


## The Mission Statement

In 1843 the founders of Bishop's University declared their intention "to offer to the country at large the blessing of a sound and liberal education." Today our goal remains the education of individuals, primarily at the undergraduate level, to develop their talents and realize their leadership potential. Intellectual achievement is crucial to our mission and thus the University promotes academic excellence through an emphasis on teaching enriched by scholarship and research. The Bishop's experience begins with close interaction between professor and student but extends beyond the classroom to provide the basis for critical thinking and effective communication,
while also fostering community spirit and lasting friendships. Located in the bilingual setting of the Eastern Townships, Bishop's offers students from Quebec, Canada, and the International community the opportunity to exercise the rights and responsibilities of good citizenship and to engage in the tolerant and informed dialogue that sustains democracy.


## NOTICE:

The Academic Calendar is produced in both print and electronic format. The University will consider the most recent electronic version as the official University publication.
Archival copies are available at
ubishops.ca/academic-programs/academic-calendar/
The Academic Calendar provides guidance to prospective students, applicants, current students, faculty and staff.

1. Bishop's University reserves the right to make changes to regulations, programs, courses, credit requirements, facilities, and fees - without prior notice.
2. In the interpretation of academic regulations, the Senate is the final authority.
3. Students are responsible for informing themselves of the University's procedures, policies and regulations, and the specific requirements associated with the degree or certificate sought.
4. All students registered at Bishop's University are considered to have agreed to act in accordance with the University procedures, policies and regulations.
5. Although advice is readily available on request, the responsibility of selecting the appropriate courses for graduation must ultimately rest with the student.
6. Not all courses are offered every year and changes can be made after publication. Always check the class schedule on the Bishop's portal for the most up-to-date information on whether a course is offered.
7. The academic publication year begins at the start of the Fall semester and extends through to the end of the Spring semester of any given year. Students who begin their studies at any point within this period are governed by the regulations in the academic calendar which came into effect at the start of the Fall semester.

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## 2023



## 2024



## 2023-2024 Sessional Dates**

Summer 2023

| Monday | May 8,2023 | Classes begin for all day and evening courses |
| :--- | :--- | :--- |
| Friday | May 19,2023 | Midnight - Last day to add/drop courses for all Summer courses |
| Monday | May 22, 2023 | National Patriot's Day (no classes) |
| Friday | June 23, 2023 | St. Jean Baptiste Day (no classes) |
| Friday | June 30, 2023 | Canada Day (no classes) |
| Friday | July 28, 2023 | Last day of regular classes |
| Monday | July 31, 2023 | Make up National Patriot's Day |
| Wednesday | August 2,2023 | Make up St. Jean Baptiste |
| Friday | August 4,2023 | Make up Canada Day / Midnight- Last day to Withdraw with Permission from <br> Summer courses (no refund of fees) |
| Monday | August 7,2023 | Summer semester examinations begin |
| Friday | August 11,2023 | Summer semester examinations end |
| Friday | August 18,2023 | Midnight: Deadline for instructors to submit Summer semester grades |

## Spring 12023

| Monday | May 8,2023 | Classes begin for all day and evening courses |
| :--- | :--- | :--- |
| Friday | May 12, 2023 | Midnight - Last day to add/drop courses for all Spring 1 courses |
| Monday | May 22,2023 | National Patriot's Day (no classes) |
| Friday | May 26, 2023 | Make up day for National Patriot's Day |
| Thursday | June 15, 2023 | Midnight - Last day to Withdraw with Permission from Spring 1 courses <br> (no refund of fees) |
| Thursday | June 15,2023 | Last day of regular classes |
| Monday | June 19, 2023 | Spring 1 semester examinations begin |
| Tuesday | June 20,2023 | Spring 1 semester examinations end |
| Monday | June 26,2023 | Midnight: Deadline for instructors to submit Spring 1 semester grades |

Spring 22023

| Monday | July 3, 2023 | Classes begin for all day and evening courses |
| :--- | :--- | :--- |
| Friday | July 7, 2023 | Midnight - Last day to add/drop courses for all Spring 2 courses |
| Thursday | August 10, 2023 | Midnight - Last day to Withdraw with Permission from Spring 2 courses <br> (no refund of fees) |
| Thursday | August 10, 2023 | Last day of regular classes |
| Monday | August 14, 2023 | Spring 2 semester examinations begin |
| Tuesday | August 15, 2023 | Spring 2 semester examinations end |
| Monday | August 21, 2023 | Midnight: Deadline for instructors to submit Spring 2 semester grades |
| Spring 1 Intensive 2023 |  |  |
| Monday | May 8, 2023 | Classes begin for all day and evening courses |
| Wednesday | May 10, 2023 | Midnight - Last day to add/drop courses for all Spring 1 Intensive courses |
| Monday | May 22, 2023 | National Patriot's Day (no classes) |
| Thursday | May 25, 2023 | Last day of regular classes; WP deadline (no refund of fees) |
| Friday | May 26, 2023 | Make up day for National Patriot's Day |
| Monday | May 29, 2023 | Midnight: Deadline for instructors to submit Spring 1 Intensive semester grades |

## Spring 2 Intensive 2023

| Monday | May 29, 2023 | Classes begin for all day and evening courses |
| :--- | :--- | :--- |
| Wednesday | May 31, 2023 | Midnight - Last day to add/drop courses for all Spring 2 Intensive courses |
| Wednesday | June 14, 2023 | Midnight- Last day to Withdraw with Permission from Spring 2 Intensive courses <br> (no refund of fees) |
| Thursday | June 15, 2023 | Last day of regular classes |
| Monday | June 19,2023 | Midnight: Deadline for instructors to submit Spring 2 Intensive semester grades |

## Fall 2023

| Monday | September 4, 2023 | Labour Day (no classes) |
| :--- | :--- | :--- |
| Wednesday | September 6, 2023 | Classes begin for all day and evening courses |
| Tuesday | September 19, 2023 | Midnight - Last day to add/drop courses |
| Friday | September 29, 2023 | National Truth \& Reconciliation Day (academic activities suspended) |
| Monday | October 9, 2023 | Thanksgiving (no classes) |
|  | Oct. 23-Oct. 28 | Student Success Week |
| Tuesday | December 5, 2023 | Last day of Regular Classes |
| Wednesday | December 6, 2023 | Make up National Truth \& Reconciliation Day |
| Thursday | December 7, 2023 | Make up Thanksgiving |
| Thursday | December 7, 2023 | Midnight- Last day to Withdraw with Permission from Fall courses <br> (no refund of fees) |
| Sunday | December 10, 2023 | Fall semester examinations begin |
| Thursday | December 21, 2023 | Fall semester examinations end |
| Sunday | January 7, 2024 | Midnight: Deadline for instructors to submit Fall semester grades |
|  | Dec 23-January 7 | University Closed - Holiday break |

Winter 2024

| Monday | January 8, 2024 | Beginning of classes for EDU 328/329 and EDU 428/429 |
| :--- | :--- | :--- |
| Wednesday | January 10,2024 | Classes begin for all day and evening courses |
| Tuesday | January 23, 2024 | Midnight - Last day to add/drop courses |
| Tuesday | January 23, 2024 | Midnight - Last day to WP from full year courses (no refund of fees) |
|  | March 4-9 | Reading Week (no classes) |
| Friday | March 29, 2024 | Good Friday (no classes) |
| Saturday | March 30, 2024 | Easter Weekend ( no classes) |
| Monday | April 1, 2024 | Easter Monday (no classes) |
| Tuesday | April 9, 2024 | Last day of regular classes |
| Wednesday | April 10, 2024 | Make up Good Friday |
| Thursday | April 11, 2024 | Make up Easter Monday |
| Thursday | April 11, 2024 | Midnight- Last day to Withdraw with Permission from Winter courses <br> (no refund of fees) |
| Saturday | April 13, 2024 | Make up Easter weekend Saturday |
| Sunday | April 14, 2024 | Winter semester examinations begin |
| Thursday | April 25, 2024 | Winter semester examinations end |
| Friday | April 26,2024 | Last day of classes for EDU 328/329 |
| Monday | April 29, 2024 | Midnight: Deadline for instructors to submit Winter semester grades |
| Saturday | May 31-June 2, 2024 | Convocation |

Summer 2024

| Monday | May 6, 2024 | Classes begin for all day and evening courses |
| :--- | :--- | :--- |
| Friday | May 17, 2024 | Midnight - Last day to add/drop courses for all Summer courses |
| Monday | May 20, 2024 | National Patriot's Day (no classes) |
| Monday | June 24, 2024 | St. Jean Baptiste Day (no classes) |
| Monday | July 1, 2024 | Canada Day (no classes) |
| Friday | July 26, 2024 | Last day of regular classes |
| Monday | July 29, 2024 | Make up National Patriot's Day |
| Wednesday | July 31, 2024 | Make up St. Jean Baptiste |
| Friday | August 2, 2024 | Make up Canada Day / Midnight - Last day to Withdraw with Permission from <br> Summer courses (no refund of fees) |
| Monday | August 5,2024 | Summer semester examinations begin |
| Friday | August 9,2024 | Summer semester examinations end |
| Friday | August 16, 2024 | Midnight: Deadline for instructors to submit Summer semester grades |

Spring 12024

| Monday | May 6, 2024 | Classes begin for all day and evening courses |
| :--- | :--- | :--- |
| Friday | May 10, 2024 | Midnight - Last day to add/drop courses for all Spring 1 courses |
| Monday | May 20, 2024 | National Patriot's Day (no classes) |
| Friday | May 24, 2024 | Make up day for National Patriot's Day |
| Thursday | June 13, 2024 | Midnight - Last day to Withdraw with Permission from Spring 1 courses <br> (no refund of fees) |
| Thursday | June 13,2024 | Last day of regular classes |
| Monday | June 17,2024 | Spring 1 semester examinations begin |
| Tuesday | June 18, 2024 | Spring 1 semester examinations end |
| Monday | June 24,2024 | Midnight: Deadline for instructors to submit Spring 1 semester grades |

Spring 22024

| Tuesday | July 2, 2024 | Classes begin for all day and evening courses |
| :--- | :--- | :--- |
| Monday | July 8, 2024 | Midnight - Last day to add/drop courses for all Spring 2 courses |
| Thursday | August 8, 2024 | Midnight- Last day to Withdraw with Permission from Spring 2 courses <br> (no refund of fees) |
| Thursday | August 8, 2024 | Last day of regular classes |
| Friday | August 9, 2024 | Makeup day for Canada Day |
| Monday | August 12, 2024 | Spring 2 semester examinations begin |
| Tuesday | August 13, 2024 | Spring 2 semester examinations end |
| Monday | August 19, 2024 | Midnight: Deadline for instructors to submit Spring 2 semester grades |
| Spring 1 Intensive 2024 |  |  |
| Monday | May 6, 2024 | Classes begin for all day and evening courses |
| Tuesday | May 7, 2024 | Midnight - Last day to add/drop courses for all Spring 1 Intensive courses |
| Monday | May 20, 2024 | National Patriot's Day (no classes) |
| Thursday | May 23, 2024 | Last day of regular classes; WP deadline (no refund of fees) |
| Friday | May 24, 2024 | Make up day for National Patriot's Day |
| Tuesday | May 28, 2024 | Midnight: Deadline for instructors to submit Spring 1 Intensive semester grades |


| Spring 2 Intensive 2024 |  |  |
| :--- | :--- | :--- |
| Monday | May 27, 2024 | Classes begin for all day and evening courses |
| Tuesday | May 28, 2024 | Midnight - Last day to add/drop courses for all Spring 2 Intensive courses |
| Wednesday | June 12, 2024 | Midnight - Last day to Withdraw with Permission from Spring 2 Intensive courses <br> (no refund of fees) |
| Thursday | June 13, 2024 | Last day of regular classes |
| Monday | June 17, 2024 | Midnight: Deadline for instructors to submit Spring 2 Intensive semester grades |

## General Information

## Characteristics

Bishop's is a predominantly residential university whose primary concern is offering to undergraduate students a quality education in Arts, Sciences, Business Administration and Education. Its academic programs are broadly based and stress the interrelationships of disciplines rather than their specializations. The residential aspect and small size of the University encourage an informal atmosphere in academic and social situations. Emphasis is placed on personal contact between faculty and students through small classes and frequent use of seminars, laboratories, and tutorials. Self-directed study is encouraged with student research projects and special independent study programs. Bishop's also offers a small number of graduate-level programs. Approximately 2,900 full-time and part-time students were enrolled in Bishop's courses in 2021-22.

## Location

Bishop's University is attractively situated in the Sherbrooke borough of Lennoxville, amid the rolling hills of the Eastern Townships of southern Quebec. The campus occupies a 500-acre tract at the junction of the St. Francis and Massawippi rivers, bordered on the west by the borough of Lennoxville and on the east by open countryside. Several lakes, bike trails and numerous ski resorts within short driving distances supplement the recreational facilities on the campus.

## Origin and Development

The University was founded as Bishop's College in 1843 under the sponsorship of the Right Reverend G. J. Mountain, third Anglican Bishop of Quebec, with the assistance of a group of clergy and laymen of the Eastern Townships. According to the intention of its founders, Bishop's was to have two functions: "to offer to the country at large the blessing of a sound and liberal education" and to provide training for the clergy. Ten years later, in 1853, the College received a royal charter granting it the right to confer degrees.

The early development of Bishop's was gradual. Its original grant of land, forty acres, was donated by Lieutenant-Colonel William Morris. On this site, the first building, consisting of the five central bays of what is now McGreer Hall, was erected and occupied in 1846. The chapel was consecrated in 1857, an Arts Building in 1861 (destroyed by fire in 1891), a new Arts Building (now the Johnson Building) and Divinity House in 1892. The first degrees granted by Bishop's, in 1854, were in Arts and Divinity. In 1871, a medical faculty was established in Montreal, which functioned until 1905 when it was merged with the Medical Faculty of McGill University. A small Faculty of Law awarded 15 degrees between 1881 and 1888. Specialized programs in Professional Education and in the Natural Sciences were introduced in the 1920s.

The administration of Bishop's remained under the aegis of the Church of England until 1947 when the Corporation of the University was reconstituted as a nondenominational body.

In 1949, an extensive development program was initiated with public support. Most of the present facilities have been constructed since that time: Norton Hall and Pollack Hall residences, the Memorial Gymnasium (now Memorial House, part of the Student Centre) and the central heating plant in 1949-50; the John Bassett Memorial Library, Mackinnon Hall residence and several faculty houses in 1958-59; the W.B. Scott Memorial Rink in 1961; the Jasper H. Nicolls Arts Building, the John Hamilton Administration Building and Bishop Mountain House students' centre in 196263; Abbott Hall, Kuehner Hall and Munster Hall residences in 1964-66; a new wing to the Andrew S. Johnson Science Building in 1966; the Centennial Theatre in 1967; an addition to the John Bassett Memorial Library in 1970; a new football stadium in 1971; the John H. Price Sports and Recreation Centre in 1975; Marjorie Donald House, a new wing of the Student Centre, in 1977. The Molson Fine Arts Building and an extension to the library were added in 1990. The Centennial Theatre was renovated and expanded to include an Art Gallery in 1991. In 1998, improvements were made to Memorial House and Marjorie Donald House, which now form part of the University Centre. An apartment-style residence, Paterson Hall, was opened in the fall of 2003. In 2008 a Field Turf surface was installed on Coulter Field. The Johnson Science Labs underwent an extensive renovation in 2009 and were re-opened in early 2010. The John H. Price Sports and Recreation Centre underwent extensive renovations which included a second double gymnasium and the Jane and Eric Molson Arena in 2015. The John Bassett Memorial Library was completely renovated, and a new Library and Learning Commons was inaugurated in 2018. Renovated Science labs and a greenhouse in the Johnson Building were inaugurated in 2019.

Since 1949 , the student body and faculty have more than trebled in size. Many new programs have been introduced, including a Bachelor's degree program in Business Administration, numerous specialization options and a variety of inter-disciplinary programs. In 1970, following the institution of colleges of general and vocational education (CEGEPs) at the pre-university level in Quebec, Bishop's, along with other universities in the province, reorganized its undergraduate programs to lead to the Bachelor's degree in three years of study beyond the collegial level.

Thus, Bishop's University had its beginnings more than 175 years ago as a private college supported by the Church of England. During its early development, a strong humanistic tradition was established in its programs and teaching. Since 1949, the University has evolved rapidly as part of a provincially supported system of higher education. Bishop's assumes a distinctive role in this system as a relatively small and residential university with broadly based programs. Bishop's aims to offer a well-rounded liberal education adapted to the needs and opportunities of the day.

## Academic Organization

Bishop's academic organization includes two Schools - The Williams School of Business and the School of Education and a Faculty of Arts and Science, which is divided into three divisions: Humanities, Social Sciences, and Natural Science and Mathematics.*

* The academic organization is currently under review


## Programs

Bishop's undergraduate programs lead to Bachelor's degrees in Arts, Science, Education and Business Administration. Subjects offered for Honours or Major specialization in Arts include Classical Studies; Drama; Economics; English; Environment, Agriculture and Geography; Études françaises et québécoises; Fine Arts; History and Global Studies; Liberal Arts; Modern Languages; Music; Philosophy; Political Economy; Political and International Studies; Psychology; Religion; Society and Culture; Sports Studies; Sociology. In Science, the major subjects are Biochemistry, Biology, Chemistry and Brewing Science, Computer Science, Mathematics, Physics and Astronomy, and Psychology (Neuroscience). Interdisciplinary Concentrations or Minor specializations are also possible in many areas.

Students may design their programs within a broad framework of options. A student may opt to major in a single subject - e.g., English, Psychology or Chemistry; or in some combination of subjects from more than one Division or School- e.g., Geography and History and Global Studies or Mathematics and Music. Honours programs are offered in many subjects. Major or Honours and Minor specializations may be combined in a program.

In addition to offering undergraduate programs leading to the B.Ed. degree, the School of Education prepares graduates for the Master of Arts in Education and the Master of Education and multiple graduate certificates.

The University also offers individualized Master of Arts or Science and a Master of Science in Computer Science or Physics, a Graduate Certificate in Brewing Science, a Graduate Certificate in Knowledge Mobilization, and a Graduate -level micro-program in Climate Change.

## Part-Time Studies

Bishop's University is dedicated to fulfilling the lifelong learning needs of community part-time students. Its mission is to assure accessibility within the Eastern Townships and beyond to high quality educational programs for adult learners pursuing parttime degree and certificate studies and those seeking personal and professional development. A variety of credit courses are offered year-round in the Fall, Winter and Spring semesters.

## Association with Champlain Regional College

Champlain Regional College is part of the provincial system of colleges of general and vocational education (CEGEPs). One of its three sites has been on the campus of Bishop's University since 1971. While Champlain's administrative offices and some classrooms are located in the College's own building, virtually all other campus facilities are shared with Bishop's. A spirit of mutual cooperation between the two institutions and student bodies has allowed this arrangement, unique in the province, to succeed.

Please note that particular application and course registration deadlines for each institution must be observed. It is advisable to contact the Admissions Office for further information.

Inquiries about Champlain should be addressed to:
Champlain College Lennoxville
C.P. 5003

Sherbrooke Quebec
J1M 2A1
Tel: 819-564-3666
E-mail: admissions@crc-lennox.qc.ca

## Affiliation with the Thomas More Institute for Adult Education

Qualified graduates of the Thomas More Institute for Adult Education, 3405 Atwater Avenue, Montreal, Quebec, may be granted the Bachelor of Arts degree by Bishop's University, by an affiliation agreement concluded by the two institutions in 1974. The degree program of the Thomas More Institute is designed for mature adults, normally over 23 years of age, and offers to such persons special opportunity to continue their formal education in the Liberal Arts tradition. For information: 514-935-9585.

General inquiries from prospective students should be directed to:<br>Recruitment Office<br>Bishop's University<br>2600 College Street<br>Sherbrooke, Quebec<br>J1M 1Z7<br>Tel. 819-822-9600 ext. 2681<br>or 1877-822-8200<br>E-mail: recruitment@ubishops.ca<br>Website: www.ubishops.ca

## APPLYING TO BISHOP'S UNIVERSITY

## Application Procedure

Applications must be submitted online at www.ubishops.ca/ apply. Supporting documents should be uploaded at the time of application, submitted via the myBU applicant portal provided to the student during the application process, or via email at admissions@ubishops.ca.
Mailing address:
Admissions Office
Bishop's University
2600 College Street
Sherbrooke, Quebec
J1M 1Z7
Tel.: 819-822-9600 ext. 2680
or 1-877-822-8200
E-mail: admissions@ubishops.ca
All applications made via the ubishops.ca website must be accompanied by:

1. A non-refundable $\$ 65$ application fee paid electronically (in Canadian funds) at the time of application.
2. A complete transcript of all relevant academic records, including current mid-year examination results and/or a description of activities since completing academic studies if not currently studying;
3. Proof of proficiency in English (if applicable - details at ubishops.ca)
4. Additional supporting documentation may be requested by the Admissions Office.

## Application Deadlines

Electronic applications must be submitted prior to the following dates each year.

May 1 Fall semester entry final deadline
November 1 Winter semester entry:
Late applications are considered on an individual basis.
Different deadlines may apply to former students seeking readmission to the University after having withdrawn or interrupted their studies. See the Admissions Policies section for details.

## ADMISSIONS POLICIES

## General

1. Decisions on admissibility, advanced standing and re-admissibility of applicants to undergraduate programs are governed by the admissions policy determined by the Senate of Bishop's University. This policy is administered by the Academic Deans and the Registrar and Director of Admissions.
2. Decisions made by the Academic Deans concerning admission to the University may be reconsidered if the applicant is in a position to provide additional information to the University that could lead it to reverse the initial admission decision. To request reconsideration of a negative admissions decision, applicants must apply in writing to the VicePrincipal Academic \& Research, outlining the rational for requesting reconsideration of an admissions decision. This request must be within 14 calendar days of receipt of a negative admissions decision. The Review Committee will consist of the following members of the Academic Standing and Admissions Policy Committee: Academic Deans who have not been involved in the initial admissions decision, the VicePrincipal Academic\& Research, the Vice-President Academic of the Student Representative Committee, and the University Ombudsperson. The decisions of the Review Committee shall be final and are not appealable.
3. Evaluation of a student's eligibility for admission to the University is based primarily on the student's performance in the most recent year of academic study, although other factors and previous academic performance will be taken into consideration where appropriate.
4. Students withholding, misrepresenting or supplying incomplete information concerning their previous academic performance or standing may be required to withdraw from the University should that information change the conditions on which their admission to the University was based.
5. The minimum average normally required for admission consideration is $70 \%$ (High School), 20 R-Score (CEGEP), or equivalent, as calculated by the Admissions Office. Meeting the minimum average does not guarantee admission to the University.
6. The number of admissions is limited, and the University is not bound to accept any or all applicants who may possess the minimum admission requirements.
7. Applicants who have demonstrated academic excellence may be admitted to the University on the basis of criteria other than those listed herein.
8. Formal written notification from the Registrar's Office is the only valid statement of a student's admission status. Opinions expressed by or information provided by individuals are not binding unless confirmed in writing by the Registrar's Office or the appropriate Academic Dean.
9. Students may be exempt from an introductory course at the University when they have completed comparable non-university course work elsewhere. No credit will be granted towards their Bishop's degree for the exemption. Any exempted course must be replaced by a Bishop's course of equal credit.
For specific information on admission requirements for the Bachelor of Education, see Admission - Teacher Education Programs.

## CEGEP Applicants

1. The CRC ( R -score) is used for admission purposes.

Note: Students following an IB program at CEGEP will have their CRC adjusted according to an established calculation in acknowledgement of the rigor of this program.
2. Students admitted on the basis of a completed Collegial Diploma (D.E.C.) are normally granted 30 credits of advanced standing, reducing a 120 -credit requirement to 90 credits ( 3 years plus any applicable missing pre-requisites).
3. Admission is conditional, pending successful completion of the D.E.C. (Collegial Diploma) before a student enters the University. Students with an incomplete D.E.C. are not eligible for admission.
Exception: Individual applicants with acceptable academic performance but without the D.E.C. may be admissible with one CEGEP program element missing on receipt of a written explanation (with supporting documentation as required) of the reason(s) the D.E.C. is not completed. If admitted, these students must complete the remaining requirements for their D.E.C. within 12 months of their first registration at Bishop's.

## High School Applicants

## Canadian High School Applicants

1. Admission average is calculated on Grade 11 and 12 academic courses only, including any required program pre-requisites. Physical Education results are not normally included in the calculation.

## Program Prerequisites

All Programs: English
(Grade 12 Academic Level)
Business Administration:
Mathematics (Grade 11 Academic Level)
Bachelor of Sciences:
Mathematics, two sciences (Grade 12 Academic Level)
2. Admission would be to a 120 -credit ( 4 -year) program.
3. Admission is conditional, pending successful completion of the Grade 12 Diploma.
4. Students are eligible to receive advanced credit for most Advanced Placement (AP) examinations completed with a grade of 4 or better and for most IB Higher Level courses completed with a grade of 5 or better - please contact the Admissions Office for details.

## U.S. High School Applicants

1. Grade 11 and 12 marks and a school profile are used for admissions purposes.
2. SAT/ACT scores are not required.
3. Admission would be to a 120 -credit ( 4 -year) program.
4. Admission is conditional, pending successful completion of an accredited Grade 12 Diploma.
5. Students are eligible to receive advanced credit for most Advanced Placement (AP) examinations completed with a grade of 4 or better and for most IB Higher Level courses completed with a grade of 5 or better - please visit the website for details.

## International Baccalaureate Applicants

## Applicants from IB Curriculum Schools

1. The final Diploma score (or predicted Diploma score if studies are not yet complete) on the six Higher Level and Standard Level exams is used for admission purposes.
2. Admission would be to a 120 -credit ( 4 -year) program.
3. Admission is conditional, pending successful completion of the Diploma.
4. Students with a completed IB Diploma will normally recieve 30 credits ( 1 year) of advanced standing credit.

## Applicants from Dual Curriculum Schools

1. Candidates from secondary schools that offer a recognized "regular" high school curriculum in addition to the IB program are considered based on the profile that is most advantageous to them.
2. Admission would be to a 120 -credit ( 4 -year) program.
3. Admission is conditional, pending successful completion of the IB Diploma and/or the regular Grade 12 Diploma.
4. Students with a completed IB Diploma will normally recieve 30 credits ( 1 year) of advanced standing.
5. Those completing a regular Grade 12 Diploma may receive advanced standing credit for individual Higher Level IB courses completed with a grade of 5 or better.

## Baccalauréat Français Applicants

1. Grades from the Première and Terminale levels of the Baccalauréat Francais are used for admission purposes. Requests for admission from students completing a Baccalauréat professionnel or a Baccalauréat technologique will be considered on an individual basis.
2. Admission would be to a 120 -credit ( 4 -year) program.
3. Admission is conditional, pending successful completion of the Terminale.
4. Students with a completed Baccalauréat général with a "mention assez bien" will normally receive 30 credits ( 1 year) of advanced standing credit.

## A-Level Applicants

1. Grades on completed GCSE examinations and final A-Level examination scores (or predicted examinations scores if studies are not yet complete) are used for admission purposes.
2. Admission would be to a 120 -credit (4-year) program.
3. Admission is conditional, pending successful completion of the required A-Level examinations.
4. Advanced standing credit for A-Level examinations may be granted if the grade is C or better.

## Caribbean Examinations Council CAPE

## Diploma Applicants

1. Anticipated grades on CXC CAPE subjects are used for admission purposes.
2. Admission would be to a 120 -credit (4-year) program.
3. Admission is conditional, pending successful completion of the CAPE Diploma.
4. Advanced standing credit for CXC CAPE examinations may be granted if the grade is III or better.

## International Secondary School Applicants

1. Applications are considered on an individual basis.
2. Admission would be to a 120 -credit (4-year) program.
3. Admission is conditional, pending successful completion of the appropriate secondary school credential.

## College/University Transfer Applicants

1. Applicants who have completed more than one semester at another college or university will be evaluated as transfers from that college or university. To be eligible for admissions consideration, transfer students must normally:
a) be in good academic standing and eligible to return to the institution they have been attending and
b) fulfill the specific academic admission requirements of the program to which they are applying at Bishop's.
2. Admission would be to a 120 -credit (4-year) program.
3. Transfer students from colleges and universities may be eligible for advanced credit granted for previous studies completed on presentation of official transcripts and course descriptions for evaluation. All previous studies completed prior to attending Bishop's University will be assessed for possible transfer credit. Transfer credit is awarded subject to the regulations governing credit for studies completed elsewhere. Any course completed at a university deemed to be at a uni-versity-level where a $C$ (or equivalent) or higher is obtained at the previous university is eligible for advanced credit. A maximum of 60 advanced credits may be granted towards a 120 -credit program. At least $50 \%$ of major program requirements must be completed at Bishop's University. Any advanced credit granted is subject to further review should the student change programs. (See Credit for Studies Completed Elsewhere).
4. Canadian citizens/permanent residents who have completed college or university studies outside North America are encouraged to obtain an "Evaluation comparative des études effectuées hors du Québec" from the Québec Ministry of Immigration.

## Second-Bachelor's Degree Applicants

1. Persons holding a Bachelor's degree from a North American institution will be considered for admission to a program leading to a second Bachelor's degree. Admission would be to a minimum one-year, 30-credit program plus any additional credits required to complete the selected program. (See Regulation for Bachelor's Degrees).
2. Persons who have completed studies outside North America and wish to be considered for second degree admission must obtain an "Evaluation comparative des études effectuées hors du Québec" from the Quebec Ministry of Immigration confirming that the international credential obtained is equivalent to a Bachelor's degree In Quebec. No second-degree candidate status will be awarded without the Attestation.

## Mature Student Applicants

1. Admission may be granted to certain applicants who do not satisfy the usual academic requirements of the University.
2. Mature student applicants must:
a) be 21 years of age or older by September 1 for the Fall Semester or January 1 for the Winter Semester.
b) normally not have registered for full-time studies at CEGEP (Quebec students) or high school (non-Quebec students) or a college or university for at least 24 months;
c) satisfy the University that they have the potential to be successful in undergraduate courses through the successful completion of at least three university-level courses in one semester on a part-time basis and/or the evaluation of previously completed studies and/or work/life experiences.
3. Meeting the above criteria does not guarantee admission to the University. Admission decisions are made on an individual basis taking into account an applicant's overall profile. Normally a Curriculum Vitae (CV) and Letter of Intent is required to complete a full assessment of a Mature student applicant.
4. Admission would be to a 120 -credit (4-year) program with up to 30 credits (1 year) of advanced standing (depending on program prerequisite requirements).

## Former Students Seeking to Complete a Degree/Certificate

Degree/certificate candidates who have formally withdrawn from the` University or who have, for any reason, allowed twelve months or more to elapse without being registered at Bishop's University must apply for readmission to the University in respect of the following deadlines:

July 1 Fall semester readmission
November 1 Winter semester readmission
March 1 Spring/Summer semester readmission

Students in this position should contact the Admissions Office in advance of the appropriate deadline to determine the correct procedure. If permitted to resume their studies, they will be required to adhere to the Academic Calendar regulations in effect at the time the degree program is resumed. See the Interrupted Studies section for more detailed information.

## Part-time General Interest Applicants

1. Part-time general interest students must:
a) be a Canadian citizen or permanent resident. Students requiring a CAQ and Canadian study permit are not eligible for part-time studies,
b) be a minimum of 19 years of age by September 1 for the Fall Semester, January 1 for the Winter Semester, and May 1st for the Spring Semester. Exception: applicants to the English Language Summer School may be 18 years of age.
2.. Part-time General Interest students may make application for admission to a degree program by following the procedures and respecting the deadlines outlined in the Admissions - Applying to Bishop's University section of this calendar. Students who wish to be considered for admission to a degree program must normally satisfy the formal admission requirements of the University as specified for degree studies.
2. Part-time General Interest students who have not fulfilled the requirements for admission to a degree program before commencing general interest studies may be evaluated for degree admission based on their performance.
a) A minimum of three courses ( 9 credits, not including full-year courses) successfully completed in one semester with a minimum average of $65 \%$ ( $75 \%$ for the Williams School of Business) is normally required for successful application to a program. A $65 \%$ average does not guarantee admission and individual departments may have additional requirements.
b) To be eligible for consideration for a degree program from part-time general interest studies, students must still meet the minimum qualifications for consideration as a CEGEP, High School, or Mature applicant. Applicants not meeting this standard will be evaluated on an individual basis.
3. Part-time General Interest students who do not register at the University for 12 months or more must submit a new application to the University through the Admissions Office in respect of published deadlines.

## ADMISSION TEACHER EDUCATION

## PROGRAMS

Bishop's University's Teacher Education program offers four Bachelor of Education degrees:

1) B.Ed. in Teaching and Learning at the Elementary Level
2) B.Ed. in Teaching and Learning at the Secondary Level (English, Mathematics, Science and Technology, and Social Sciences profiles)
3) B.Ed. in Teaching and Learning of the Creative Arts (Drama, Fine Arts and Music concentrations)
4) B.Ed. in Teaching English as a Second Language

## Admission

Students making application to the programs in Education must fulfill the normal entrance requirements of the University and follow the same application procedure outlined in the "Admission - Applying to Bishop's University" section of this calendar. Applicants to Education should refer to the section of the Academic Calendar for the School of Education for additional requirements. Candidates already holding an undergraduate degree in a discipline other than Education are eligible for consideration for admission to the School of Education. Such candidates would be considered as second-degree applicants for admission to any of the four B.Ed. programs. Minimum course requirements would be determined by the Academic Dean. Such candidates would be evaluated for admission on the basis of:
a) academic record
b) suitability for the profession

A personal interview may be conducted by the School of Education where evidence of good communication, problem solving and organizational skills, the ability to work as a member of a team, and strong self-evaluation skills should be demonstrated.

## Master of Arts or Master of Education

1. Individuals wishing information on making application are referred to the School of Education for program information.
2. These programs have a Fall entry. The final deadline for receipt of applications is May 1. All documentation should be submitted to the Admissions Office.
3. Documentation and additional requirements are found in the School of Education section of this Calendar.
4. Completed applications will be forwarded to the Admissions Committee of the School of Education for evaluation.
5. A minimum grade of $75 \%$ in undergraduate or previous graduate studies is required. Evaluation procedures may also include an interview, when possible.
6. The School of Education will report to the Admissions Office the decisions on admission.
7. Only a limited number of students can be admitted to the program each year.
8. Students wishing to complete courses in the School of Education without being admitted to the M.Ed./M.A. may be classified as Special Graduate (SPG) students in Education. Such students may complete up to 9 graduate-level Education credits. Admission to graduate courses does not in itself imply candidacy for a graduate degree

## NOTICE OF ADMISSION AND RESPONSE DEADLINES

1. When applicable, admission is conditional upon an applicant's obtaining the final grade levels specified in their offer of admission and/or on www.ubishops.ca.
2. Applicants who receive an offer of admission from Bishop's must confirm acceptance of such offer online at www.ubishops.ca by the date indicated in the letter of admission. A confirmation fee is collected electronically as part of this step.
3. Application for residence accommodation or payment of residence deposit(s) do not signify acceptance of an offer of admission.

## RESIDENCE

1. All activities relating to residence accommodation (application deposit(s), room assignments) are administered by the Residence Services.
2. Decisions of the Registrar and Director of Admissions, Director of Recruitment and Retention, the Bishop's International Office, or the appropriate Academic Dean concerning a student's eligibility for admission to the University are not affected by an applicant's residence situation.

## REGISTRATION

1. Students admitted to degree and certificate programs will be sent detailed registration instructions for the Fall and Winter and Spring/Summer semesters.
2. Part-time general interest students will receive registration instructions through the Registrar's Office.
3. Receipt of registration instructions does not change academic decisions which may have been made or which will be made concerning an individual's eligibility to attend Bishop's University. Receipt of registration instructions therefore does not represent permission to register.
4. Registrations are accepted on a provisional basis until verification can be made that the registration complies with any restrictions required by the student's academic or financial standing. If there is a problem, the student will be informed as soon as possible following their registration.

All students are required to pay their School Fees in full before the start of each semester. All amounts are listed in Canadian funds. The payment deadlines are as follows: September 30 for the Fall Semester; January 31 for the Winter Semester.

The University may make changes to this Calendar, including the fees, without notice as advised by the Quebec government and /or as circumstances warrant.

## SCHOOL FEES <br> (Check our Website for updated fees)

TUITION FEES:
Canadian fees:

Tuition Fees for Quebec residents ${ }^{(1)}$ Tuition Fees for Out-of-province residents ${ }^{(2)}$
\$96.03 per credit $\$ 299.73$ per credit

Graduate:

Business (2016 and earlier)
Business cohort 2017
Business cohort 2018
Business cohort 2019
Cohort 2020 (All disciplines)
Cohort 2021 (All disciplines)
Cohort 2022 (All disciplines)
Cohort 2023 (All disciplines)
$\$ 828.88$ per credit
$\$ 700.00$ per credit
$\$ 750.00$ per credit
$\$ 808.33$ per credit
$\$ 816.67$ per credit
$\$ 848.52$ per credit
\$873.98 per credit
$\$ 900.20$ per credit
Science, Mathematics, Computer Science, Drama, Music, Fine Art
(Earlier than 2020)
Other disciplines (Earlier than 2020)
Course-based program(2019 \& earlier)
Course-based graduate Cohort 2020
Course-based graduate Cohort 2021
Course-based graduate Cohort 2022
Course-based graduate Cohort 2023
Thesis-based graduate program
$\$ 741.73$ per credit
$\$ 644.07$ per credit
$\$ 644.07$ per credit $\$ 816.67$ per credit $\$ 848.52$ per credit $\$ 873.98$ per credit $\$ 900.20$ per credit $\$ 657.60$ per credit

## Online courses:

For out-of -province
\$291.00 per credit
(*) The base Quebec tuition rate is indicated on all Non-Quebec and on International on thesis-based graduate students financial statements for accounting and transparency.
COMPULSORY FEES: (per Semester)

Registration fee
Administration fee
Sports Center Access fee
Student Services
Student Fees (listed below) (9 credits or more)
SRC Management Fees
SRC Activity fee
SRC Quad yearbook
Environmental Levy
Infrastructure Contribution ${ }^{(3)}$
Other SRC Student fees
Campus Newspaper
Refugee Sponsorship
Library Contribution
Quebec Students Union (QSU)
Total Student Fee
Copyright fees
Technology fee
OTHER FEES: (new students only)
Students' Representative Council (SRC)
Orientation Fee \$95.90
Winter Orientation Fee \$28.55
(1) Regulations imposed by the Quebec Ministry of Education oblige students to provide proof of Quebec residency at the time of registration in order to be charged the Quebec tuition rate. Students who fail to provide the required proof must pay additional fees as prescribed by the Ministry. Students born in Quebec must provide a copy of their birth certificate to be classified as Quebec residents. Students born outside Quebec must meet specific criteria and submit proper documents to be recognized as Quebec residents. For information visit: www.ubishops.caffuture-current-students/money-matters/ tuition-and-fees/quebec-provincial-residency/.
(2) Canadian Citizens, Permanent Residents or First Nations student registered in French Honours program may be exempt from paying the non-Quebec differential fees for all their courses. To qualify, they must enroll in a minimum of 6 FRA credits / semester. Canadian Citizens, Permanent Residents or First Nations, and International students registered full-time in a Bachelors or Masters degree will be charged Quebec tuition rates for any French language for literature courses taken. Students holding French citizenship and Belgium French-speaking will pay Canadian tuition fees. Excluded: Students in a Non-Degree program and International Business students starting Fall 2017 going forward.
(3) Donation to the Foundation for the Gait infrastructure project.

| Example of 2023-2024* Tuition and Compulsory Fees ( 15 credits): *(based on 15 credits per semester and not including other compulsory or incidental fees) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| *Fees are subject to change Tuition |  | Compulsory Fees |  | Total per Semester | Total Fall \& Winter |
| Canadian F ees: |  |  |  |  |  |
| Quebec resident \& out of Quebec |  |  |  |  |  |
| thesis-based graduate ............................ \$1,440.45 | + | \$865.66 | = | \$2,306.11 | \$4,612.23 |
| Out-of Province..................................... \$4,495.95 | + | \$865.66 | = | \$5,361.61 | \$10,723.23 |
| International fees Undergraduate |  |  |  |  |  |
| Business (2016 \& earlier) ......................\$12,433.20 | + | \$1,576.66 | = | \$14,009.86 | \$28,019.73 |
| Business cohort 2017 ............................\$10,500.00 | + | \$1,576.66 | = | \$12,076.66 | \$24,153.33 |
| Business cohort 2018........................... $\$ 11,250.00$ | + | \$1,576.66 | = | \$12,826.66 | \$25,653.33 |
| Business cohort 2019............................\$12,124.95 | + | \$1,576.66 | = | \$13,701.61 | \$27,403.23 |
| Cohort 2020.........................................\$12,250.00 | + | \$1,576.66 | = | \$13,826.66 | \$27,653.33 |
| Cohort 2021........................................ $12,727.75$ | + | \$1,576.66 | = | \$14,304.41 | \$28,608.83 |
| Cohort 2022........................................\$13,109.70 | + | \$1,576.66 | = | \$14,686.36 | \$29,372.73 |
| Cohort 2023........................................ \$13,502.99 | + | \$1,576.66 | $=$ | \$15,079.66 | \$30,159.31 |
| Science, Mathematics, Computer Science, |  |  |  |  |  |
| Drama, Music, Fine Art ....................... \$11,125.95 | + | \$1,576.66 | $=$ | \$12,702.61 | \$25,405.23 |
| Other disciplines ...................................\$9,961.05 | + | \$1,576.66 |  | \$11,537.71 | \$23,075.43 |
| International fees Graduate |  |  |  |  |  |
| Course-based graduate program |  |  |  |  |  |
| before Cohort 2020................................\$9,961.05 | + | \$1,576.66 | $=$ | \$11,537.71 | \$23,075.43 |
| Course-based graduate program |  |  |  |  |  |
| Cohort 2020........................................ $\$ 12,250.00$ | $+$ | \$1,576.66 | $=$ | \$13,826.66 | \$27,653.33 |
| Course-based graduate program |  |  |  |  |  |
|  | + | \$1,576.66 | $=$ | \$14,304.41 | \$28,608.83 |
| Course-based graduate program |  |  |  |  |  |
| Cohort 2022........................................\$13,109.70 | + | \$1,576.66 | $=$ | \$14,686.36 | \$29,372.73 |
| Course-based graduate program |  |  |  |  |  |
| Cohort 2023.........................................\$13,502.99 | + | \$1,576.66 | = | \$15,079.66 | \$30,159.31 |
| Thesis-based graduate program .............. $\$ 9,864.00$ | + | \$1,576.66 | = | \$11,440.66 | \$22,881.33 |
| Canadian Fees: |  |  |  |  |  |
| Quebec resident \& out of Quebec |  |  |  |  |  |
| thesis-based graduate ............................ \$1,440.45 | + | \$865.36 | $=$ | \$2,305.81 | \$4,611.63 |
| Out-of Province..................................... \$4,495.95 | + | \$865.36 | $=$ | \$5,361.31 | \$10,722.63 |
| (*) A mandatory health insurance fee is charged for the international students |  |  |  |  |  |

## Payment of Fees

School Fees must be paid in full before the start of each semester. The due dates are as follows:
Fall Semester...........................September 30
Winter Semester .........................January 31
Summer Semester.................May 31

A late payment fee of $\$ 65$ will apply for all payments made after September 30 for the Fall and January 31 for the Winter. Delaying payment may also result in limited course availability. Students with outstanding fees and balances are charged interest on their outstanding balance at the end of each month at a rate of $15 \%$ per annum ( $1.25 \%$ per month). Failure to pay outstanding balances of tuition, residence, or any amount due to Bishop's University will result in the withholding of transcripts and diplomas, the suspension of re-enrollment or other measures.

