Sc. (Sir George Williams), Ph.L., Ph.D. (St. Louis), Professor Emeritus of Astronomy and Physics

McBride, Edward J., B.S. (LeMoyné), M.A. (Catholic University of America), Professor Emeritus of Political Science

Mitchell, George F., B.Sc. (McMaster), M.A., Ph.D. (Toronto), Professor Emeritus of Astronomy and Physics

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

Richardson, David H. S., B.Sc., M.Sc. (Nottingham), M.A., Sc.D. (Trinity College, Dublin), D.Phil. (Oxford), Professor of Biology, Dean Emeritus

Rojo, Alfonso, B.Sc. (Valladolid), M.Sc., D.Sc. (Madrid), Professor Emeritus of Biology

Seaman, Andrew T., B.A. (Mount Allison), M.A. (Dalhousie), Ph.D. (Dublin), Professor Emeritus of English

Schwind, Hermann F., B.B.A., M.B.A. (Washington), Ph.D. (British Columbia), Professor Emeritus of Management

Stiegman, Emero S., B.A. (Don Bosco College), S.T.L. (Salesion Pontifical), Ph.D. (Fordham), Professor Emeritus of Religious Studies

Thomas, Gillian M. V., B.A., M.A. (Sussex), Ph.D. (London), Professor Emerita of English

Tudor, Kathleen R., B.A. (Sir George Williams), M.A. (Montreal), Ph.D. (Toronto), Professor Emerita of English

Turner, David G., B.Sc. (Waterloo), M.Sc., Ph.D. (Western Ontario), Professor Emeritus of Astronomy and Physics

Welch, Gary A., B.S. (Harvey Mudd College), M.S., Ph.D. (Washington), Professor Emeritus of Astronomy and Physics

Young, George F. W., B.A. (Harvard), Ph.D. (Chicago), Professor Emeritus of History

Young, John C. O’C., B.Sc., Ph.D. (London), M.B.A. (New York), Professor Emeritus of Chemistry

Administrative Officers

President

Dodds, J. Colin, B.A. (Open University), B.Sc. (Hull), M.A., Ph.D. (Sheffield), President and Professor of Finance

Vice-President (Finance and Administration)

Morrison, Gabrielle, B.Sc. (Dalhousie), B.E. (Technical University of Nova Scotia), P.Eng.

Associate Vice President (External Affairs)

Margaret Murphy, B.A. (Dalhousie), M.A. (Western Ontario)

Associate Vice President (Enrolment Management) and Registrar

Dixon, Paul S., B.A. (New Brunswick), M.Math., Ph.D. (Waterloo), Professor of Management Science

Associate Vice President (Research)

Vessey, J. Kevin, B.Sc. (Hons.), M.Sc. (Dalhousie), Ph.D. (Queens), Dean, Dean of Graduate Studies and Research and Professor of Biology

Alumni Office

Daye, Mary Ann, B.Comm. (Saint Mary’s), B.P.R. (Mount Saint Vincent), M.P.A. (Dalhousie), Director

Art Gallery

Metcalf, Robin, B.A. (Hons.) (Dalhousie), Director/Curator

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., Acting Director

Business Development Centre

Crowell, Eric, B.A. (Dalhousie), M.B.A. (Toronto), C.A., Director

Continuing Education

Michael, Gordon, B.Sc. (Prince Edward Island), B.Ed. (Acadia), M.A. (Dalhousie), Director

Development

Fitzpatrick, Heather M., B.P.R. (Mount Saint Vincent), Director of Development

Facilities Management

Schmeisser, Gary H., B.Sc. (Dalhousie), B.Eng. (Technical University of Nova Scotia), Senior Director

Financial Services

Rooney, Darrell, CA, Senior Director of Financial Services
Dubois, Valerie, B.Comm., M.B.A. (Saint Mary’s), 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

Twohig, Peter L., B.A., M.A. (Saint Mary’s), Ph.D. (Dalhousie), Associate of Atlantic Canada Studies, Executive Director