Payment of fees should be made based on a 15 -credit full load or according to the credits the student will take. If students register in extra courses or labs, they can pay the extra fees up until the Add/Drop deadline.

## Methods of Payment

Payments may be made by cheque (Cdn or US Funds), with on-line banking (BMO, Desjardins, CIBC, National Bank, RBC, Scotia Bank or TD) or by debit card or cash at our office. International students can pay using flywire to make their payment transfer.

## Refunds

1. Any student who withdraws in writing from the University before the deadline date for dropping and adding courses is entitled to $100 \%$ refund of fees less a withdrawal fee of $\$ 87.99$. After this date there will be no refund.
2. Should a student leave the University due to illness and not return during the semester, a refund of $50 \%$ of the pro-rated tuition fees only will be allowed, provided that a doctor's certificate is attached to the withdrawal form and forwarded to the Records Office. Withdrawal forms may be obtained through the Records Office.

## Compulsory Fees

The Registration fee covers services for program changes and Add/Drop course processing. The Administration fee helps to cover the costs of convocation, student financial aid service, scholarship management, requests for transcripts and various confirmation letters requests by students. The Student Services fee provides free access to the following general services on campus: Health Clinic, Counseling Services, Career and Employment Office, Disability Office, Campus Ministry and Student Affairs. The Student Services fee also supports Campus Security and the Creative Arts. The Student Fees provide for full membership and voting privileges in the Students' Representative Council (SRC), publications, student rates for athletic events, etc. Firstyear students starting in the Fall Semester are charged \$89.63. fee ( $\$ 26.68$ in winter) to cover orientation week activities. Fees do not cover insurance on personal belongings. Technology fee helps to maintain and improve the technology environment which supports a student's learning experience at Bishop's. The Sports Centre access fee provides students full access to the Sports Centre. The only exceptions are recreational courses, towel and laundry service.

## Exchange Students

Exchange students are required to pay for their residence, meals, books, supplies, medical insurance and any specific course related fees.

## Medical Insurance

Quebec Immigration authorities require that all international students studying in the province of Quebec subscribe to a health insurance plan provided by Bishop's University for themselves and their dependents coming with them to Quebec. Please advise the Business Office if you need additional coverage for your family once you arrive.

International students, including Exchange students, must subscribe to the Health Insurance plan offered through the University. Student accounts will be charged insurance each semester ( the fee to be determined). Please refer to the insurance plan details for information and limitations of coverage: www.ubishops.ca/ future-current-students/money-matters/tuition-and-fees/interna-tional-exchange-students/. Students covered by private health insurance are not exempt from the University plan and must enroll.

The following countries have reciprocal medical coverage with the province of Quebec: France, Denmark, Sweden, Norway, Finland, Luxemburg and Portugal. To benefit from an exemption from the University plan, students from those countries listed must apply to the Régie d'assurance maladie du Québec (RAMQ) upon arrival in Quebec and present a valid Quebec Medicare card to the Business Office. Please refer to: www.ubishops.ca/future-cur-rent-students/international-students/health-insurance/ for more infor-mation. All exchange students will be charged the insurance premium while registered. A refund may be eligible when their RAMQ card and letter are shown at the Business Office as soon as they are received.

## Residence Fees (subject to change)

The room-only portion of the residence fees during the academic year varies from $\$ 645$ per month for a single traditional style room to $\$ 746$ per month for a single room with semi-private bathroom. All residents must select a meal plan unless assigned to Paterson where they can choose to opt out of a meal plan. Meal plan rates vary from $\$ 667$ to $\$ 694$ per month for the 2022-2023 academic year (Residence costs may be paid over eight monthly installments). There is an additional one-time charge of $\$ 50$ per semester for residence activities and a monthly service fee of $\$ 63$, which includes free unlimited laundry, high-speed internet, access to study rooms, game rooms and large communal living rooms with televisions. . Further details are available on the Residence website (www.ubishops.ca/residence) or from the Residence Services Office (residence@ubishops.ca).

Residence accommodation is not provided during the Christmas break. Meals are provided during the periods specified in their lease(www.ubishops.ca)

Residents may occupy their rooms on the official opening day of Residence each semester, and must vacate them no later than noon on the day following completion of their last examination each semester.

Students planning to arrive on campus after the official opening date must notify Residence Services of this in writing in order to retain their room allocation.

## Student Aid

Bishop's University, through its Foundation, offers scholarships, awards and bursaries. You can visit our website or consult the Scholarships, Loans, Bursaries and Awards section of this Calendar. Student aid is also available through government loans. Quebec residents apply for Quebec Loans \& Bursaries and Canadian residents apply for government loans with their own Ministry of Education. For more information visit www.canlearn. ca.

## Other Miscellaneous Fees

Application Fee (non-refundable)................ $\$ 75.00$ (All students)
Art Course - Print Making (per semester) ............................ $\$ 77.22$
Art Course - Sculpture (per semester).................................. $\$ 38.61$
Art Lab Supervision fee ......................................... $\$ 18.56$ per course
BUCS (B.B.A., Bus.Maj.) (per semester) .................................. \$20.6
Confirmation fee deposit (new students only).................. \$350.00*
Drama Production fee .......................................... $\$ 49.50$ per course
Education speaker's fund (Fall only)....................................... $\$ 10.57$
Field trips and conferences ..................................................... at cost
Late payment fee (full-time) ................................................... $\$ 65.00$
Late registration fee (full-time) ............................................. $\$ 100.00$
Late registration fee (part-time) .............................................. $\$ 10.00$
Medical Insurance for International Students
(12-month coverage) \$711
Music: Practicum surcharge
MUS 170-270-370/171-271-371 (per semester) ............ \$423.90
MUS 172-272-372/173-273-373 (per semester) ............ \$565.21
MUS310/311 (where applicable) 374/375/376** (per hr)\$56.52
MUS 455 (per semester)................................................... $\$ 565.21$
MUS 378/379** (per semester) ............................................. \$100
MUS 475 (per semester).......................................................... $\$ 596.43$
${ }^{* *}$ These courses with tutoring are not mandatory for the Music program but can be chosen as an elective that will count towards the degree. Speak to the chairperson of Music for details.
NSF cheque fee ..... $\$ 25.00$
Practice Teaching surcharge
EDU 128/129 (per semester) ..... \$64.35
EDU 328/329 (per semester) ..... \$287.09
EDU 428/429 (per semester) ..... \$315.55
EDU 227/228/229 (per semester) ..... \$64.35
Fine Arts Studio - Digital Imaging fee
FIS 182, 296ab, 302ab (per semester) ..... \$60.25
FIN 218ab, FIN 348ab (per semester) ..... \$60.25
FIS 107/146/170/175/275/271/372/375 (per semester). ..... \$38.61
FIS 190/291/385 (per semester) ..... \$77.22
ENG 383 (per semester) ..... \$60.24
ESG288( per semester)...\$ Fee to be determined by Bruno
Courtemenche
Replacement of Identification card ..... \$17.60
Replacement of Diploma ..... $\$ 58.66$
Re-reading of an examination by external evaluators ..... $\$ 70.97$
Re-reading of thesis ..... \$69.67
Sports Centre Access Fee (per semester) ..... \$50.25
Student Fees SRC (Spring/Summer session) ..... \$22.68
Student Fees SRC Fall and Winter (8 credits and less) ..... \$36.64
Student Services (Spring session) ..... \$44.55
Supplemental examinations

- each paper (non-refundable) ..... \$58.6
Supplemental examinations written off-campus
- each paper (non-refundable) ..... \$91.69
Tax receipts - each duplicate copy ..... \$5.87
Thesis Pending M.Sc. (per semester) ..... \$443.38
Thesis Pending (not M.Sc.) (per semester) ..... \$96.04
Additional copies of transcripts ..... \$6.45
Withdrawal fee from the University (full-time) ..... \$87.99
Williams School of Business Student Activity Fund
(Maj. Bus.) (per semester) ..... \$28.16
${ }^{*}$ ) Only $\$ 100$ is refundable if the student has notified the Admissions Office inwriting before September 1st.For any information regarding the above, you may contact the
Registrar's Office at:Tel.: 819-822-9600 ext. 2655Fax: 819-822-9661E-mail: businessoffice@ubishops.caWebsite: www.ubishops.ca


## University Regulations

## Academic Integrity

## 1. Preamble

1.1 Bishop's University is committed to excellence in scholarship. All members of the University community have a responsibility to ensure that the highest standards of integrity in scholarly research are understood and practiced.
1.2 The University takes a serious view of any form of academic dishonesty, such as plagiarism; submission of work for which credit has already been received; cheating; impersonating another student; falsification or fabrication of data; acquisition of confidential materials, e.g. examination papers; misrepresentation of facts; altering transcripts or other official documents.

## 2. Plagiarism

2.1 Plagiarism is a kind of academic dishonesty in which an individual uses the work of another without appropriate acknowledgement. Plagiarism includes but is not limited to the following practices:

- Using another's work without acknowledgement
- Copying material without quotation marks
- Paraphrasing too closely the exact words of the originating author
- Submitting work written in whole or in part as one's own by another individual.
2.2 The following practices related to plagiarism are also prohibited:
- Helping another student plagiarize
- Submitting in whole or in part work for which the student has received credit in another course, unless the permission of the instructor has been obtained
- Submitting any statement of fact known to be false or providing a fabricated reference to a source.


## 3. Procedure in Alleged Cases of Academic Misconduct:

3.1 The instructor will meet with the student and reach a decision concerning the matter. If the instructor concludes that an offence has occurred, they will notify the Dean and a report will be added to the student's file.
3.2 In a repeated or particularly serious case, or if the student disputes the decision of the instructor, the Dean will meet with the student and the instructor if necessary. Another member of the University community may accompany the student. The Dean will make the final decision in the case, including the assignment of a penalty, if any. If the decision is that the student is guilty of academic misconduct, the Dean will inform the student in writing and send a copy of this letter to the instructor and to the Registrar. The student may appeal the decision to the Academic Review Committee. See Academic Reviews and Appeals, below.

## 4. Penalties

The normal penalty for a first offence is a written warning or a zero grade in the component of the course in which the dishonesty occurred. However, in a case of particular seriousness, or in the case of a repeated offence, penalties may include a zero grade in the course, a notation placed on the student's academic transcript, suspension for one semester or longer, or expulsion from the University. A penalty of suspension or expulsion will automatically include a notation on the student's transcript to that effect.

## 5. Transcript Note

If a notation on the transcript is appropriate, the notation will say "Disciplined (or "suspended", or "expelled") for academic misconduct."
A student who has been disciplined or suspended and received such a notation on their transcript may, in the last year before graduation petition the Academic Standing Committee in writing to have the notation removed from their transcript. The decision to remove would be based primarily on evidence of exemplary academic conduct by the student since the offense was committed, or since their return to the University; it would not be granted automatically.

## Academic Reviews and Appeals

## Academic Review

A student's academic progress or standing is evaluated in conformity with Departmental, Divisional, School or Senate regulations governing courses, programs, examinations and degrees.

If a student has an issue which pertains to a specific course, the student shall first discuss the issue with the course instructor. This must be done as soon as possible, and no later than one month after the beginning of the next regular semester following the academic decision.
(NB: Students may seek the advice of the University Ombudsperson, at this stage or any later stage, in the review process. The ombudsperson works as a trusted intermediary to review complaints of all members of the university who believe they have suffered an injustice.)

Unless prohibited by a specific committee policy, students may request a review of any academic decision or a re-evaluation of any course component(s) which calls into question their academic integrity and/or is worth at least $25 \%$ of the final grade of a course subject to the Academic Review guidelines.

If the issue cannot be directly resolved between the faculty member and the student, the student may take the matter to the Dean of the Division in which the course was offered within 30 days of the initial meeting with the faculty member. If the matter does not concern a specific course, the student must appeal directly to the Dean in charge of the Division or School in which he or she is enrolled.

If the Dean decides that the issue has no merit the student may either accept that decision or appeal to the Academic Review Committee.

If the Dean determines that the issue has merit, he or she will proceed, within two weeks, to seek a resolution informally through discussion with the student, the faculty member and/or the Chair of the department in question. If the student so chooses, the ombudsperson may be present for any or all discussions. If the issue cannot be thus resolved by the Dean, he or she may impose a solution. In the case of a dispute over a grade, the Dean may authorize the re-evaluation of any course component(s) by an impartial examiner (Fee: $\$ 55$, reimbursed if the re-evaluation results in a higher mark). In certain situations, the Dean may recommend that the student appeal to the Academic Review Committee. In the case of a re-evaluation of a course component, the grade assigned by the reviewing examiner shall become the official grade for that component and the final course grade adjusted accordingly.

In this context, any decision of a Dean may be appealed to the ARC by the student, given clear grounds for such an appeal.

For cases in which the informal resolution process and the intervention of the Dean is inconclusive or there exists a need for a more formal review of an academic matter, Senate has established two committees, the Academic Review Committee (ARC) and the Academic Appeals Committee (AAC) to deal with the formal review of all academic matters. The University Senate delegates to these Committees the authority to render decisions on all academic matters as well as the authority to implement additional procedures consistent with those set out below.

The function of the Academic Review Committee is to hear complaints against any academic decision taken in the University by a faculty member, a Departmental Chairperson, a Dean or the Vice-Principal, and to adjudicate all infractions of University academic policy referred to it by any member of the University community. The function of the Academic Appeals Committee is to hear appeals against decisions made by the ARC (see below for the specific grounds for appeal). The decision of the AAC is final and binding on all parties.

## The Academic Review Committee

The Academic Review Committee (ARC) shall consist of five voting members: two faculty members, who shall be members of Senate and chosen by the Senate Nominating Committee, two students who shall be members of Senate and chosen by the Senate Nominating Committee, and one academic officer of the University, (Dean or Vice-Principal) who shall be named by the Chair of Senate (the Principal). Three alternate members shall also be selected by the Senate Nominating Committee; two students and one faculty member. The ARC shall elect annually a Chairperson whose name will be communicated to the Secretary of Senate.

Note: For eligibility rules concerning members who may sit on the ARC as well as further procedures regarding the Committee quorum, procedures in committee, documents, onus and standard of proof, please refer to Appendix I, below.
(i) The Committee year extends from May 1 through April 30 of the following calendar year. The Committee shall remain constituted for the entire year.
(ii) Faculty members shall serve a term of two years, renewable once, after which they must step down for at least one full year. Student members shall serve a term of one year, renewable once. Senate shall make provisions (through its

Nominating Committee) for timely replacement of members whose terms are expiring.
(iii) The Committee is authorized by Senate to select which alternate members will replace regular members who must leave the Committee before the end of their term or who are unavailable during the summer months.

## Powers

The Academic Review Committee shall have the following powers:
(i) review any academic decision taken by a faculty member, a Departmental Chairperson, a Dean or the Vice-Principal.
(ii) review any infraction of University academic policy, including all matters governed by Department, Division, School and Senate regulations.
(iii) review any complaint regarding interference with the University's academic operation.
Note 1: The ARC does not have jurisdiction over the following areas: admission to the University, re-admission, probation and academic standing issues (including "must withdraw" decisions) and scholarship decisions. These areas are the purview of the Academic Standing/Admissions Policy (ASAP) Committee.
Note 2: Before the ARC will accept jurisdiction for decisions concerning grades, there is a separate procedure for the review of marks obtained in final exams and in other components of a course. This procedure must be followed first.

## Making a Request to the Committee

The Academic Review Committee will consider a request for review only after:
(i) The receipt by the Committee Chairperson of a written and signed notice of request filed within 30 days of the time that the most recent academic decision concerning the matter in dispute has been communicated in writing to the student. Requests for review must include: a complete specification of the wrong to be corrected, the specific grounds for the request for review and the remedy sought. In the case of a request to review a general policy or regulation, the written, signed notice may be made at any time. In all cases, requests for review of any academic decision must be initiated before the marks deadline of the semester following the completion of the course in question.
(ii) Before proceeding with a request for review of any matter, the ARC Chairperson will request a written assurance from the Dean and Ombudsperson that all reasonable efforts have been made to solve the dispute at an earlier level.
(iii) Within seven working days of receipt of the notice of request for review, the Chairperson will acknowledge the same in writing to the complainant(s).
(iv) Within ten working days, the Chairperson shall convene an initial meeting of the ARC and give a five-day notice to all parties of the date of the initial meeting.

## Disposition of the Committee Decision

(i) Decisions shall be made by simple vote of the Committee; three positive votes are necessary to carry any decision. The tally of all votes shall be recorded in the minutes.
(ii) During the course of a review, no changes shall be made to any mark or grade in question, nor to any student's current status, nor to his/her eligibility for a given program.
(iii) The Academic Review Committee shall render a decision on a review within 60 calendar days of receipt of the request for review.
(iv) The Chairperson of the Committee will report its decision to the complainant, the defendant, the Chair of Senate (the Principal) and the appropriate Dean within five days of the rendering of the decision.
(v) If the decision is not taken to appeal (see below), the appropriate Dean will be responsible for the implementation of the final decision. At least 30 days will be allowed for the implementation of the decision by the individual University office involved.

## Academic Appeals

The Academic Appeals Committee (AAC) shall consist of three members: one faculty member who is not a member of Senate named by Faculty Council, one student who is not a member of Senate named by the SRC, and one Academic Officer of the Senate (Dean or Vice-Principal) named by the Principal. Two alternate members shall also be named, one faculty member and one student. The regulations for the term of office, length of the Committee year, election of the Chairperson, eligibility, extension of term, and replacement of members, shall be the same as those for the ARC (see above).

Where an appeal of the decision of the ARC has been submitted, the Senate shall either:
(i) Receive and accept the report of the ARC.
(ii) Receive the report of the ARC and refer the case to the AAC. In both cases debate on Senate's decision must be held in camera and any member of Senate who is a party to the case must excuse him- or herself from the discussion. The content of the debate shall be confidential and Senate shall limit itself to discussion of material contained in the report of the ARC and the request for appeal. Members of Senate who are also members of the ARC shall abstain from voting.

## Filing an Appeal

(i) An appeal against a decision of the ARC must be filed with the Chairperson of the AAC within 30 days of the decision rendered by the ARC.
(ii) The appeal may be from either complainant or defendant but in either case shall be written and signed and state specifically the grounds for appeal, the remedy sought and include all of the documents (written and oral) used by the ARC to achieve its decision.
(iii) Unless there is compelling need for further clarity, no new documents will be considered by the ACC that were not before the ARC.
(iv) Before proceeding to hear an appeal, the Chairperson of the AAC will, within seven working days of the request for an appeal, acknowledge the request for appeal, notify both parties and within ten working days convene a meeting of the AAC. Five days notice will be given to both parties of the date of the first meeting of the AAC.

## Grounds for Appeal

The Academic Appeals Committee has the power to hear an appeal from a decision of the ARC for the following reasons:
(i) Errors of fact in information used by the ARC which could affect the decision rendered,
(ii) New evidence not available to a party at the time the decision of the ARC was made,
(iii) Errors of interpretation of any University academic policy or regulation,
(iv) Serious procedural error,
(v) Action by the ARC beyond its jurisdiction.

## Procedures

(i) The regulations with respect to: procedures in Committee, documents, onus and standard of proof set out in Appendix I for the ARC, will apply mutatis mutandis for the Academic Appeals Committee.
(ii) The AAC will hear testimony from the Chairperson of the ARC where significant procedural error is alleged as the grounds for appeal.
(iii) The AAC will have access to all recorded testimony, documents and minutes of the ARC.

## Decisions

(i) Decisions shall be by simple vote of the Committee; at least two positive votes are necessary to carry any decision. The tally of all votes shall be recorded in the minutes.
(ii) The AAC may decide to return the case to the ARC for further review. Alternatively, it may uphold the decision of the ARC or fashion any other remedy as it sees fit.
(iii) The AAC shall render a decision on the request for appeal within three months of the request for appeal.
(iv) The Chair of the AAC will report its decision to the complainant, the defendant, to the Chair of Senate (the Principal) and to the appropriate Dean(s) within five working days of the rendering of the decision.
(v) The decision of the AAC will be final and binding on all parties.

## Appendix I: Rules and Procedures

## 1. Eligibility

The eligibility of students, faculty members, Deans and the VicePrincipal who sit on either the ARC or on the AAC is restricted as follows:
(i) Individual members cannot sit on both Committees,
(ii) No individual member of either committee can serve if they are involved in the case as plaintiff, defendant or witness,
(iii) No individual member can serve on either committee who has been found guilty of an academic offence,
(iv) No individual member can serve on either Committee who is in a position of bias or conflict of interest (financial gain, kinship relation, close personal relationship),
(v) All student members who serve on either Committee must be in good academic standing in their program at the time they are elected to the Committee concerned.

## 2. Quorum

A quorum shall consist of two student members and two faculty members and one academic officer of the University (or the alternate). Every effort shall be made to assume that a consistent quorum of members follows each case to its conclusion. The Committee is authorized to extend the terms of members for this purpose. The Committee shall elect annually a Chairperson whose name will be communicated to the Secretary of Senate. Senate shall make provision for a Committee secretary who will record the minutes of all meetings. The Secretary shall not participate in the discussions and shall not have a vote.

## 3. Examples of matters that can be reviewed by the ARC:

(i) All matters of academic integrity after a decision by the appropriate Dean has been rendered,
(ii) Program eligibility, program transfer, program requirements,
(iii) Requirements for the degree,
(iv) Credit for studies elsewhere,
(v) Deferred status for exams or course components,
(vi) Requests for supplemental exams,
(vii) A mark or a grade in a course, final standing in a course after the procedures for external re-reading of exams or course components have been completed,
(viii) Grading practices after a decision by the appropriate Dean has been rendered,
(ix) Any infraction of Department, Division or Senate regulations,
(x) Any complaint regarding interference with the academic operation of the University.

## 4. Procedures in Committee

(i) The Committee shall conduct its meetings in camera.
(ii) Both complainant and defendant(s) have the right to be accompanied by a representative of their choice; this representative shall be any full-time member of the University community.
(iii) The University, if it so decides, may appoint a legal advisor to assist the Committee. Such an advisor shall be considered a neutral observer in the proceedings of the Committee and shall not vote.
(iv) Both complainant and defendant have the right to make representation in the manner decided by the Committee.
(v) The parties to the dispute shall be interviewed separately by the Committee in the first instance at which time they may make oral representations and refer to the relevant evidence (see documents below). This procedure does not preclude a face-to-face meeting if all parties agree.
(vi) General minutes shall be taken of the meeting and the testimony of witnesses and of all motions of the Committee. Copies of the minutes will be provided to all parties.
(vii) All oral testimony given by witnesses will be recorded on audio tapes which will be made available to the complainant and the defendant and to which they may respond in writing within five days of receiving a copy of the tape.
(viii) All written and oral testimony, evidence and minutes of the Committee are confidential to the Committee and to the parties involved in the dispute. Deliberations of the Committee are confidential to the Committee.
Each Committee shall establish its own modus operandi, however, the following sequence is a general guideline:
(i) Introduction of the complainant, defendant, members of the Committee,
(ii) Review of documentation,
(iii) Rulings on documentation or further evidence necessary,
(iv) Statement by the complainant, questions from members of the Committee,
(v) Statement by the defendant, questions from members of the Committee,
(vi) Re-calling of the complainant and defendant for clarification of information only by members of the Committee.

## 5. Documents

(i) Copies of all documents submitted by each party will be made available to members of the Committee, to the complainant and to the defendant one week before the hearing date.
(ii) University records such as transcripts, student files, office correspondence as well as all Departmental, Divisional and Senate regulations are automatically evidence before the Committee.
(iii) All documents provided by either party will become evidence for the Committee unless one party objects on the grounds that such documents are forged or false or made with malicious intent. Such documents may become evidence before the Committee only after the Committee receives written confirmation of their authenticity by the original author. The Committee reserves the right to accept or reject all documents.
(iv) The Committee will request written evidence and testimony from all parties to the dispute as well as from the appropriate Dean and from the Ombudsperson.
(v) The Committee shall reserve the right to invite and receive written and/or oral evidence from any other party, to request and receive any other document it deems may assist in its deliberations and all such evidence shall be made available to the parties in the dispute.
(vi) In the case of new documents brought to the Committee during the hearing, both parties and all members of the Committee will have the right to review such documents before proceeding with the case.
(vii) Following the Committee's final decision in the case, all documents, including the written evidence submitted by the parties to the dispute and the taped oral testimony, will be
retrieved by the Chair and, together with the minutes, shall be deposited with the Office of the Vice-Principal Academic and Research and shall be made available to the parties in the dispute.
(viii) The assistant to the Vice-Principal Academic and Research will number all documents, arrange them in chronological order and provide for their safe keeping until such time as a further appeal is sought (see AAC below) or for a period of one year, whichever is applicable.

## 6. Onus

i) The onus is on the complainant to demonstrate that the ruling or decision in question is inappropriate or unreasonable. The exception shall be in cases of academic dishonesty where the onus is on the faculty member (or the University) to demonstrate that an academic offence has been committed.
ii) In cases regarding the waiving of Departmental, Divisional or Senate regulations, where the grounds for such a request are either medical, compassionate or other extenuating circumstances as decided by the Dean of the Division concerned, the onus is on the complainant to demonstrate that following the particular regulation in question was impossible. In such cases, documents attesting to the status of the student must be provided in a timely manner, must be specific and must demonstrate that such grounds do in fact exist.

## 7. Standard of Proof

Unlike the standard of proof commonly used in criminal cases and usually known as "proof beyond a reasonable doubt", the standard of proof to be used by the Committee will be the "balance of probabilities" or "preponderance of evidence". By this is meant "more likely than not" in the sense that an unbiased observer, having reviewed all the evidence and having heard all sides of the story, should be able to say: "the fair decision in this case is ' X ' more likely than not".
In alleged cases of academic dishonesty or in other cases which call into question the very nature and operation of the University, the balance of probabilities, when used as the standard of proof, needs to be at the higher end of the scale and must be based on clear and compelling evidence.

## Ombudsperson

The major role of the Ombudsperson is to receive complaints from members of the University community who believe that they have suffered some form of injustice, particularly of an academic nature. After examining the factual basis of these complaints and determining that all normal avenues of recourse and appeal have been exhausted, the Ombudsperson investigates these complaints and facilitates their solution either using existing procedures, both informal and formal, or by recommending changes to the existing procedures. The Ombuds Office operates independently of all other offices in the University and may make recommendations in specific cases or recommendations pertaining to the changing of any rule, policy, regulation or procedure which he/she deems appropriate. The objectives of these recommendations will be either to solve an individual problem or to improve the overall operation of the University. The Ombudsperson must investigate all sides of a particular problem, must maintain a neutral stance throughout the investigation and must strive to achieve solutions
which are as fair and just as possible given the circumstances involved. At the end of an inquiry, the Ombudsperson will explain the nature of the chosen solution to those who initiated the complaint or, where the complaint has been found to be not justified, explain to the individual or groups involved the reasons for not continuing the investigation. From time to time, the Ombudsperson may also act as a mediator between individuals or groups of individuals in the University community who have been unable to resolve a conflict, particularly where no procedure exists for the resolution of such matters.

Please see the University Website for further information and the complete text of the terms of reference for the Ombudsperson.

## Selection of Courses

Students are responsible for ensuring that their selection of courses conforms with the general requirements of university programs, the general and academic regulations of the University, and the specific requirements of the specialization of their choice. In planning their annual course choices, students are urged to consult with the appropriate Departmental Chair and Dean.

The programs have been designed to permit the most effective study in a discipline or subject by the majority of students. Nevertheless, changes may be appropriate for particular students because of specific objectives, background, etc. Students who wish to alter their program must consult the Chairperson of the department and the Dean concerned, preferably before registration. It should be noted that constraints are imposed on possible changes in programs by the timetable of courses.

A normal course load is 15 credits per semester. Thus, a 120 -credit program can normally be completed in four years of fulltime study. Students admitted on the basis of the CEGEP Diplôme d'études collégiales (D.E.C.) are normally granted 30 credits of advanced credits, reducing a 120 credit requirement to 90 credits or three years of fulltime study.

## Confidentiality of Student Information

In conformity with Article 65 of the Quebec legislation concerning access to public documents and confidentiality of personal information, Bishop's University informs its students that all personal information collected in the course of admission and registration of a student will be kept confidential, except where specific permission is given to release it.

Students are obliged to provide information which is requested by the administrative offices of the University. The University may only request information which is essential to its operation; refusal to provide this information may lead to denial by the University of services to the student.

In signing the application form, all students agree that the information contained in it, and in their student file, may be made available to those administrators charged with management of their academic and financial affairs while they are at Bishop's University. No information will be released to other persons without express permission of the individual concerned, except in circumstances involving the safety and security of the individual or a breach of the law.

Any student may consult his or her file during regular office hours and may request that any errors found in the file be corrected. If necessary, a formal request for correction may be made in writing to the Registrar.

## Discipline

Students are expected to conduct themselves in all places and at all times in a manner appropriate to members of a university. Failure to do so may result in disciplinary action. In accepting admission to the University, a student is agreeing to abide by, and be subject to, its regulations. The Charter of Student Rights and Responsibilities provides a framework for such a commitment. The University reserves the right to suspend or dismiss any student for misconduct or for serious infractions of university regulations. Such action will result in the loss of course work for the semester in which the suspension or dismissal is imposed.

Matters of discipline are adjudicated by the Committee on Student Conduct which is chaired alternately by the Vice-Principal of Student Affairs and the Residence Life Advisor depending on whether the issue is judged to be primarily residential in nature or of a broader import. The committee comprises, in addition, six students representing both on and off campus constituencies. The Committee on Student Conduct is empowered to take note of and to judge matters of student conduct, excluding academic issues, referred to it by any member of the University. All recommendations are forwarded to the presiding Chairperson for consideration and final decision. Exceptions to this are limited to recommendations for suspension or expulsion from the University which are forwarded directly to the Principal. In addition, a Joint Disciplinary Council composed of a balanced set of delegates from each of the Bishop's and Champlain College communities is mandated to deal with situations which involve students of both institutions.

## Policy on Harassment

Living in a university environment entails respect for the welfare and dignity of others. Harassment of any kind is intolerable, and we share the responsibility of promoting a climate of education, support and understanding. The University has developed policies and procedures for dealing with sexual and other forms of harassment. The Committee administering this policy includes representatives of all constituents of the University; the policy document is posted on the Bishop's Website and can also be obtained from the Principal's Office.

## Students' Responsibilities

Students are required to abide by reasonable instructions given orally or in writing by any official of the University authorized to secure compliance with regulations, rules, practices and procedures. They should carry proper University identification (student card) at all times and be prepared to show it at the request of any individual acting in an official capacity (such as University security officers, police officers or student residence staff).

Students have a responsibility to attend lectures and laboratories and to perform punctually all academic assignments in accordance with the standards prescribed by the departments concerned and announced by the instructors at the beginning of the year. Failure to fulfil these requirements may lead to debarment from examinations. Protracted absence from the University may involve debarment from courses.

Students are required to return promptly after holidays and are requested not to make travel plans which will interfere with registration or examination schedules.

## RESPONSIBILITIES OF THE ACADEMIC STAFF TO STUDENTS

## 1. Definitions

## Academic Staff

Academic Staff shall include all individuals holding full or parttime appointments at the rank of Instructor I, Instructor II, senior instructor, lecturer, assistant professor, associate professor, or professor. This term shall also include academic administrators, academic librarians, counsellors, adjunct professors, professional associates, research associates, research assistants, student research assistants, and student teaching assistants, insofar as such persons perform duties within the ambit of the policy.

## Academic Unit

Academic Unit is the generic term used to refer to division, school, department, or program administrators (depending on the subject area).

## Student

Student shall mean any person who is registered in the University.

## 2. The Policies

### 2.1 The Objective:

These policies define the responsibility of academic staff towards students, with the objective of (a) ensuring fair and equitable treatment of students, and (b) promoting harmonious relations between academic staff and students. It also provides general guidelines and specific criteria to the administration of courses.

### 2.2 Policies Regarding Individual Responsibilities:

In general terms, the responsibilities of the individual academic staff member fall under two headings: (a) general course management, and (b) the interaction of students and staff.

### 2.2.1 General Course Management

"The first responsibility of academic staff as teachers is the pursuit and dissemination of knowledge and understanding through teaching, research, scholarly activity and creative artistic activity. They should endeavor conscientiously to remain current in their field, to develop their scholarly competence, and to maintain and enhance their effectiveness as teachers.

## A. Course Syllabi

Before the Add-Drop deadline of each semester, teaching staff will provide in writing to students, and their respective Academic Dean (and also post to Moodle, if applicable) in each of their courses a course syllabi containing:

1. a list of the required textbooks, readings (or material) to be covered in the course;
2. a general outline of the topics to be covered;
3. a schedule of term assignments and tests;
4. a description of the evaluation procedures to be used.

Where appropriate, this should include:
a. the instructor's policy regarding late submission of assignments;
b. the instructor's policy regarding supplemental examinations;
c. the instructor's policy regarding classroom attendance;
d. reference to the University's policies on academic dishonesty, including plagiarism and cheating, and personation.
e. information regarding accommodations and accessibility services as well as other student services on campus (e.g. help centers, tutoring, counselling etc.)
See Course Syllabi Guidelines for additional suggestions

## B. Textbook Ordering

Academic staff responsible for a given section shall specify textbooks and materials in accordance with announced purchasing deadlines of the University Bookstore.

## C. Mid-term and Final Examinations

Academic staff members shall be familiar with and adhere to the policies concerning scheduling and grading of examinations, rereading of examinations and papers, supplemental examinations, deferred marks, aegrotat standing, and submission of grades, as described in the Academic Calendar. Particular attention is drawn to the scheduling of "mid-term" or final examinations, which may not be held during the last two weeks of classes (subject to D. below), nor during the period between the end of classes and the beginning of the examination period.

The final exam may not count for more than 60 percent of the course grade without consent of both the professor and the student.

## D. Workload During the Last Two Weeks of Classes

In-class quizzes and exams carried out during the last 14 calendar days of classes (as defined in the Academic Schedule) may not total more than $10 \%$ of the final grade, except in the case of laboratory or oral testing, presentations or summative / capstone projects.

## E. Cancellation of Classes

Academic staff shall not cancel, miss, terminate or shorten scheduled instruction except for good reason. Whenever a scheduled period of instruction is cancelled, the academic staff member shall:

1. inform the class at the earliest possible time;
2. ensure that a cancellation notice is posted via MyBU
3. consistent with Senate policy regarding course contact hours, make every effort to ensure that appropriate substitution or make-up instruction is provided.

## F. Storage of Final Exams

Arrangements must be made for the storage of all final examination papers for a minimum period of one complete semester following the semester in which the course was given.

## G. The Reporting of Grades

Academic staff members who provide instruction shall comply with the schedules and formats for reporting student grades, as established by Divisions and the Registrar's Office. They shall also remain accessible until after Divisional grades meetings have been held, in the event that consultation is required. An instructor who learns of an error, which if corrected would change an assigned grade, shall correct it without requiring the student affected to appeal their grade.

## H. Posting of Grades

In keeping with the provisions of Bill 65 (Loi sur l'accès aux documents des organismes publiques et sur la protection des renseignements personnels), no grades shall be posted unless all students concerned have indicated their approval for posting.
I. Nothing requiring mandatory student participation (e.g., class, midterms, fieldtrips etc.) with the exception of final evaluations (e.g., exams, performances) shall be scheduled outside of class hours, without the consent of the entire class. (Exception: Where out-of-regular hours participation is outlined in the course syllabus; reasonable alternatives shall be made if the out-ofregular participation involves grading).
J. Consistent with the Collective Agreement, Academic Staff shall comply with the regulations set out by Senate to ensure the administration of course evaluations.

### 2.2.2 The Interaction of Students and Staff

## A. Course Admissions

Academic staff shall not unreasonably deny registration for instruction in those courses for which the permission of the instructor is required. Acceptable grounds for refusal would include cases where the student lacks appropriate qualifications, where an approved policy on limited enrollment is in effect, or where classroom size places a constraint on enrollment.

## B. Non-Discrimination

Academic staff shall comply with existing human rights legislation, and refrain from differential treatment of individual students on the basis of their actual or presumed membership in, or association with, any class or group of persons.

## C. Remuneration

Academic staff shall not accept money or other goods or services from students for assistance with any course offered by the University. This clause, however, shall not prevent parttime instructors from accepting payment for tutoring in courses/ sections which do not fall within the present scope of their University employment.

## D. Office Hours

Academic staff are required to establish and post office hours during which they are available for individual consultation with students.

## E. Student Evaluation

Academic staff shall:

1. evaluate student academic performance by means of academic criteria only and are encouraged to evaluate with particular reference to both the presentation of substance (content) and an acceptable standard of process (style and structure).
2. provide feedback in a timely manner.
3. provide (when appropriate) accommodations to students registered with the SAAS Office

## F. Academic Freedom

Academic staff shall encourage a free exchange of ideas between themselves and their students in the classroom, and shall not inhibit free discussion; students shall be allowed to take informed exception to the data, views, and/or methods presented.

## G. The Confidentiality of Information

Academic staff should keep confidential all information gained in confidence about students, whether concerning their academic progress, personal lives, or political and/or religious views. This does not affect the normal use within the institution of information concerning academic progress for the purpose of making academic decisions in accordance with University and government policies on the release of such information.

## H. Academic Indebtedness

Academic staff shall explicitly acknowledge in written or oral presentations any indebtedness to student research or assistance, and therefore not obtain any improper advantage from a student's work.

## I. Non-Retaliation

Academic staff shall not retaliate against a student who has filed a complaint, whether or not the complaint was substantiated.

## J. Conflict of Interest in

## Academic Supervision and Evaluation

Academic staff shall decline to participate in an evaluative role with an individual student if the staff member and the student are in a close personal relationship in which there is, or there may be perceived to be, a conflict of interest. Such relationships include (but are not limited to) spousal, parent-child, sibling, and consensual amorous relationships. In the event that a staff member terminates a supervisory or evaluative role with an individual student because of such a relationship, alternative supervisory or evaluative arrangements (a) shall be made, (b) shall be made in confidence, and (c) shall be made without prejudicing the status of the person(s) in question.

## K. Appropriate Language and Behaviour

Academic staff shall respect every student's right to dignified treatment. Therefore, academic staff shall at all times use language, and exhibit behaviour consistent with this right. Oppressive and/ or violent language will not be tolerated.

## L. Who to contact

Academic Staff and students can avail themselves of the Ombudsperson Office's impartial and confidential services. For more information, visit http://www.ubishops.ca/future-current-students/student-campus-life/student-services/university-ombuds-office/

### 2.3. Policies Regarding Collective Responsibilities

## A. Periodic Review of Courses

The academic unit shall periodically review and update all courses to ensure that the material to be presented (a) is current and appropriate, and (b) "conforms to national and international norms." (Report of the Long Range Planning Committee, November 1992)

## B. Review of Course Descriptions

Members of the academic unit shall review course descriptions periodically to ensure that the current content of each course is clearly and accurately described.
www.caut.ca/about-us/caut-policy/lists/caut-policy-statements/ policy-statement-on-professional-rights-and-responsibilities-

## Students' Official Address

In order to ensure timely and efficient communication with students, e-mail is one of the official means of communication between the University and its students.
a) Every student is assigned a "ubishops.ca" email upon application to the University
b) It is the student's responsibility to ensure that time-critical e-mail is accessed, read, and acted upon in a timely fashion.
c) If a student chooses to forward University e-mail to another e-mail mailbox, it is that student's responsibility to ensure that the alternate account is viable.
d) It is the student's responsibility to update their home address on file with the Registrar's Office. Instructions on myBU to update mailing address maybe found in the Registrar's Office section.

## REGULATIONS FOR BACHELOR'S DEGREES

## General Academic Requirements

## Bachelor of Arts, Bachelor of Sciences,

## Bachelor of Business Administration:

A degree may be earned by means of one of the following kinds of programs selected from among those offered in this Calendar:

1. Honours in an academic discipline. Honours programs entail a very high degree of concentration in a subject and require a high standard of academic performance. These programs are especially suitable for those who plan to proceed to graduate study. A Major or Minor in a second discipline may be combined with an Honours.
2. A Major in an academic discipline or interdisciplinary subject. Major programs require less concentration in a subject than Honours programs and provide greater scope in the selection of optional subjects. A Major in one discipline may be combined with a Minor in a second discipline or with a second Major where the requirements of both can be satisfied.
3. Major in a group of disciplines encompassed by a Division of the University (e.g. Natural Sciences). This type of program is designed to permit maximum flexibility of study within a Division while ensuring, at the same time, a useful level of concentration in one or two disciplines. A Divisional Major may be combined with a Minor, or in some cases a Major, in a discipline outside of that Division.
4. Minors in two academic disciplines. This type of program involves less in any one subject than the Major or Honours. Degrees consisting of double or triple Minors may be granted as Bachelor of Arts degrees. To graduate with a double or
triple Minor, students must normally complete all the requirements for each Minor program as stipulated in the Academic Calendar. However, in cases where there are common course requirements, for a double Minor, a maximum of 6 credits may be double-counted (i.e. applied to both Minors); for a triple Minor a maximum of 9 credits may be double-counted (i.e. applied jointly to the three Minors).

In each case, courses must be completed in addition to those required by the selected Honours, Major or Minor combination in order to fill the minimum credit requirement indicated in a letter of admission or in a letter indicating a credit requirement change necessitated by a program change.

Successful completion of a program is determined by the department/program and the Dean, in accordance with the Academic Calendar regulations in effect either when the student entered a program or in the student's graduating year.

Students with a failing cumulative average (i.e. below $50 \%$ ) will not be eligible to graduate from the University.

## Additional Requirements

1. All undergraduate students who began their studies before Fall 2019 must successfully complete the English Writing Proficiency requirement in order to be eligible to graduate.
2. The credit requirement indicated in a letter of admission, or in a letter indicating a credit requirement change necessitated by a program change, is the minimum requirement. A completed program must include all required courses/labs of the selected Honours/Major/Minor program(s) as described in the relevant Academic Calendar, which may exceed the minimum.
3. A student may not be required to follow more than 12 course credits, excluding lab credits, in any one discipline during the first 30 -credit program year. This will permit the choice of a Major or Honours program from at least two fields of study.
4. $50 \%$ of degree credits (i.e. a minimum of 60 credits) must be obtained from Bishop's University. A recognized student exchange, completed at an approved university, counts as credits completed at Bishop's University.
5. Following admission to Bishop's University, a student may normally complete no more than two semesters or attempt more than 30 credits, not including laboratory credits, at other universities during the completion of a Bishop's degree. These courses will be recorded as pass or fail on a student's transcript.

## General Academic Requirements

## Bachelor of Education

1. A B.Ed. degree may be earned by the successful completion of the approved courses and the practica required by the degree program.
2. Following admission to the B.Ed. program, all course requirements for the program must normally be completed at Bishop's.
3. Upon successful completion of the B.Ed., graduates are recommended to the Ministère de l'Éducation et Enseignment supérieur of the province of Quebec for the appropriate "brevet d'enseignement'"

## Second Bachelor Degrees

Students who hold a degree may apply to Bishop's University to obtain a second undergraduate degree in a different discipline or to convert a degree in a discipline to an Honours degree in the same discipline. In all cases second degree candidates are required to:

- Complete a minimum of 30 additional credits at Bishop's University (courses taken as part of the first degree cannot be used to satisfy this requirement). Completion of courses elsewhere on a letter of permission is normally not permitted.
- Fulfill the requirements of the new Honours/Major/Minor concentration programs; divisional and elective requirements are waived.
- Complete at least one half of the chosen Honours/Major/ Minor concentration course requirements at Bishop's University within the second degree.
Students seeking a second bachelor's degree are not eligible for scholarship consideration in the Bishop's University Scholarship program.


## Selection of Courses

1. Students should plan their programs each semester so as to include courses which are prerequisites for courses to be taken in subsequent semesters/years. Some courses are given only in alternate years. Certain combinations of courses may be rendered impossible by the arrangement of the timetable.
2. A course for which credit is earned in any semester may be repeated once to improve the grade. No additional credit will be awarded. The initial course registration and grade will remain on the student's academic transcript, with the notation "RNC - repeat no credit" appearing beside it. The grade received in the second registration for the course will be used in the calculation of the student's average (including cumulative average) and credits awarded, regardless of whether it is the higher or lower grade. Repeated courses will not retroactively affect academic standing.
3. A student who has failed a course twice will be allowed to reregister for that course only with the instructor's permission, after a review of the student's program by the department concerned. Appeals to the decision will be processed through the regular appeals procedure. The present double failure rule as it applies to courses offered by the Williams School of Business and the Economics Department remains in force.
4. Students who contemplate entering graduate school upon graduation should consult with the graduate school in order to ensure that they are meeting the prerequisites of the graduate program they propose to enter.

## Credit for Studies Completed Elsewhere

## Transfer Students:

## Bachelor of Arts, Education, Science, Business Administration

1. Students admitted to Bishop's following completion of a minimum of one semester at another university or college may be eligible for advanced credit granted at the discretion of the appropriate Academic Dean. The student must present complete official transcripts and course descriptions for evaluation. Transfer credit is awarded subject to the regulations governing credit for studies completed elsewhere and subject to further review should the student change programs.
2. Articulation agreements exist such that students having completed specific programs may be eligible for advance credit against a four-year Bishop's program, granted at the discretion of the appropriate Academic Dean and in accordance with signed agreements. Please consult the Admissions Office for detailed information. Although exemption may be possible, no credit will be awarded for incomplete programs.
3. College or University transfer students who have completed studies outside North America must obtain an "Attestation des équivalences" for those studies from the Quebec Ministry of Immigration. No evaluation will be made without the Attestation.
4. At least one half of the courses required to satisfy the requirements of the chosen Honours/Major/Minor program(s) must be completed at Bishop's University.
5. Credits completed at Bishop's University. Moreover, approved credits attempted through the Maple League of Universities will be recognized as credits attempted at Bishop's University.
6. Credits earned as part of a Certificate completed at Bishop's University or another university may not be used to satisfy the requirements of a Minor in the same discipline at Bishop's University.
7. Each university retains the right to accept or to refuse freely the registration of a student from another university.

## Certificate Programs

A maximum of 9 university credits may be transferred to a Certificate program at Bishop's University.

## Bishop's Students:

1. Following admission to Bishop's University, a student may normally complete no more than two semesters or attempt (pass or fail) more than 30 credits, not including laboratory credits, at other universities during the completion of a Bishop's degree. Exception: Students in the Graduate Studies programs in Education may only complete a maximum of 9 credits at another recognized institution.
At least 21 of the final 30 credits of a Bishop's degree must be completed at Bishop's, leaving a maximum of 9 credits which may be completed elsewhere on a letter of permission. Exception: students participating in a recognized Bishop's exchange program.

Under exceptional circumstances, a total of 12 credits could be taken elsewhere on a letter of permission approved by the appropriate Dean.
a) Students wishing to follow studies in another institution for credit at Bishop's must be enrolled as degree candidates at Bishop's.
b) Advance permission and advance approval of all aspects of the study must be secured on the appropriate form from the Chairperson of the department in which they are concentrating their studies and from the appropriate Academic Dean. The credit transfer request form is available from the Registrar's Office and, once completed, is placed in the student's file.
c) It is the responsibility of the student to ensure that an official copy of the transcript for the course(s) completed at another university is forwarded directly to the Registrar's Office at Bishop's upon completion of the course(s). Transcripts will automatically be sent for students studying at other Quebec universities who registered through the BCI Website for Quebec inter-university credit transfer.
d) Courses successfully completed elsewhere may only be applied as credit towards a Bishop's University degree. The grades obtained in such course(s) are not included in the calculation of a student's cumulative average and cannot affect a student's academic standing. (Exception: courses attempted via the Maple League of Universities)
e) Any student who has been required to withdraw from the University may not normally complete courses elsewhere on a letter of permission.
f) Courses completed elsewhere without prior permission being obtained through the appropriate procedures outlined in this Calendar normally will not be accepted for credit towards a degree at Bishop's University.
g) Students returning to Bishop's following the completion of studies at another institution on a letter of permission must provide the Admissions Office with:
i) A written statement of their intention to return to the University prior to the beginning of the semester in which they intend to return.
ii) An official transcript of the results of these studies.
h) The academic regulations of the University, including those concerning probation and must withdraw status, apply to all Bishop's students. This includes those studying elsewhere on a letter of permission (LOP) as well as those studying on the Bishop's campus.
2. Under special reciprocal agreements concluded between Bishop's University and all other Quebec universities, students in a degree program at Bishop's wishing to enroll in courses at another Quebec institution (to a maximum of 30 credits), must initiate their request through BCI's Website for Quebec inter-university credit transfer. Credits so earned will be recognized towards a degree at Bishop's if the courses/ credits are approved by the academic department or Division concerned.

Students wishing to profit from this reciprocal agreement must:
a) Ensure that the Bishop's timetable permits the desired external courses to be taken;
b) Obtain the Preliminary Credit Transfer Request Form from the Registrar's OfficeThis form must be authorized by the Departmental Chairperson, appropriate Dean and the Registrar at Bishop's. Before a student's request for credit transfer is processed, it is necessary that any outstanding accounts receivable be paid, as well as the tuition for the courses to be taken at another Quebec university.
c) Enter the request via the Internet through the BCI Website (https://www.bci-qc.ca/en/) by clicking on the button Autorisation d'études hors établissement. All required information must be entered. The system will process the request automatically, through the designated department advisors and Registrar's Offices at both institutions.
3. Each university retains the right to accept or to refuse freely the registration of a student from another university.

## Interrupted Studies

Candidates for an undergraduate degree who have formally withdrawn from the University or who have for any reason allowed twelve months or more to elapse without earning any credits at Bishop's University must apply for readmission to the University by the appropriate deadlines. See the Admission Policies section of this calendar for details.

If readmitted after studies have been interrupted for ten years or more, the assessment of credits to be applied to the student's current program will be assessed by the Admissions Office and approvedby the Dean in consultation with the department. The Dean's decision may be appealed to the Academic Standing Committee. While program-specific courses may be deemed to have decayed after a period of ten years, general elective courses will not normally be considered subject to decay of credits.

## Applying to Graduate

1. Candidates for degrees and certificates who expect to complete the requirements for a degree in a particular semester (Fall, Winter or Spring) must submit an Application to Graduate which will appear on their MyBU Portal. Normally, there will only be one Convocation ceremony per year in June.
2. Students who achieve degrees with first class ( $80 \%$ or over) academic standing have the notation "with distinction" recorded on their transcript.Students should check the individual Division or School sections in this Calendar for an explanation of the method used to calculate first class degrees.
3. Students with a failing cumulative average (i.e., below $50 \%$ ) will not be eligible to graduate from the University. (See Additional Graduation Requirement in Business Administration)

## Requirements for the Bachelor of Arts Degree of the Thomas More Institute

Students of the Thomas More Institute who have a Quebec collegial diploma (D.E.C.), are required to complete successfully 15 university-level courses ( 90 credits), as specified in the information booklet of the institute. Students 23 years of age or over who do not have a collegial diploma must complete three university threshold courses, in addition to the above requirement, for a total of 18 university-level courses ( 108 credits).

Details of the program and courses may be obtained from:
Thomas More Institute
3405 Atwater Avenue
Montreal, Quebec, H3H 1Y2
Tel.: 514-935-9585

## REGULATIONS FOR CERTIFICATE and MICRO-CERTIFICATE PROGRAMS

Certificates and Micro-Certificates may be completed on a fulltime or a part-time basis.

## Admission Requirements

Applicants to Certificate and Micro-Certificate programs must fulfill the same admission requirements and follow the same application procedure as applicants to a Bachelor's degree in the same discipline (See Applying to Bishop's University and Admissions Policies.)

## Academic Standing -

## Probation and Must Withdraw

Students in the Certificate and Micro-certificate programs must meet the Academic Standing criteria as outlined in the Academic Calendar. Students in the Certificate in Business Administration must also fulfill the requirements for maintaining good standing in Business.

## Transfer Between Micro-certificate, Certificate and Degree Programs

Bishop's University students may make application for transfer from a Certificate to a Degree OR from a Degree to a Certificate program in the same or another discipline. The regulations governing Academic Program Changes will apply.

## Transfer of Credit to Certificate Programs

A maximum of 9 university credits may be transferred to a Certificate program at Bishop's University, subject to the regulations governing transfer of credit from other Institutions. (See Credit for Studies Completed Elsewhere.)

## Completion of a Certificate Program Following Completion of a Bachelor's Degree

Students who have completed a Bachelor's degree at Bishop's University may be admitted to a Bishop's Micro-certificate of Certificate program in a different area of study. All credits required for the Micro-certificate or Certificate must be completed at Bishop's.

## GENERAL ACADEMIC REGULATIONS

1. Full-time or part-time status for each student in each semester will be determined by the student's course registration following the processing of all added and/or dropped courses. Withdrawal with permission (WP) from course(s) does not alter this status.
2. The normal registration for a full-time student in any semester is 15 course credits; the minimum number is 12 credits, including lab credits. Students following fewer than 12 credits, including lab credits, per semester normally are considered part-time students.
Exception: A student requiring fewer than 12 credits to graduate in his or her final semester may petition the Registrar in writing to retain full-time status with fewer than 12 credits.
3. The maximum course load for a full-time student is normally 18 credits per semester, not including lab credits. (ESL courses are included in the credit counts.) Subject to the general regulations set forth in the Calendar, students may be permitted to take an additional course (or courses) in excess of the requirements for a given semester with the written permission of the appropriate Dean. Students shall then have two choices:
a) They may take the additional course as a regular subject for credit; or
b) They may "audit" the additional course with the permission of the instructor and participate in class discussions and activities, but may not write the examinations or receive credit for the course. Audit courses are subject to the normal fee structure of the University and are charged in the same manner as credit courses.
Note: In both cases (a) and (b), the student must register for the course in the usual manner and adhere to the applicable deadline dates for adding and dropping courses. The course entry will appear on the student's record if the course is not dropped by the deadline date.
4. A student may not be required to follow more than 12 course credits, excluding lab credits, in any one discipline during their first 30 -credit program year. This will enable them to choose a Major or Honours program from at least two fields of study.
5. Students who receive permission to register as special fulltime undergraduate or graduate (SFU, SPG or SPT students) may make such a registration for a maximum of two consecutive semesters (see Academic Program Changes). Such students must make a choice of, and be formally admitted to, an alternate degree program by the deadline for registration (normally the Add/Drop deadline) of the third semester. Students who fail to do so will not be permitted to register on a full-time basis in that semester.
6. Full-time students who do not register at the University for one semester or more for any reason (including those students studying elsewhere on a letter of permission) must make a written statement of their intention to return to the University to the Admissions Office prior to the beginning of the semester in which they intend to return.
7. Students in an undergraduate degree program who do not register at the University for 12 months or more must reapply for admission to the University. (See Interrupted Studies or Academic Standing.)
8. A university course taken by a student in order to fulfil the minimum requirements of a collegial program may reduce the specific requirements in a university program by that number of credits. It will not reduce the total number of credits required at the university level for a degree.

## Language of Instruction

The language of instruction of the institution is English. Nonetheless, students have the option to submit individual written work in either English or French, except where a knowledge or competency in a language is an object of the course. Students who wish to submit work in French must notify their instructor by the Add/Drop deadline so that, if necessary, special arrangements can be made for the evaluation of their work.

## Application of the Extra Degree Credit Courses to a Student's Program:

1. ESL courses or MAT190 may be recorded on the academic transcript either as "EXT" (extra degree credit) or as credit courses.
2. Extra degree credit for ESL 070 is not included in the calculation of a student's academic or cumulative average.
3. ESL and MAT190 are included in the credit count to determine a student's full-time or part-time status. They are also included in the maximum 15 -credit count for students on academic probation.

## COURSE CHANGES/ COURSE WITHDRAWALS

## Adding or Dropping Courses

1. The deadline date for dropping and adding one-semester courses, including course section changes (and changes from credit to audit status or vice versa) is normally eight days from the first day of class (see Sessional Dates).
2. Course Adds and Drops are accepted provisionally until it can be verified that the change(s) comply with any restrictions required by the student's academic or financial situation. Students will be informed as quickly as possible if a problem exists.
3. Students will be billed or refunded appropriately following the Add/Drop deadline should fees need to be adjusted.
4. Full-time or part-time status for each student in each semester will be determined by the student's course registration following the processing of all added and/or dropped courses.

## Withdrawing with Permission from Courses

1. The deadline date for withdrawing with permission ("WP") from one-semester courses isnormally the last day of classes.. For full-year courses, the deadline date is the same as the deadline date for dropping or adding Winter Semester courses.
2. Fees will not be refunded for "WP" courses.
3. A student's full-time or part-time status in a semester will not be altered by "WP" courses.

## General Information

1. The onus for notifying the Registrar's Office of withdrawal from the University and for completing the necessary forms rests solely with the student. Simply ceasing to attend classes or labs, even when the instructor is informed, does not constitute withdrawal and will result in a failing grade in the course as well as possible financial penalties. Students who leave the University without completing a withdrawal form will have each of the applicable courses recorded as a zero and will not be eligible for any refund of fees. Those students holding scholarships must be responsible for meeting their obligation in returning or repaying all funds received for that semester or that year.
2. Registration for courses will take place on-line for both new and returning students during the registration periods listed at http://www.ubishops.ca/current-students.html. Once the semester has commenced adding / dropping courses can also be done on-line.
3. Students will not normally be permitted to add, drop or withdraw with permission from courses after the stated deadlines unless permission to do so is obtained from the appropriate Dean.
4. Students will not be permitted to withdraw from the University (WU) after the WP deadline without permission from the appropriate Dean. The student may petition the Dean for this permission in exceptional cases only.

## ACADEMIC PROGRAM CHANGES

## Williams School of Business

To be eligible for transfer into a B.B.A. or B.A. Major Business, students must have successfully completed at least 24 credits at Bishop's and have achieved a minimum average of $75 \%$ based on all courses attempted. Students may also be required to meet with the Dean of Business for an interview. The number of student transfers is determined according to final enrolment figures and the quota for the School's maximum enrolment.

Any student who twice receives a failing grade in a course offered by the Business Department or in ECO 102, ECO 103, MAT 196 or MAT 197 will not be permitted to repeat the course again nor be eligible to transfer to other Business programs or add a Business minor, where such course is required. (See Double failure Regulations - Business programs). Please note that no credits will be awarded for MAT 190.

## Humanities, Natural Sciences and Mathematics Divisions

Students may normally transfer into a program in the Divisions of Humanities or Natural Sciences and Mathematics, or their departments, with a minimum cumulative average of at least $60 \%$ on all courses attempted at Bishop's.

Students with an average below $60 \%$ may be considered for registration in some courses in the proposed Division (Department) in order to allow them to show their potential for studies in that Division (Department). Such students will be classified as special full-time undergraduate (SFU) students.

## Social Sciences Division

Students may normally transfer into a program in the Division of Social Sciences or between programs within the Division provided they have a minimum cumulative average of $65 \%$ on at least 24 course credits completed at Bishop's or provided they have demonstrated an aptitude for the program by achieving an average of $65 \%$ in all program courses attempted (minimum of 12 credits). For the purpose of this regulation, the cumulative average and course averages used will be those existing at the time the program change request is made.

## School of Education

A student must obtain the formal permission of the School of Education to transfer into any of the four B.Ed. programs (B.Ed. in Teaching and Learning at the Elementary Level; B.Ed. in Teaching and Learning at the Secondary Level (English, Mathematics, Science and Technology, and Social Sciences profiles); B.Ed. in Teaching and Learning of the Creative Arts (Drama, Fine Arts and Music concentrations); B.Ed. in Teaching English as a Second Language). Students will be admitted to these programs at the discretion of the School of Education. A 70\% cumulative average is required for transfer into programs in Education.

## General Information

1. Students must normally have completed a minimum of one semester at the University before requesting a transfer.
2. In the event of an academic program change, the student must notify the Registrar's Office by completing and returning the correct form with the appropriate signatures. The Academic Calendar in effect at the time of the program change will determine the program requirements. Application for program change must be made on the appropriate form available at the Registrar's Office and be approved by the appropriate Dean and Departmental Chair.
3. Program changes may necessitate re-evaluation of minimums and total credit requirements. A completed program must include all required courses/labs of the selected Honours/ Major/Minor program(s) as described in the appropriate Academic Calendar and in the letter indicating credit requirement changes.
4. Students who are permitted to register as special full-time undergraduate (SFU, SPG or SPT) students may make such a registration for a maximum of two consecutive semesters.
Such students must make a choice of, and be admitted to, an alternate degree program. See admissions section for details and deadlines. Students who fail to do so will not be permitted to register on a full-time basis in that semester.
5. The University realizes that there will be students who cannot continue their studies at Bishop's University as a result of their dismissal from one program and/or their ineligibility for transfer into any other program in the University.

## EXAMINATIONS

## Regular Examinations

1. Final examinations are held in December (for one-semester courses only) and in April. Other examinations may be held as required.
2. Every instructor shall, in consultation with the students concerned, determine the procedures by which the final course grade will be arrived at for each course in his or her charge. These procedures shall be filed in their respective Academic Dean within the first two weeks of the course. The appropriate documents are open for examination by any registered student after being filed in the Dean's Office.
3. Departmental Chairpersons, in consultation with other members of the department and the students involved, may be permitted to reschedule examinations in the courses offered by the department without having to obtain the written consent of all students registered in the courses, providing that $2 / 3$ of the students agree and that the rescheduling would not introduce any further conflicts in the examination schedule.
4. Examinations (other than final examinations) and tests can only be set during the formal working hours of the University, namely Monday through Friday from 8:30 a.m. to 6:00 p.m. Evening classes, however, will be allowed to set examinations during their regular class time. Students shall not be required to miss classes in order to write a test, nor shall students be scheduled to write two tests at once. Should either of these two situations arise, the professors and students in-
volved will take immediate steps to remedy the situation to the satisfaction of the students' Academic Dean. Tests outside of normal working hours, or in the case of evening classes outside of regular class time, will require signatures of all students registered in the course.
5. In-class quizzes and exams carried out during the last 14 calendar days of classes (as defined in the Academic Schedule) may not total more than $10 \%$ of the final grade, except in the case of laboratory or oral testing, presentations or summative / capstone projects.
6. Examinations in laboratory courses of 1 credit must take place on or before the last laboratory of the regular semester and will not be scheduled in the final examination period.
7. Students writing final examinations in the examination hall must present their Bishop's ID card to prove identity; otherwise the student may be barred from the examination hall.

## Guidelines for Examination Invigilators

Identification: Students are required to identify themselves by displaying their Bishop's student card on their desk throughout the exam and by initialing their name on the class list.
Students may not enter the examination room after the first half-hour of the examination period. Students may not leave the examination room before one-half-hour has passed.
Authority: The invigilator has the authority to dismiss from the examination room any student without proper identification. The invigilator may ask a student to leave an examination if he/she has reasonable grounds to believe that a student is breaking or has broken or is attempting to break a University examination regulation, e.g. cheating, impersonation, improper use of examination materials or attempting to communicate with or convey information to other students in any way. The invigilator also has the authority to dismiss from the examination any student whose behaviour could cause a disturbance or could constitute a threat to the safety or security of others.
All such instances must be reported to the instructor of the course (if this is not the invigilator) and to the Dean of the Division to which the student belongs, using a form designed for this purpose and available from the Registrar's Office.
Instructions: At the start of the exam, the invigilator will refer to the Examination Regulations for Students (printed on the front of the examination books) and require the students to sign that they have understood them.
Presence: The invigilator must ensure that the examination room is not left unattended at any time during the examination. If possible, more than one invigilator should be present. If this is not possible, arrangements should be made for a regular check by a person able to conduct students to the washroom, convey messages, etc.
Illness or Emergency: If a student is unable to continue writing an examination due to severe stress or illness, the invigilator may allow the student to leave the examination room. The invigilator should make a note of the student's name and number and the circumstances and report these to the Dean of the Division to which the student belongs.

Disruption: In the event of an emergency evacuation during an examination, the invigilator will instruct students to close their examination books and leave all materials on the desk before leaving the building. If the alarm is of short duration, the examination can be continued; otherwise, students should be advised that the examination will be rescheduled. In the event of a power failure, students will close all materials but remain in the room until it is determined whether or not the examination can be continued. If the examination resumes, the examination period should be extended to compensate for the lost time.
In the event of a major disruption (for example fire, flood or a bomb threat), the examination would be terminated and rescheduled.
Invigilators may wish to carry a cell phone in case of emergency during the examination period.

## Rereading of Submitted Work or Examinations

In cases where the rereading of sessional examinations, supplemental examinations or papers is requested, the following procedure will be followed:

1. Only individual course components constituting at least $25 \%$ of a final grade in a course can be reread.
2. Written application for the rereading of examinations shall be made to the Dean no later than one month after the beginning of the next regular semester of the University. Before an examination paper is reread by an external examiner, it must have been reread by the course instructor. The fee for rereading of examinations by external examiners is $\$ 55$ per course.
3. The appointment of the external examiner shall be approved by the Departmental Chairperson and the Dean. In the case where the Departmental Chairperson is the original examiner, then another departmental member shall be recruited for the appointment of the external examiner. Where the Dean is the original examiner, then the appointment of the external examiner shall be made by the Departmental Chairperson and one other member of the department.
4. The external examiner shall be provided with:
a) all pertinent course materials, including objectives of the course, outline of topics, distribution of marks, texts, case materials, reading lists, etc.
b) a copy of the examination paper or essay, without the grade assigned to individual questions, or to the paper as a whole, by the original marker.
5. The grade assigned by the external examiner, whether lower or higher than the original examiner's grade, shall be the grade recorded for that component of the course.
If, as a result of the rereading of an examination, the student's grade is raised to at least a pass, the $\$ 55$ will be refunded by the University.

## Supplemental Examinations

1. The right to sit for a supplemental examination will be granted only at the discretion of the instructor.
2. A course passed after a supplemental examination shall be recorded as $50 \%$ and a failing grade will be recorded as F .
3. In order to qualify to write a supplemental examination in any course, a student must obtain a final grade of at least $45 \%$ in that course, with the exception of science courses which require a final grade of at least $35 \%$.
4. The supplemental examination shall be given not later than the last day of the semester immediately following the original examination.
5. The supplemental examination shall be arranged through the Registrar's Office, using the appropriate form, in consultation with the instructor.
6. The fee to sit for a supplemental examination is $\$ 75$.
7. The weight carried by a supplemental examination shall be that assigned to the final examination in that course, unless it is specified otherwise by the instructor in the course grading scheme submitted to the Office of the Vice-Principal.
8. In all cases, application forms to attempt supplemental examinations must be completed and returned to the Registrar's Office, accompanied by the appropriate fee (see Fees, Miscellaneous) prior to the supplemental examination being written.
9. Supplemental examinations which would change the student's academic status (that is, from "must withdraw" to "on academic probation", or to remove "on academic probation" from the student's record) must be written by the Add/ Drop deadline in order to change the status for that semester. Supplemental examinations written following that date will change the status for the following semester.

## Deferred Grades/Deferred Examinations

1. A student may be granted the privilege of a deferred final grade for a course, either by writing a deferred examination or by satisfying other written or oral requirements for the determination of the course grade on a deferred basis. The onus is on the student to petition the appropriate Dean for granting of deferred status in any course.
2. Normally, deferred status shall be requested in advance of the scheduled examination or deadline for other course requirements. However, should this not be possible, there will be a ten-day time limit after the date of the scheduled examination or after the due date for the course requirement for notification in writing to the Dean by the student of a request for deferred status.
Note: Faculty members do not have the responsibility of requesting deferred exams or deadlines on behalf of students, nor do they have the authority to grant such status.
3. With respect to the documents which are to form the grounds for the request for deferred status, there will be a time limit of 30 days after the date of the scheduled examination or the deadline for the course requirement for receipt by the Dean of the official documents. Grounds for deferral may include medical, compassionate or such other grounds as may be approved by the appropriate Dean. Where the request is based on medical grounds, the documentation submitted from a physician or a hospital must include specific reasons to account for the absence of the student and indicate that the student was incapable of attempting the examination or other
work on the date(s) in question. The onus is on the student to supply all of the necessary documentation to the Dean.
4. Deferred final grades shall normally be submitted within 30 days of the original deadline for the submission of grades for the course in question. The onus is on the student to contact the faculty member(s) to arrange for the completing of deferred exams or other course requirements. If no grade is received, a grade of " 0 " will be assigned to the course or course component in question. Final authority for the granting of deferred status, and any changes to this status, rests with the Dean.

## General Regulations

1. Final responsibility for grades assigned to any course work or examination rests with the professor or instructor teaching the course.
2. Application for aegrotat standing: A student unable to attempt a final examination or some other requirement for a course, for a valid medical reason, may petition for credit in that course on the basis of satisfactory completion of the remaining course requirements. Such a petition must be accompanied by a statement from a physician and shall be ruled upon by the appropriate Dean.
3. Late submission of grades will not be accepted unless deferment has been granted on medical or compassionate grounds. Deferment or the correction of errors will be the only reason for change of grades.
4. A grade on a transcript shall not be changed after the last day of the semester immediately following the semester in which the grade was achieved.
5. A department may set a comprehensive examination in its Honours program at the end of the final semester.
6. Cases not covered by the above regulations may be referred by the student to the appropriate Dean.
7. Honours theses are to be evaluated according to a collegial principle. Specifically, a minimum of three members of a department, or two if the department has only two members, shall evaluate the thesis, their evaluations having equal weight.

## Grading System for Undergraduate Studies

Bachelor of Arts, Bachelor of Science, Bachelor of Business Administration, Bachelor of Education, Special Nondegree Status Passing grade $\qquad$ $50 \%-100 \%$; P (pass)
Failing grade....................... $0 \%-49 \%$; F (failure)
80\%-100\% $\qquad$ (equivalent to A )
70\%-79\% $\qquad$ (equivalent to B )
60\%-69\% (equivalent to C )
50\%-59\% $\qquad$ (equivalent to D )
The notation "Academic Honour Roll" appears on the transcript of a full-time student who maintains an average of $80-100 \%$ for the complete academic year (Fall, Winter Semesters). Exception: B.Ed. students are not awarded this designation.

## Independent Study Courses

In addition to conventional lecture and seminar courses in which study is directed mainly on a group basis, some departments offer Independent Study courses which employ individual tutorials as a format. These courses provide opportunities for responsible students of proven overall academic ability to pursue topics in which they have a special interest, in an area for which they have demonstrated aptitude, through independent reading or research. Independent Study courses are listed by subject, in numerical order with other courses. Admission is at the discretion of the instructors, Departmental Chairpersons and Deans. The usual course registration form or Add/Drop form is used to register for Independent Study courses and must be submitted to the Registrar's Office by the appropriate deadline dates.

## Guidelines on Independent Study Courses

1. Independent Study courses may normally be taken only by Majors and Honours students in the area of their program. Minors students may be permitted to follow such a course only if it is required to complete the Minor program. Exceptions may be made with the permission of the Dean concerned.
2. Independent study implies adequate direct supervision by a faculty member during one of the regular sessions, i.e. Fall, Winter or Summer session. The faculty member should not be on leave of any kind.
3. Independent Study courses will be under the general supervision of departments rather than individual professors, and the departments must agree to proposed programs of study, marking schemes and grades awarded.

## ACADEMIC STANDING

## Bachelor of Arts, Bachelor of Science, Bachelor of Business Administration, Bachelor of Education, Special Students

Formal written notification from the Academic Standing Committee or the Registrar is the only valid statement of a student's academic standing. Opinions expressed by or information provided by individuals are not binding unless confirmed in writing by the Committee or the Registrar.

Inquiries related to matters concerning academic standing should be directed to the Registrar.

## Maintenance of Good Academic Standing, Probation, and Must Withdraw Status

1. Full-time students who have attempted at least 24 credits must maintain a minimum cumulative average of $55 \%$ calculated at the end of each Fall and Winter semester in order to remain in good academic standing.
(See sections on Williams School of Business and School of Education for additional requirements of these programs.)
2. Part-time degree students who have attempted at least 18 credits must maintain a minimum cumulative average of $55 \%$ calculated at the end of each Fall and Winter semester in order to remain in good academic standing.
(See sections on Williams School of Business and School of Education for additional requirements of these programs.)
3. General Interest (SPU) students must maintain a minimum cumulative average of $55 \%$ calculated at the end of each Fall and Winter semester in order to remain in good academic standing.
Students who do not achieve this standard are subject to the following regulations.
4. Full-time, part-time and SPU students failing to achieve a $50 \%$ average will be required to withdraw from the University for 12 months
Note: A student may be required to withdraw without first being placed on probation if their academic performance requires it.
5. Students with averages between $50 \%$ and $54.9 \%$ will be placed on academic probation.
a. Full-time students:
i. Will be required to raise their cumulative average to $55 \%$ by the end of the next two regular semesters in which they are registered. (Spring semesters are not counted.)
ii. May not be registered in more than 15 credits, not including lab credits, per semester. Both ESL courses and EWP099 are included in the credit count.
b. Part-time degree and SPU students:
i. Will be required to raise their cumulative average to $55 \%$ over the next 9 credits attempted.
ii. May not register in more than 9 credits, not including lab credits, until probation has been removed. Both ESL courses and EWP099 are included in the credit count.
6. Students on probation who fail to achieve the $55 \%$ in the specified time period will be required to withdraw from the University for 12 months.
7. "Academic probation" and/or "must withdraw for academic reasons" will be recorded on the transcript of the students concerned.
Students who have been required to withdraw from the University for academic standing reasons are subject to the following regulations:
8. Students who have been required to withdraw from the University may not register for any course(s) at the University or complete courses elsewhere on a letter of permission for a minimum period of 12 months.
9. Students who have been required to withdraw may apply for re-admission to the University.
a. Re-admission requests must be submitted according to the published application deadlines (see Applying to Bishop's University)
b. Students should contact the Admissions Office for information on the re-admission application process.
c. Students who are accepted back into the University will be re-admitted on academic probation.

## Academic Standing Appeals

1. The above regulations are implemented by the Academic Deans and the Academic Standing Committee and administered by the Registrar and Director of Admissions..
2. Decisions of the Academic Deans on academic probation, withdrawal from the University and subsequent readmission are binding.
3. A student may request the Academic Standing Committee to reconsider an unfavourable decision, but such a request does not necessarily constitute a basis for provisional readmission. Only one request for reconsideration of a Dean's decision will be heard by the Committee in each case.
4. Students wishing to request reconsideration should contact the Admissions Office for additional information on the process.
5. Appeal documentation must be submitted to the Committee by the date indicated on their written notice of academic standing.

## General Information

1. The specific regulations regarding maintenance of good standing in the programs of the Williams School of Business and the School of Education are in effect in addition to the regulations above and following, where applicable (see Business or Education).
2. The cumulative average is calculated using all courses attempted at Bishop's, including those in which a grade of " 0 " is received, with the exception of extra degree credit, and extra degree credit ESL courses and courses from which students have withdrawn with permission. The courses are weighted according to their credit value.
3. Courses completed elsewhere are not included in the calculation of Bishop's University's cumulative average (see Credit for Studies Completed Elsewhere).
4. Should a student repeat a course at Bishop's in which a grade has already been received, the grade awarded in the second registration will be used in the calculation of the cumulative average and credits awarded, regardless of whether it is the higher or lower grade. Repeated courses will not affect academic standing, which is based on academic performance in a particular academic year.
5. Students with a failing cumulative average (i.e. below $50 \%$ ) will not be eligible to graduate from the University (see Additional Graduation Requirement in Business Administration).
6. Students who have been asked to withdraw may not normally register for any course(s) at the University or complete courses elsewhere on a letter of permission.
7. Applications for readmission must be submitted in writing to the Admissions Office. Students who are readmitted will be admitted on probation.
8. A full-time student on academic probation may not be registered in more than 15 credits, not including lab credits, per semester. A part-time student on academic probation may not register in more than 9 credits, not including lab credits, until
probation has been removed. ESL courses are included in the credit count.
9. "Academic probation" and "must withdraw for academic reasons" will be recorded on the transcript of the students concerned.
10. Formal written notification from the Academic Standing Committee or the Registar and Director of Admissiis the only valid statement of a student's academic standing. Opinions expressed by or information provided by individuals are not binding unless confirmed in writing by the Committee or the Registrar.
11. In cases of alleged procedural errors, incorrect information or discrimination, an appeal may be made to the Student Appeals Committee.
12. Inquiries regarding any of the above should be addressed to the Registrar's Office.

## Regulations for Graduate Studies in Education

## The Degree of Master of Education or Master of Arts

To qualify for the degree of Master of Education or Master of Arts in Education, a candidate must be a graduate of this or another approved university and must complete 45 credits of graduatelevel work in Education.

Courses leading to these programs are offered year round, on the Bishop's campus, possibly at off campus locations, via technology, or online.

## General Academic Regulations

1. Applicants may be admitted to one of the following: the Master of Arts in Education or the Master of Education program.
2. M.Ed./M.A. students who receive a grade lower than $70 \%$ have failed the course and are not permitted to continue in the program without formal permission of the School of Education's Admissions Committee.
3. Students enrolled in either the M.Ed. or the M.A. who have not registered for any course during a period of more than 24 months are deemed to have withdrawn. They may reapply for admission to the program, subject to the same procedures and conditions as new applicants.
4. Full-time status for graduate level studies is defined to be 9 credits or more.

## Transfer Credit

A candidate for the Master of Arts in Education or the Master of Education degree may, with the permission of the Dean of the School of Education, complete up to three appropriate courses (9 graduate-level credits) at another recognized institution. Candidates should obtain prior approval for such courses. Such courses may not be used to meet the requirements of core courses or projects, monographs, or theses.

## Regulations for <br> Graduate Studies in Science

The Division of Natural Sciences and Mathematics of Bishop's University offers a Master of Science degree (M.Sc.) program in the Departments of Computer Science and Physics. See Graduate Programs on pages 225 to 240 for more information.

## Admission

1. Completed applications will be forwarded to the appropriate department for evaluation. Recommendations for admission to a degree program are made by the department to the Dean. Final approval for admission is made by the Dean.
2. Advanced courses of instruction leading to the Master of Science degree are open to graduates of any university of recognized standing who have obtained at least a Bachelor's degree with Honours with a "B" grade or its equivalent. An applicant who has followed a combined program must have obtained at least a " $B$ " average or equivalent in the subject of the Masters degree.
3. Applicants who do not satisfy these requirements may, with the permission of the department concerned and the Dean, be admitted to a qualifying semester(s) or year to bring their standing up to that of an Honours B.Sc. degree.
4. Admission to graduate courses does not in itself imply candidacy for a graduate degree.
5. All information is processed through the Admissions Office.
6. These regulations for admission are minimum requirements. Additional requirements may be specified by departments, with the approval of the Division.

## General Regulations

1. Apart from any qualifying semesters, the minimum period of registration for the M.Sc. shall be one academic year of fulltime study, including research, or its equivalent in part-time study. This requirement must be met regardless of the amount of graduate work previously completed in any other program or at any other university.
2. The maximum time allowed for the fulfillment of the requirements for graduation shall normally be four years in the case of full-time students, excluding any qualifying or inactive semesters. For part-time students the course-work required for qualifying semesters (if any) and the regular credit requirements of the program must be completed at the rate of no fewer than 6 credits per year.
3. Students may choose to leave the program temporarily for one semester, but only with permission of their supervisor; these students shall be considered inactive for that semester. Such a one-semester leave of absence from the program will not normally be allowed more than twice.
4. Students must obtain a minimum of $65 \%$ in each required course. Courses may not be repeated more than once.
5. Each degree candidate will be assigned, by the department in which the thesis is to be submitted, to a supervisor who shall be a faculty member of the department and who will be responsible for advising the candidate and directing his/
her research. Co-supervisors may also be assigned with the department's approval.
6. The course of study will be arranged by the supervisor. The subject of the thesis also requires approval by the supervisor.
7. The responsibilities of the students include: informing themselves of program requirements and deadlines, working within these deadlines, communicating regularly with their supervisors; and submitting annual progress reports to their supervisors and the Division.
8. Students may receive financial support from the University in the form of research assistantships, undergraduate marking, tutoring and/or laboratory demonstrating duties. Such support requires approval in writing from both the department and the Dean. Duties and remuneration will be clearly stated and in no case shall duties exceed ten hours per week on average.
9. All students in graduate courses or degree programs enjoy the protection of the University's policy and procedures on academic review and appeal (see pp. 21-24 of the University Calendar) and on research ethics (see the Vice-Principal Academic and Research Office for documentation).
10. A passing grade is $65 \%$ or better or " P " for pass. A grade less than $65 \%$ or " F " is a failure.
11. Full-time status for graduate level studies is defined to be 9 credits or more.