Human Resources

Squires, Kim, B.A., B.Ed., M.B.A. (Saint Mary’s), C.H.R.P., Senior Director

Information Technology Systems and Support

Sisk, Perry, B.Sc. (Dalhousie), Senior Director

Instructional Development

Bennett, Margaret-Anne, B.A. (Saint Mary’s), B.Ed., M.Ed. (Dalhousie), Director

International Activities

Maureen Woodhouse, B.A. (Carleton), M.B.A. (Saint Mary’s), Acting Director

Library

DeYoung, Marie, B.A. (St. Francis Xavier), Dip. L.T. (Ryerson), M.L.S. (Dalhousie), University Librarian

Bentley, Brenda, Coordinator, Library Administration

Cannon, Susan, Head of Access Services

Cook, Hansel, B.A. (Dalhousie), M.L.I.S. (British Columbia), Archives, Special Collections and Records Librarian

Harrigan, Cindy, B.A., B.Ed. (Saint Mary’s), M.L.S. (Dalhousie), Instructional Development Librarian

Houlihan, Ron, B.A. (Saint Mary’s), M.L.I.S. (Dalhousie), Promotional Services Librarian

312 Administrative Officers

Sanderson, Heather, B.A. (Hons.) (King's), M.A. (Queen's), Ph.D. (Queen's), M.L.I.S. (Dalhousie), Information Literacy Librarian

Thomson, Joyce, B.A., M.L.S. (Dalhousie), Digital Services Librarian

Vaisey, Douglas, B.A. (Trent), M.L.S. (Dalhousie), Reference and Research Librarian

Webster, Peter, B.A. (Alberta), M.L.S. (Dalhousie), Associate University Librarian, Information Systems

Winchcombe, Terri, Manager of Acquisition Services

Wood, Sally, B.A. (Saint Mary's), LL.B., M.L.I.S. (Dalhousie), Collection Development Librarian

Enrolment Services

Braswell, Marie, B.A.(Thomson Rivers), M.A. (Royal Roads), Associate Registrar – Admissions and Recruitment

Hallett, Leslie, C.G.A, Associate Registrar – Service Centre

Peters, David, B.Comm. (Saint Mary's), Associate Registrar – Systems and Records

Sobey School of Business Advisory Council

Keith, John (Jack) R., Hon. D.Comm. (Saint Mary's), C.M., Chairperson

Security

Ratchford, Lonnie, Manager

Senate Office

Bell, Barb, Secretary to Senate

Conflict Resolution Advisor

Brownlow, Bridget, B.A. (Dalhousie), Con. Res-Cert. (JIBC)

Student Services

Hotchkiss, Keith, B.A. (Saint Mary's), Senior Director

Morris, Sarah, B.Sc., M.Ed. (Dalhousie), Assistant Director

Leitch, David, B.A., B.Ed., B.Sc., M.A., Ph.D. (Dalhousie), Director, Atlantic Centre for Support of Students with Disabilities

The Teaching English as a Second Language Centre

Michael Armour, B.A. (Western Ontario), M.Ed. (Northcentral), Director

The Writing Centre

Hotson, Brian, Director

Awards to Faculty and Staff

Annually there are four prestigious awards presented to members of faculty and staff.

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)
- 2004 Dr. Porter Scobey (Mathematics and Computing Science)
- 2005 Dr. Adam Sarty (Astronomy and Physics)
- 2006 Dr. Edna Keeble (Political Science)
- 2007 Dr. Stephen Davis (Anthropology)
- 2008 Dr. Shelagh Crooks (Philosophy)
- 2009 Dr. Pawan Lingras (Mathematics and Computing Science)
- 2010 Dr. Barry Gorman (Accounting)
- 2011 Dr. Brian Bartlett (English)
- 2012 Dr. Coleen Barber (Biology)

b. The Dr. Geraldine Thomas Educational Leadership Award

In 2007, the Quality of Teaching Committee established an Educational Leadership Award to recognize the long-term commitment of faculty who develop, enhance and promote the quality of teaching and learning at Saint Mary's, and

beyond. The Committee gratefully acknowledges the support of the Saint Mary's University Faculty Union for this Award.