## Supervision

1. It is the responsibility of the supervisor to monitor the progress of students throughout the graduate program, to ensure that all conditions of admission and requirements are fulfilled, to provide students with information on their program, and to advise them how to resolve problems which may arise during their program.
2. Thesis supervisors must be tenured or tenure-stream faculty or adjunct faculty. Sessional and contract faculty may co-supervise students with the department's approval. Emeritus Professors may co-supervise. In all cases, the department must ensure continuity of appropriate supervision of their graduate students.
3. Problems that cannot be resolved by discussion between the student and the supervisor shall be referred to the Dean.
4. Information concerning sources of financial support and policies on obtaining same should be sought from the Dean.
5. Students must receive guidance and constructive criticism concerning their progress on a regular basis through the program, including regular meetings and/or e-mail communication with supervisors, attendance at research seminars, and appropriate responses to the student's annual progress report.
6. By April 15 of each year, M.Sc. candidates must submit to their supervisors a progress report covering both courses and research programs. This report must include the candidate's name, program and semester, a list of courses completed and their grades, a list of courses in which the candidate is registered, and a list of courses yet to be taken. A statement concerning the research work must include the title of the thesis (or if this has not yet been decided, a general title of the proj-
ect), a short outline of the work to its present state, including the amount of work done and the significant findings of the research, plus a statement of the work proposed for the future and a realistic estimate of the time required for its completion.
7. The supervisor will evaluate the annual progress report and grant a grade of "satisfactory" or "unsatisfactory". Copies of this graded report will go to the department concerned and to the Division. The department may compel a student to withdraw from the M.Sc. degree program in the event of an "unsatisfactory" grade on an annual progress report. Students have the right to have this decision reviewed, first by the Dean and then by the Academic Review Committee.

## Thesis Regulations

1. All M.Sc. students must make a satisfactory oral presentation and defense of their thesis before graduating. Three copies of the thesis of a degree candidate must be submitted, with the approval of the supervisor, to the Division at least two months in advance of the marks deadline of the semester in which it is to be defended.
2. The three copies of the thesis delivered to the Division must be accompanied by a letter from the supervisor informing the Division of the names of the two persons who have consented to act as examiners of the thesis (see Regulation 3). The secretary of the Division shall forward one copy of the candidate's thesis to each examiner with an appropriate covering letter.
3. The thesis shall be orally presented and defended before two examiners other than the supervisor, one of whom shall be an external examiner who is a specialist in the candidate's field of interest. The examiners shall be selected by the supervisor and department concerned, subject to the approval of the Dean. A thesis will be accepted only following approval of its defense by both examiners. A thesis may be returned to the candidate for revision on the advice of one or both examiners and subsequently re-defended (once only).
4. After the thesis has been defended and accepted, at least three copies shall be properly bound by the University at the candidate's expense, one for deposit in the Library, one for the retention of the department concerned and one for the supervisor. At the request of the candidate, a fourth copy maybe bound for his/her personal use.
5. Advice concerning the preparation and presentation of theses is to be provided by the supervisor and department concerned.
6. It is the responsibility of a supervisor to uphold and to transmit to students the highest professional standards of research and scholarship in the preparation of theses; to provide guidance in all phases of the student's research; to meet with their students regularly; to provide prompt feedback on submitted work, including drafts of the thesis; and to clarify expectations regarding collaborative work, authorship, publication and conference presentations which may result from the student's research.

## Programs and Courses

## Scheduling of Courses

The regular hours of the University are Monday to Friday, with classes commencing between 8:30 a.m. and 4:30 p.m. inclusive. Evening courses may begin after $4: 30$ p.m. Some classes may be offered on Saturdays. A 3-credit course will normally have a minimum of 36 contact hours. Online course delivery or individual and group activity online may be included in these 36 contact hours.

Before any course in the Calendar may be scheduled outside these hours, approval must be obtained from the appropriate Dean.

## Course Numbering System

1. A Fall Semester course bears the letter "a". A Winter course bears the letter "b". A one-semester course that may be given in any semester bears the letters "ab". A two-semester course bears no letter and is to be completed during the Fall and Winter Semesters.
2. Undergraduate courses:
(a) Course numbers starting with " 0 " are usually those taken in the first year of a four-year program, though they may be taken as additional credits in a three-year program.
(b) Courses numbered from 100 to 199 are normally firstyear courses.
(c) Courses numbered from 200 to 299 are normally sec-ond-year courses.
(d) Courses numbered from 300 to 399 are normally thirdyear courses.
(e) Courses numbered from 400 to 499 are Honours courses or courses in the Bachelor of Education.
3. Graduate courses: courses numbered from 500 to 799 .
4. All the courses listed in this Calendar are not necessarily offered every year. Please consult the Timetable for a list of offerings each semester.

## Credits and Hours Code

With reference to the credit requirements, it may be noted that (normally) 1 credit is awarded for a one-semester lab course, 2 credits for a two-semester lab or Music ensemble course, 3 credits for a one-semester lecture course, 4 credits for a twosemester practical Music course, 6 credits for a two-semester lecture course, and 6 or more for a thesis.

Information as to the credit value and hours of scheduled class activities for each course is contained in a three number code which follows the title. The first number in the code is the credit value of the course; the second number is the hours per week of lectures, tutorials and seminars; and the third number is the hours per week of laboratory work and other scheduled class activities. For example, the code 3-2-3 indicates 3 credits; two hours per week of lectures, tutorials or seminars; and three hours per week of laboratory work or other scheduled class activities. Additional information on the format of presentation of a course may be contained in the description of the course.

Please note that the credit requirement given for a program is the minimum and does not include lab credits. Students are advised to consult their letter of admission for the credit requirements specific to their program.

## Definitions

Audit: With the permission of the instructor, a student may participate in class discussions and activities, but not write the examinations or receive credit for a course. Audit courses must be part of the student's formal registration and are subject to the normal fee structure of the University (i.e. are charged in the same manner as credit courses).
Cognate: A course offered by a department other than that in which a Major has been declared, but which is accepted by the Major department as part of the degree requirements.
Corequisite: A course in which a student must be registered concurrently (at the same time) in order to receive credit in the desired course.

Cumulative average: Average calculated on all courses attempted at Bishop's in which a numerical grade has been received (including " 0 "s) with the exception of extra degree credit ESL courses. However, should a student repeat a course in which a grade has already been received, the grade awarded in the second registration will be used in the calculation of the cumulative average regardless of whether it is the higher or lower grade. (Repeated courses will not affect academic standing.)
Elective: A course taken in a degree program which is not applicable to the Honours/Major requirements, but which counts towards the total requirements for the degree; an optional course.
Exemption: A student may be exempted from an introductory course at the University when comparable non-university course work has been completed elsewhere. No credit will be granted towards their Bishop's degree for the exemption. The exempted course must be replaced by a Bishop's course of equal credit.
Honours: An Honours program requires a high level of concentration in one area of study, normally about half of the total courses taken for a degree. Students in Honours programs must demonstrate a high level of academic achievement, and a thesis is often required.
Major: A Major in any subject consists of slightly fewer than half of the total courses taken for a degree (normally about 48 credits excluding labs).

Minor: A Minor in any subject consists of about one third of the total courses taken for a degree (normally 24 or 30 credits, excluding labs).

## Prerequisite:

a. A course which must be successfully completed prior to registration for credit in the desired course (e.g., MAT210 is a prerequisite for MAT211).
b. A course which is required by a particular department, and which should be completed in the first 30 credits at Bishop's (e.g. PSY101 is a required prerequisite for the Psychology Major). These are listed in the program requirements prior to the course descriptions of each department.
Transfer Credit: A student transferring to Bishop's from another university may be eligible for advance credit, to be granted on admission, for their work completed on presentation of official transcripts and course descriptions for evaluation. Credits awarded are subject to further review should the student change programs.

## Centre for Life-Long Learning

Bishop's University Centre for Life-Long Learning Department is dedicated to fulfilling lifelong learning needs by offering courses and programs through its Shebrooke campus as well as online. Its mission is to ensure continued access to educational programs of the highest quality for adult learners who wish to pursue their studies.

Whether you are trying to develop your career, enhance your skills through professional development, or engage in meaningful and enriching learning opportunities, our courses are designed with you in mind.

For a list of current course offerings and all related information, please contact:

Centre for Life-Long Learning<br>Bishop's University<br>2600 College Street<br>Sherbrooke, Quebec J1M 1 Z7<br>Tel.: 819-822-9670 or 1-877-822-8900<br>E-mail: lifelonglearning@ubishops.ca

## English Writing Proficiency (EWP)

ALL STUDENTS WHO ENTERED BACHELOR DEGREE PROGRAMS AT BISHOP'S UNIVERSITY PRIOR TO FALL 2020 MUST SATISFY THE ENGLISH WRITING PROFICIENCY REQUIREMENT (FOR EXEMPTIONS, SEE BELOW). FOR DETAILS, SEE "ENGLISH WRITING PROFICIENCY" LISTED UNDER THE "BU LIBERAL EDUCATION MODEL" TAB FOUND UNDER "ACADEMIC PROGRAMS" ON THE BISHOP'S HOME PAGE MENU.

## English Writing Proficiency (EWP) Requirement

Students who entered Bishop's University prior to Fall 2020 must satisfy the EWP requirement. Students who entered Bishop's University Fall 2020 and onwards do not need to satisfy the EWP requirement.

The requirement can be satisfied by passing either the EWP Exam or the English Writing Proficiency course EWP115, described below.

1. The EWP Requirement must be satisfied within the first 45 credits of a student's program. Students enrolled in ESL courses or working on their writing skills in other courses may be given more time to meet the Requirement.
2. Students should write the EWP Exam at least once every academic year until they pass.
3. Students who do not pass the EWP Examination should review their exams at the Writing Centre (located in the Library Learning Commons) before they rewrite.
4. RESTRICT STATUS: Students who have more than 45 credits and who have not passed the EWP Exam or the EWP115 course, are not taking ESL classes, or have not written the EWP Exam during the academic year, may be placed on RESTRICT STATUS.

## RESTRICT STATUS

Students on EWP Restrict Status will be restricted to registering in only 12 credits per semester and are required to write the EWP Exam and/or register in the EWP115 course.

Students working on their writing skills in courses other than the EWP115 course must still pass the EWP Exam or EWP115.

## Exemptions from the EWP Requirement

## The following students do not have to write the EWP Exam:

1. Students who began their studies in Fall 2020 and onwards.
2. Students who have completed an undergraduate or graduate degree at an institution where the language of instruction is English
3. Students in certificate programs (undergraduate and graduate), graduate programs, micro programs, and special interest students (SPV, SPU)

## EWP 115 - English Grammar in Context

EWP115 is a writing intensive course for students who need to reach competency in fundamental academic writing skills that are transferable across disciplines. In an active learning setting, students will review grammatical and structural concepts in the context of a variety of writing genres including descriptive and narrative paragraphs, process analyses, compare and contrast texts, and persuasive essays (i.e. argumentation). The recursive nature of writing will be emphasized. Passing EWP115 will satisfy the EWP graduation requirement for those who entered before September 2020.

## UNIVERSITY-WIDE <br> EXPERIENTIAL LEARNING COURSES

The University is committed to providing interested students with opportunities to take part in experiential learning projects. Funds are made available each year through the Bishop's Experiential and Service Term (BEST) competition and through the Experiential Learning Committee. Many departments have courses specifically designed to offer experiential learning, and most have Independent Studies courses that can be structured so as to be experiential. Note that as is always the case with experiential learning, the explicit support and supervision of a Faculty member is necessary for the course to take place.

## ELP 300 Experiential Learning Internship/Placement 3-1-10

Linked to the student's academic program, the student will be involved in an experiential learning activity (on his/her own or as part of a team) that will normally involve an internship/placement in an organization for 12-15 weeks approved by the Experiential Learning Committee of Senate and the internship/ placement supervisor. Course work for the course will involve the preparation of an activity plan including goals, the work itself and a critical analysis on what was learned and/or accomplished during the internship/placement.

ELL 200 Experiential Learning Lab
1-0-3
Linked to the curriculum of a regular course, the student will be involved in an experiential learning activity (on his/her own or as part of a team) in an organization that will normally involve 30 hours of official activity approved by the professor of the regular course. Such activity will be in addition to the work accomplished in the regular course to which the lab is affiliated. Course work for the lab will involve the preparation of an activity plan including goals, the work itself and a critical analysis on what was learned and/or accomplished during the activity.
Prerequisite: approval of instructor

LED100 Liberal Education 3-3-0
This course introduces first-year students to a range of competencies essential to liberal education. This is accomplished by means of explicitly interdisciplinary study of a single unifying theme (examples: ultimate origins, money, envy, the power of numbers, the 1930 s, etc.). The course is team taught by members of the faculty from the Humanities, Natural Sciences and Mathematics, Social Sciences, the Williams School of Business, and the School of Education. Classroom work is divided between lectures and breakout seminar discussion.

SLP 399 Situated Learning and Praxis
3-1-10
Under professor supervision, the intention of this course is to foster learning through collaborative critical thinking, creativity, and entrepreneurship among the students from various disciplines and members of a local community in Malawi. Students are prepared in the winter semester to engage in situated learning in rural Malawi for a period of five to six weeks during the spring session. The result of the experience is meant to encourage students and local community members to creatively expand their own borders of learning and area of studies through a spirit of reciprocal participation and dialogue.

## UNI 101 Creating a Foundation for

Success in University Career
3-3-0
This course is for first-year students wishing to establish a firm foundation for successful learning during their university and post-university careers. Students will be introduced to the Liberal Education competencies on which their other courses will build. These include oral communication, written communication, quantitative reasoning, critical thinking, problem solving, information literacy, creative and adaptive thinking, social and cultural literacy, social confidence and interpersonal competence, capacity for civic engagement, and knowledge of environmental, economic and social sustainability.
Concretely, students learn a variety of personal, informational, and metacognitive skills that are necessary to succeed, as well as strategies to avoid the pitfalls that can take them off track. Improved resilience, life balance, growth mindset, and self-awareness are some of the benefits students can expect.
UNI 199- University-wide special topics course 3-3-0 This course provides an open code for creating a special 100-level course related to a relevant topic within any discipline offered at Bishop's University.
UNI 299- University-wide special topics course 3-3-0
This course provides an open code for creating a special 200-level course related to a relevant topic within any discipline offered at Bishop's University. Pre-requisite: permission from the Instructor or at least one 100 level course.
UNI 399- University-wide special topics course 3-3-0
This course provides an open code for creating a special 300-level course related to a relevant topic within any discipline offered at Bishop's University. Pre-requisite: permission from the Instructor or at least one 200 level course.
UNI 499- University-wide special topics course 3-3-0
This course provides an open code for creating a special 400-level course related to a relevant topic within any discipline offered at Bishop's University. Pre-requisite: permission from the Instructor or at least one 300 level course.

## Williams School of Business

## Dean

## Reena Atanasiadis,

B.Com., M.B.A. (Concordia)

## Faculty

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B.B.A (Bishop's), M.B.A.(UQO), Dipl. Ed. Tech (Concordia), CPA, CMA; Lecturer, Chair of Department
Nathalie Hivert,
B.B.A., M.Sc. (Sherbrooke), CPA, CA; Senior Instructor,
Mohammad Kayed,
B. Eng. (Beirut Arab), M.B.A. (American University), Ph.D. (McMaster); Assistant Professor
Robert Palmer,
B.Sc., M.A. (Ottawa), Ph.D.(Michigan State); Professor

Cranmer Rutihinda,
M.Sc. (Sofia), Ph.D. (Stockholm); Professor

## Hamid Shirdastian

B. Eng. (Tehran), M.B.A. (IKIU), Ph.D. (Concordia);

Assistant Professor
Arshad Taseen,
B.Eng. (Bangalore), M.B.A. (Ottawa), Ph.D. (Western); Professor

Michael Teed,
B.A. (Moncton), M.Sc., Ph.D. (St.Mary's);

Professor

## Dominique Toupin,

B.Ing.(Laval), M.B.A. (Laval), Ph.D.(Laval); Assistant Professor

Francine Turmel, B.A.A. (Laval), E.M.B.A. (Concordia), Ph.D. (Laval), FCPA, FCA, ASC; Professor
Calin Valsan,
B.Sc.(Bucharest), Ph.D.(Virginia Tech.); Professor
Yanan Wang,
B.A. (Renmin), M.Phil. (Lingnan), Ph.D. (McGill); Associate Professor

## Programs Overview

The Williams School of Business at Bishop's University is dedicated to providing a high-quality undergraduate business education within the liberal education tradition of the University. Students may work towards one of two undergraduate degrees: a Bachelor of Business Administration (B.B.A.) or a Bachelor of Arts (B.A.) Major Business. The B.A. Major Business is ideal for those who wish to combine their business studies with a different subject. The B.B.A. offers the most in-depth approach to business studies. B.B.A. students can also choose among seven concentrations and among six minors to develop complementary knowledge and competencies.

## B.B.A. Concentrations:

- Accounting
- Business Technology and Analytics
(available from Fall 2023)
- Entrepreneurship
- Finance
- Human Resources (intended availability Fall 2024)
- Management
- Marketing


## Minors:

- Business Administration (available only to Non-Business students)
- Business Technology and Analytics (available to all Business students and Non-Business students)
- Entrepreneurship (available to all Business students and Non-Business students)
- Finance (available to all Business students and Non-Business students)
- Human Resources (available to all Business students and Non-Business students)
- International Business (available to all Business students and Non-Business students)
- Marketing (available to all Business students and Non-Business students)
Joint programs with other programs at Bishop's University include Majors in Arts Administration, Information Technology and Sports Studies. A certificate in Business Administration (30 credits) is also available. We pride ourselves on having an experiential learning focus within the Williams School of Business whereby each course aims at providing real-life assignments that enable students to build practical competencies and enrich their curriculum vitae.

The Williams School of Business also encourages students to develop an international awareness of different business practices and cultures. Students have the opportunity to participate in an exchange program that allows them to study abroad for up to one year at any partner university in over 50 countries worldwide.

An international component is also reflected in most of our courses, in our international student exchange program, workshops, conferences, case competitions and faculty involvement in international research projects. The Williams School of Business is accredited with the Network of International Business Schools (NIBS).

The Williams School of Business offers a Co-operative Education Program. It combines a student's academic program with integrated work experiences through full-time work terms and regular academic sessions. The work terms are designed to present the students with the opportunity to blend theory and practice and to gain relevant work experience.

The courses and programs described in the following pages are designed to prepare our graduates for full and enriched participation in their chosen profession or graduate school.

## Applying to All Business Programs

Enrolment in the Williams School of Business is limited. Students must normally have a minimum R-Score of 24 from CEGEP and $80 \%$ from high school to be considered for admission to these programs.

To enter a Business program, CEGEP graduates must have a Quebec collegial diploma (D.E.C.). Upon admission, they will receive 30 advanced credits in electives, leaving 90 credits to complete at Bishop's University. Therefore, it makes it possible to complete any of our Business programs in three years. CEGEP graduates from specific DEC-BAC programs may be eligible for additional advanced credits in our B.B.A. program if they meet the required R-Score average criteria. Please visit our website at ubishops.ca/DEC-BAC-agreements for more information.

High School students entering the B.B.A. or B.A. Major Business programs who do not have one of the following math-
ematics courses will be required to take an additional mathematics course (MAT 190) outside of their degree requirements before being able to enroll in other business core courses and in MAT 196 (if required by their program): BC/YT: Pre-Calculus 12, AB/NT/NU: Math 30-1, SK: Pre-Calculus 30 or Calculus 30, MB: Pre-Calculus 40, ON: Advanced Functions 4U or Calculus \& Vectors 4U, NB: Pre-Calculus or Calculus, NS: Pre-Calculus 12 or Calculus 12, PEI: Math 621B or higher, NL: Math 3200 or Math 3201 or Math 3208.

International students will have their files evaluated on a case-by-case basis for advanced credits and exemptions.

Any students applying to any B.B.A. concentration can complete any required mathematics courses while at Bishop's University. There are no mathematics courses prerequisites to apply to any programs in the Williams School of Business. Students who have completed Mathematics 201-NYC (201-105) and 201NYA (201-103) in CEGEP or the equivalent will receive an exemption for MAT 196 and MAT 191. Additionally, students having completed the Microeconomics and Macroeconomics courses in CEGEP with grade of at least $75 \%$ will be exempted from taking ECO 102 Principles of Economics: Microeconomics and ECO 103 Principles of Economics: Macroeconomics. Exempted courses will have to be replaced with any elective courses (Business or Non-Business), if required by the selected program.

Business Programs

|  | BA | BBA |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAJOR/ CONCENTRATIONS | Business | Accounting | Business <br> Technology <br> and Analytics | Entrepreneurship | Finance | Human Resources ${ }^{6}$ | Management | Marketing |
| Core | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 |
| Required | 0 | 39 | 21 | 21 | 21 | 21 | 21 | 21 |
| Optional | 18 | 3 | $21^{4}$ | $21^{4}$ | $21^{4}$ | $21^{4}$ | $21^{4}$ | $21^{4}$ |
| Electives ${ }^{2}$ | $60^{3}$ | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| TOTAL | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 |
| MINORS | Business <br> Admin. ${ }^{5}$ |  | Business Technology and Analytics | Entrepreneurship | Finance | Human <br> Resources | International Business | Marketing |
| Core | 15 |  | 9 | 6 | 12 | 9 | 12 | 6 |
| Required | 0 |  | 9 | 12 | 9 | 9 | 9 | 9 |
| Optional | 9 |  | 6 | 6 | 3 | 6 | 3 | 9 |
| TOTAL | $24^{4}$ |  | $24^{4}$ |  | $24^{4}$ | $24^{4}$ | $24^{4}$ | $24^{4}$ |
| CERTIFICATE | Business Admin. | The intended availability for this concentration is Fall 2023. <br> ${ }^{2}$ Includes Co-op courses (BMG 391, BMG 392 and BMG 393) and Honours. <br> ${ }^{3}$ The electives that are part of the B.A. Major Business are comprised of at least 42 but no more than 60 Non-Business electives, leaving the possibility of a maximum of 18 Business elective credits. <br> ${ }^{4}$ No more than two cognate courses ( 6 credits) may be counted as part of the optional courses in each concentration and in the total number of credits for each minor. <br> ${ }^{5}$ The Minor in Business Administration is only available to Non-Business students. <br> ${ }^{6}$ The intended availability for this concentration is Fall 2024 |  |  |  |  |  |  |
| Core | 18 |  |  |  |  |  |  |  |
| Optional | 12 |  |  |  |  |  |  |  |
| TOTAL ${ }^{4}$ | 30 |  |  |  |  |  |  |  |

## WSB PROGRAMS STRUCTURE

- The B.A. Major Business and B.B.A. programs are both 120 credits and all Minors are 24 credits.
- The B.A. Major Business program is comprised of up to 78 but not less than 60 Business credits and at least 42 but no more than 60 Non-Business electives.
- The B.B.A. program is comprised of: 84 Business credits and 36 electives.

1) B.A. MAJOR BUSINESS (120 credits)

MAJBSS
For the business-minded student pursuing a well-diversified liberal education, who wishes to complement a traditional business degree with a major in another discipline.

42 core credits +0 required credit +18 optional credits +60 (at least 42 must be Non-Business) elective credits $=120$ credits

| Core - 42 credits |  | $\frac{\text { Optional }-18 \text { credits }}{\mathrm{n} / \mathrm{a}}$ | $\frac{\text { Required }-0 \text { credit }}{\text { ANY BUSINESS COURSE }}$ |
| :---: | :---: | :---: | :---: |
| BAC 121 | Introduction to Financial Accounting I |  |  |
| BAC 221 | Introduction to Management Accounting (Prerequisite: BAC 121) |  |  |
| BCS 220 | Management of Information Systems (Prerequisite: BMG 100) |  |  |
| BFN 200 | Introduction to Finance <br> (Prerequisites: BAC 121, BMA <br> 140 and ECO 103) |  |  |
| BHR 221 | Organizational Behaviour <br> (Prerequisite: BMG 100) |  |  |
| BMA 140 | Statistical Analysis for Business <br> Decisions I <br> (Prerequisite: MAT 190) |  |  |
| BMG 100 | Understanding Business \& Society (Corequisite: ILT 100 unless advanced credits received for it) |  |  |
| BMG 215 | Introduction to International Business <br> (Prerequisites: BMG 100 and BMK 211) |  |  |
| BMG 221 | Business Law \& Ethics |  |  |
| BMG 311 | Business Policy and Strategic <br> Management <br> (Prerequisites: All other <br> Required Core courses. BMS 231 <br> may be taken concurrently.) <br> Note: Permission of the <br> Departmental Chair is required for non B.B.A. or non B.A. Major <br> Business students, including exchange students.) |  |  |
| BMK 211 | Marketing Management |  |  |
| BMS 231 | Operations Management <br> (Prerequisite: BMA 140) |  |  |
| ECO 102 | Principles of Economics: Microeconomics |  |  |
| ECO 103 | Principles of Economics: Macroeconomics |  |  |
| ILT 100 | Information Literacy and Critical Thinking (lab) * |  |  |
| * Mandatory 1-credit lab course for all B.A. Major Business and B.B.A. students. This lab course cannot be used as a lecture course credit. |  |  |  |

## 2) B.B.A. (120 credits)

Within the B.B.A. program, the Williams School of Business offers concentration streams in a variety of Business disciplines. Students should consult with the Academic Advisor for course selection advice.

## a. B.B.A. ACCOUNTING CONCENTRATION

CONACC
For the business-minded student who takes a focused approach, by acquiring advanced skills and competencies in the area of Accounting.
Knowledge of accounting is fundamental to all disciplines in business. The skills acquired in the program prepare students for positions of leadership in organizations spanning all sectors of the economy including, senior management, strategic government positions, consulting, teaching, auditing and finance. At the Williams School of Business, this stream is accredited by the Order of Certified Professional Accountants of Quebec.

42 core credits $+\mathbf{3 9}$ required credits $+\mathbf{3}$ optional credits $+\mathbf{3 6}$ elective credits $=\mathbf{1 2 0}$ credits

b. B.B.A. BUSINESS TECHNOLOGY AND ANALYTICS CONCENTRATION

For the business-minded student who takes a focused approach by acquiring advanced skills and competencies in the area of Business Technology and Analytics.

Organizations increasingly rely on data and sophisticated analytical tools to make effective strategic decisions and thus look not only for technical specialists but for all business professionals with a data-driven mindset that can take an active role in manipulating and analyzing data to improve decision-making. The skills acquired in the program prepare students for positions of leadership in organizations spanning all sectors of the economy.

42 core credits +21 required credits +21 optional credits (maximum of $\mathbf{6}$ cognate credits) +36 elective credits $=120$ credits

\begin{tabular}{|c|c|c|c|c|c|}
\hline \multicolumn{2}{|l|}{Core - 42 credits} \& \multicolumn{2}{|l|}{Required - 21 credits} \& \multicolumn{2}{|l|}{Optional - 21 credits} \\
\hline BAC 121 \& Introduction to Financial Accounting I \& MAT 196 \& Finite Mathematics for Business Students \& MAT 191 \& \begin{tabular}{l}
Calculus I \\
(Prerequisite: MAT 196 or
\end{tabular} \\
\hline BAC 221 \& Introduction to Management Accounting (Prerequisite: BAC 121) \& \& (Prerequisite: MAT 190 or equivalent or permission of instructor.) \& BCS 210 \& \begin{tabular}{l}
equivalent or permission of instructor) \\
Technology Entrepreneurship
\end{tabular} \\
\hline BCS 220 \& Management of Information Systems (Prerequisite: BMG 100) \& BCS 313 \& \begin{tabular}{l}
Information Technology \\
Project Management \\
(Prerequisite: BCS 220)
\end{tabular} \& BCS 212 \& \begin{tabular}{l}
(Prerequisite: BCS 220) \\
E-Business Technology and Management
\end{tabular} \\
\hline BFN 200
BHR 221 \& \begin{tabular}{l}
Introduction to Finance \\
(Prerequisiteas: BAC 121, BMA 140 and ECO 103)
\end{tabular} \& BCS 320 \& \begin{tabular}{l}
Business Intelligence and Data Analytics \\
(Prerequisites: (BMA 140 or ESG 261 or PMA 260 or
\end{tabular} \& BCS 216 \& \begin{tabular}{l}
(Prerequisite: BMK 211) \\
Business Information Technology Strategy (Prerequisite: BCS 220)
\end{tabular} \\
\hline BMA 140 \& \begin{tabular}{l}
(Prerequisite: BMG 100) \\
Statistical Analysis for Business \\
Decisions I \\
(Prerequisite: MAT 190)
\end{tabular} \& BCS 422 \& Integrated Enterprise Systems and Business Processes (Prerequisite: BCS 220) \& BCS 340 \& Privacy, Ethics, and Communication in Data Science (Prerequisite: BCS 220) \\
\hline BMG 100 \& Understanding Business \& Society (Corequisite: ILT 100 unless advanced credits received for it) \& BCS 424
BCS 450 \& \begin{tabular}{l}
Supply Chain Analytics \\
(Prerequisites: BMA 141 and BMS 231) \\
Business Technology and
\end{tabular} \& BCS 420 \& \begin{tabular}{l}
Data Mining for Business \\
Analytics \\
(Prerequisites: BCS 220 and BCS 320)
\end{tabular} \\
\hline BMG 215

BMG 221 \& \begin{tabular}{l}
Introduction to International Business <br>
(Prerequisites: BMG 100 and BMK 211) <br>
Business Law \& Ethics

 \& \& 

Analytics Capstone Project <br>
(Prerequisites: BCS 220 and BCS 320) <br>
Note: This course can only be taken as part of the last 30 credits
\end{tabular} \& BCS 430

BMG 323 \& | Business Applications of Artificial Intelligence (Prerequisite: BCS 220) |
| :--- |
| Interpersonal skills (Prerequisite: BHR 221) | <br>

\hline BMG 311 \& | Business Policy and Strategic |
| :--- |
| Management |
| (Prerequisites: All other |
| Required Core courses. BMS 231 |
| may be taken concurrently. |
| Note: Permission of the |
| Departmental Chair is required |
| for non B.B.A. or non B.A. Major |
| Business students, including |
| exchange students.) | \& BMA 141 \& | Statistical Analysis for Business Decisions II |
| :--- |
| (Prerequisite: BMA 140) | \& BMG 324

BMG 391
BMG 392

BMG 393 \& | Management of Innovation (Prerequisite: BHR 221) |
| :--- |
| Co-operative Education |
| Placement I |
| (Prerequisite: $B M G$ 191) |
| Co-operative Education |
| Placement II |
| (Prerequisite: BMG 391) |
| Co-operative Education |
| Placement III | <br>

\hline BMK 211 \& Marketing Management \& \& \& \& (Prerequisite: BMG 392) <br>

\hline BMS 231 \& | Operations Management |
| :--- |
| (Prerequisites: BMA 140) | \& \& \& BMG 335 \& Global Value Chain Analysis (Prerequisite: BMG 215) <br>


\hline ECO 102 \& | Principles of Economics: |
| :--- |
| Microeconomics | \& \& \& BMS 303 \& Forecasting Techniques Prerequisite: BMA 141) <br>


\hline | $\text { ECO } 103$ |
| :--- |
| ILT 100 | \& | Principles of Economics: Macroeconomics |
| :--- |
| Information Literacy and Critical Thinking (lab) * | \& \& \& \[

$$
\begin{aligned}
& \text { CS } 301 \\
& \text { SPO } 212
\end{aligned}
$$

\] \& | Computer Ethics |
| :--- |
| Applied Sport Analytics |
| (Prerequisite: SOC 211 or |
| PSY 213 or BMA 140 or | <br>


\hline \multicolumn{6}{|l|}{| * Mandatory 1-credit lab course for |
| :--- |
| all B.A. Major Business and B.B.A. |
| students. This lab course cannot be |
| used as a lecture course credit. |} <br>

\hline
\end{tabular}

c. B.B.A. ENTREPRENEURSHIP CONCENTRATION

For the business-minded student who takes a focused approach by acquiring advanced skills and competencies in the area of Entrepreneurship.

This concentration is designed to enable the understanding of the entrepreneurial process of starting, growing and harvesting a new venture. By performing both in-depth comprehension of entrepreneurial process and hands-on assignments, students will learn how the entrepreneurial mind thinks, how a product/market vision is developed, how an opportunity is assessed, and how resources are harnessed to take advantage of that opportunity, throughout the entrepreneurial networks and community.

42 core credits +21 required credits +21 optional credits (maximum of $\mathbf{6}$ cognate credits) +36 elective credits $=120$ credits


## d. B.B.A. FINANCE CONCENTRATION

CONBFI
For the business-minded student who takes a focused approach by acquiring advanced skills and competencies in the area of Finance.
The curriculum is designed to provide students with broad exposure to all dimensions of finance. Students will learn professional skills and acquire technical and analytical competence to pursue challenging careers in corporate finance, portfolio management, and securities research. In addition to a thorough understanding of the principles of financial management, students will be exposed to both theoretical and practical aspects of investment management, capital budgeting, capital formation, and risk hedging. Opportunities to explore current topics and apply practical solutions to current theory are also provided. When following a prescribed sequence of courses, students are qualified to write the first level C.F.A. (Chartered Financial Analyst) exam immediately upon graduation. Students can also compete in their last two years of studies for managerial positions within the SEED Portfolio.

42 core credits +21 required credits +21 optional credits (maximum of $\mathbf{6}$ cognate credits) +36 elective credits $=120$ credits


## e. B.B.A. HUMAN RESOURCES CONCENTRATION

## (intended availability Fall 2024)

For the business-minded student who takes a focused approach by acquiring advanced skills and competencies in the area of Human Resources.

There is growing recognition that the quality of an organization's human resources plays a strategic role in an ever-changing business environment. With organizations facing the need for continuous change in a competitive environment they must, more than ever, begin to rely on the knowledge, skills and abilities of their workforce to confront such challenges. Through courses such as Compensation Management, Human Resource Management, Industrial Relations, Training and Development, Occupational Health and Safety and Organizational Behaviour, students will learn how to ensure that the Human Resource goals of attracting, developing and maintaining a competitive workforce are accomplished. Students completing this concentration stream may want to discuss with faculty the course options for certification as a Human Resource professional.

42 core credits +21 required credits +21 optional credits (maximum of $\mathbf{6}$ cognate credits) +36 elective credits $=120$ credits

| Core - 42 credits |  | Required - 21 credits |  | Optional - 21 credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BAC 121 | Introduction to Financial Accounting I | BHR 224 | Human Resource Management (Prerequisite: BHR 221) | MAT 196 | Finite Mathematics for Business Students |
| BAC 221 | Introduction to Management Accounting (Prerequisite: BAC 121) | BHR 313 BHR 315 | Compensation Management (Prerequisite: BHR 224) <br> Training and Development |  | (Prerequisite: MAT 190 or equivalent or permission of instructor.) |
| BCS 220 | Management of Information Systems <br> (Prerequisite: BMG 100) | BHR 316 | (Prerequisite: BHR 224) <br> Organizational Conflict and Negotiations | BMA 141 | Statistical Analysis for Business <br> Decisions II <br> (Prerequisite: BMA 140) |
| BFN 200 | Introduction to Finance <br> (Prerequisites: BAC 121, BMA 140 and ECO 103) | BHR 326 | (Prerequisite: BHR 221) <br> Personnel Recruitment and Selection | BHR 312 | Labor Relations <br> (Prerequisite: BHR 224 or POL 214) |
| BHR 221 | Organizational Behaviour <br> (Prerequisite: BMG 100) |  | (Prerequisites: BHR 224 and (BMA 140 or PMA 260)) | BHR 325 | Topics in Human Resource <br> Management <br> (Prerequisite: BHR 224) |
| BMA 140 | Statistical Analysis for Business <br> Decisions I <br> (Prerequisite: MAT 190) | BHR 328 | Occupational Health, Safety \& Wellness (Prerequisite: BHR 221) | BHR 334 | Administrating the Collective Agreement |
| BMG 100 | Understanding Business \& Society (Corequisite: ILT 100 unless advanced credits received for it) | BHR 333 | Employment Law <br> (Prerequisite: BHR 224) | BMG 322 | (Prerequisite: BHR 224 or POL 214) <br> Change Management <br> (Prerequisite: BHR 221) |
| BMG 215 | Introduction to International Business |  |  |  | students take this course in their last 30 credits. |
|  | BMK 211) |  |  | BMG 323 | Interpersonal Skills <br> (Prerequisite: BHR 221) |
| BMG 311 | Business Law \& Ethics |  |  | BMG 325 | Leadership in a Multicultural World <br> (Prerequisite: BHR 221) |
|  | Business Policy and Strategic <br> Management <br> (Prerequisites: All other Required |  |  |  |  |
|  | Core courses. BMS 231 may be taken concurrently. <br> Note: Permission of the |  |  | BMG 391 | Co-operative Education <br> Placement I <br> (Prerequisite: BMG 191) |
|  | Departmental Chair is required for non B.B.A. or non B.A. Major Business students, including |  |  | BMG 392 | Co-operative Education <br> Placement II <br> (Prerequisite: BMG 391) |
|  | exchange students.) |  |  | BMG 393 | Co-operative Education |
| BMK 211 | Marketing Management |  |  |  | Placement III |
| BMS 231 | Operations Management |  |  |  | (Prerequisite: BMG 392) |
|  | (Prerequisites: BCS 220 and BMA 140) |  |  | PSY 101 | Introduction to Psychology I: |
| ECO 102 | Principles of Economics: Microeconomics |  |  | PSY 102 | Basic Processes Introduction to Psychology II : |
| ECO 103 | Principles of Economics: |  |  |  | Human Interactions |
|  | Macroeconomics |  |  | PSY 214 | Community Psychology <br> (Prerequisites: PSY 101 and PSY 102) |
| ILT 100 | Information Literacy and Critical Thinking (lab)* |  |  |  |  |
| * Mandatory 1-credit lab course for all B.A. Major Business and B.B.A. students. This lab course cannot be used as a lecture course credit. |  |  |  | SOC 100 <br> SOC 129 <br> SOC 298 | Sociological ImaginationSex \& Gender |
|  |  |  |  |  |  |
|  |  |  |  |  | Social Problems |

## f. B.B.A. MANAGEMENT CONCENTRATION

For the business-minded student who takes a balanced approach by acquiring a diversified portfolio of skills and competencies in several areas of business.

Students electing to complete the Management Concentration are interested in inspiring people, leading organizations and creating wealth in socially in sustainable ways. Management is a broad subject area, so students are given flexibility to tailor this Concentration to their interests.

42 core credits +21 required credits +21 optional credits (maximum of $\mathbf{6}$ cognate credits) +36 elective credits $=120$ credits

| Core - 42 credits |  | Required - 21 credits |  | Optional - 21 credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BAC 121 | Introduction to Financial Accounting I | BCS216 | Business Information Technology Strategy (Prerequisite: BCS220) | ANY BUSINESS COURSE |  |
| BAC 221 |  |  |  | BMG 391 | Co-operative Education Placement I |
|  | Accounting <br> (Prerequisite: BAC 121) | BHR 224 | Human Resource Management (Prerequisite: BHR 221) | BMG 392 | (Prerequisite: BMG 191) Co-operative Education |
| BCS 220 | Management of Information Systems (Prerequisite: $B M G$ 100) | BMG 214 | Introduction to Entrepreneurship: New Venture Creation | BMG 393 | Placement II <br> (Prerequisite: BMG 391) <br> Co-operative Education |
| BFN 200 | Introduction to Finance (Prerequisites: BAC 121, | BMG 323 | Interpersonal Skills <br> (Prerequisite: BHR 221) |  | Placement III <br> (Prerequisite: BMG 392) |
| BHR 221 | Organizational Behaviour <br> (Prerequisite: BMG 100) | BMG 325 | Leadership in a Multicultural World <br> (Prerequisite: BHR 221) | MAT 196 | Finite Mathematics for Business Students <br> (Prerequisite: MAT 190 or |
| BMA 140 | Statistical Analysis for Business Decisions I | BMK 214 | Consumer Behavior <br> (Prerequisite: BMK 211) |  | equivalent or permission of instructor.) |
|  | (Prerequisite: MAT 190) | BMK 340 | Product Strategy and | MAT 191 | Calculus I |
| BMG 100 | Understanding Business \& Society (Corequisite: ILT 100 unless advanced credits received for it) |  | Innovation <br> (Prerequisite: BMK 214) |  | (Prerequisite: MAT 196 or equivalent or permission of instructor) |
| BMG 215 | Introduction to International Business <br> (Prerequisites: BMG 100 and BMK 211) |  |  |  |  |
| BMG 221 | Business Law \& Ethics |  |  |  |  |
| BMG 311 | Business Policy and Strategic Management <br> (Prerequisites: All other Required Core courses. BMS 231 may be taken concurrently. Note: Permission of the Departmental Chair is required for non B.B.A. or non B.A. Major Business students, including exchange students.) |  |  |  |  |
| BMK 211 | Marketing Management |  |  |  |  |
| $\text { BMS } 231$ | Operations Management <br> (Prerequisites: BCS 220 and BMA 140) |  |  |  |  |
| ECO 102 | Principles of Economics: Microeconomics |  |  |  |  |
| $\text { ECO } 103$ | Principles of Economics: Macroeconomics |  |  |  |  |
| ILT 100 | Information Literacy and Critical Thinking (lab)* |  |  |  |  |
| * Mandatory 1-credit lab course for all B.A. Major Business and B.B.A. students. This lab course cannot be used as a lecture course credit. |  |  |  |  |  |

g. B.B.A. MARKETING CONCENTRATION

CONMKT
For the business-minded student who takes a focused approach by acquiring advanced skills and competencies in the area of Marketing.
The Marketing concentration aims to build the skills that students need for an exciting career in marketing. We combine academic instruction and hands-on experience to build important intellectual and professional tools that ignite students' ingenuity and communication skills. We expose students to cutting-edge marketing techniques, encourage their creativity and develop their critical thinking, analytical, strategic and leadership skills. Our approach to learning and teaching is reflective, experiential, and engaging, led by experienced faculty who demonstrate mastery in their professions, so that students will receive:

- Practical opportunities working with area industry on real projects;
- The skills and opportunity to create a launch-ready business of their own;
- Development of high demand business skills and abilities.

42 core credits +21 required credits +21 optional credits (maximum of $\mathbf{6}$ cognate credits) +36 elective credits $=120$ credits

| Core - 42 credits |  | Required - 21 credits |  | Optional - 21 credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BAC 121 | Introduction to Financial Accounting I | MAT 196 | Finite Mathematics for Business Students | MAT 191 | Calculus I <br> (Prerequisite: MAT 196 or |
| BAC 221 | Introduction to Management Accounting (Prerequisite: BAC 121) |  | (Prerequisite: MAT 190 or equivalent or permission of instructor.) | BCS 320 | equivalent or permission of instructor) <br> Business Intelligence and Data |
| BCS 220 | Management of Information Systems <br> (Prerequisite: BMG 100) | BMA 141 | Statistical Analysis for Business <br> Decisions II <br> (Prerequisite: BMA 140) |  | Analytics <br> (Prerequisite: BMA 140 <br> or SOC 211 or PSY 213 or |
| BFN 200 | Introduction to Finance <br> (Prerequisites: BAC 121, BMA 140 and ECO 103) | BMK 214 BMK 321 | Consumer Behavior <br> (Prerequisite: BMK 211) <br> Marketing Research | BMG 323 | Interpersonal skills <br> (Prerequisite: BHR 221) |
| BHR 221 | Organizational Behaviour <br> (Prerequisite: BMG 100) |  | (Prerequisites: BMK 214 and BMA 141) | BMG 345 | International Marketing (Prerequisite: BMG 215) |
| BMA 140 | Statistical Analysis for Business Decisions I <br> (Prerequisite: MAT 190) | BMK 332 | Omnichannel Marketing: Distribution Channels in The Digital Age <br> (Prerequisite: BMK 214) | BMG 391 BMG 392 | Co-operative Education <br> Placement I <br> (Prerequisite: BMG 191) |
| BMG 100 | Understanding Business \& Society (Corequisite: ILT 100 unless advanced credits received for it) | BMK 340 | Product Strategy and Innovation <br> (Prerequisite: BMK 214) | BMG 392 BMG 393 | Placement II <br> (Prerequisite: BMG 391) <br> Co-operative Education |
| BMG 215 | Introduction to International Business | BMK 381 | Marketing Policies <br> (Prerequisite: BMK 214) |  | Placement III <br> (Prerequisite: BMG 392) |
|  | (Prerequisites: BMG 100 and BMK 211) |  |  | BMK 291 | Entrepreneurship Practicum I (Prerequisites: $B M G$ 214, |
| BMG 221 | Business Law \& Ethics |  |  |  | BMK 211 and BMK 214) |
| BMG 311 | Business Policy and Strategic Management ( |  |  | BMK 323 | Marketing Communication (Prerequisite: BMK 214) |
|  | Prerequisites: All other Required Core courses. BMS 231 may be taken concurrently. <br> Note: Permission of the |  |  | BMK 344 | Branding and <br> Brand Management <br> (Prerequisites: BMK 211 and BMK 214) |
|  | Departmental Chair is required for non B.B.A. or non B.A. Major Business students, including exchange students.) |  |  | BMK 354 | Digital Marketing <br> (Prerequisites: BMK 211 and BMK 214) |
| BMK 211 | Marketing Management |  |  | BMK 350 | Marketing Strategies for Environment Sustainability |
| BMS 231 | Operations Management <br> (Prerequisites: BCS 220 and BMA 140) |  |  | BMK 355 | (Prerequisite: BMK 214) <br> Happiness Marketing <br> (Prerequisite: BMK 214) |
| ECO 102 | Principles of Economics: <br> Microeconomics |  |  | BMK 362 | Sports Marketing <br> (Prerequisite: BMK 211) |
| $\text { ECO } 103$ | Principles of Economics: Macroeconomics |  |  | BMK 371 | Industrial Marketing Strategy (Prerequisite: BMK 214) |
| ILT 100 | Information Literacy and Critical Thinking (lab)* |  |  | BMK 392 | Entrepreneurship Practicum II (Prerequisite: BMK 291) |
| * Mandatory 1-credit lab course for all B.A. Major Business and B.B.A. students. This lab course cannot be used as a lecture course credit. |  |  |  | BMK 440 | Marketing Analytics (Prerequisite: BMK 321) |

3) MINORS
a. BUSINESS ADMINISTRATION MINOR

MINBSS
For the Non-Business student in good University Academic Standing only who wishes to add a portfolio of basic business skills and competencies to a major in sciences, social sciences, or humanities
$\mathbf{1 5}$ core credits $+\mathbf{0}$ required credit +9 optional credits $=\mathbf{2 4}$ credits

| Core - 15 credits |  | Required - 0 credits | Optional - 9 credits |
| :---: | :---: | :---: | :---: |
| BAC 121 | Introduction to Financial Accounting I | n/a | ANY BUSINESS COURSE |
| BFN 200 | Introduction to Finance <br> (Prerequisites: BAC 121, <br> BMA 140 and ECO 103) |  |  |
| BMA 140 | Statistical Analysis for Business <br> Decisions I <br> (Prerequisite: MAT 190) or equivalent approved by the Departmental Chair |  |  |
| BMG 100 | Understanding Business \& Society |  |  |
| BMK 211 | Marketing Management |  |  |

b. BUSINESS TECHNOLOGY AND ANALYTICS MINOR

MINBTA
For the Business student who wishes to complement advanced skills and competencies in one area of business with skills and competencies in the area of Business Technology and Analytics; or the Non-Business student in good University Academic Standing who wishes to add a portfolio of basic business skills and competencies in Business Technology and Analytics to a major in sciences, social sciences, or humanities.

9 core credits +9 required credits $+\mathbf{6}$ optional credits $=\mathbf{2 4}$ credits (maximum of $\mathbf{6}$ cognate credits)

| Core - 9 credits |  | Required - 9 credits |  | Optional - 6 credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BMG 100 BCS 220 | Understanding Business and Society <br> Management of Information Systems (Prerequisite: BMG100) | BCS 313 BCS 320 | Information Technology <br> Project Management <br> (Prerequisite: BCS220) <br> Business Intelligence and Data Analytics | MAT 196 | Finite Mathematics for Business Students <br> (Prerequisite: MAT 190 or equivalent or permission of instructor.) |
| BMA 140 | Statistical Analysis for Business <br> Decisions I <br> (Prerequisite: MAT 190) or equivalent approved by the Departmental Chair | BCS 422 | (Prerequisite: BMA 140 or SOC 211 or PSY 213 or PHY 101) <br> Integrated Enterprise Systems | MAT 191 | Calculus I <br> (Prerequisite: MAT 196 or equivalent or permission of instructor) |
|  |  |  | Integrated Enterprise Systems and Business Processes (Prerequisite: BCS 220) | BMA 141 | Statistical Analysis for Business <br> Decisions II <br> (Prerequisite: BMA 140) |
|  |  |  |  | BCS 210 | Technology Entrepreneurship (Prerequisite: BCS 220) |
|  |  |  |  | BCS 212 | E-Business Technology and Management (Prerequisite: BMK 211) |
|  |  |  |  | BCS 216 | Business Information Technology Strategy (Prerequisite: BCS 220) |
|  |  |  |  | BCS 340 | Privacy, Ethics, and Communication in Data Science (Prerequisite: BCS 220) |
|  |  |  |  | BCS 420 | Data Mining for Business <br> Analytics <br> (Prerequisites: BCS 220 and BCS 320) |
|  |  |  |  | BCS 430 | Business Applications of Artificial Intelligence (Prerequisite: BCS 220) |
|  |  |  |  | BCS 450 | Business Technology and Analytics Capstone Project (Prerequisites: BCS 220 and BCS 320) <br> Note: This course can only be taken as part of the last 30 credits |
|  |  |  |  | BMG 323 | Interpersonal skills (Prerequisite: BHR 221) |
|  |  |  |  | BMG 324 | Management of Innovation (Prerequisite: BHR 221) |
|  |  |  |  | BMG 335 | Global Value Chain Analysis (Prerequisite: BMG 215) |
|  |  |  |  | BMS 303 | Forecasting Techniques (Prerequisite: BMA 141) |
|  |  |  |  | CS 301 | Computer Ethics |
|  |  |  |  | SPO 212 | Applied Sport Analytics <br> (Prerequisite: SOC 211 or PSY 213 or BMA 140 or PHY 101) |

c. ENTREPRENEURSHIP MINOR

MINENT
For the Business student who wishes to complement advanced skills and competencies in one area of business with skills and competencies in the area of Entrepreneurship; or the Non-Business student in good University Academic Standing who wishes to add a portfolio of basic business skills and competencies in Entrepreneurship to a major in sciences, social sciences, or humanities.
$\mathbf{6}$ core credits +12 required credits $+\mathbf{6}$ optional credits $=\mathbf{2 4}$ credits (maximum of $\mathbf{6}$ cognate credits)

| Core - 6 credits |  | Required - 12 credits |  | Optional - 6 credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BMG 100 |  | BMG 214 | Introduction to <br> Entrepreneurship: <br> New Venture Creation | ANY BUSINESS COURSE |  |
| BMK 211 | Society <br> Marketing Management |  |  | MAT 196 | Finite Mathematics for Business Students |
|  |  | BMK 214 | Consumer Behavior <br> (Prerequisite: BMK 211) |  | (Prerequisite: MAT 190 or equivalent or permission of |
|  |  | BMK 291 | Entrepreneurship Practicum I <br> (Prerequisites: BMG 214, BMK 211 and BMK 214) | MAT 191 | instructor.) <br> Calculus I <br> (Prerequisite: MAT 196 or |
|  |  | BMK 392 | Entrepreneurship Practicum II (Prerequisite: BMK 291) |  | equivalent or permission of instructor) |

d. FINANCE MINOR

For the Business student who wishes to complement advanced skills and competencies in one area of business with skills and competencies in the area of Finance; or the Non-Business student in good University Academic Standing who wishes to add a portfolio of basic business skills and competencies in Finance to a major in sciences, social sciences, or humanities.

12 core credits +9 required credits +3 optional credits $=24$ credits (maximum of $\mathbf{6}$ cognate credits)

| Core - 12 credits |  | Required - 9 credits |  |
| :---: | :---: | :---: | :---: |
| BAC 121 | Introduction to Financial Accounting I | BAC 122 | Introduction to Financial Accounting II |
| BFN 200 | Introduction to Finance <br> (Prerequisites: BAC 121, <br> BMA 140 and ECO 103) | BFN 203 | (Prerequisite: BAC 121) <br> Corporate Finance <br> (Prerequisite: BFN 200) |
| BMA 140 | Statistical Analysis for Business <br> Decisions I <br> (Prerequisite: MAT 190) or equivalent approved by the Departmental Chair | BFN 210 | Capital Markets <br> (Prerequisite: BFN 200) |
| ECO 103 | Principles of Economics: Macroeconomics |  |  |


| Optiona | credits |
| :---: | :---: |
| MAT 196 | Finite Mathematics for Business Students (Prerequisite: MAT 190 or equivalent or permission of instructor.) |
| MAT 191 | Calculus I <br> (Prerequisite: MAT 196 or equivalent or permission of instructor) |
| BMA 141 | Statistical Analysis for Business <br> Decisions II <br> (Prerequisite: BMA 140) |
| BFN 301 | Capital Budgeting <br> (Prerequisites: BFN 203) |
| BFN 306 | Behavioral Finance <br> (Prerequisites: BFN 203 and BFN 210) |
| BFN 315 | Derivatives <br> (Prerequisite: BFN 203, <br> BFN 210 and MAT 197) |
| BFN 335 | Topics in Finance I <br> (Prerequisites: BFN 203 and BFN 210) |
| BFN 336 | Topics in Finance II <br> (Prerequisites: BFN 203 and BFN 210) |
| BFN 341 | Corporate Governance \& Sustainability <br> (Prerequisites: (BFN 203 and BFN 210) or $B F N$ 215) |
| BFN 352 | Investment analysis <br> (Prerequisites: BFN 203 and BFN 210) |
| BFN 353 | Financial Institutions <br> Management <br> (Prerequisites: BFN 203 and BFN 210) |
| BFN 356 | SEED Portfolio (6 credits) <br> (Prerequisite: Permission of instructor.) |
| BFN 361 | International Finance <br> (Prerequisite: BFN 200) |
| BMS 303 | Forecasting Techniques (Prerequisite: BMA 141) |
| EMA 261 | Econometrics I <br> (Prerequisites: ECO 102, ECO 103 and BMA 141) |
| EMA 361 | Econometrics II <br> (Prerequisites: EMA 261, <br> ECO 208 and ECO 212) |
| ECO 322 | Real Estate Economics (Prerequisite: ECO 102) |
| POL 346 | Politics of Global Finance |

e. HUMAN RESSOURCES MINOR

MINHRM
For the Business student who wishes to complement advanced skills and competencies in one area of business with skills and competencies in the area of Human Resources; or the Non-Business student in good University Academic Standing who wishes to add a portfolio of basic business skills and competencies in Human Resources to a major in sciences, social sciences, or humanities.

9 core credits +9 required credits +9 optional credits $=\mathbf{2 4}$ credits (maximum of $\mathbf{6}$ cognate credits)

| Core - 9 credits |  | Required-9 credits |  |
| :---: | :---: | :---: | :---: |
| BHR 221 | Organizational Behaviour (Prerequisite: BMG 100) | BHR 224 | Human Resource Management (Prerequisite: BHR 221) |
| BMA 140 | Statistical Analysis for Business Decisions I | BHR 315 | Training and Development (Prerequisite: BHR 224) |
|  | (Prerequisite: MAT 190) or equivalent approved by the Departmental Chair | BHR 333 | Employment Law <br> (Prerequisite: BHR 224) |
| BMG 100 | Understanding Business and Society |  |  |


| Optional | edits |
| :---: | :---: |
| MAT 196 | Finite Mathematics for Business Students <br> (Prerequisite: MAT 190 or equivalent or permission of instructor.) |
| BMA 141 | Statistical Analysis for Business <br> Decisions II <br> (Prerequisite: BMA 140) |
| BHR 312 | Labor Relations <br> (Prerequisite: BHR 224 or POL 214) |
| BHR 313 | Compensation Management (Prerequisite: BHR 224) |
| BHR 316 | Organizational Conflict and Negotiations <br> (Prerequisite: BHR 221) |
| BHR 325 | Topics in HR Management (Prerequisite: BHR 224) |
| BHR 326 | Personnel Recruitment and Selection <br> (Prerequisites: BHR 224 and (BMA 140 or PMA 60)) |
| BHR 328 | Occupational Health, Safety \& Wellness <br> (Prerequisite: BHR 221) |
| BHR 334 | Administrating the Collective Agreement <br> (Prerequisite: BHR 224 or POL 214) |
| BMG 322 | Change Management <br> (Prerequisite: BHR 221) <br> Note: It is recommended that students take this course in their last 30 credits. |
| BMG 323 | Interpersonal Skills <br> (Prerequisite: BHR 221) |
| BMG 325 | Leadership in a Multicultural World <br> (Prerequisite: BHR 221) |
| PSY 101 | Introduction to Psychology I: Basic Processes |
| PSY 102 | Introduction to Psychology II: Human Interactions |
| PSY 214 | Community Psychology (Prerequisites: PSY 101 and PSY 102) |
| SOC 100 | Sociological Imagination |
| SOC 129 | Sex \& Gender |
| SOC 298 | Social Problems |

f. INTERNATIONAL BUSINESS MINOR

MINBIN
For the Business student who wishes to complement advanced skills and competencies in one area of business with skills and competencies in the area of International Business; or the Non-Business student in good University Academic Standing who wishes to add a portfolio of basic business skills and competencies in International Business to a major in sciences, social sciences, or humanities.

12 core credits +9 required credits +3 optional credits $=24$ credits (maximum of $\mathbf{6}$ cognate credits)

| Core - 12 credits |  | Required - 9 credits |  | Optional - 3 credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BMA 140 | Statistical Analysis for Business Decisions I <br> (Prerequisite: MAT 190) or equivalent approved by the Departmental Chair | BMG 315 BMG 345 | International Management (Prerequisite: BMG 215) <br> International Marketing and Export Management <br> (Prerequisite: BMG 215) | MAT 196 | Finite Mathematics for Business Students (Prerequisite: MAT 190 or equivalent or permission of instructor.) |
| BMG 100 BMG 215 | Understanding Business and Society <br> Introduction to International Business | BMG 355 | International Entrepreneurship (Prerequisite: BMG 215) | MAT 191 | Calculus I <br> (Prerequisite: MAT 196 or equivalent or permission of instructor) |
| BMK 211 | (Prerequisites: BMG 100 and BMK 211) <br> Marketing Management |  |  | BMA 141 | Statistical Analysis for Business Decisions II <br> (Prerequisite: BMA 140) |
|  |  |  |  | BFN 361 | International Finance (Prerequisite: BFN 200) |
|  |  |  |  | BMG 325 | Leadership in a Multicultural World (Prerequisite: BHR 221) |
|  |  |  |  | BMG 335 | Global Value Chain Analysis (Prerequisite: BMG 215) |
|  |  |  |  | BMS 303 | Forecasting Techniques (Prerequisite: BMA 141) |
|  |  |  |  | ECO 102 | Principles of Economics: Microeconomics |
|  |  |  |  | ECO 103 | Principles of Economics: Macroeconomics |
|  |  |  |  | ECO 217 | International Economics <br> (Prerequisites: ECO 102 and ECO 103) |
|  |  |  |  | ECO 225 | Economic Development II: Macroeconomics and Policy Issues <br> (Prerequisites: ECO 102 and ECO 103) |
|  |  |  |  | GER 100 | Introductory German Language I-II: Intensive Course |
|  |  |  |  | GER 101 | Introductory German Language I |
|  |  |  |  | CHI 101 | Introduction to Modern Chinese I |
|  |  |  |  | CHI 102 | Introduction to Modern Chinese II |
|  |  |  |  | JSE 100 | Introduction to Japanese Language I-II Intensive Course |
|  |  |  |  | JSE 101 | Introduction to Japanese Language I |
|  |  |  |  | POL 140 | Introduction to International Relations |
|  |  |  |  | POL 346 | Politics of Global Finance |
|  |  |  |  | SOC 296 | Globalization and Culture |
|  |  |  |  | SPA 101 | Spanish Language I |

g. MARKETING MINOR

MINMKT
For the Business student who wishes to complement advanced skills and competencies in one area of business with skills and competencies in the area of Marketing; or the Non-Business student in good University Academic Standing who wishes to add a portfolio of basic business skills and competencies in Marketing to a major in sciences, social sciences, or humanities.

6 core credits +9 required credits +9 optional credits $=24$ credits (maximum of 6 cognate credits)

| Core $\mathbf{- 6}$ credits |  |
| :--- | :--- |
| BMA 140 | Statistical Analysis for <br> Business Decisions I <br> (Prerequisite: MAT 190) or <br> equivalent approved by the <br> Departmental Chair |

BMK 211 Marketing Management

| Optional -9 credits |  |
| :--- | :--- |
| MAT 196 | Finite Mathematics for <br> Business Students <br> (Prerequisite: MAT 190 or <br> equivalete or permission of <br> instructor.) |
| MAT 191Calculus I <br> (Prerequisite: MAT 196 or <br> equivalent or permission of <br> instructor) |  |
| BMA 141Statistical Analysis for <br> Business Decisions II <br> (Prerequisite: BMA 140) <br> Business Intelligence and <br> Data Analytics <br> (Prerequisite: BMA 140 or SOC <br> 211 or PSY 213 or PHY 101) |  |

BMG 323 Interpersonal skills
(Prerequisite: BHR 221)
BMG 345 International Marketing
(Prerequisite: BMG 215)
BMK 291 Entrepreneurship Practicum I
(Prerequisites: BMG 214,
BMK 211 and BMK 214)
BMK 321 Marketing Research
(Prerequisites: BMK 214 and BMA 141)
BMK 323 Marketing Communication (Prerequisite: BMK 214)
BMK 354 Digital Marketing
(Prerequisites: BMK 211 and BMK 214)
BMK 340 Product Strategy and Innovation
(Prerequisite: BMK 214)
BMK 350 Marketing Strategies for Environment Sustainability (Prerequisite: BMK 214)
BMK 355 Happiness Marketing (Prerequisite: BMK 214)

BMK 362 Sports Marketing
(Prerequisite: BMK 211)
BMK 371 Industrial Marketing Strategy
(Prerequisite: BMK 214)
BMK 392 Entrepreneurship Practicum II
(Prerequisite: BMK 291)

## 4) Co-operative Education Program <br> (Application required)

The Co-operative Education Program combines a student's academic program with integrated paid work experiences through fulltime work terms and regular academic sessions. The work terms are designed to present the students with the opportunity to blend theory and practice and to gain relevant work experience.

Each co-operative work term is between 12 and 16 weeks in length and the student will be registered in a 3 -credit Co-operative Placement course (BMG 391, BMG 392 and BMG 393). All work terms must be completed before the student's final academic semester. While every effort will be made to find a suitable placement for all students in the program, no guarantee of placement can be made since the employment process is competitive and subject to market conditions.

## Co-operative Education Program Courses:

3 or 4 courses
The following courses are required for this program:
BMG 191: Fundamentals of Workplace Preparation and Professional Development (1 credit)*
BMG 391: Co-operative Education Placement I (3 credits)
BMG 392: Co-operative Education Placement II (3 credits) BMG 393: Co-operative Education Placement III ( 3 credits)**
*This course must be successfully completed before doing the first work placement and is not included in the calculation of the cumulative average, nor the total credits required for graduation.
** Students who were advanced at least 30 credits can complete 2 or 3 work placements at their discretion to graduate with the Co-operative Education Program. Students who were advanced less than 30 credits are required to complete this third work placement.
All courses will be considered electives and will count towards the 120-credit program, except for BMG 191.

## Admission to the Co-operative Education Program

Students must submit an application to be admitted to the program. Full-time students in the Honours B.B.A., B.B.A. or B.A. Business Major programs who have completed the entire application, who have successfully completed BMG 191 and who have a minimum cumulative average of $70 \%$ upon application are eligible for admission to the Co-operative Education Program. Students receiving advanced credits will be evaluated on a case-by-case basis; however, students who receive advanced credits in excess of 54 credits will not be eligible for the Co-operative Education Program. Students who are in their first year of studies will be given admission priority. All other students will be evaluated on a case-by-case basis.

A student is then required to maintain a minimum cumulative average of $70 \%$ and its full-time status in order to be eligible to remain in the Co-operative Education Program and to participate in any of the program's activities. Please consult the Co-operative Education section on the Bishop's University website for important dates, deadlines and updates at www.ubishops.ca/coop.

## Work Term Registration

Once a student has signed the Co-operative Education Agreement, the student may not drop the course associated with work placement, except for exceptional circumstances. A student who decides to do so will not be able to stay in the Co-operative Education Program.

## Evaluation

Each Co-operative Education course is graded on a pass/fail basis and this grade is not included in the student's cumulative average. The evaluation is the responsibility of the Department Chair. Successful completion of the work term is based upon the receipt of a satisfactory job performance report from the employer and a satisfactory work term report and self-evaluation submitted by the student.

The job performance report will be completed by the employer, using guidelines supplied by the Williams School of Business. It is the student's responsibility to ensure that the employer sends the completed evaluation to the Co-op Advisor supervising the placement. Employer evaluations are confidential and are not reported on the student's transcript.

The work term report covers the comprehensive analysis of competencies acquired during the work placement. An outline of relevant competencies will be provided to students.

Normal academic regulations apply to the conduct and evaluation of the courses.

## 5) Honours B.B.A.

## (120 credits)

BBH + Concentration
Any students wishing to complete a Honours program should consult with the Academic Advisor or the Departmental Chair.

To qualify for an Honours B.B.A. degree, a candidate must:

1. apply for entrance into the honours program in the term prior to their last 30 credits in the program, and have, at that time, a cumulative average of $75 \%$ in all courses taken in their program.
2. complete their regular B.B.A. Program
3. obtain a cumulative average of $75 \%$ upon graduation
4. complete BMG352 (Honours Project) with a minimum grade of $75 \%-6$ credits
Honours credits are considered Business elective courses.

## 6) Certificate in Business Administration

( 30 credits)
CONBUS
This certificate may be completed on a full-time or a part-time basis.

## Description and objectives:

The Certificate in Business Administration provides an academic background in Business Administration to students who are pursuing or wishing to pursue a career in management in the private or public sectors. The Certificate program presents a broad survey of underlying disciplines and an introduction to the functional areas in Business Administration, both theoretical and practical.
Admission requirements: (See Regulations governing Certificate programs).

The Certificate in Business Administration requires the completion of the following courses:
BAC 121 Introduction to Financial Accounting I
BMG 100 Understanding Business and Society
BMA 140 Statistical Analysis for Business Decisions I
(requires MAT 190)

BFN 200 Introduction to Finance
(requires BAC 121, BMA 140 and ECO 103)
BMK 211 Marketing Management
ECO 103 Principles of Economics: Macroeconomics
Plus 12 credits of Business electives

## 7) Joint Programs

1. B.A. Major in Arts Administration - see the Division of Humanities section of the calendar for program requirements. The 75-credit interdisciplinary program combines the study of business, the creative arts, public culture and arts administration to provide students with the skills and knowledge needed to participate in the business and organizational areas of the cultural sector..
2. B.A. Major in Information Technology - see the Computer Science section of the calendar for program requirements. This program provides the necessary skills and knowledge to work/design/participate within organizations that manage large amounts of data and provide services to a large number of users.
3. B.A. Major in Sports Studies - see the Sports Studies section of the calendar for program requirements.
This program exposes students to the social, biological, political, business and economic aspects of sport in society.

## Regulations Applying to All Business Programs

## 1. Exemptions

Students who have been granted exemptions for any course must replace them with any elective courses (Business or NonBusiness), if required by their program.

Students are advised to consult with the Academic Advisor or Department Chair prior to course selection.

## 2. Double counting policy

A maximum of 9 credits ( 3 courses) can be double counted towards multiple WSB Honours, Concentrations, Majors and Minors programs, including joint programs. Should there be more than 3 courses that overlap between programs, these courses will need to be replaced with other courses offered in the same program. In the case of a Major/Concentration and a Minor where there are more than 3 courses that overlap, the additional courses ( $4^{\text {th }}, 5^{\text {th }}$, etc.) will need to be replaced with other courses offered in the Minor program.

## 3. Double Failure Rule

Any student who twice receives a failing grade in a course offered by the Business Department or in ECO 102, ECO 103, MAT 190, MAT 196 or MAT 191 will not be permitted to repeat the course again. If this is a required course to graduate with any business programs, the student will not be eligible to graduate with that program. This regulation also applies to students in non-business programs where a business course is required to complete their degree. Receiving twice a failing grade in a course precludes a student from later receiving transfer credits for this course.

## 4. Transfers

## a. Between Business programs

Students in the B.B.A. or B.A. Major Business can transfer between the two programs at any time upon request.

## b. From other Bishop's programs

To be eligible to transfer into either the B.B.A. or B.A. Major Business from a non-business program, a student must have successfully completed at least 24 credits at Bishop's and have achieved a minimum cumulative average of $75 \%$ based on all courses attempted. Students may also be required to meet with the Dean of Business for an interview. The number of student transfers is determined based on final enrolment figures and the quota for the School's maximum enrolment. Deadline to apply is May 31 for the Fall semester and October 1 for the Winter semester. This regulation also applies to part-time general interest students.
To be considered for entry into any of the Business minors, students must be in good University Academic Standing.

## 5. WSB Academic Standing

Notwithstanding the University regulations on Academic Standing, the Williams School of Business has its own regulations on maintenance of good standing. Students with a cumulative average of $60 \%$ or more are in good standing in the B.B.A. and B.A. Major Business.

After 24 credits attempted, students with a cumulative average less than $50 \%$ must withdraw from their program. Those with a cumulative average between $50 \%$ and $59 \%$ will be permitted to remain in the Williams School of Business for one semester in which they must improve their cumulative average to at least $60 \%$. Students who do not achieve good standing will not be eligible to continue in the B.B.A. or B.A. Major Business programs at Bishop's University, nor will they be eligible to later transfer back into these programs.

Students who fail to maintain the WSB Academic Standing in Business will be required to make a choice of an alternate degree program by the end of two consecutive semesters following their dismissal from the Business program. Should they fail to do so, or fail to be accepted into an alternate program, they will not be permitted to register as a full-time student in the next semester.

Students in the Certificate in Business Administration must meet the Academic Standing criteria for part-time students as outlined in the Academic Calendar and must also fulfill the requirements for maintaining the WSB Academic Standing.

## 6. Graduation "With Distinction"

The notation "with Distinction" will appear on the transcript of students who graduate with a cumulative average of $80 \%$ or more and is only available for first degree students.

## 7. Additional Graduation Requirement (B.B.A. and B.A. Major Business)

A student must have a minimum cumulative average of $60 \%$ in all courses taken in order to graduate with a B.B.A. or B.A. Major Business. Calculation of this average will employ the same methodology as in the "WSB Academic Standing" section.

## 8. International Student Exchanges

Students need a minimum cumulative average of $70 \%$ to qualify to apply to go on exchange and must maintain a minimum cumulative average of $70 \%$ in the semester prior to leaving on exchange to remain eligible to go on exchange. Students are invited to consult with the WSB Academic Advisor and obtain the Departmental Chair Approval prior to registering for any course outside of the

Williams School of Business. Students should also consult with the International Exchange Office for more important academic information concerning exchanges and course equivalencies approval.

## BUSINESS COURSES

BAC 121 Introduction to Financial Accounting I 3-3-0
The study of accounting and its role in the analysis and communication of financial events. The information provided by accounting, particularly through the financial statements, and issues associated with existing accounting processes will be explored.
BAC 122 Introduction to Financial Accounting II
3-3-0
An examination of the measuring, recording and reporting of financial information with reference to specific items in the financial statements.
Prerequisite: BAC 121
BAC 211 Intermediate Financial Accounting I 3-3-0
Further development of accounting principles. Particular emphasis is placed on an in-depth evaluation of financial statement presentations in Canada.
Prerequisite: BAC 122
BAC 212 Intermediate Financial Accounting II
3-3-0
An in-depth consideration of specific accounting topics (e.g. accounting for income taxes, partnership accounting, current value accounting). Current practices and the relevant CICA recommendations will be reviewed in terms of theoretical concepts and principles.
Prerequisite: BAC 211
BAC 221 Introduction to Management Accounting
3-3-0
This course is an introduction to the tools of accounting information for management decision making. Topics include comparison of financial and managerial accountants, job order costing, process costing, cost behaviour, cost-volume relationships, activity based costing, budgeting, standard costs and reporting for control.
Prerequisite: BAC 121
BAC 311 Advanced Financial Accounting 3-3-0
A study of accounting theory and application related to the following topics business combinations, long-term intercorporate investments, branch accounting, non-profit accounting, and foreign exchange. Emphasis is on accounting principles currently accepted in Canada.
Prerequisite: BAC 212
BAC 312 Intermediate Managerial Accounting 3-3-0
This is the second course in managerial accounting which covers new topics such as balanced scorecards, limitations of reporting for control, non-financial measurements and outsourcing. Furthermore, application of the various techniques learned in BAC221 will be applied.
Prerequisites: BAC 211 and BAC 221

## BAC 322 Management Control

3-3-0
Written and oral analysis of management control problems. Topics include decision models, performance evaluation and decentralization. This course also applies theories from other accounting courses into practice via case analysis.
Prerequisite: BAC 312
BAC 331 Taxation I
3-3-0
Introduction to income tax law in Canada with primary emphasis on the determination of the tax liability of individuals in receipt of various sources of income. Topics include Residence, Tax Status, Capital Cost Allowances, Capital Gains, Property Income and Tax Credits. Issues such as the equity fairness and complexity of the tax system, tax evasion and tax planning are considered.
Prerequisite: BAC 122

## BAC 332 Taxation II

3-3-0
This course builds upon the principles and concepts of Canadian Income Tax introduced in BAC 331. In particular, it examines the application of income tax law as it applies to Corporations. Attention is given to effective income tax planning for shareholder - manager remuneration, estates and for capital gains deferrals. Prerequisite: BAC 331

BAC 340 Auditing: Systems and Control
3-3-0
All organizations require reliable and secure information systems in order to successfully conduct their day-to-day operations. For many businesses, sophisticated accounting information systems are in place and internal control is crucial in the process of producing reliable financial information. In the context of the information age, this course examines corporate responsibility as well as the function of computerized systems. Topics such as accounting systems development, implementation of controls, fraud detection and E-commerce security will be explored.
Prerequisite: BAC 122
BAC 341 Auditing: The Process
3-3-0
The concept of internal control and fundamentals of auditing. Topics include: legal and moral responsibilities of the auditor; controls required in principal accounting systems; selection of appropriate audit techniques; and preparation of audit reports. Prerequisite: BAC 212 and BAC 340
BCS 210 Technology Entrepreneurship
3-3-0
This course is designed for students interested in learning about the fundamental issues related to starting and managing technology-based new ventures. The course encourages students to consider how technology-based solutions can solve economic and socially oriented problems. Students will particularly learn how disruptive technology displaces existing markets. Topics include: Startup business models, business plans, funding, and risk assessment and management.
Prerequisite: BCS 220
BCS 212 E-Business Technology and Management 3-3-0
This course helps students build the knowledge and skills needed to face today's electronic business challenges, opportunities, and issues. Electronic Business Technologies focuses on the integration of information technologies with business processes and strategies within a dynamic legal and business environment. At the base of Electronic Business is the fact that the application of Internet and information technology to business processes leads to remarkable new ways of conceiving and organizing businesses. This in turn leads to a myriad of innovative modes of management, new organizational structures and information architectures as well as new laws and legal and corporate strategies. Topics include: business process reengineering, pure and partial electronic commerce, online retail, online consumer behavior, online marketing and advertisement, online business models and revenue models, B2B supply chain reengineering, online payment and security, and ecommerce systems implementations.

## Prerequisite: BMK 211

BCS 216 Business Information Technology Strategy
3-3-0
Organizations must understand and operate effectively within their technologybusiness value chains in order to maximize profitability. Developing and executing an effective Information Technology strategy that enables business strategy is critical for creating business value and gaining competitive advantage. This Course presents a framework and methodology for assessing, developing and implementing an effective IT strategy that is aligned with business needs. Topics include: IT-business alignment, IT strategy, IT planning, IT value and benefits, IT Governance, IT success measurement, data and information management, managing IT Outsourcing, and the role of the CIO.
Prerequisite: BCS 220
BCS 220 Management of Information Systems
3-3-0
This course covers the management perspective of Information Systems. An IS Department or IS unit manages data and information which are among the most valuable organizational resources in today's modern businesses. The MIS includes the setting of a direction for information resources, the management of technology resources and the management of the information systems function. A variety of different types of IS will be covered. The list includes Enterprise Resource Planning Systems, Knowledge Management Systems, and Electronic Systems. Prerequisite: BMG 100
BCS 313 Information Technology Project Management 3-3-0
Modern organizations are critically dependent on information technology. It is difficult to find any organizational unit, process, or task that does not rely on some sort of information system. This course covers information systems development from the business perspective. The course educates students in fundamentals of systems analysis and design. The analysis part aims at understanding organizational processes and their informational aspects in order to define possibilities of improving process efficiency and effectiveness. The design part of is focused on creating solutions for the improvement of processes and supporting Information systems.
Prerequisite: BCS 220

BCS 320 Business Intelligence and Data Analytics 3-3-0
Organizations increasingly rely on data and sophisticated analytical tools to make effective and strategic decisions. This course focuses on enabling students to learn skills to access, prepare, analyze and visualize data to support decision-making and business problem-solving. Students will learn how to implement a variety of data analytic techniques using modern business intelligence tools. At the end of the course, students will be able to identify and structure complex business problems that can be addressed through data analysis, data mining, data visualization, and text mining.
Prerequisites: (BMA 140 or ESG 261 or PMA 260 or SOC 211) and BCS220
BCS 340 - Privacy, Ethics, and Communication in Data Science 3-3-0
This course engages with three main challenges in the modern practice of data science: data privacy, ethics, and communication. The course is designed to build students' ethical skills for collecting, storing, sharing and analyzing data derived from various subjects. This course provides historical background to understand the tenets of informed consent, discrimination, and privacy. Using case study, students will explore current applications of algorithmic transparency and unintended automation of discrimination via data that contains biases rooted in race, gender, class, and other characteristics. Finally, students will learn how to communicate data analytics outputs using storytelling and storyboarding.