The Award is named for Dr. Geraldine Thomas, national teaching award winner, and founding member of the Quality of Teaching Committee. Dr. Thomas has spent the past twenty years of her academic career supporting efforts which improve teaching and learning within the University, the Atlantic region, and nationally.

- 2007 Dr. Shelagh Crooks (Philosophy)
- 2008 Dr. Adam Sarty (Astronomy and Physics)
- 2011 Dr. Howard Donohoe (Geology)

c. President's Award for Excellence in Research

Established in 1989, this annual award honours 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)
- 2004 Dr. J. Victor Owen (Geology)
- 2005 Dr. David Guenter (Astronomy and Physics)

314 Awards to Faculty and Staff

- 2006 Dr. Kevin Kelloway (Management and Psychology)
- 2007 Dr. Hugh Millward (Geography)
- 2008 D. Albert Mills (Management)
- 2009 Dr. Robert McCalla (Geography)
- 2010 Dr. Goran Stanivukovic (English)
- 2011 Dr. Tony Charles (Management Science and Environmental Science)
- 2012 Dr. John McMullan (Sociology & Criminology)

d. The President's Awards for Exemplary Service

Created in 2004, the President's Awards for Exemplary Service at Saint Mary's University are presented each year to recognize employees who have demonstrated outstanding service and/or who have made significant contributions to the University community beyond that normally expected for their positions.

The awards are open to full-time employees of Saint Mary's University who have served a minimum of five (5) years of continuous service prior to nomination and who have not previously received the award. A person may be nominated multiple years providing he/she hasn't received an award.

The awards will be based on outstanding service to the University in any one or more of the following areas:

1. Providing continued excellent service to the Saint Mary's community.
2. Enhancing the quality of life for students, employees, and/or visitors to the University.
3. Having a demonstrated record of innovation within the University in new programs/services or making significant improvements to existing programs or service, and
4. Advancing the reputation of Saint Mary's University regionally, nationally and/or internationally.

One award of \$1,500 may be presented annually to a faculty member and two awards of \$1,500 each may be presented annually to support and administrative employees.

- 2004
Elizabeth Chard (Registrar)
Joan Whitney (Office of the Dean of Arts)
Richard Chesley (Accounting)
Diane Gorman (Facilities Management) Honorable Mention

- 2005
Susan Doré (Office of the Dean of Science)
Ann MacDonald (Conference Services)
Malcolm Butler (Astronomy and Physics)
Kathy Mullane (Athletics) Honorable Mention

- 2006
Judy Grandy (Bookstore)
Bill Promaine (University Security)
Vic Catano (Psychology)

- 2007
Pat Bishara (External Affairs)
Carl Grandy (Facilities Management)
James Morrison (History)
Randolph Corney (Geology) Honorable Mention

- 2008
Margaret Anne Bennett (Centre for Academic and Instructional Development)
Margaret Harry (English)
David Lane (Astronomy and Physics)

- 2009
Rose Daurie (Math and Computing Science)
Donnie Jeffrey (Student Services)
Doug Vaisey (Patrick Power Library)
Honorable Mention
Dr. Robert McCalla (Geography)

- 2010
Dr. Robert Konopasky (Psychology)
Randy Corney (Geology)
Trevor Steinburg (Athletics and Recreation)

- 2011
Dr. Jeff Power (Accounting)
Mae Boettcher (Facilities Management)
Ronald Cochrane (Financial Services)
Margaret Schenk (Graduate Studies and Research))

- 2012
Francis Boabang (Finance)
Lois Larson (Sobey School of Business)
Shripad Pendse (Management)
Jennifer Stewart (Information Technology Systems and Support)

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