## Prerequisite: BCS 220

BCS 420 Data Mining for Business Analytics $\quad$ 3-3-0
This course will teach practical analytics methods and use various tool to provide hands on experience on data mining techniques. The focus of the course is on the application of the tools and techniques rather than learning the theory and math behind the models. This course builds upon concepts seen in BCS320 and covers these tools and techniques in much more depth. Students will be exposed to real world datasets and examples to get hands-experience with making business decisions using predictive and prescriptive analytics.
Prerequisites: BCS 220 and BCS 320
BCS 422 Integrated Enterprise Systems and Business Processes 3-3-0 Enterprise Resource Planning (ERP) systems are excessively important applications for organizations since they manage the exchange of information between the main business units of companies and support the integration of business processes that connect these same units. The aim of this course is to introduce students to ERP systems, more precisely, their use and configuration. The course will allow students to use SAP system by simulating real business contexts and entering data into the SAP system. The course will also develop skills in solving problems related to the use and configuration of ERP, as well as to become familiar with the main issues related to the use and implementation of ERP in companies.
Prerequisite: BCS 220
Note: Students having completed BUS 302 in Winter 2021 are not allowed to take BCS 422 for credits
BCS 424 Supply Chain Analytics 3-3-0
Supply chains are complex systems involving multiple businesses and organizations with different goals and objectives. Many different analytical methods and techniques are used by researchers and practitioners alike to better design and manage their supply chains. This course introduces the primary methods and tools that you will encounter in your study and practice of supply chains. We focus on the application of these methods, not necessarily the theoretical underpinnings.
We will begin with an overview of introductory probability, decision analysis, and regression to ensure that students understand how uncertainty can be modeled. Next, we will introduce optimization modeling from heuristics to linear, nonlinear, and mixed integer linear programming. This is a hands-on course. Students will use spreadsheets extensively to apply these techniques and approaches in case studies drawn from actual supply chains
(Prerequisites: BMA 141 and BMS 231)

BCS 430 Business Applications of Artificial Intelligence
3-3-0
Artificial Intelligence (AI) is quickly becoming ubiquitous. The availability of big data and tremendous computing power have expedited the adoption of machine learning applications to build intelligent systems that can learn from data. This course will expose students to the history of AI and show how intelligent machines will dominate across all sectors. Students will also be exposed to different AI business applications and learn how to leverage these applications to enhance decision-making, customers experience and organization's profitability. The course will be very practical and leverage real world problems from an applied perspective. Through practical case studies, students will learn what strategic questions to ask and how to formulate proposals when evaluating opportunities to embed machine learning processes and artificial intelligence technology into a corporate strategy. Students will work on a project to help them apply the concepts they have learned to a specific industry and/or company.
Prerequisite: BCS 220
BCS $450 \quad$ Business Technology and Analytics Capstone Project 3-3-0 Draw on all of the skills learned throughout the BTA courses this course will allow students to apply conceptual and technical knowledge in analyzing, planning, and designing an information system or work on a data analytics project. In teams, students will work on a group project that will culminate with a presentation of this final project. Restricted to eligible students in their final semester in the BTA major.
Prerequisites: BCS 220 and BCS 320
Note: This course can only be taken as part of the last 30 credits
BFN 100 Basic Finance
3-3-0
Income, inflation, interest rates, foreign exchange rates, prices of commodities, recessions, etc. are factors affecting businesses performance. Understanding the economic environment as well as the drivers of the different sectors of the Canadian economy and how these are impacting financial statements of businesses is the main focus of this course.
Prerequisites: BAC 121, ECO 103 and MAT 196
Note: Students having completed BFN 200 are not allowed to take BFN 100 for credits
BFN 200 Introduction to Finance 3-3-0
This course introduces the study of finance in the context of modern business decision-making. The central focus of the course is the valuation of real and financial assets and the tools used for that purpose. Students will become familiar with such concepts as time value, discount rate, and net present value. These concepts will be presented with the help of real-life examples and cases that will illustrate the many ways in which finance can solve business problems.
Prerequisite: BAC 121, BMA 140 and ECO 103
Note: Students having completed BFN 200 are not allowed to take BFN 100 for credits.
BFN 203
Corporate Finance
3-3-0
This course represents an introduction to corporate finance. It focuses on the determinants of financial policy at the microeconomic level. The students will become familiar with the issues and challenges faced by a financial manager. Emphasis will be placed on financial planning and corporate growth, capital structure, and dividend policy decisions.
Prerequisite: BFN 200
BFN $210 \quad$ Capital Markets
3-3-0
This course is focused on the concept of risk, one the most fundamental concepts in finance. The course examines the North American capital market, global capital markets, and fundamental quantitative models. Topics covered include, but are not limited to, the basics of portfolio theory, asset pricing theory, efficient market theory, the study of specific asset classes (stocks, bonds, and derivatives), and the yield curve.
Prerequisite: BFN 200

## BFN 215 Small Business Finance <br> 3-3-0

Small business owners or entrepreneurs need to know how to (a) read basic financial statements; (b) understand product costing, initial profit-and-loss development and break-even analysis; (c) manage cash flow; and (d) understand various revenue models. This course will use Excel spreadsheets to develop practical financial projections that are immediately relevant to business operations.
Prerequisite: BFN 100 or BFN 200

BFN 301
Capital Budgeting
3-3-0
This course describes how managers are making long-term investment decisions involving capital assets, such as plant, equipment, machinery, research and development, etc. The main topics include, but are not limited to net present value, internal rate of return, cost of capital, adjusted present value, real options, mergers and acquisitions, and many others. Special emphasis is placed on tackling complex case studies that require an integrative approach to understanding various corporate finance issues.
Prerequisites: BFN 203
BFN 306 Behavioural Finance 3-3-0
This course brings together knowledge from the area of modern finance and cognitive sciences into one unified framework. Students will learn about cognitive biases and how individuals make financial decisions, the role of emotions and heuristics in dealing with complex critical systems, and how individual behaviour aggregates into corporate financial strategies and broad stock market movements. Prerequisites: BFN 203 and BFN 210

## BFN $315 \quad$ Financial Derivatives

3-3-0
Futures and options markets have become increasingly important in the world of finance and investments. It is essential that all professionals understand how these markets work, and how derivatives are valued. This course will study the derivatives markets, assess their characteristics, and describe how they are used by hedgers, speculators and arbitrageurs.
Prerequisites: BFN 203, BFN 210 and MAT 197
BFN 335
Topics in Finance I
3-3-0
This is an advanced course in Finance covering special topics including, but not limited to, case studies in corporate finance and investments, complexity and networks, trading strategies, derivatives and hedging, foreign exchange risk management, international capital budgeting, risk management in financial institutions, and any other topic that might reflect current research interest of faculty members. This course should be of particular interest to those students expecting to pursue a career in the investment industry and/or graduate studies in Finance.
Prerequisites: BFN 203 and BFN 210
BFN 336 Topics in Finance II
3-3-0
This course is expanding on some themes already covered in other Finance courses, or adding new subjects including, but not limited to corporate finance and investments, complexity and networks, trading strategies, derivatives and hedging, foreign exchange risk management, international capital budgeting, risk management in financial institutions, and any other topic that might reflect current research interest of faculty members. The course will be delivered through regular class lectures, individual case studies, or group projects.
Prerequisites: BFN 203 and BFN 210

## BFN 341 Corporate Governance and Sustainability <br> 3-3-0

Corporate Governance offers insights into the relationship between economic efficiency and economic organization. The main issues addressed in this course include the comparative analysis of free markets and hierarchies, the nature and allocation of financial claims, the organization and functioning of various corporations around the world, and the connection between ethics and economic performance.
Prerequisites: (BFN 203 and BFN 210) or BFN 215
BFN 352 Investment Analysis
3-3-0
Introduction to the various security instruments and intermediaries and the structure and functioning of the markets within which they are cast. Conventional techniques for evaluating securities, including technical analysis.
Prerequisites: BFN 203 and BFN 210

## BFN 353 Financial Institutions Management 3-3-0

This course provides students with an integrating framework for examining various types of financial institutions and the means of managing their operations. Topics include uniqueness of financial institutions; application of portfolio and corporate finance theories to the management of assets, liabilities, capital structure and offbalance sheet operations; interest rate and liquidity risk exposure; loan portfolio management, loan pricing and credit rationing; capital adequacy and regulatory environment. The strategic repercussions for such institutions, given the rapidly changing financial and regulatory environments, are also reviewed through the analysis of cases illustrating current issues.
Prerequisites: BFN 203 and BFN 210

BFN 356
SEED Portfolio
6-3-0
The SEED course has been designed with the objective of providing finance students with the means to practically apply their knowledge. The course gives students the opportunity to act as investment managers, in order to gain a more comprehensive understanding of portfolio management. This will be accomplished by having students invest in recognized North American equities, after prudent research and consulting with an external advisory board.
Students will apply to the program upon entering their penultimate year. After an application process which includes resumes and interviews, students will be selected as Research Assistants. Research Assistants have to complete two company analyses, which they will present to their External Board. As well, they have to answer any requests their Portfolio Managers may have. Upon completion of a year as Research Assistants, students will move into the position of Portfolio Managers, conditional upon the approval of the Faculty Advisor. Portfolio Managers are in charge of setting up the strategy for the portfolio. They are responsible for all buy/sell/hold decisions. Emphasis will be on the importance of analysis and presentation, in order to reach consensus among Portfolio Managers, and on the use of appropriate decision making tools.
Prerequisite: Permission of instructor:
BFN 361 International Finance 3-3-0
This course provides a broad overview of the major aspects of finance in an international setting. The focus will be on measuring and coping with foreign exchange risk from the managerial perspective of multinational corporations. The main topics of this course include the examination of spot, forward and futures markets, the use of derivative contracts, international financial markets, international financing, capital budgeting, direct foreign investment and international mergers and acquisitions.
Prerequisite: BFN 200
BHR 221 Organizational Behaviour
3-3-0
This course is designed as an introduction to the study of individual and group behaviour in organizations. The purpose is to enable students to understand human behaviour and its determinants in the organizational setting and, therefore, to deal with it effectively. Throughout the course emphasis will be placed on students' conceptualization of the theoretical aspects of organizational behaviour, as well as the practical application of these theories through case analyses.
Prerequisite: BMG 100
Note: Students who complete BHR 221 cannot receive credit for PSY 309. For prerequisite purposes PSY 309 is equivalent to BHR 221.
BHR 224 Human Resource Management
Management of people is a recognized competitive corporate advantage. This course is designed to introduce the current theory, research and practice of human resource management. Specialized topics central to human resource management are introduced. Learning is facilitated through lecture, student presentations, and class discussions.
Prerequisite: BHR 221
BHR 312 Labour Relations
3-3-0
Through an integration of theory and practice, the objective of this course is for students to be able to understand and manage Canadian labour relations. Using a broad interdisciplinary context, this course surveys the major aspects of the unionmanagement relationship with a focus on the following: the establishment of union bargaining rights; the negotiation process; the administration of the collective agreement; and, the role of strikes and lockouts. Other topics include the changing nature of employment and the impact of globalization; minimum conditions of work; and the uniqueness of the public sector. When appropriate, reference will be made to other NAFTA and EU jurisdictions.
Prerequisite: BHR 224 or POL 214
BHR 313 Compensation Management
3-3-0
This course provides students with an understanding of the strategic role of organizational compensation management in today's competitive environment. Students will explore the theory, concepts and methods used to design compensation systems which will contribute to individual and organizational goal achievement. Current and controversial topics in the field of Compensation Management will also be discussed.
Prerequisite: BHR 224

## BHR 315 Training and Development

3-3-0
The course introduces students to the practice of training and developing employees. Both practical and theoretical aspects are explored. The entire process of training is explained, from the determination of training needs, setting training objectives, designing the training programs, selecting the appropriate training and development techniques, to the evaluation of training results. Both traditional and contemporary training methods are reviewed within this framework.
Prerequisite: BHR 224

## BHR 316 Organizational Conflict and Negotiation <br> 3-3-0

This course introduces students to the structure and processes of conflict and negotiations faced by organizations. Both formal and informal conflict and negotiation practices at the interpersonal, intra group and inter group levels are examined from theoretical and practical perspectives. Particular emphasis is placed on understanding and dealing with conflict from a "conflict management" viewpoint wherein conflict is viewed as having the potential for positive and negative individual/organizational consequences. A significant portion of the course is devoted to the development of conflict management and negotiation skills.
Prerequisite: BHR 221
BHR 325 Topics in Human Resource Management
3-3-0
The course will present selected topics of current interest at an advanced undergraduate level. Topics covered may vary from year to year. Subject matter may reflect current research interests of faculty members. This course should be of particular interest to those expecting to pursue graduate studies in Human Resource Management and related fields.
Prerequisite: BHR 224

## BHR 326 Personnel Recruitment and Selection

3-3-0
This course introduces students to the theory and practices of personnel recruitment and selection. In addition to critically reviewing the various recruitment and selection strategies used by organizations, students will be exposed to the technical and theoretical underpinnings of the field (e.g., Validity; Reliability; Criteria Measures). The course will cover selection and recruitment issues as they relate to the Canadian legal framework.
Prerequisites: BHR 224 and (BMA 140 or PMA 260)
BHR 328 Occupational Health, Safety, and Wellness 3-3-0
This course is designed to provide students with an introduction to the management of health and safety in the workplace. The course first examines the legislative context, and the hard and soft cost implications of effective health and safety programs. In this context, best practices in terms of occupational hygiene, safety, ergonomics, and workplace wellness are explored. Related topics such as accident investigation, workplace safety and insurance, and occupational disability management are also discussed.
Prerequisite: BHR 221
BHR 333 Employment Law 3-3-0
This course is designed to provide students with an understanding of the key statutes, case law, and adjudicative processes in employment law. Whereas students will be introduced to the theory of public law and administrative tribunals, emphasis will be placed on the practical implications of the legal rights and obligations of the workplace parties. An emphasis is placed on the contract of employment and the duty to accommodate. Other topics include the law of the following: human rights; employment standards; occupational health and safety; workplace accident insurance; pay equity; and, employment equity.
Prerequisite: BHR 224
BHR 334 Administering the Collective Agreement
3-3-0
The collective agreement constitutes the negotiated terms and conditions of employment between management and the union. Through an integration of theory and practice, students gain an understanding of the major substantive and procedural issues in administering a collective agreement. An emphasis is placed on dispute resolution from the initial stages of a grievance through to labour arbitration.
Prerequisite: BHR 224 or POL 214
BMA 140 Statistical Analysis for Business Decisions I 3-3-0
This course provides an overview of fundamental statistical and mathematical concepts needed to perform statistical data analysis to support business decisionmaking such as probability, random variables, descriptive statistics, and common probability distributions.
Prerequisite: MAT 190
This course is not open to students with credit for EMA 140.
BMA 141 Statistical Analysis for Business Decisions II
3-3-0
This course provides an overview of advanced statistical and mathematical concepts needed to perform statistical data analysis to support business decisionmaking and projections such as sampling methods and sampling distributions; statistical inference; estimation and hypothesis testing; simple linear regression and correlation; multiple linear regression; chi-square tests for independence and goodness-of-fit; introduction to analysis of variance.
Prerequisites: BMA 140
This course is not open to students with credit for EMA 141.

BMA 210 Introduction to Actuarial Science
3-3-0
This course introduces students to some key areas of actuarial science, exploring the design of social security plans, pension plans and group insurance. Some fundamental actuarial techniques are also described (but without going into the more complex mathematical aspects): reserve calculation and premium rate calculation. An overview of actuarial practice areas and employers completes the content of this course.
BMG 100 Understanding Business and Society 3-3-0
With the onset of Globalization, the rapidly improving economic conditions have led to many inequities and issues rising to the forefront. Income inequality, environmental protection and regulations, cultural extinction are just some of the many issues that are impacting all stakeholders. As businesses, governments and workers attempt to balance growth and increases in productivity to improve standards of living with social and economic costs, understanding multiple viewpoints will be critical to ensuring the future of this planet. In this class, you will be drawn into these debates and explore the underlying perspectives related to theories of society and human nature and in their value presuppositions.
Corequisite for Business students only: The 1-credit lab ILT 100 is to be taken concurrently with BMG 100 unless advanced credits have been received for it.
BMG 191 Fundamentals of Workplace Preparation and Professional Development

1-0-1
This course introduces students to notions of professional development in order to successfully transition into the workplace. Topics include job search and networking techniques, personal branding and self-awareness, cover letter and resume preparation, interviewing skills as well as workplace etiquette and professionalism in the workplace. This course is mandatory for all co-operative education students, but does not count towards overall degree credit count.
Note: Not included in the calculation of the cumulative average.

## BMG 214 Introduction to Entrepreneurship:

New Venture Creation

3-3-0
An introduction to thinking entrepreneurially, thinking how to pursue your goals and opportunities by "creating something new from little". The course is designed to help students pursue their goals through entrepreneurship. Topics include opportunity identification, financing your goal, and venture generation.
BMG 215 Introduction to International Business
3-3-0
This introductory course is designed to expose the student to the international business environment and its current patterns. The major theories of international business transactions are examined including the critical institutions that influence and facilitate international trade. These dynamic factors as well as the pressures of globalization are reviewed in the context of overall corporate policy. The course also briefly develops the important international issues within the framework of the various functional disciplines of management.
Prerequisites: BMG 100 and BMK 211
BMG 221 Business Law and Ethics
3-3-0
This course introduces students to the subject of law and to some major legal and ethical concerns for business professionals. This includes contract law, laws of the corporation, employment law, and product liability. Case studies will address broad ethical issues such as conflicts of interest, governance, and confidentiality
BMG 311 Business Policy and Strategic Management 3-3-0
The objective of this course is to introduce students who have completed their B.B.A. core courses to the business policy and strategic management areas. This course attempts, through the uses of cases, readings and lectures, to provide an awareness of overall organizational goals, strategies and environmental relationships. Where possible, the course utilizes knowledge gained in other areas of the B.B.A. Division.
Prerequisites: All other Required Core courses. BMS 231 may be taken concurrently.
Note: Permission of the Departmental Chair is required for non B.B.A. or non B.A. Major Business students, including exchange students.

BMG 315 International Management
3-3-0
The course is designed to further develop the students' understanding of the international business environment. The course reviews the global competitive forces affecting the internationalization process including the decision to expand abroad and the various modes for foreign market entry i.e. licensing, joint ventures and international alliances. Other topics include various aspects of international control, organizational structure and foreign subsidiary issues. The course is developed around the case study method.
Prerequisite: BMG 215

## BMG 322 Change Management

3-3-0
This course explores the process of change within organizations and the management of that process. Topics include the forces that create and inhibit change, decisions about what needs to be changed, and the techniques to implement and sustain change. The role of the change agent will also be examined.
Prerequisite: BHR 221
Note: It is recommended that students take this course in their last 30 credits.
BMG 323 Interpersonal Skills
3-3-0
Studies consistently show that good "interpersonal skills are critical to managerial success." Although individuals differ in their basic characteristics, personalities, and competencies, better interpersonal skills can be learned. This course uses both conceptual and experiential approaches to focus on key interpersonal skills of communication, conflict management, and leadership, within a team setting.
Prerequisite: BHR 221
BMG 324 Management of Innovation
3-3-0
The course is designed to introduce students to the innovation process, the management of the innovation process within the organization, and the role and treatment of innovation in the Canadian context.
Prerequisite: BHR 221
BMG 325 Leadership in a Multicultural World
3-3-0
Whether at home or abroad, the business world is becoming increasingly multicultural. Leaders must foster excellence in their diverse workforce by displaying cultural skills. This course begins by taking an in-depth look at main leadership theories while reflecting upon their relevance for a variety of subcultures as well as within different international contexts. Ultimately, we introduce some of the current literature on the transferable skills required for successful global leaders. Accordingly, we seek to develop students' cultural intelligence and prepare them for multicultural leadership applications.
Prerequisite: BHR 221
BMG 330 Case Competition 3-3-0
Through the use of case studies and discussion in class and in small groups, students will learn to better understand the forces shaping the current business environment and the processes of formulating, and efficiently implementing, a powerful presentation to a panel. Critical analysis of current business practices, integrative decision-making and presentation skills will be developed. Strategy formulation and implementation will be investigated in the context of complex business case competitions.

## Prerequisite: Permission of Departmental Chair

## This course is reserved for Business and Economic students.

BMG 335 Global Value Chain Analysis
3-3-0
The main aim of this course is to develop students' skills and capabilities for analyzing industries across countries. With this course students will learn: (a) How to apply the global value chain analytical framework to analyze the structure and dynamics of different actors in global industries, (b) How to examine the complex network of relationships between firms and institutions that span a wide range of countries, (c) How value chains are controlled and coordinated by different governance structures, (d) How to determine global competitive positions of firms in a given industry and geographic location especially in the emerging markets of Asia, Latin America and Africa. (e) How the participation of emerging markets drives the dynamics of global value chains, (f) How global value chains can be used to create social value ( g ) The different methods and strategies used by countries, regions and other economic stakeholders to maintain or improve their positions in the global economy.
Prerequisite: BMG 215
BMG 345 International Marketing and Export Management 3-3-0
The aim of this course is to provide students with the necessary tools and resources that will enable them to manage the process of exporting and marketing products across countries. The course will examine the broad issues related to exporting and marketing products, countries and services as well as technical concepts and processes that are specific to exporting. At the end of this course students will be able to: (a) Know the necessary steps required to successfully export products and services (b) Appreciate the opportunities, challenges and risks related to exporting (c) Develop an international export and marketing business plan, (e) Identify the escalating costs related to exporting (f) Differentiate the different pricing methods and their implications to profitability and competitiveness in foreign markets, (g) Understand the necessary documentation and institutions involved in the exporting process, (h) To follow emerging digital technologies and exploit them for international competitive advantage.
Prerequisite: BMG 215

BMG 351 Independent Studies
3-3-0
Proposals for independent studies should be submitted to the faculty member who is to supervise the project. All such studies must be approved by the Division.

BMG 352 Honours Project 6-3-0
The Honours project will be taken by all students accepted by the Department into the BBA Honours program. The student will select a topic in consultation with a professor in the concentration area. The completed project will be reviewed by three professors, two of which must be in the area, and be subject to an oral defense.
Prerequisite: acceptance in the Honours program
BMG 355 International Entrepreneurship
3-3-0
International entrepreneurship is an interdisciplinary field that is based upon theoretical foundations of international business and entrepreneurship. The rapid scale and intensity of globalization and the advancement of digital technologies has created opportunities for entrepreneurs to create new ventures that take advantage of these new technologies to exploit opportunities that emerge across the world. The aim of this course is to provide students with the necessary tools and frameworks for developing new ventures that take advantage of emerging global opportunities for both, for profit entrepreneurs, as well as, non-profit social entrepreneurs.
Prerequisite: BMG 215
BMG 391 Co-operative Education Placement I
3-0-0
Students will integrate theory and practice through the analysis of an issue, opportunity or problem in some way related to the student's work placement.
Prerequisite: BMG 191
BMG 392 Co-operative Education Placement II $\quad \mathbf{3 - 0 - 0}$
Students will integrate theory and practice through the analysis of an issue, opportunity or problem in some way related to the student's work placement Prerequisite: BMG 391
BMG 393 Co-operative Education Placement III $\quad \mathbf{3 - 0 - 0}$
Students will integrate theory and practice through the analysis of an issue, opportunity or problem in some way related to the student's work placement.
Prerequisite: BMG 392
BMK 211 Marketing Management 3-3-0
Introduction to the nature of marketing in our competitive business environment. The main emphasis of the course revolves around a close examination of the "marketing mix" (product, price, place and promotion) in a managerial setting, and interpretation of market forces and opportunities.

## BMK 214 Consumer Behavior

3-3-0
To understand how consumers and organizations interact and the processes that take place as part of this exchange. The main emphasis of this class is on how consumers and organizations drive change and the impact of these changes on both a micro and macro level. In addition, a secondary focus examines the process by which consumers and organizations consume/deliver products and services in order to understand the evolution of this process from both a managerial and global perspective.
Prerequisite: BMK 211
BMK 291 Entrepreneurship Practicum I
3-1-2
The main goal of Entrepreneurship Practicum I is to guide teams through the process of how to develop a product/market vision. Student teams will work through exercises aimed at developing a joint core competence description for the team, linking this joint core competence to emerging market opportunities using market research, experiencing a mentoring relationship and developing a product concept based on their product/market vision. This course is to be taken in the same calendar year as BMK392, which will be offered in the winter term.
Prerequisites: BMG 214, BMK 211 and BMK 214
BMK 321 Marketing Research
3-3-0
The course equips students with the key concepts and methods of marketing research, and allows students to understand how to apply those tools to solve reallife business problems. The emphasis in the course is on interpretation of results of marketing research and the use of such information to facilitate strategic marketing decision making.
Prerequisites: BMK 214 and BMA 141

BMK 322 Personal Selling and Sales Management 3-3-0
Selling is a skill. While good interpersonal abilities and friendly personality can help, selling is much more than just being a good people person, and this course will teach students how to develop these skills. This course will explore Personal Selling, in both B2B and B2C context. The goal of the course is to provide students with the basic sales and communication knowledge and abilities to achieve professional life competencies. Communication is the basis of life in society and must be done with respect for the other person
Prerequisites: BMK 211
BMK 323 Marketing Communications 3-3-0
This course will examine the theory and techniques applicable to all the major marketing communication functions: advertising, direct marketing, sales promotions, public relations, and personal selling. It will provide a knowledge base that will allow students to research and evaluate a company's marketing and promotional situation and use this information in developing effective communication strategies and programs.
Prerequisite: BMK 214

## BMK 332 Omnichannel Marketing:

## Distribution Channels in The Digital Age

3-3-0
Technological advances and the proliferation of eCommerce are transforming distribution channels and the way consumers buy products. Today's consumers, whether retail or business consumers, are omnichannel consumers: they want to shop across online, mobile, social, and physical distribution channels however they wish. They expect a seamlessly integrated multichannel experience that allows them to shop on their own terms, starting their customer journeys anywhere in the distribution channel system and finishing them anywhere. This means that distribution channels need to be transformed. This transformation requires a holistic reimagination and re-creation of the distribution channel system to transform it into an omnichannel ecosystem. In this advanced course, students study the fundamentals of omnichannel marketing and learn how companies design, implement, and manage an omnichannel marketing ecosystem to optimize the performance of their distribution channels.
Prerequisite: BMK 214

## BMK 340 Product Strategy and Innovation

3-3-0
This course focuses on the nature of the decisions and actions taken by firms concerning innovation with respect to their products and services. Topics covered will include innovation and R\&D management, managing knowledge and networks, and the new product development process. The course will expose students to the contemporary challenges encountered by innovative firms in developing and launching new products and services, and the strategies which are used by those firms in building and defending brand equity throughout the product life cycle.
Prerequisite: BMK 214
BMK 344 Branding and Brand Management 3-3-0
Branding has become one of the most important aspects of marketing strategy. A strong understanding of branding is essential for the success of a small or large business. This course covers the building blocks and principles of branding and brand management. How can a brand stay relevant? What is brand strategy? How are meaningful brands created? Why do some brands have greater longevity and loyalty? How to build and manage brand equity? This course will provide opportunities to understand the building blocks of a strong brand and apply strategies and management techniques.
Prerequisite: BMK 211 and BMK 214
BMK 350 Marketing Strategies for Environment Sustainability 3-3-0 This course aims to provide a forum for students to consider innovative approaches to advancing environmental sustainability through the marketing function of organizations. The course is designed to help students build effective strategies for gaining competitive advantage through environmentally sustainable practices which need to be built into the core areas of strategic marketing: product and process development, design of the supply chain, communications and pricing. In addition, the course will help students understand the publics which need to be involved and the macro factors which need to be considered in order for such strategies to be effective.
Prerequisite: BMK 214
BMK 354 Digital Marketing
3-3-0
The Digital Marketing course will provide students with the necessary knowledge to plan, execute, monitor and adjust an innovative online marketing campaign. The course will touch upon social media, reputation management, email marketing, online advertising, SEM, SEO, web analytics and web design.
Prerequisites: BMK211 and BMK214

BMK 355 Happiness Marketing
3-3-0
The course discusses practical applications of positive psychology in marketing. Backed up by evidence-based scientific research findings, it aims to help students understand how to be a happier person, a happier consumer, and a better marketer who is able to enhance consumers' well-being. The course introduces cutting-edge marketing tools which help create win-win situations for both consumers and companies alike.
Prerequisite: BMK 214
BMK 362 Sport Marketing
3-3-0
This course will illuminate the theoretical underpinnings and practical applications of marketing strategies to collegiate and professional sport, special events, international sport, broadcasting, facility management, and the sporting goods industry. The course is designed to allow students an opportunity to apply key marketing concepts and strategies within various settings in order to garner a better understanding of both participant and spectator markets.
Prerequisite: BMK 211
BMK 371 Industrial Marketing Strategy
3-3-0
This course is designed to help students understand the complexities and unique challenges faced by marketing managers and top management in their efforts to harmonize the organization's objectives, capabilities, and resources with marketplace needs and opportunities, in the specific case of industrial or business-to-business marketing. Particular emphasis is placed on high technology and dynamic environments which drive specific industries that play key roles in today's society including, but not limited to, biopharmaceuticals, nanotechnology, integrated networks and energy.
Prerequisite: BMK 214
BMK 381 Marketing Policies
3-3-0
This course integrates the marketing elements in an overall business approach and is designed as a capstone course for graduating students in the marketing and entrepreneurship stream. It focuses on helping students become a strategic marketer, so that they can create, gain support for and execute marketing plans that will build strong and enduring businesses. Special consideration will be given to the playing of a realistic marketing simulation game.
Prerequisite: BMK 214
BMK 392 Entrepreneurship Practicum II
3-1-2
The team from Entrepreneurship Practicum I builds a business plan to take the concept developed in BMK 291 to the next stage. The exercises will include niche market detailing, idea blueprinting, prototype/concept development, concept testing with lead users in the market place, web site development, brand creation and final market tests. The final business plan will be vetted with potential funding organizations/investors. Students are expected to enroll in both BMK 291 and BMK 392 in the same calendar year.
Prerequisite: BMK 291
BMK 440 Marketing Analytics
3-3-0
This course introduces students to a broad view of product, consumer, marketing mix, and digital analytics. In order to make great marketing decisions, companies typically analyze timely and in-depth data about consumers, competitors, and the environment. During the course, students are encouraged to think like marketers by asking questions about their data, setting their own directions for analysis and thinking about how a company could implement the results.
Prerequisite: BMK 321
BMS 231 Operations Management 3-3-0
This course views the management of operations as the design, management and control of business processes. The course introduces the decisions and tradeoffs associated with production of goods and services. Topics include: strategy in operations and supply chain, process design and selection for manufacturing and services, capacity planning, six-sigma quality, lean manufacturing, inventory management, aggregate sales and operations planning, MRP/JIT, and scheduling operations.
Prerequisites: BCS 220 and BMA 140
BMS 303 Forecasting Techniques
3-3-0
This course introduces various forecasting techniques used in the business world. Computers are used to apply and interpret the forecasting information.
Prerequisite: BMA 141

ILT 100 Information Literacy and Critical Thinking (lab) 1-0-1
This one credit lab course is required for all Business Students. The objective of this laboratory course is to introduce students to the skills necessary to effectively complete their research assignments in Business. The course includes the correct use of library resources, including the online catalogue, periodical indexes, and other relevant databases. Other areas of study include the identification of key terms for effective searching, productive use of the internet, and the critical evaluation of retrieved resources. Academic integrity, plagiarism and the correct citation of print and online sources are also taught. The course is practical, and students are given the opportunity for hands-on experience in the library's electronic classroom. This lab course cannot be used as a lecture course credit.
Prerequisite: Permission of Departmental Chair

## COURSES OFFERED ON A SPORADIC BASIS

## BMS 325 Operations Research

3-3-0
This course introduces more concepts and applications of quantitative management techniques not covered in BMS 231. Topics to be covered are: linear programming: the simplex method; simplex-based sensitivity analysis and duality; integer programming; introduction to dynamic programming; queuing models; and Markov processes. Computer programs are available for students to experiment with specific techniques.
Prerequisite: BMS 231
BMG 330 Case Competition
3-3-0
Through the use of case studies and discussion in class and in small groups, students will learn to better understand the forces shaping the current business environment and the processes of formulating, and efficiently implementing, a powerful presentation to a panel. Critical analysis of current business practices, integrative decision-making and presentation skills will be developed. Strategy formulation and implementation will be investigated in the context of complex business case competitions.
Prerequisite: Permission of Departmental Chair
BMS 332 Supply-Chain Management 3-3-0
The main purpose of the course is to learn how models can be effectively constructed and applied to supply-chain planning problems. Specific topics include: Motivation for using models to analyze supply chain problems with particular attention to developments in Information Technology, Linear and mixed Integer programming models, applications of modelling systems to strategic, tactical, and operational supply chain problems. The perspective is the resourceview of the firm, a new paradigm for strategic planning.
Prerequisite: BMS 231
BUS 200 Business Experiential Learning Project (for-profit) 3-1-10 Students will provide business services to "for-profit" organizations based on the needs that are mutually determined by both the students and the organization. The student or student team will be involved in creating a needs analysis, providing strategic recommendations as well as a critical reflection of the learning that occurred. The course will normally take place over a regular semester or the summer. The course must be supervised and evaluated by a business professor and an organizational representative. Each BUS200 course is unique; therefore, the description of the mandate and its objective must be approved by the Business Division for each experience.
Prerequisite: Permission of instructor.
BUS 201 Business Service Learning Project (not-for-profit) 3-1-10 Students will provide business services to "not-for-profit" organizations based on the needs that are mutually determined by both the students and the organization. The student or student team will be involved in creating a needs analysis, providing strategic recommendations as well as a critical reflection of the learning that occurred. The course will normally take place over a regular semester or the summer. The course must be supervised and evaluated by a business professor and an organizational representative. Each BUS 201 course is unique; therefore, the description of the mandate and its objective must be approved by the Business Division for each experience.
Prerequisite: Permission of instructor

BUS 202 International Business Experience
3-0-10
The International Business Experience course is an ideal experience for students who want their first study abroad experience or those who are unable to study abroad for a semester. This course is designed to provide students with a truly realworld experience in international business, where they will gain an understanding of the local culture and learn the challenges and opportunities of doing business in that country, firsthand. Students will participate in business visits and discussions with the country's business leaders, while sharing in a different and unforgettable cultural experience.
Prerequisite: Permission of instructor.
Note: Countries will be determined in collaboration with professors who are interested in engaging in this type of course as well as availability of resources and contacts in that given country.

BUS 301 Topics in Business I 3-3-0
The course will present selected topics of current interest at an advanced undergraduate level. Topics covered may vary from year to year. Subject matter may reflect current research interests of faculty members or innovative industry topics.
Prerequisite: Permission of Departmental Chair
BUS 302 Topics in Business II
3-3-0
The course will present selected topics of current interest at an advanced undergraduate level. Topics covered may vary from year to year. Subject matter may reflect current research interests of faculty members or innovative industry topics.
Prerequisite: Permission of Departmental Chair
BUS 303 Topics in Business III
3-3-0
The course will present selected topics of current interest at an advanced undergraduate level. Topics covered may vary from year to year. Subject matter may reflect current research interests of faculty members or innovative industry topics.
Prerequisite: Permission of Departmental Chair
BUS 304 Topics in Business IV
3-3-0
The course will present selected topics of current interest at an advanced undergraduate level. Topics covered may vary from year to year. Subject matter may reflect current research interests of faculty members or innovative industry topics.

## The School of Education

## Faculty

## Avril Aitken

B.Ed., M.Ed. (McGill), Ph.D. (Ottawa); Full Professor, Graduate Program Coordinator

Eva Mary Bures
B.A. (Reed College), M.A., Ph.D. (Concordia); Full Professor

## Julie Desjardins

B.Sc. M.A., Ph.D. (U. de Montréal), M.BA (U. Laval); Full Professor, Dean

Anthony Di Mascio
B.A., B.Ed., M.A. (Toronto), Ph.D. (Ottawa); Full Professor

Trevor Gulliver
B.A.(Trent), M.A.(Leicester), Ph.D. (Ottawa); Full Professor

## Sunny Man Chu Lau

B.A., M.A., M.Ed. (Hong Kong), Ph.D. (OISE/UT); Full Professor

Joanne Pattison-Meek
B.A., M.A. (Guelph), B.Ed., Ph.D. (OISE, University of Toronto); Associate Professor, Director of Practice Teaching

Jessica Prioletta
B.Comm. (McGill), B.Ed. (Concordia), M.A. (McGill), Ph.D. (OISE/UT);

Assistant Professor
Lisa Taylor
B.A., B.Ed., M.A., Ph.D. (OISE); Full Professor

## Dawn Wiseman

BEng (Concordia), MA (Concordia), PhD (University of Alberta); Associate Professor, Departmental Chair

Colette Yellow-Robe
B.A., M.A., Ph.D. (University of Nebraska-Lincoln); Assistant Professor

## Program Overview

The School of Education offers four programs leading to teacher certification. It also offers minors. As a teaching and learning institution, the School of Education works in collaboration with the greater educational community, and is dedicated to developing reflective and exemplary educators. Our graduates are prepared to assume leadership roles in education as a result of theory and practice oriented courses founded on the principles of equity, responsibility, and respect for individual dignity.

## Undergraduate Studies

Students complete an undergraduate program (four years for Quebec students or five years for students from outside Quebec) which includes four options:

- B.Ed. in Teaching and Learning at the Elementary Level
- B.Ed. in Teaching and Learning at the Secondary Level (English, Mathematics, Science and Technology, and Social Sciences profiles)
- B.Ed. in Teaching and Learning of the Creative Arts (Drama, Fine Arts and Music concentrations)
- B.Ed. in Teaching English as a Second Language

Students in all B.Ed. programs are required to pass the English Exam for Teacher Certification (EETC) approved by the Ministère de l'Éducation, et de l'Enseignement supérieur (MEES) prior to the third practicum. Success on this exam is a requirement for progression through the program. Information about the cost and the procedures for this test is available from the School of Education.

Successful completion of one of these programs results in a recommendation to the Ministère de l'Éducation, et de l'Enseignement supérieur (MEES) for teacher certification in the Province of Quebec. Prior to certification, students will be subject to a judicial background check performed by the Ministère de l'Éducation, et de l'Enseignement supérieur (MEES).

Students who have completed an initial degree in a discipline other than Education either at Bishop's or another university requesting entry into any program may require at least three to four years to complete the course of studies, depending on their academic record.

## Costs

In addition to the costs listed in the Fees section of this Calendar, students are responsible for all travel and accommodation costs related to the required student teaching practica in the Bachelor of Education degree.

## General Regulations

## 1. Academic Standing for B.Ed. programs in Education:

Notwithstanding the University regulations on Academic Standing, the School of Education has its own regulations on Maintenance of Good Standing.

Students in the Bachelor of Education programs must maintain a cumulative average of $70 \%$ or more to remain in good standing. Once students have completed two academic semesters, their averages will be calculated on all courses attempted. Failures will be included in the calculation of this average. If a failed course is repeated, or if a passed course is repeated to achieve a higher mark, the second attempt in either case will be used in the cumulative average.

After two semesters, students with cumulative averages less than $50 \%$ must withdraw from the program; those with cumulative averages between $50 \%$ and $69 \%$ will be permitted to remain in the Education program for one semester on probation in which they must improve their cumulative average to $70 \%$. Students who do not achieve that standard will not be eligible to continue in the Education programs at Bishop's University. Students have the right to appeal this decision to the Review Committee of the School of Education.

Students who fail to maintain good standing in the School of Education will be required to withdraw from the Education program. They must make a choice of an alternate degree program at the university by the end of two consecutive semesters following their withdrawal. Should they fail to do so or to be accepted into an alternate program, they will not be permitted to register as fulltime students in the next semester.

A student who fails to maintain a cumulative average of $70 \%$ in the semester prior to the final practicum will be compelled to withdraw from the Bachelor of Education program and will not be permitted to register for the final practicum.

## 2. Brevet d'enseignement (Teaching Certificate)

Students who have successfully completed all academic and practicum requirements of their program will be eligible to apply for the Quebec Brevet d'enseignement (Teaching Certificate).

The Ministère de l'Éducation, et de l'Enseignement supérieur (MEES) requires a Declaration concerning a student's judicial record prior to certification.

## 3. Practica (Student Teaching)

Students must successfully complete the requirements of all practicum components in order to complete the B.Ed. with a recommendation to the Ministère de l'Éducation, et de l'Enseignement supérieur (MEES) for the "brevet d'enseignement". The practicum components are evaluated as follows:
a. Introduction to Professional Practice (EDU 128 / EDU 129): numerical grade
b. Practicum II (EDU 228 / EDU 229): (P) pass or (F) fail.
c. The Professional Practice Practicum (EDU 328 / EDU 329): (P) pass or ( F ) fail (Access to the third-year practicum is dependent on successful completion of the English Exam for Teacher Certification.)
d. The Internship (EDU 428 / EDU 429): (P) pass or (F) fail.

Students completing the Introduction to Professional Practice (EDU 128 / EDU 129), Reflective Practicum (EDU 228 / EDU 229), and Professional Practice (EDU 328 / EDU 329) practicum and receiving a failing numerical grade or grade of F , may only be permitted to continue in their School of Education program with the School's approval. In the case of a failure in the Internship (EDU 428 / EDU 429), the student must withdraw from the Bachelor of Education program.

Students removed from any practicum course before its completion as a result of an unsatisfactory report submitted by an associate teacher, school principal or university supervisor risk being withdrawn from the program. Final decisions regarding removal from the program rest with the School of Education. Cases of this kind will be referred to the School's Review Committee for a decision regarding continuation in the program.

Placements are made in schools throughout the province according to criteria established by the School of Education. Student teachers may have additional travel and accommodation costs during a practicum.

Further information and regulations concerning Practice Teaching are contained in the Practice Teaching Handbook.

## 4. Transfer Credits

Students may obtain advanced credits for courses which meet the teaching subject requirements and for courses which have appropriate content and meet program requirements.

## 5. Distinctions

The notation "with Distinction" will appear on the transcript of students who graduate with a cumulative average of $80 \%$ or more. To be awarded a degree with distinction, students must not only achieve first class academic standing in their courses, (cumulative average of $80 \%$ or more) but must also perform at a highly successful level in all practicum components as evaluated by the Dean of the School of Education in consultation with the Director of Practice Teaching and faculty members whose courses are directly associated with the student's practicum sessions.

## 6. Review Committee

Students encountering difficulty in practicum placements or in academic courses may be required to meet with the Review Committee of the School of Education for recommendations or decisions regarding their situation.

## B.Ed. in Teaching and Learning at the Elementary Level

CONELE
The Elementary teacher education program at Bishop's University leads to a Bachelor of Education in Teaching and Learning. This degree is required in order to be eligible for a teaching licence. Students are prepared to teach a broad range of subjects that can be found in the elementary curriculum, including English, Mathematics, Science, History and Global Studies, Geography, Ethics and Religious Culture, and the Creative Arts.

## Overview of Total Program Credits

In order to earn a Bachelor of Education in Teaching and Learning at the Elementary Level, students must complete a 150 -credit program. Students entering with a DEC from a Quebec CEGEP will normally be awarded 30 advanced credits. Mature students and students transferring from another university may be awarded certain advanced credits. Students entering without a completed DEC from a Quebec CEGEP and without any advanced credits are required to earn a total of 30 elective credits in addition to the 120 credits plus labs listed below.

## Foundational Courses ( $\mathbf{4 2}$ credits + $\mathbf{2}$ Labs)

EDU 102 Philosophy of Education
EDU 107 Child Development and Elementary Teaching
EDU 122 Using Technology to Support Learning
EDU 138 Foundations of the Teaching Profession (Elementary)
EDU 203 Educational Psychology
EDU 205 Education, Colonialism and Decolonization
EDU 230 Kindergarten Education I:
Holistic Learning and Early Intervention
EDU 231 Kindergarten Education II: Theory and Pedagogy
EDU 238 Teaching and Learning at the Elementary Level:
Practice and Reflection
EDU 305 Social Justice and Anti-Discrimination Education
EDU 315 Applying the Psychology of Learning and Motivation
to the Design of Learning Environments
EDU 348 Professional Seminars Lab (1 credit)
EDU 401 Quebec Education Policy and Law

EDU 407 Individual Differences
ILT 101 Information Literacy Critical Thinking Lab (1 credit)
One of:
EDU 204 Indigenous Education
EDU 211 Introduction to Young Adult Literature and Texts "Beyond the Canon"
EDU214 Gender and Sexuality in Education
EDU 218 History of Education
EDU 219 Getting dirty: Hands-on, experiential teaching and learning for elementary and secondary student
EDU 220 Linguistic Diversity
EDU 221 Methods in Plurilingual and Pluricultural
Teaching and Learning
EDU 222 Teaching and Learning Online
EDU 285 The Reading Process
EDU 303 Sociology of Education
SLP 399 Situated Learning and Praxis

## Methods Courses ( 33 credits)

EDU 309 Effective Teaching Methods at the Elementary Level
EDU 313 Teaching Ethics and Religious Culture
(Elementary \& Secondary)
EDU 319 Student Centered Evaluation at the Elementary Level
EDU 321 Methods of Teaching Language Arts I
EDU 331 Methods in Teaching Language Arts II
EDU 334 Methods in the Teaching of Mathematics I
EDU 335 Methods in the Teaching of Creative Arts - Elementary
EDU 419 Interdisciplinary Teaching and Integration of Learning at the Elementary Level (6 credits)
EDU 433 Methods in the Teaching of Elementary Social Sciences
EDU 434 Methods for Scientific Inquiry and Problem Solving

## Practica (24 credits)

EDU 128 Orientation to Professional Practice
EDU 228 Reflective Practicum - Elementary
EDU 328 Professional Practice (6 credits)
EDU 428 Internship (12 credits)

## Disciplinary Courses (21 credits)

One of:
ENG 100 Introduction to English Studies
ENG 102 Approaches to Media Studies
ENG 111 Canadian Short Story
ENG 123 Introduction to Indigenous Literatures in Canada
ENG 206 Creative Writing: The Graphic Novel
ENG 210 Children's Literature
ENG 215 Introduction to North American Literatures
EDU 211 Introduction to Young Adult Literature and Texts "Beyond the Canon"
One of:
MAT 100 Excursions in Modern Mathematics
MAT 101 Further Excursions in Modern Mathematics

One of.
BIO 193 Introduction to Biology
CHM 181 The Chemistry of Everyday Life
CHM 185 The Science of Cooking
EDU 326 Engineering for Science and Technology Teachers
EXS 127 Introduction to Exercise Physiology
PHY 111 Physics of Everyday Life
PHY 113 Introduction to Astronomy
One of:
ESG 100 Introduction to Environmental Studies
ESG 126 Introduction to Human Geography
ESG 127 Introduction to Physical Geography
ESG 162 Canada: A Nation of Regions
One of:
HIS 104 The West in the World to 1750
HIS 108 A Global History of Indigenous Peoples
HIS 109 New World: The Americas to 1850
One of:
DRA 101 Introduction to Technical Theatre
DRA 110 Introduction to Theatre after 1800
FIS 140 Foundation Studio
FIS 181 Painting I
MUS 130 Rudiments of Music Theory
One of:
CLA 112 Ancient Greek Mythology
CLA 280 Roman Religion
LIB 216 The Divine and Ultimate Concern
PHI 100 On the Way to the Good Life
RSC 100 Western Religions
RSC 101 Eastern Religions
RSC 205 Indigenous Religious Traditions
Compulsory Language Requirement
EDU 100 English Exam for Teacher Certification (EETC)
(P/F, students who do not pass will not be permitted to register in
the third practicum)

## B.Ed. in Teaching and Learning at the Secondary Level

The Secondary teacher education program at Bishop's University leads to a Bachelor of Education in Teaching and Learning. This degree is required in order to be eligible for a teaching license. Students choose from one of the following profiles in a teaching subject area: English, Mathematics, Science and Technology, or Social Sciences.

## Overview of Total Program Credits

In order to earn a Bachelor of Education in Teaching and Learning at the Secondary Level, students must complete a 150 -credit program. Students entering with a DEC from a Quebec CEGEP will normally be awarded 30 advanced credits. Mature students and students transferring from another university may be awarded certain advanced credits. Students entering without a completed DEC from a Quebec CEGEP and without any advanced credits are required to earn a total of 30 elective credits in addition to the 120 credits plus labs listed below.

## B.Ed. in Teaching and Learning at the Secondary Level - English Profile CONEEG

## Foundational Courses ( $\mathbf{3 0}$ credits +2 Labs)

Required Courses:
EDU 102 Philosophy of Education
EDU 122 Using Technology to Support Learning
EDU 203 Educational Psychology
EDU 205 Education, Colonialism and De-Colonization
EDU 239 Teaching and Learning at the Secondary Level: Practice and Reflection
EDU 305 Social Justice and Anti-Discrimination Education
EDU 315 Applying the Psychology of Learning and Motivation to the Design of Learning Environments
EDU 349 Professional Seminars Lab (1 credit)
EDU 401 Quebec Education Policy and Law
EDU 407 Individual Differences
ILT 101 Information Literacy Critical Thinking Lab (1 credit)
One of:
EDU 204 Indigenous Education
EDU 211 Introduction to Young Adult Literature and Texts "Beyond the Canon"
EDU 214 Gender and Sexuality in Education
EDU 218 History of Education
EDU 219 Getting dirty: Hands-on, experiential teaching and learning for elementary and secondary student
EDU 220 Linguistic Diversity
EDU 221 Methods in Plurilingual and Pluricultural Teaching and Learning
EDU 222 Teaching and Learning Online
EDU 285 The Reading Process
EDU 303 Sociology of Education
SLP 399 Situated Learning and Praxis

## Methods Courses (18 credits)

EDU 339 Effective Teaching and Evaluation Methods I
EDU 341 Methods Teaching English Language Arts at the Secondary Level I
EDU 410 Effective Teaching and Evaluation Methods II
EDU 411 Methods Teaching English Language Arts at the Secondary Level II
EDU 420 Interdisciplinary Teaching and Integration of Learning at the Secondary Level (6 credits)

## Practica (24 credits)

EDU 129 Orientation to Professional Practice
EDU 229 Reflective Practicum - Secondary
EDU 329 Professional Practice ( 6 credits)
EDU 429 Internship ( 12 credits)

## Disciplinary Courses (48 credits)

Required Courses:
ENG 100 Introduction to English Studies
ENG 102 Approaches to Media Studies
ENG 112 English Literary Tradition:
The Middle Ages and the Renaissance
ENG 113 English Literary Tradition:
The Eighteenth Century to the Present

Two of:
ENG 110 English Writers of Quebec
ENG 111 Canadian Short Story
ENG 215 Introduction to North American Literatures
ENG 252 English-Canadian Literature to the First World War
ENG 253 English-Canadian Literature from the
First World War to the Present
ENG 275 The Contemporary Canadian Novel
ENG 352 Canadian Literature and Theories of Globalization
One of:
ENG 123 Introduction to Indigenous Literatures in Canada
ENG 228 Introduction to Post-Colonial Literature
ENG 358 Approaches to Indigenous Literary Cultures in Canada ENG 375 Colonial Narratives
One of:
ENG 223 Elizabethan Shakespeare (1590-1603)
ENG 224 Jacobean Shakespeare (1603-1614)
ENG 225 The Stratford "Shakesperience"
DRA 222 Introduction to Shakespeare
One of:
ENG 200 Creative Writing: Poetry
ENG 201 Creative Writing: Prose
ENG 203 Creative Writing: Experiments in Prose
ENG 204 Creative Writing: Experiments in Poetry
ENG 206 Creative Writing: The Graphic Novel
ENG 382 Screenwriting
ELA 201 Advanced Composition
One of:
ENG 210 History of Children's Literature
EDU 211 Introduction to Young Adult Literature and Texts
"Beyond the Canon"
One of:
ENG 234 Contemporary Literary Theory
ENG 236 Popular Culture
ENG 239 Feminist Literary Theory
ENG 291 Film Theory
ENG 353 Boy Meets Girl: Masculinity Scholarship, Feminist Theories, and American Literature
Plus 15 credits in English, of which nine (9) credits must be at the 200 level or above

## Compulsory Language Requirement

EDU 100 English Exam for Teacher Certification
(P/F, students who do not pass will not be permitted to register in the third practicum)

## B.Ed. in Teaching and Learning at the <br> Secondary Level - Mathematics Profile <br> CONEMT

Foundational Courses ( $\mathbf{3 0}$ credits $+\mathbf{2}$ Labs)
Required Courses:
EDU 102 Philosophy of Education
EDU 122 Using Technology to Support Learning
EDU 203 Educational Psychology
EDU 205 Education, Colonialism and De-Colonization
EDU 239 Teaching and Learning at the Secondary Level:
Practice and Reflection
EDU 305 Social Justice and Anti-Discrimination Education

EDU 315 Applying the Psychology of Learning and Motivation to the Design of Learning Environments
EDU 349 Professional Seminars Lab (1 credit)
EDU 401 Quebec Education Policy and Law
EDU 407 Individual Differences
ILT 101 Information Literacy Critical Thinking Lab (1 credit)
One of:
EDU 204 Indigenous Education
EDU 211 Introduction to Young Adult Literature and Texts "Beyond the Canon"
EDU 214 Gender and Sexuality in Education
EDU 218 History of Education
EDU 219 Getting dirty: Hands-on, experiential teaching and learning for elementary and secondary student
EDU 220 Linguistic Diversity
EDU 221 Methods in Plurilingual and Pluricultural Teaching and Learning
EDU 222 Teaching and Learning Online
EDU 285 The Reading Process
EDU 303 Sociology of Education
SLP 399 Situated Learning and Praxis

## Methods Courses (18 credits)

EDU 339 Effective Teaching and Evaluation Methods I
EDU 346 Methods in Teaching Mathematics, Science and Technology I
EDU 410 Effective Teaching and Evaluation Methods II
EDU 416 Methods in Teaching Mathematics, Science and Technology II
EDU 420 Interdisciplinary Teaching and Integration of Learning at the Secondary Level (6 credits)

## Practica (24 credits)

EDU 129 Orientation to Professional Practice
EDU 229 Reflective Practicum - Secondary
EDU 329 Professional Practice (6 credits)
EDU 429 Internship (12 credits)

## Disciplinary Courses (48 credits + 6 prerequisite credits)

Students entering this profile must first complete or have credited the following prerequisites:
MAT 191 Calculus I
MAT 192 Calculus II
Required Courses:
MAT 108 Matrix Algebra
MAT 110 Excursions in Modern Mathematics
PHY 101 Statistical Methods in Experimental Sciences
MAT 200 Introduction to Discrete Mathematics
MAT 206 Advanced Calculus I
MAT 207 Advanced Calculus II
MAT 209 Linear Algebra
Plus 12 credits in Mathematics at the 300 level
Plus 15 credits in Mathematics, of which three (3) credits must be at the 200 level or above

## Compulsory Language Requirement

EDU 100 English Exam for Teacher Certification
(P/F, students who do not pass will not be permitted to register in the third practicum)

## B.Ed. in Teaching and Learning at the Secondary Level - <br> Science and Technology Profile

## Foundational Courses ( $\mathbf{3 0}$ credits +2 Labs)

Required Courses:
EDU 102 Philosophy of Education
EDU 122 Using Technology to Support Learning
EDU 203 Educational Psychology
EDU 205 Education, Colonialism and De-Colonization
EDU 239 Teaching and Learning at the Secondary Level: Practice and Reflection
EDU 305 Social Justice and Anti-Discrimination Education
EDU 315 Applying the Psychology of Learning and Motivation
to the Design of Learning Environments
EDU 349 Professional Seminars Lab (1 credit)
EDU 401 Quebec Education Policy and Law
EDU 407 Individual Differences
ILT 101 Information Literacy Critical Thinking Lab (1 credit)
One of:
EDU 204 Indigenous Education
EDU 211 Introduction to Young Adult Literature and Texts
"Beyond the Canon"
EDU 214 Gender and Sexuality in Education
EDU 218 History of Education
EDU 219 Getting dirty: Hands-on, experiential teaching and learning for elementary and secondary student
EDU 220 Linguistic Diversity
EDU 221 Methods in Plurilingual and Pluricultural Teaching and Learning
EDU 222 Teaching and Learning Online
EDU 285 The Reading Process
EDU 303 Sociology of Education
SLP 399 Situated Learning and Praxis

## Methods Courses ( $\mathbf{1 8}$ credits)

EDU 339 Effective Teaching and Evaluation Methods I
EDU 346 Methods in Teaching Mathematics, Science and Technology at the Secondary Level I
EDU 410 Effective Teaching and Evaluation Methods II
EDU 416 Methods in Teaching Mathematics, Science and Technology at the Secondary Level II
EDU 420 Interdisciplinary Teaching and Integration of Learning at the Secondary Level (6 credits)

Practica (24 credits)
EDU 129 Orientation to Professional Practice
EDU 229 Reflective Practicum - Secondary
EDU 329 Professional Practice (6 credits)
EDU 429 Internship (12 credits)

## Disciplinary Courses ( 48 credits + labs + 21 prerequisite credits)

Students entering this profile must first complete or have credited the following prerequisites:
BIO 196 Introductory Biology I: Introduction to Cellular and Molecular Biology (with lab BIL 196)
CHM 191 General Chemistry I (with lab CHL 191)
CHM 192 General Chemistry II (with lab CHL 192)
MAT 191 Calculus I
MAT 192 Calculus II
PHY 191 Introductory Physics I - Mechanics (with lab PHL 191)
PHY 192 Introductory Physics II - Electricity and Magnetism (with lab PHL 192)

Required Courses:
BIO 201 Cellular \& Molecular Biology
BIO 205 Diversity of Life I (with lab BIL 205)
BIO 233 Human Anatomy
CHM 121 Inorganic Chemistry I
CHM 131 Physical Chemistry I
CHM 141 Analytical Chemistry (with lab CHL 141)
EDU 326 Engineering for Science and Technology Teachers
ESG 100 Introduction to Environmental Studies
ESG 127 Introduction to Physical Geography
PHY 101 Statistical Methods in Experimental Sciences
PHY 206 Waves and Optics (with lab PHL 206)
PHY 207 Thermal and Fluid Physics
PHY 208 Introduction to Mechanics
PHY 214 Astronomy \& Astrophysics
Two of:
BCH 210 General Biochemistry
BIO 206 Diversity of Life II (with lab BIL 206)
BIO 207 Intro to Evolution and Ecology
BIO 208 Genetics (with lab BIL 208)
BIO 320 Programmed Cell Death
BIO 327 Advanced Ecology
BIO 329 Invertebrate Biology (with lab BIL 329)
BIO 331 Freshwater Biology (with lab BIL 331)
BIO 336 Animal Physiology I
BIO 341 Population genetics and evolution
BIO 349 Medical and Forensic Entomology
BIO 354 Insect Biodiversity
BIO 358 Animal Behaviour
BIO 359 Human Genetics
CHM 111 Organic Chemistry I (with lab CHL 111)
CHM 211 Organic Chemistry II (with lab CHL 211)
CHM 225 Inorganic Chemistry II (with lab CHL 225)
CHM 231 Physical Chemistry II (with lab CHL 231)
CS 201 Foundations of Computer Science (with lab CSL 201)
ESG 226 Physical Oceanography
ESG 227 Biogeochemical and Environmental Oceanography
ESG 250 Geomorphology
ESG 251 Biogeography
ESG 265 The Atmosphere and Weather
ESG 267 Global Environmental Change: a physical perspective
ESG 269 The Earth's Crust
MAT 108 Matrix Algebra
MAT 200 Introduction to Discrete Mathematics

MAT 202 Modern Geometry: Euclidean to Fractal
(with lab MAL 202)
MAT 206 Advanced Calculus I
MAT 209 Linear Algebra
PHY 273 Observational Astronomy I
Compulsory Language Requirement
EDU 100 English Exam for Teacher Certification
(P/F, students who do not pass will not be permitted to register in the third practicum)

## B.Ed. in Teaching and Learning at the

 Secondary Level - Social Sciences Profile CONESS
## Foundational Courses ( $\mathbf{3 0}$ credits +2 Labs)

Required Courses:
EDU 102 Philosophy of Education
EDU 122 Using Technology to Support Learning
EDU 203 Educational Psychology
EDU 205 Education, Colonialism and De-Colonization
EDU 239 Teaching and Learning at the Secondary Level:
Practice and Reflection
EDU 305 Social Justice and Anti-Discrimination Education
EDU 315 Applying the Psychology of Learning and Motivation
to the Design of Learning Environments
EDU 349 Professional Seminars Lab (1 credit)
EDU 401 Quebec Education Policy and Law
EDU 407 Individual Differences
ILT 101 Information Literacy Critical Thinking Lab (1 credit)
One of:
EDU 204 Indigenous Education
EDU 211 Introduction to Young Adult Literature and Texts
"Beyond the Canon"
EDU 214 Gender and Sexuality in Education
EDU 218 History of Education
EDU 219 Getting dirty: Hands-on, experiential teaching and
learning for elementary and secondary student
EDU 220 Linguistic Diversity
EDU 221 Methods in Plurilingual and Pluricultural Teaching and Learning
EDU 222 Teaching and Learning Online
EDU 285 The Reading Process
EDU 303 Sociology of Education
SLP 399 Situated Learning and Praxis

## Methods Courses ( $\mathbf{1 8}$ credits)

EDU 339 Effective Teaching and Evaluation Methods I
EDU 344 Methods in Teaching Social Sciences at the Secondary Level I
EDU 410 Effective Teaching and Evaluation Methods II
EDU 414 Methods in Teaching Social Sciences at the Secondary Level II
EDU 420 Interdisciplinary Teaching and Integration of Learning at the Secondary Level (6 credits)

## Practica (24 credits)

EDU 129 Orientation to Professional Practice
EDU 229 Reflective Practicum - Secondary
EDU 329 Professional Practice (6 credits)
EDU 429 Internship ( 12 credits)

## Disciplinary Courses (48 credits)

Required Courses:
ECO 103 Principles of Economics: Macroeconomics
ESG 100 Introduction to Environmental Studies
ESG 126 Introduction to Human Geography
ESG 127 Introduction to Physical Geography
One of:
ESG 224 Human Impact on the Environment
ESG 249 Resource Management
ESG 264 Outdoor Recreation
ESG 266 Environmental Policy
AGR 100 Introduction to Sustainable Agriculture and Food Systems
AGR 204 Urban Agriculture

## One of:

ESG 226 Physical Oceanography
ESG 227 Biogeochemical and Environmental Oceanography
ESG 250 Geomorphology
ESG 251 Biogeography
ESG 265 The Atmosphere and Weather
ESG 267 Global Environmental Change: A Physical Perspective ESG 269 The Earth's Crust

## Two of:

HIS 104 The West in the World to 1750
HIS 105 The 20th Century World
HIS 108 A Global History of Indigenous Peoples
HIS 109 New World: The Americas to 1850
Three of:
HIS 207 Canada 1867-1945
HIS 211 Canada Since 1954
HIS 221 Pre-Confederation Canada
HIS 240 History and Heritage
HIS 241 Canada and the World in the 20th Century
HIS 265 Quebec: Political Change and Industrialization 1840-1930
HIS 267 History of Sport in Canada
HIS 269 First Nation/Settler Relations in Canada
HIS 288 Women in 19th and 20th Century Canada
HIS 297 History of Communications
One course in Global History at the 200 level
One course in European or United States History at the 200 level
One course in the History of Asia, Latin America, Middle East, or
North Africa at the 200 level
Two of:
POL 101 Introduction to Comparative Politics
POL 112 Introduction to Canadian Politics
POL 118 Constitutional Law and Canadian Government
LIB 212 In Search of Justice
PHI 104 Hopes and Conflicts of Social and Political Life

## Compulsory Language Requirement

EDU 100 English Exam for Teacher Certification
(P/F, students who do not pass will not be permitted to register in the third practicum)

## B.Ed. in Teaching and Learning of the Creative Arts

The Creative Arts teacher education program at Bishop's University leads to a Bachelor of Education in Teaching and Learning. This degree is required in order to be eligible for a teaching license. Students choose from one of the following concentrations in a teaching subject area: Drama, Fine Arts, or Music. Students in this program are prepared to teach at both the Elementary and Secondary school levels.

## Overview of Total Program Credits

In order to earn a Bachelor of Education in Teaching and Learning of the Creative Arts, students must complete a 150-credit program. Students entering with a DEC from a Quebec CEGEP will normally be awarded 30 advanced credits. Mature students and students transferring from another university may be awarded certain advanced credits. Students entering without a completed DEC from a Quebec CEGEP and without any advanced credits are required to earn a total of 30 elective credits in addition to the 120 credits plus labs listed below.

## Foundational Courses ( $\mathbf{3 3}$ credits +2 Labs)

Required Courses:
EDU 102 Philosophy of Education
EDU 122 Using Technology to Support Learning
EDU 203 Educational Psychology
EDU 205 Education, Colonialism and De-Colonization
EDU 230 Kindergarten Education I:
Holistic Learning and Early Intervention
EDU 305 Social Justice and Anti-Discrimination Education
EDU 315 Applying the Psychology of Learning and Motivation to the Design of Learning Environments
EDU 349 Professional Seminars Lab (1 credit)
EDU 401 Quebec Education Policy and Law
EDU 407 Individual Differences
ILT 101 Information Literacy Critical Thinking Lab (1 credit)
One of:
EDU 238 Teaching and Learning at the Elementary Level: Practice and Reflection
EDU 239 Teaching and Learning at the Secondary Level: Practice and Reflection

One of:
EDU 204 Indigenous Education
EDU 211 Introduction to Young Adult Literature and Texts "Beyond the Canon"
EDU 214 Gender and Sexuality in Education
EDU 218 History of Education
EDU 219 Getting dirty: Hands-on, experiential teaching and learning for elementary and secondary student
EDU 220 Linguistic Diversity
EDU 221 Methods in Plurilingual and Pluricultural Teaching and Learning
EDU 222 Teaching and Learning Online
EDU 285 The Reading Process
EDU 303 Sociology of Education
SLP 399 Situated Learning and Praxis

## Methods Courses ( 21 credits)

EDU 319 Student Centered Evaluation at the Elementary Level
EDU 335 Methods in the Teaching of Creative Arts (Elementary)
EDU 339 Effective Teaching and Evaluation Methods I
EDU 410 Effective Teaching and Evaluation Methods II
EDU 415 Methods in Teaching Creative Arts (Secondary)
One of:
EDU 419 Interdisciplinary Teaching and Integration of Learning at the Elementary Level (6 credits)
EDU 420 Interdisciplinary Teaching and Integration of Learning at the Secondary Level (6 credits)

## Practica (24 credits)

EDU 129 Orientation to Professional Practice
EDU 228 Practicum II (Elementary) OR
EDU 229 Practicum II (Secondary)
EDU 329 Professional Practice ( 6 credits)
EDU 429 Internship ( 12 credits)

## Disciplinary Courses listed by concentration ( 42 credits)

## Option 1: Drama Concentration

CONEED

## Required Courses:

DRA 101 Introduction to Technical Theatre
DRA 102 Introduction to Theatre Before 1800
DRA 110 Introduction to Theatre After 1800
DRA 131 Acting I
DRA 201 Contemporary Canadian Drama
DRA 222 Introduction to Shakespeare
Four of:
DRA 132 Acting II
DRA 233 Acting III
DRA 234 Acting IV
DRA 246 Introduction to Directing
DRA 250 Introduction to Technical Theatre Stagecraft
DRA 251 Lighting Design
DRA 331 Production I: Performance
DRA 332 Production II: Performance
DRA 341 Production I: Technical Production
DRA 342 Production II: Technical Production
Four of:
DRA 211 Ritual and Theatre
DRA 212 Theatre and the State
DRA 230 Women in Performance
DRA 300 Contemporary Theatre Practice
DRA 301 Contemporary Dramatic Theory
DRA 302 Classical European Drama
DRA 315 Medieval Drama
DRA 322 Topics in Shakespeare

## Option 2: Fine Arts Concentration

## Required Courses:

FIH 100 The Art of Viewing
FIH 102 Survey of Western Art II
FIH 220 Twentieth Century Art to the 1960s
FIH 221 Art from the 1960s to the end of the Twentieth Century
FIN 301 Art Education: Theory and Practice
CONEEF

Nine courses from at least three of the groups below:

## Group 1

FIS 160 Drawing I
FIS 260 Drawing II
360 Drawing III
FIS 300 Drawing IV

## Group 2

FIS 181 Painting I
FIS 281 Painting II
FIS 382 Painting III
FIS 382 Painting IV

## Group 3

FIS 170 Sculpture I
FIS 271 Sculpture II
FIS 372 Sculpture III
FIS 373 Sculpture IV

## Group 4

FIS 140 Foundation Studio
FIS 175 Introduction to Fibre Art
FIS 180 Colour: Theory and Practice
FIS 182 Photo I
FIS 190 Printmaking I
FIS 275 Fibre Art II
FIS 285 Landscape Drawing and Painting II
FIS 291 Printmaking II
FIS 296 Photo II
FIS 302 Photo III
FIS 384 Photo IV
FIS 385 Printmaking III

## Option 3: Music Concentration

CONEEM
Required Courses:
MUS 130 Materials of Music I
MUS 135 Materials of Music II
MUS 120 Musicianship I ( 2 credits)
MUS 125 Musicianship II (2 credits)
MUS 220 Musicianship III (2 credits)
MUS 230 Materials of Music III
One of:
MUS 251 Western Art Music to 1750
MUS 252 Western Art Music 1750-1900
MUS 253 Western Art Music 1900 - Today
MUS 295 Seminar in Music History/Literature
Two of:
MUS 101 Rock 101
MUS 102 Rock/Pop Music 1975 to Present
MUS 103 Classic Jazz
MUS 104 Modern Jazz
MUS 106 Song
MUS 107 Opera
MUS 115 Film Music I
MUS 116 Film Music II
MUS 203 The Blues
MUS 204 The Be-Bop Revolution
PSY 292 Psychology of Music

One of:
MUS 235 Materials of Music IV
MUS 338 Composition Styles
MUS 395 Seminar in Music Theory
12 credits from and including the following:
MUS 172 Principal Instrument I ( 2 credits)
MUS 173 Principal Instrument II (2 credits)
MUS 272 Principal Instrument III ( 2 credits)
MUS 273 Principal Instrument IV (2 credits)
Plus 4 credits of Individual Practical Study
3 credits from the following:
MUS 310 Independent Studies I
MUS 311 Independent Studies II
MUS 375 Instrumental Techniques ( 2 credit course, students completing MUS 375 must also complete 1 additional elective credit)

## Compulsory Language Requirement

EDU 100 English Exam for Teacher Certification
(P/F, students who do not pass will not be permitted to register in the third practicum)

## B.Ed. in Teaching English as a Second Language

CONTSL
The Teaching English as a Second Language (TESL) program at Bishop's University leads to a Bachelor of Education in Teaching English as a Second Language. This degree is required in order to be eligible for a teaching license. Students in this program are prepared to teach at both the Elementary and Secondary school levels.

## Overview of Total Program Credits

In order to earn a Bachelor of Education in Teaching English as a Second Language, students must complete a 150 -credit program. Students entering with a DEC from a Quebec CEGEP will normally be awarded 30 advanced credits. Mature students and students transferring from another university may be awarded certain advanced credits. Students entering without a completed DEC from a Quebec CEGEP and without any advanced credits are required to earn a total of 30 elective credits in addition to the 120 credits plus labs listed below.

## Foundational Courses ( $\mathbf{3 3}$ credits +2 Labs)

## Required Courses:

EDU 102 Philosophy of Education
EDU 122 Using Technology to Support Learning
EDU 203 Educational Psychology
EDU 205 Education, Colonialism and De-Colonization
EDU 230 Kindergarten Education I:
Holistic Learning and Early Intervention
EDU 305 Social Justice and Anti-Discrimination Education
EDU 315 Applying the Psychology of Learning and Motivation
to the Design of Learning Environments
EDU 349 Professional Seminars Lab (1 credit)
EDU 401 Quebec Education Policy and Law
EDU 407 Individual Differences
ILT 101 Information Literacy Critical Thinking Lab (1 credit)

One of:
EDU 238 Teaching and Learning at the Elementary Level: Practice and Reflection
EDU 239 Teaching and Learning at the Secondary Level: Practice and Reflection

One of:
EDU 204 Indigenous Education
EDU 211 Introduction to Young Adult Literature and Texts "Beyond the Canon"
EDU 214 Gender and Sexuality in Education
EDU 218 History of Education
EDU 219 Getting dirty: Hands-on, experiential teaching and learning for elementary and secondary students
EDU 220 Linguistic Diversity
EDU 221 Methods in Plurilingual and Pluricultural Teaching and Learning
EDU 285 The Reading Process
EDU 303 Sociology of Education
SLP 399 Situated Learning and Praxis

## Methods Courses ( 21 credits)

EDU 308 Methods in Teaching English Grammar
EDU 319 Student Centered Evaluation at the Elementary Level
EDU 339 Effective Teaching and Evaluation Methods I
EDU 410 Effective Teaching and Evaluation Methods II
EDU 418 Methods in Teaching Second Languages
One of:
EDU 419 Interdisciplinary Teaching and Integration of Learning at the Elementary Level (6 credits)
EDU 420 Interdisciplinary Teaching and Integration of Learning at the Secondary Level (6 credits)

## Practica (24 credits)

EDU 129 Orientation to Professional Practice
EDU 228 Practicum II (Elementary) OR EDU 229 Practicum II (Secondary)
EDU 329 Professional Practice (6 credits)
EDU 429 Internship (12 credits)

## Disciplinary Courses (42 credits)

Required Courses:
EDU 105 Introduction to Linguistics for Language Teaching
EDU 206 Perspectives on SLA
EDU 207 Teaching Young Second Language Learners
EDU 208 Drama Techniques for Lang. Teaching
EDU 209 Oral Communication
EDU 210 Critical Pedagogical Orientation to Second Language Teaching
EDU 307 Literature and Language Teaching
ENG 116 Effective Writing
ENG 210 Children's Literature
Two of:
ENG 104 Approaches to Short Fiction
ENG 108 The American Short Story
ENG 110 English Writers of Quebec
ENG 111 Canadian Short Story
ENG 113 English Literary Tradition
ENG 118 Literature of the Environment

ENG 123 Intro. to Indigenous Literatures in Canada ENG 124 Introduction to the Graphic Novel
One of:
ENG 200 Creative Writing: Poetry
ENG 201 Creative Writing: Prose
ENG 203 Creative Writing: Experiments in Prose
ENG 204 Creative Writing: Experiments in Poetry
One of:
ENG 212 Crime Stories: The Great Detectives
ENG 215 Introduction to N.A. Literatures
ENG 223 Elizabethan Shakespeare
ENG 225 The Stratford "Shakesperience"
ENG 228 Introduction to Post-Colonial Literature
ENG 238 Confessions, Memoirs and Life Writing
ENG 234 Contemporary Literary Theory
ENG 239 Feminist Literary Theory
ENG 241 War and Literature
ENG 250 The Modern British Novel:
Experiments in Fictional Form
ENG 251 Keep Calm and Carry On:
The British Dystopian Novel
ENG 252 English-Canadian Literature to the First World War
ENG 253 English-Canadian Literature from the First World War to the Present
ENG 254 Tooth and Claw: Animal Nature in Victorian Culture
ENG 255 Legal Bodies: Crime \& Culture in Victorian England
ENG 256 The Early Twentieth-Century American Novel
ENG 257 Contemporary American Novel
ENG 275 Contemporary Canadian Novel
One of:
ENG 102 Approaches to Media Studies
ENG 236 Popular Culture
ENG 278 Science Fiction in Literature and Film
ENG 280 Film History after 1939
ENG 282 Film Adaptation
ENG 283 The Documentary Film
ENG 287 Image and Communication:
Visual Culture and Critique
ENG 293 Four Filmmakers
ENG 294 Film Comedy
ENG 295 Jane Austen and Film
ENG 297 From Aliens to Zombies

## Compulsory Language Requirement

EDU 100 English Exam for Teacher Certification
(P/F, students who do not pass will not be permitted to register in the third practicum)

## Minor in Teaching of English Second Language (24 credits)

MINTSL
This Minor provides an opportunity for students to study how second languages are learned and taught, with an introduction to linguistics, second language acquisition research, and second language pedagogy. The Minor in the Teaching of English Second Language requires the completion of 24 credits. This Minor does not lead to teaching certification. This Minor must be combined with a full or part time degree program.

Required courses:
EDU 105 - Introduction to Linguistics for Language Teaching
EDU 206 - Perspectives on Second Language Acquisition
EDU 207 - Teaching the Second Language Learner
EDU 210 - Critical Pedagogical Orientation to Second Language Teaching
Plus 12 credits from the following list:
EDU 208 - Drama Techniques for Language Teaching
EDU 209 - Oral Communication
EDU 220 - Linguistic Diversity
EDU 307 - Literature and Language Teaching
EDU 308 - Teaching English Grammar
EDU 324 - Teaching English to Adults
EDU 325 - Selected Topics in Teaching ESL

## Minor in Teaching of French as a Second Language / Mineure en enseignement du français, langue seconde ( 24 credits)

This Minor, a collaboration between the School of Education and Études françaises et québécoises, provides an opportunity for students to observe and study how second languages are learned and taught, with an introduction to linguistics, second language acquisition research, second language pedagogy and French grammar, including the nouvelle grammaire and the nouvelle orthographe. The Minor in the Teaching of French as a Second Language requires the completion of 24 credits. To graduate with this minor students must complete 12 credits of the B2-C1-C2 level in French (Cadre européen commun de référence pour les langues). A maximum of 2 FRE courses can be taken.

Cette mineure, offerte en collaboration entre la School of Education et le Département d'études françaises et québécoises, permet aux étudiant.es d'observer et d'analyser comment les langues secondes sont apprises et enseignées. Les étudiant.es y reçoivent une formation de base en linguistique, en recherche sur l'acquisition d'une langue seconde, en pédagogie de la langue seconde et en grammaire française, ce qui inclut la nouvelle grammaire et la nouvelle orthographe. Pour obtenir cette mineure de 24 crédits, l'étudiant.e doit notamment avoir complété un total de 12 crédits en français de niveau B2-C1-C2 (Cadre européen commun de référence pour les langues). Un nombre maximal de deux cours FRE peuvent être suivis.

## 3 required credits in Education:

EDU 206 Perspectives on Second Language Acquisition

## 9 credits in Education from the courses below:

EDU 105 Introduction to Linguistics for Language Teaching (MLA 101)
EDU 207 Teaching Young Second Language Learner
EDU 209 Oral communication
EDU 210 Critical Pedagogical Orientation to Second Language Teaching
EDU 220 Linguistic Diversity
EDU 307 Literature and Language Teaching

12 credits in French (maximum of 6 FRE credits)
FRE 140 Grammatical Review (French V)
FRE 141 Grammatical Review (French VI)
FRE 155 Culture and Society. Conversational French II
FRE 156 French Written Communication II
FRA 227 Le génie de la langue:
Stylistique comparée du français et de l'anglais
FRA 309 Assistanat en enseignement du français langue seconde
FRA 310 Tutorat au Centre d'aide en français
FRA 166 Textes en contexte : initiation à la littérature québécois
FRA 209 Littérature jeunesse
FRA 230 Tout est dans la logique :
analyse grammaticale et phrase complexe
FRA 247 Rédaction et communication
Any other Niveau 4 - Level 4 FRA courses
Note that FRE 140, FRE 141, FRA 227, FRA 309 and FRA 310 are highly recommended.
Departmental prerequisites apply. This Minor does not lead to teaching certification. This Minor must be combined with a full or part time degree program. / Les prérequis départementaux s'appliquent. Cette mineure ne mène pas à la certification d'enseignement. Cette mineure doit être combinée avec un programme d'études à temps plein ou partiel.

## Minor in Teaching German as an Additional Language (24 credits) <br> MINTGL

This Minor, a collaboration between the School of Education and German, provides an opportunity for students to observe and study how second languages are learned and taught, with an introduction to linguistics, second language acquisition research, and second language pedagogy. In order to obtain this Minor, the student must complete 24 credits plus a 1 credit experiential learning lab associated with an advanced German language class.

## 3 required credits in Education: <br> EDU 206 Perspectives on Second Language Acquisition

9 credits in Education from the courses below:
EDU 105 Introduction to Linguistics for Language Teaching (MLA 101)
EDU 207 Teaching Young Second Language Learner
EDU 209 Oral communication
EDU 210 Critical Pedagogical Orientation to Second Language Teaching
EDU 220 Linguistic Diversity
EDU 307 Literature and Language Teaching
12 credits from the courses below plus one lab credit in German:
GER 301 Advanced German Language: Reading and Translating German I
GER 302 Advanced German Language: Reading and Translating German II
GER 303 Advanced German Language: Language and Cultural I GER 304 Advanced German Language: Language and Cultural II GER 305 Advanced German Language: Language, Literature and Film I
GER 306 Advanced German Language: Language, Literature and Film II
ELL 200 Experiential Learning lab (required)
Students interested in completing this Minor should contact the

School of Education at soe@ubishops.ca for more information.

## Minor in Teaching Spanish as an Additional Language ( 24 credits) <br> MINTSA

This Minor, a collaboration between the School of Education and Spanish, provides an opportunity for students to observe and study how second languages are learned and taught, with an introduction to linguistics, second language acquisition research, and second language pedagogy. In order to obtain this Minor, the student must complete 24 credits plus a 1 credit experiential learning lab associated with an advanced Spanish language class.

## 3 required credits in Education:

EDU 206 Perspectives on Second Language Acquisition

## 9 credits in Education from the courses below:

EDU 105 Introduction to Linguistics for Language Teaching (MLA 101)
EDU 207 Teaching Young Second Language Learner
EDU 209 Oral communication
EDU 210 Critical Pedagogical Orientation to Second Language Teaching
EDU 220 Linguistic Diversity
EDU 307 Literature and Language Teaching
12 credits plus one lab credit in Spanish:
SPA 301 Advanced Spanish: Topics and Texts I (required)
SPA 302 Advanced Spanish: Topics and Texts II (required)
ELL 200 Experiential Learning lab (required)
any other 6 credits at the 300 level or above
Students interested in completing this Minor should contact the School of Education at soe@ubishops.ca for more information.

## List of Courses

EDU 102 Philosophy of Education 3-3-0
The course will focus upon philosophical ideas as they are applied to educational problems. Students will undertake a critical inquiry into several philosophical schools of thought with the view of developing a personal philosophy of education. Each school of thought will be examined in the light of its essential elements and basic principles as well as how each has influenced educational theory and practice. Questions of ethics are central to the course.
EDU 105 Introduction to Linguistics for Language Teaching 3-3-0 This course provides the theoretical background in linguistics for teachers of second languages. Topics covered include the major themes in linguistics (phonetics, phonology, morphology, syntax and semantics) that inform the teaching and learning of languages.
Anti-requisites: MLA 101
EDU 107 Child Development and Elementary Teaching 3-3-0
This course is designed to provide elementary pre-service teachers with an introduction to theories about how children develop, learn and grow up. This course will review current theory about child development and cover various domains of development (social, emotional, cognitive, physical) from infancy to middle childhood. The implications of children's development in relation to elementary teaching and learning are a central focus of this course.
Anti-requisites: PSY 235
EDU 122 Using Technology to Support Learning
This course will focus on using technology to support teaching and learning processes. By studying the foundations of educational technology, pre-service teachers will develop an understanding of the role of technologies can play to improve education. They will explore the role of the educator in technologyfacilitated learning environments. They will build skills in designing technologybased learning environments to support meaningful learning.

EDU 138 Foundations of the Teaching Profession (Elementary) 3-3-0 In this course students will explore and make use of current research on the teaching, learning and evaluation processes. Students will also learn how to apply education policy and curriculum program documents in their planning and teaching. Students will continue the identification process with the teaching profession begun in their first field placement.

EDU 203 Educational Psychology
3-3-0
This course introduces pre-service teachers specializing in elementary and secondary education to the area of Educational Psychology. Educational Psychology prepares the teacher to understand principles of learning/cognition, human development, and motivation and the application of these theories to classroom learning, problem-solving, critical thinking and teaching, design of curricula, learners with special needs, classroom management, and assessment and evaluation.
Prerequisites: EDU 138 and EDU 128 or EDU 129 are prerequisites or corequisites if student is also enrolled in EDU 227, EDU 228 or EDU 229

## EDU 204 Indigenous Education

3-3-0
This course provides opportunities for education candidates to engage with Indigenous foundations of education and to develop a more complex understanding of the philosophical, social, economic and political considerations that bear on the educational conditions and contexts of Indigenous peoples in Canada. It is structured around engagements with Indigenous peoples, histories, and knowledges, and involves university and field-based experiences. Students will examine exemplary cases and approaches to curriculum planning, extra-curricular programming, pedagogy, and relationship-building with First Nations, Inuit, and Metis families and communities. The course will be graded on a pass/fail basis, which will be recorded on the student's transcript: as P - pass or F - fail
Pre- or Co-Requisite: EDU 205 or EDU 305 or HIS 108 or HIS 269 or SOC 107 or SOC 207
EDU 205 Education, Colonialism and De-Colonization
3-3-0
In this course, we examine the implication of education in ongoing histories of colonialism in Canada. A particular focus will be on the history of residential schools, their continuing legacy as well as what it might look like for educators to take ownership of this history and build conditions for reconciliation between settler Canadians and First Nations, Inuit and Metis. This will involve studying Aboriginal perspectives, goals and approaches to teaching and learning. We will engage with examples of pedagogies aimed at de-colonization for Indigenous and non-Indigenous peoples in Canada. The course aims for students to develop an intersectional analysis and approach to pedagogy.
EDU 206 Perspectives on Second Language Acquisition 3-3-0
Through this course, students will examine the implications of theories of language acquisition for the teaching and learning of second languages at the elementary, secondary and adult levels. The relevance of past and current research in both first and second language acquisition will be a major topic of discussion.

EDU 207 Teaching Young Second Language Learners
3-3-0
With a focus on young learners and their needs, this course will introduce students to a learner-centered approach to the teaching of a second language. Topics covered include early literacy development and instruction, elementary curriculum, social and cognitive dimensions of learning as well as issues related to bilingualism. Students will explore the roles of a second language teacher in a variety of teaching situations and classroom environments specific to young learners. Should be taken in the first year of study.
EDU 208 Drama Techniques for Language Teaching
3-3-0
This course is an introduction to the creative process of drama (using role playing, improvisation and theatre games to explore language learning). The focus is on developing one's own creative potential using improvisation, theatre games, movement, voice and play making. Through individual and group work, participants will learn strategies for using drama in the classroom.

## EDU 209 Oral Communication

3-3-0
This course will address issues related to the development of listening and speaking skills in second language learners, including those related to pronunciation. In addition, it will focus on varieties of oral communication in different contexts and for different levels and ages of learners.
Pre- or Co-Requisite: EDU 105 or MLA 101

## EDU 210 Critical Pedagogical Orientation to

## Second Language Teaching

3-3-0
The purpose of this course is to inquire into the socio-political dimension of ESL and other second language teaching and learning. We will examine and challenge the traditional notions of literacy and literacy practices pertaining to second language education. Together we will explore some critical approaches to teaching second languages as well as different classroom strategies and practices that bear
a transformative pedagogical orientation. This course should not be taken in the first year of your program.

## EDU 211 Introduction to Young Adult Literature

 and Texts "Beyond the Canon"3-3-0
This course is intended for future elementary teachers who wish to better investigate how to evaluate, select and share young adult literature "beyond the canon" through a critical intercultural perspective. In the course, students will examine different genres of literature such as poetry, short stories, plays and novels. Furthermore, students will reconsider the traditional meaning of "text" and examine contemporary texts such as film, television, music lyrics and videos and how and if they play a role in classrooms.
EDU 214 Gender and Sexuality in Education 3-3-0
This course will introduce pre-service teachers to Quebec's Learning Content in Sexuality Education program, the Government Action Plan against Homophobia and Transphobia, and Bill C-16. It will prepare pre-service teachers with the knowledge, skills, and methods to support their learners' in understanding themselves, their bodies, and their identities. This course will offer pre-service teachers a thorough introduction to the theoretical and applied aspects of gender and sexuality in education. Pre-service teachers will develop a comprehensive understanding of gender and sexuality and debunk the conflation between sex, gender, and sexual orientation. In this course, pre-service teachers will explore such topics as gender identity and gender expression, sexual identity, gender norms and stereotypes in education, gender and sexual diversity in schools, sexual health, and school-related gender-based violence. Through this course, pre-service teachers will learn how to develop curriculum resources and instructional strategies for gender and sexuality education.
EDU 218 History of Education
3-3-0
This course will examine education and schooling through a historical perspective. Students will analyze the social, economic, and political trends and themes that have both challenged educational policymakers and impacted the development of modern education systems. Students will engage in historical thinking as a way to contextualize education today.
EDU 219 Getting dirty: Hands-on, Experiential Teaching and Learning

3-3-0
This course focuses on community service learning and experiences in/with the natural world (e.g. gardening, field trips, teaching and learning outside etc.) as a means of cultivating relationships with place and land for both teachers and students. There will be a significant hands-on component to the course in order to break down the fear of getting dirty, making mistakes, and other perceived risks of moving beyond the confines of a classroom or school space. Students should expect to go outside regularly and engage with knowledge holders from beyond the School of Education. The course will work towards development of systems thinking where teachers and learners see themselves as a part of a relational world rather than in control of an objectified existence. Leveraging cultural resources as defined in the Quebec Education Program, and building partnerships with community groups beyond schools will be explored.
EDU 220 Linguistic Diversity 3-3-0
This course focuses on the teaching of students with diverse language abilities. It examines theoretical perspectives on first and second language acquisition and the relevance of these perspectives to educational practices. Discussion will include examination of the relationship between linguistic diversity and identity construction, the importance of first language maintenance and additive bilingualism. Students will discuss strategies for supporting and integrating linguistically diverse students into content area classes.
EDU 221 Methods in Plurilingual and
Pluricultural Teaching and Learning

3-3-0
This methods course explores plurilingual approaches to teaching and learning that valorize students' multiple linguistic, cultural, and modal resources and experiences in learning. Particularly, it aims to equip participants with the knowledge, skills, and stance to support and advocate for linguistically and culturally minoritized students' social integration as well as literacy and language learning across the curriculum. Participants will learn about curricular design, material development, and teaching and learning practices that foster transversal language and literacy development and critical intercultural awareness to promote effective knowledge construction and communicative performance.
EDU 222 Teaching and Learning Online
3-3-0
This course will focus on how to integrate teaching and learning online (asynchronously), including using student portfolios, creating websites, and supporting online dialogue to promote students' critical thinking skills. It will also discuss 'emergency' remote teaching and learning.

EDU 230 Kindergarten Education I: Holistic Learning and Early Intervention 3-3-0 Young learners' health and well-being are important for their success at school and beyond. This course offers students an introduction to the philosophical underpinnings of holistic learning and what it means to teach the whole child in kindergarten for 4 and 5 year olds. In line with the Preschool Cycle Program's emphasis on nurturing young children's global development, the topics to be explored in this course include diversity and inclusion in early childhood, the importance of social and emotional learning, holistic approaches to early education, well-being and trauma-informed care, building partnerships with families and communities, and interprofessional collaboration.
EDU 231 Kindergarten Education II: Theory and Pedagogy 3-3-0 Kindergarten marks a significant period in young learners' lives. This course introduces students to the theoretical and applied aspects of kindergarten education for 4 and 5 year olds. With particular attention given to the Preschool Cycle Program, students will examine the theories that inform early learning curricula, develop appropriate and stimulating learning environments for young learners, explore play-based education, and examine social-justice- oriented pedagogy in the context of early education. In this course, students will be expected to reflect critically on teaching and learning with young children.
Pre-requisite: EDU 138 and EDU 230

## EDU 238 Teaching and Learning at the Elementary Level: Practice and Reflection

3-3-0
In this course students will learn to apply current research on the Elementary teaching, learning and evaluation processes to designs for learning. Students will learn about Quebec curriculum-related documents; they will deepen their understanding of the application of education policy and curriculum program documents to their planning process. Students will document the development of their professional identity.

## Prerequisite: EDU 138 Foundations of the Teaching Profession

## EDU 239 Teaching and Learning at the Secondary Level: Practice and Reflection

3-3-0
In this course students will learn to apply current research on the Secondary teaching, learning and evaluation processes to designs for learning. Students will learn about Quebec curriculum-related documents; they will deepen their understanding of the application of education policy and curriculum program documents to their planning process. Students will document the development of their professional identity. It is a co-requisite for the second year practicum course taken by all Secondary candidates in their second year.

## EDU 285 The Reading Process

3-3-0
The lifelong acquisition of reading skills is complex. Teachers need to understand the integrated language system: oral language (listening and speaking), reading and writing. Designed for teachers, the aim of this course is to learn about the psychological processes involved when we read. Theoretical approaches to language acquisition will be examined. Teaching strategies using multi-modal approaches supporting the development of reading skills will be introduced for various age and educational levels. Issues such as bilingualism, English language learning and cultural differences will be addressed. Reading disabilities affect many learners and impact all subject areas; consequently, knowing how language is acquired will enable teachers to understand the nature of reading disabilities and to learn strategies to meet the needs of all students in an integrated classroom setting.

## EDU 303 / SOC 299

Sociology of Education
3-3-0
The purpose of this course is to examine education in Canada from a critical sociological perspective. Education is a major institution in most societies and is a vital part of our social existence. The sociology of education, a subfield of sociology, focuses on the institution of education and the structures, processes and interaction patterns within it. We will look at the educational system as a whole, integrated and dynamic entity. To do so, reference will be made to a variety of sociological studies, but the main perspective is critical.
EDU 305 Social Justice and Anti-Discrimination Education 3-3-0 This course is designed to engage teacher candidates in a critical examination of key concepts and issues in the field of education that help us approach questions of social inequality, identity, difference, pluralism and social justice from a critical historical, philosophical and sociological perspective. Drawing from a range of theoretical and practical as well as multimedia resources, we will try to develop a critical awareness as reflective practitioners in relation to the social forces that influence the teaching-learning process in diverse societies and a globalizing world.
Prerequisite: EDU 238 or EDU 239 or permission of instructor

EDU 307 Literature and Language Teaching
3-3-0
This course will explore the use of literature as a basis for the teaching of ESL. Theories regarding the connection between literature and language learning will be introduced, and students will be involved in the construction of classroom learning situations based on poetry, short stories and novels.
Pre-requisites: 100 level English course or ENG 210 or EDU 211
EDU 308
Teaching English Grammar
3-3-0
This course is intended to achieve two aims: to provide students with an overview of grammatical issues for learners of English as a second language, and to address the strategies and methods that ESL teachers might adopt to integrate the teaching of grammar into their classrooms. Practice in the effective design of instruction and materials for the teaching of grammar will be a significant component of the course.
EDU 309 Effective Teaching Methods at the Elementary Level 3-3-0 In this course students will deepen their understanding of Elementary level teaching, learning and evaluation processes and practices fundamental to the development of elementary students' competencies. They will explore and construct a conceptual understanding of learning and assessment strategies and how these strategies can be built into daily practice. Drawing on Quebec curriculum guides and policies and current related research, they will develop complex learning and evaluation situations (LES), which will be implemented while in the practicum.
Pre-requisites: EDU 228 or EDU 229
Co-requisites: EDU 328

## EDU 313 Teaching Ethics and Religious Culture (Elementary \& Secondary)

3-3-0
The purpose of this course is to introduce pre-service teachers to the Ethics and Religious Culture program, first implemented in Quebec schools as of 2008. Principal topics covered will include the familiarization with the manner in which religious and non-religious worldviews can be understood and respected through cultural phenomena and the manner in which ethics can be explored to meet the criteria of "recognizing others" and the "pursuit of the common good". With respect to the progression of learning from elementary to secondary, particular attention will be given to making the theoretical dialogue within this course applicable to the students' teaching context. The pre-service teacher will also be expected to deliberate the professional responsibilities that arise from the shift of confessional schooling to structures that are entirely non-religious.

## EDU 315 Applying the Psychology of Learning and Motivation to the Design of Learning Environments <br> 3-3-0

This course will assist pre-service teachers to apply the psychology of learning and motivation to the design of learning environments. In this course pre-service teachers will deepen their comprehension of learning environments that foster learning and motivation. They will explore different approaches to organizing schools and classrooms based on supporting student's engagement within an inclusive learning community. They will study motivational theories and how to improve student motivation in relation to the design of learning and evaluation situations.

## Prerequisite: EDU 203

EDU 319 Student Centered Evaluation at the Elementary Level 3-3-0 This course introduces pre-service teachers to the multi-dimensional and complex nature of the evaluation processes fundamental to equitably fostering and tracking development of competencies at the elementary level. In this course we will explore and construct a conceptual understanding of evaluation strategies that support student learning and how these strategies can be built into daily practice. We will also construct an understanding of those classroom practices that are required to focus students on expected learning outcomes and determine to what extent these expectations have been met. Drawing on Quebec curriculum guides and policies and current related research, students will begin learning how to incorporate effective assessment within a complex learning and evaluation situation.
Prerequisite: EDU 228 or EDU 229
Co-requisite: EDU 328 or EDU 329
EDU 321 Methods in the Teaching of Language Arts I (Elementary)

3-3-0
This course introduces pre-service teachers to literacy-related concepts, competencies and instructional and assessment approaches, the role of Language Arts in helping learners develop a critical understanding of the world, trends in literacies research, and related Quebec program documents. Pre-service teachers will begin to plan and design learning that fosters the literacy development of young learners in kindergarten and cycle one.

EDU 324 Teaching English to Adults
3-3-0
This course will explore the particular needs and challenges of adult learners of English as a Second Language. Students will be connected to local classrooms of adult learners to observe their language learning experience and to consider ways to construct appropriate learning situations for them.

## EDU 325 Selected Topics in Teaching ESL

3-3-0
This course is designed to provide opportunities for students to explore recent and/ or controversial topics related to second language teaching and learning. Specific topics will vary from year to year so that current issues may be addressed.
EDU 326
Engineering for Science and Technology Teachers
3-0-0
The Quebec Education Program has a strong engineering component that appears in the technological world. It focuses on engineering science, skills, technologies, and methods, and considers applied science in areas such as biotechnology, genetics, etc. This course will consider how engineering and science are related and what applied science actually means. Students will explore engineering in a handson manner via problem-solving and design. Critical consideration of implementing engineering in elementary and secondary education will be included.
EDU 330 Independent Study in Education
3-3-0
Students in the first degree (BA Educational Studies/Elementary Education or BA/ BSc Double Major/Secondary Education) may be granted permission to pursue an independent study project under the guidance of a faculty supervisor on a topic in Education. Topics must be approved by the School of Education.
EDU 331 Methods in the Teaching of Language Arts II 3-3-0
This course will allow pre-service teachers to deepen their knowledge and application of literacy-related instructional approaches, particularly for elementary Cycles 2 and 3. It prepares the candidates to plan and design learning that leads students to work critically with all kinds of print, digital texts and multi-model sources, contributing to the development of their language arts competencies. Pre-service teachers will explore: the role of Language Arts in helping learners develop a critical understanding of the world, how to apply literacy practices in the classroom (including new literacies, multiliteracies, critical literacies, and so on) to support examination of concepts across the curriculum, and application of new trends and appropriate assessment tools relevant to literacy practices across subject areas.
Pre or Co-requisite EDU 321.
EDU 334 Methods in the Teaching of Mathematics
3-3-0
The general goal of the course is to learn to teach mathematics in such a way that your students develop "mathematical power." Mathematical power includes both ability (to conjecture, reason logically and communicate about mathematics) and attitude (self-confidence and a disposition to question and explore significant mathematical situations).The course will focus on the following: Mathematical content. Students will develop and/ or refine their conceptual and procedural knowledge of the mathematics included in the elementary curriculum. Particular attention will be given to the content recommended in the QEP Math Curriculum Guide.
Mathematical learning. Students will explore instructional strategies and tools for the teaching and assessment of mathematics consistent with constructivist theories. Students will be expected to use this knowledge when planning for instruction. Connecting mathematical ideas. Students will explore ways to link mathematical ideas and to relate mathematics to other subject areas and everyday situations.

## EDU 335 Methods in the Teaching of Creative Arts -

 Elementary3-3-0
This course provides starting points for students to examine Visual Arts and Music both as separate disciplines and as potent tools in an integrated curriculum. Through a variety of approaches, students receive instruction in theory and teaching practices as well as hands-on experience. During the term students develop their own instructional strategies through the development of a curriculum unit of thematically related, arts based lesson plans and projects.
EDU 339 Effective Teaching and Evaluation Methods I
3-0-0
In this course students will deepen their understanding of Secondary level teaching, learning and evaluation process and practices fundamental to the development and tracking of secondary students' competency. They will explore and construct a conceptual understanding of strategies and how these strategies can be built into daily practice. Drawing on Quebec curriculum guides and policies and current related research, they will develop complex learning and evaluation situations (LES), which will be implemented while in the practicum.
Pre-requisite EDU239 Co-requisite: EDU 328

EDU 341 Methods in Teaching English Language Arts at the Secondary Level I

3-3-0
This course will help to prepare students to teach English Language Arts at the Secondary and Adult Education levels. Students will have the opportunity to work on their own writing skills while learning more about how to encourage secondary and adult learners to improve their abilities to read and communicate orally and in writing. They will become familiar with the QEP curriculum objectives for the English program and will be involved in planning units in assorted texts within the current Secondary English curriculum. Students will be exposed to new trends and appropriate assessment tools through classroom activities and assignments.
EDU 342
Methods in Teaching Mathematics at the Secondary Level I

3-3-0
This course will focus on strategies for the teaching of Mathematics in the secondary school curriculum. Students will gain an understanding of the general curriculum objectives, trends and teaching methods through lectures, practice in the problemsolving approach, and discussions of appropriate means for assessment. Students will work on projects and assignments related to course topics at the secondary or adult education levels.
EDU 343 Methods in Teaching Science and Technology at the Secondary Level I

3-3-0
This course will address the inquiry and problem-solving processes of the Quebec Education Program for Secondary Science and Technology. It will focus on enactment of program competencies in relation to stipulated progressions of learning. Consideration of the nature of science and technology, the kinds of understanding that secondary students develop in science and technology, and how they develop such understandings via collection and interpretation of data will be emphasized. Pre-service teachers will be asked to apply developing understandings through creation of lessons/LESs, conversations and other explorations with peers, evaluation of research in science and technology education, and their subsequent practicum. In addition, the course will consider how science and technology are cultural practices deeply connected to European colonialism, and students will consider how other peoples have come to a practices empirical understanding of the world in ways that might also be considered science.
EDU 344 Methods in Teaching Social Sciences at the Secondary Level I 3-3-0
This course focuses on teaching strategies and learning concepts in the social sciences as outlined in the Quebec Education Program. Students will gain an understanding of the general curriculum competencies, objectives and trends as well as of the conceptual base and associated methodologies of the social science disciplines. Students will learn how to design a curriculum resource unit including appropriate tasks and assessment tools. They will also learn how to select as well as create resource materials.
EDU 346 Methods in Teaching Mathematics, Science and Technology at the Secondary Level I

3-3-0 This course will focus on approaches for the teaching of Mathematics, Science and Technology while considering the significance of history and culture in the evolution of these fields. Students will learn how to interpret curriculum competencies, objectives and trends, as well as the conceptual bases and associated methodologies of these disciplines. They will also learn how to critically select, design and develop curriculum resource materials and units.
EDU 348 Professional Seminars Lab (Elementary)
1-0-0
This course is comprised of seminars, workshops, and related activities on special topics aimed to enhance the students' induction into the teaching profession. Students will also be engaged in the reading of selected texts intended to encourage them to consider educational issues in profound and critical ways. The seminars may include guest speakers, discussions and panels, and conferences in preparation for the third practicum. Students will demonstrate their learning. This course is graded on Pass/Fail basis.
Co-requisite: EDU 328
EDU 349 Professional Seminars Lab (Secondary)
1-0-0
This course is comprised of seminars, workshops, and related activities on special topics aimed to enhance the students' induction into the teaching profession. Students will also be engaged in the reading of selected texts intended to encourage them to consider educational issues in profound and critical ways. The seminars may include guest speakers, discussions and panels, and conferences in preparation for the third practicum. Students will demonstrate their learning. This course is graded on Pass/Fail basis.
Co-requisite: EDU 329

EDU 401 Quebec Education Policy and Law
3-3-0
Students will have an opportunity to study the development of the Quebec education system from historical, political, and legal perspectives. Students will explore major educational ideas such as access to education and the growth of professionalism in the system. Legislation and regulations such as the Quebec Education Act will be examined in the course.
Prerequisite: EDU 328 or EDU 329

## EDU 403 Readings to Promote Educational Thinking

3-3-0
This readings course is intended to encourage student teachers to consider educational issues in profound and critical ways. Drawing from a wide selection of historical and current literature on education, students will produce an academic paper (or alternative assignment) which may be reviewed by their peers for publication in a School of Education collection of student work. The course will be organized around seminar sessions that highlight specific readings as well as group and individual discussions with the professor(s).

## EDU 407 Individual Differences

3-3-0
This course focuses on the teaching of students with exceptionalities in inclusive settings. Class discussions will centre on issues surrounding inclusion and its implications for teaching adaptations in the classroom and school community. Students will gain an understanding of classroom-based approaches to assessment and instruction, including differentiated instruction and universal design for learning, that recognize the uniqueness of each student and of the methods and strategies which successfully integrate exceptional students in the inclusive classroom, including the development and implementation of individual education plans (IEPs).
Prerequisite: EDU 328 or EDU 329
EDU 410 Effective Teaching Methods and Evaluation II 3-3-0
This course will provide secondary education student teachers with an additional exposure to general methods of teaching and enhance their knowledge of student centered evaluation principles and practices.
Prerequisite: EDU 328 or EDU 329

## EDU 411 Methods in Teaching English Language Arts at the Secondary Level II

3-3-0
This course will help to prepare students to teach English Language Arts at the Secondary and Adult Education levels. Students will have the opportunity to work on their own writing skills while learning more about how to encourage secondary and adult learners to improve their abilities to read and communicate orally and in writing. They will become familiar with the QEP curriculum objectives for the English program and will be involved in planning units in assorted texts within the current Secondary English curriculum. Students will be exposed to new trends and appropriate assessment tools through classroom activities and assignments. Prerequisite: EDU 341 and EDU339

## EDU 412 Methods in Teaching Mathematics at the Secondary Level II

3-3-0
This course will focus on strategies for the teaching of Mathematics in the secondary school curriculum. Students will gain an understanding of the general curriculum objectives, trends and teaching methods through lectures, practice in the problemsolving approach, and discussions of appropriate means for assessment. Students will work on projects and assignments related to course topics at the secondary or adult education levels.
Prerequisite: EDU 342 and EDU 339

## EDU 413 Methods in Teaching Science and Technology at the Secondary Level II

3-3-0
This course will address the inquiry and problem-solving processes of the Quebec Education Program for Secondary Science and Technology. It will focus on enactment of program competencies in relation to stipulated Secondary Science and Technology. It will focus on enactment of program competencies in relation to stipulated progressions of learning. Consideration of the nature of science and technology, the kinds of understanding that secondary students develop in science and technology, and how they develop such understandings via collection and interpretation of data will be emphasized. Pre-service teachers will be asked to apply developing understandings through creation of lessons/LESs, conversations and other explorations with peers, evaluation of research in science and technology education, and their subsequent practicum. In addition, the course will consider now science and technology are cultural practices deeply connected to European colonialism, and students will consider how other peoples have come to a practiced empirical understanding of the world in ways that might also be considered science. Prerequisite: EDU 343 and EDU 339

EDU 414 Methods in Teaching Social Sciences at the Secondary Level II

3-3-0
This course focuses on teaching strategies and learning concepts in the social sciences as outlined in the Quebec Education Program. Students will gain an understanding of the general curriculum competencies, objectives and trends as well as of the conceptual base and associated methodologies of the social science disciplines. Students will learn how to design a curriculum resource unit including appropriate tasks and assessment tools. They will also learn how to select as well as create resource materials.
Prerequisite: EDU 344 and EDU 339
EDU 415 Methods in the Teaching of Creative Arts - Secondary 3-3-0 The class itself models several teaching and learning situations and strategies for both elementary and secondary levels of instruction. Students work in groups, with partners and alone. Peer tutoring is used for part of the creative movement/ dance unit. Students are given the opportunity each semester to talk with an artist currently exhibiting at the art gallery. Students are expected to develop sequential arts-based lessons formally, thematically and experientially, drawing on in-class situations modeled for them. Students are made aware of Howard Gardner's Multiple Intelligences Model and the importance of matching teaching and learning styles.
Prerequisite: EDU 339 and EDU 335
EDU $416 \quad$ Methods in Teaching Mathematics, Science and Technology at the Secondary Level II

3-3-0
This course will focus on approaches for the teaching of Mathematics, Science and Technology while considering the significance of history and culture in the evolution of these fields. Students will learn how to interpret curriculum competencies, objectives and trends, as well as the conceptual bases and associated methodologies of these disciplines. They will also learn how to critically select, design and develop curriculum resource materials and units.
Prerequisite: EDU 346 and EDU 339
EDU 418 Methods in Teaching Second Languages - Secondary 3-3-0 This course examines recent developments in second language teaching approaches and methods, particularly as they relate to the selection of teaching material, choice of techniques for the second language classrooms and appropriate means of assessment. It includes a brief historical overview of language teaching methods and approaches.
Prerequisite EDU 339
EDU 419F Interdisciplinary Teaching and Integration of Learning at the Elementary Level

6-6-0
In this two-term, final year capstone course, students synthesize theoretical and practical learning over their time in program in relation to the School of Education's outcome statement and the contemporary context of teaching and learning at the elementary level. They thus consider teaching as an intellectual pursuit and social responsibility by exploring how education in Québec is framed and positioned, the manner in which multiple stories and different ways of knowing, being, and doing can and do circulate together in teaching and learning, the importance of critical reflection and research to teaching and learning, and how leadership begins with change and action at the very local level. Students explore the meanings of commitment to "transformation through education" by individually and collaboratively designing formal and informal approaches to fostering change through their professional practice, some of which are taken up during the internship practicum. Students return to the university after practicum, where they discuss their emerging professional identities, synthesize their learning, and provide evidence of the capacity for ongoing critical reflection and commitment to the transformative power of education in service of a more equitable and sustainable world for all our relations.
Prerequisite: EDU328 or EDU329

## EDU 420F Interdisciplinary Teaching and Integration of Learning at the Secondary level

In this two-term, final year capstone course, students synthesize theoretical and practical learning over their time in the program in relation to the School of Education's outcome statement and the contemporary context of teaching and learning at the Secondary Level. They consider teaching as an intellectual pursuit and social responsibility by exploring how education in Québec is framed and positioned, the manner in which multiple stories and different ways of knowing, being, and doing can and do circulate together in teaching and learning, the importance of critical reflection and research to teaching and learning, and how leadership begins with change and action at the very local level. Students take up the meanings of commitment to "transformation through education" by individually and collaboratively designing formal and informal approaches to fostering change through their professional practice, some of which are taken up during the internship practicum. Students return to the university after practicum, at which time they discuss their emerging professional identities, synthesize their learning, and provide evidence of the capacity of ongoing critical reflection and commitment to the transformative power of education in service of a more equitable and sustainable world for all our relations.
Prerequisite: EDU 328 or EDU 329
EDU 433 Methods in the Teaching of Elementary Social Sciences 3-3-0 This course will prepare pre-service teachers with the understandings, skills, and methods to support their learners' social science curriculum competencies, and support their evolving world view. Pre-service teachers will explore the role of social sciences in helping learners develop a critical understanding of the Canadian history and environment; this includes specific attention to FNIM issues and perspectives. The course also addresses relevant assessment tools and practices. Prerequisite: EDU 328
EDU 434 Methods for Scientific Inquiry and Problem Solving 3-3-0
This course will prepare pre-service teachers in supporting their learners' evolving world view. Pre-service teachers will explore: the role of science and mathematics in helping learners develop a critical understanding of the world, how inquiry strategies and problem solving can be applied in a natural science and mathematics context, and assessment tools relevant to inquiry and problem solving in science and mathematics.
Prerequisite: EDU 328 or EDU 329
ILT 101 Information Literacy and Critical Thinking Lab $\mathbf{1 - 0 - 1}$ The objective of this laboratory course is to introduce students to the skills necessary to effectively complete their research assignments, in Education. The course includes the correct use of library resources, including the online catalogue, periodical indexes and other relevant databases. Other areas of study include the identification of key terms for effective searching, productive use of the internet and the critical evaluation of retrieved resources. Academic integrity, plagiarism and the correct citation of print and online sources are also taught. The course is practical, and students are given the opportunity for hands-on experience in the library's electronic classroom. Taught in conjunction with EDU 128 / EDU 129, "Orientation to Professional Practice", students retrieve the resources necessary to complete their assignments for the course. ILT 101 is a required core course.

The following, EDU 128, EDU 129, EDU 227EDU 227, EDU 228, EDU 229, EDU 328, EDU 329, EDU 428 and EDU 429, take place in assigned educational settings:

EDU 128 Orientation to Professional Practice (Elementary) 3-3-0 Students will focus on the human and professional elements of teaching in order to identify those personal traits that are characteristic of effective teachers. This course introduces students to the process of reflective practice and to the professional knowledge base that inspires it. The above course components combined with field-based experiences and classroom presentations will help students make informed judgments as to their suitability for the teaching profession.
Co-requisite: ILT 101-Information Literacy Critical Thinking Lab
EDU 129 Orientation to Professional Practice (Secondary) 3-3-0 Students will focus on the human and professional elements of teaching in order to identify those personal traits that are characteristic of effective teachers. This course introduces students to the process of reflective practice and to the professional knowledge base that inspires it. The above course components combined with field-based experiences and classroom presentations will help students make informed judgments as to their suitability for the teaching profession.
Co-requisite: ILT 101-Information Literacy Critical Thinking Lab

EDU 227 Alternate Practicum II
3-3-0
This second-year field experience in the elementary or secondary school setting, involves a combination of half and full days over the Fall semester of a minimum of 70 hours. Students begin to integrate theory Students begin to integrate theory from courses with field-based practice and carry out aspects of the teaching act in collaboration with associate teachers and university supervisors. They participate in the life of the school inside and outside the classroom. In extenuating circumstances, with the permission of the Department Chair.
Prerequisites: EDU 128 and EDU138, or EDU 129
Co-requisite: EDU 238 or EDU 239
EDU 228 Practicum II - Elementary
3-3-0
This second-year field experience in the elementary school setting involves a combination of half and full days over the Fall and Winter semester of a minimum of 70 hours. Students begin to integrate theory from courses with field-based practice and carry out aspects of the teaching act in collaboration with associate teachers and university supervisors. They participate in the life of the school inside and outside the classroom.
Prerequisites: EDU 238 or EDU 239
EDU 229 Practicum II - Secondary
3-3-0
This second-year field experience in the secondary school setting involves a combination of half and full days over the Fall and Winter semester of a minimum of 70 hours. Students begin to integrate theory from courses with field-based practice and carry out aspects of the teaching act in collaboration with associate teachers and university supervisors. They participate in the life of the school inside and outside the classroom.
Prerequisites: EDU 238 or EDU 239
EDU 328 Professional Practice
6-3-0
Through field experience in the elementary school setting, students will integrate theory with practice in this practice teaching placement. Students will plan, present, and self-evaluate lessons in collaboration with faculty supervisors, university teaching associates, and associate teachers. They will evaluate students and participate in the life of the school inside and outside the classroom.

## Prerequisites: EDU 228 or EDU 229

EDU 329 Professional Practice
6-3-0
Through field experience in the secondary school setting, students will integrate theory with practice in this practice teaching placement. Students will plan, present, and self-evaluate lessons in collaboration with faculty supervisors, university teaching associates, and associate teachers. They will evaluate students and participate in the life of the school inside and outside the classroom. Students in certain secondary profiles may be placed in an adult education setting.
Prerequisite EDU 228 or EDU 229
EDU 428 Internship - Elementary
12-0-0
This practicum is the culmination of the students' socialization into the profession of teaching. Through a lengthy elementary school immersion, students synthesize theories with practice to assume the competencies required of a teacher in the classroom and in the profession. Students become full-time teachers and colleagues with associate teachers, university teaching associates and faculty supervisors. They focus on long term and short term planning and implementing units of study. They experience all the challenges of the profession: teaching and evaluating students, interviewing parents, working on teams, organizing extra-curricular activities, and participating in professional development activities.
Prerequisite EDU 328 or EDU 329
EDU 429 Internship- Secondary
12-0-0
This practicum is the culmination of the students' socialization into the profession of teaching. Through a lengthy secondary school immersion, students synthesize theories with practice to assume the competencies required of a teacher in the classroom and in the profession. Students become full-time teachers and colleagues with associate teachers, university teaching associates and faculty supervisors. They focus on long term and short term planning and implementing units of study. They experience all the challenges of the profession: teaching and evaluating students, interviewing parents, working on teams, organizing extra-curricular activities, and participating in professional development activities. Students in certain secondary profiles may be placed in an adult education setting.
Prerequisite EDU 328 or EDU 329

## Division of Humanities

## Overview

The Division of Humanities offers a wide array of courses and programs in the traditional liberal arts disciplines of Classical Studies; Languages; Literature; Philosophy; History and Global Studies; Religion, Society and Culture; interdisciplinary programs in Liberal Arts and in Arts Administration; as well as programs (involving both historical and practical study) in the three creative arts of Drama, Fine Arts and Music.

## Degrees and Programs

Detailed descriptions of the degrees and programs offered are found under the respective Departmental sections of this calendar. The Division of Humanities offers a wide range of Major programs leading to a Bachelor of Arts (B.A.). In addition, the Departments offer Honours programs directed towards students that wish to attain higher levels of specialization in their discipline and that intend to pursue graduate studies. In addition, several departments offer Minor programs that can be added to one's Honours/Major program and some departments may offer certificate programs.

## Divisional Major

The Division offers an entry level program for a limited number of students, allowing them to register as Divisional Majors (rather than into a specific program) for a maximum of two semesters. After two semesters of full-time study are completed, students must enrol into a specific program (Major). Students who are not accepted into one of the regular programs must consult with the Dean of Arts and Science to determine an academic plan.

## Arts \& Science and Divisional Requirements

In order to encourage students enrolled in the Division of Humanities to broaden the scope of their education, all majors and honours must complete at least three credits in each of the four categories listed below. While these requirements will not in themselves ensure against excessive specialization, it is hoped that they will lead students to find and pursue various areas of interest.

Category I: Languages and Literature, including German, Japanese, Spanish, Greek, Latin, Biblical Hebrew, English, French, Mandarin and Abenaki, with the exception of 100-level courses in English as a Second Language. CLA 112 and 113 also will be considered as Category I courses. Students are required to select a course in a language other than their mother tongue

Category II: Drama, Fine Arts and Music
Category III: Classics (including Latin and Greek); History and Global Studies; Liberal Arts; Philosophy; and Religion, Society and Culture
Category IV: 3 credits in the Division of Natural Science and Mathematics
No courses offered by the department in which the student is doing an honours or major may count towards fulfilling these requirements. Students with program combinations which require more than 72 credits are exempt from these requirements.

## Departmental Honours Programs

Students must normally obtain a $70 \%$ average, as calculated from the best 60 credits in the Honours discipline (including cognates), in order to graduate with an Honours degree in any Humanities Program. (See under individual departments for particular honours requirements.)

## Transfers from Other Programs

Students who wish to transfer from other departments or programs in the University into a program in the Division of Humanities must have maintained a cumulative average of $60 \%$ on all courses taken.

## Graduation "with Distinction"

The notation "with Distinction" will appear on the transcript of students who graduate with a cumulative average of $80 \%$ or more. It is only available for first degree students.

## Divisional Course

ILT 102 Information Retrieval and Evaluation Skills for the Humanities (Lab)

1-0-1
The objective of this laboratory course is to introduce students to the skills necessary to effectively complete their research assignments, including the correct use of library resources, such as the online catalogue, periodical indexes and other relevant databases. Other areas of study include the identification of key terms for effective searching, productive use of the internet, and the critical evaluation of retrieved resources. Academic integrity, plagiarism, and the correct citation of print and online sources are also covered. Taught in conjunction with a researchbased course, the specific resources relevant to research in the Humanities are introduced, and the students retrieve the material necessary to complete the essays for their particular course. The course is taught in the library's electronic classroom, and each week the students are given the opportunity for practical experience. To see how ILT 102 is currently linked to your program, check requirements under various departments in the Humanities (e.g., required for Modern Languages and History). The course is open to all students, regardless of program.

## Art History

## Program Overview

We live in a world defined by images. Art History helps us to understand our visual world and to probe the complexities of images, objects, and artifacts found in art and culture. Through the methods and concepts of art history, students learn the 'visual' language of images as they acquire knowledge and understanding of all forms of visual arts ranging from earliest cave paintings to latest new media installations, from monumental to miniature.

Using diverse approaches and theories, art is critically analyzed in the larger social, cultural, economic, institutional, and ideological context of its production, display, and reception. As students engage with works of art and key texts in art history, theory, and criticism, they develop visual as well as verbal and written literacy. Art History fosters creative and critical thinking, inquiry, analysis, and effective communication skills.

In its cross-disciplinary reach, Art History is a unique and wide-ranging discipline that encompasses aspects of history, philosophy, religion, psychology, sociology, gender studies, and cultural studies. Cognate courses with the department of Classical Studies and cross-listed courses with the departments Sociology and History are offered to broaden the students' conceptual horizons.

While our program is primarily designed to meet the needs of Fine Arts students in Art History and Studio, we welcome students from all disciplines to the many courses that do not have prerequisites. Some of these courses are particularly appealing to students in Cultural Studies and New Media, Popular Culture, Religion, and Public History.

## Programs and Requirements

## The Art History Program offers Minor, Major and Honours Programs:

Art History Credits (FIH): Students can choose to focus on period-based, thematic or theory-based courses in art history.
Studio Credits (FIS): According to their personal interest, students can opt for a broad experience in studio by taking one of each of the foundation-level courses (drawing, painting, printmaking, photography, and sculpture) or a more specialized approach by focusing on one medium from level I through IV.
Elective Credits: Can be completed in FIH, FIN cross-listed, and cognate courses depending on each of the three programs below.

## Honours in Art History and Theory

 (60 credits)
## HONFIH

Students enrolled in the Honours Art History and Theory program must successfully complete 60 credits comprising 42 credits ( 14 courses) in art history or FIN cross-listed and cognate courses, and 18 credits ( 6 courses) in studio courses (FIS and FIN). Students can apply to the Honours Program any time after the completion of 15 credits in art history courses. The 60 credits required for the Honours degree must include:

FIH 100 The Art of Viewing: Introduction to Art History
FIH 102 Survey of Western Art II:
Renaissance to Neoclassicism
12 credits ( 4 courses) in 200-level courses in art history (FIH)
9 credits ( 3 courses) in 300-level courses in art history (FIH)
Any 6 credits ( 2 courses) in art history courses
9 credits ( 3 courses) elective in FIH and FIN cross-listed or cognate courses to be selected in consultation with the Art
History and Theory program chairperson
18 credits in studio arts (FIS and FIN)

## Suggested course of study:

## Year one:

FIH 100, FIH 102, and two 200-level FIH or electives courses (FIN or cognates)
Two FIS courses

## Year two:

Five FIH and electives courses (FIN or cognates) with a minimum of one FIH 300-level course
Two FIS courses

## Year three:

Five FIH and electives courses (FIN or cognates) with a minimum of two FIH 300-level courses
One FIS course
A student has the option of completing the Honours over 4 years, especially if enrolled also in a major or minor in another discipline.

## Major in Fine Arts Concentration in Art History and Theory (48 credits)

## MAJFIN+CONFHT

Students enrolled in the Major in Fine Arts with a Concentration in Art History and Theory must successfully complete 48 credits comprising at least 27 credits ( 9 courses) in art history courses (FIH), 15 credits ( 5 courses) in FIS and FIN studio courses, and 6 credits to be selected from FIH courses, FIN cross-listed and cognates courses in consultation with the Art History and Theory program chair.
The 48 credits required for the Concentration in Art History must include:

FIH 100 The Art of Viewing: Introduction to Art History
FIH 102 Survey of Western Art II:
Renaissance to Neoclassicism
12 credits ( 4 courses) in 200-level courses in art history (FIH)
9 credits (3 courses) in 300-level courses in art history (FIH)
6 credits (2 courses) elective in FIH and FIN cross-listed and
cognate courses to be selected in consultation with the Art
History and Theory program chairperson
15 credits in studio arts (FIS and FIN)

## Suggested course of study:

## Year one:

FIH 100, FIH 102, and one 200 -level FIH course
Two FIS courses

## Year two:

two 200-level art history courses
one elective FIH, FIN or cognate course
one or two 300 -level art history course
Two FIS courses

## Year three:

one 200 -level art history course
one elective FIH, FIN or cognate course
one or two 300-level art history courses
one FIS course
A student enrolled in a double major in Fine Arts Art (History/ Studio) or another discipline can complete the requirements over a 4-year period.

## Minor in Art History and Theory ( 24 credits) MINFHT

The Art History and Theory Minor is for students in any discipline who, in addition to their major concentration, wish to develop a secondary area of expertise in art history. The Minor allows students to sample from the courses offered through the Art History Program: introductory, period-based, thematic, and advanced courses. Students must complete any 24 credits ( 8 courses) of their choice in Art History (FIH) or cross-listed coursed (FIN 235, FIN 292 and FIN 388), including a minimum of 6 credits at the 300 level.

## List of Courses

## Introduction Courses (100-level courses)

NB: FIH 100 and FIH 102 requirements are offered every year. FIH 100 The Art of Viewing: Introduction to Art History 3-3-0
FIH 100 The Art of Viewing: Introduction to Art History 3-3-0 This course is for any student interested in looking at, thinking about, and understanding works of art and visual media in general. We look at various mediums, ranging from painting and sculpture to video, performance, and Net art. We think about world art in relationship to Western thought and culture, the canon of traditional art history that has shaped our perception, and explore alternative histories of art. We reflect on the circulation, transmission, and display of art through private and public patronage, collections, and exhibitions. We consider the social and material conditions of viewing, and how mediums and social determination condition visual understanding. Finally, we seek to understand the possible content or meaning of art through different methods of interpretation. Overall, the course aims to provide students with the visual, verbal, and conceptual skills fundamental to the description, appreciation, analysis, and criticism of the visual media.
FIH 101 Survey of Western Art I: Prehistory to Medieval 3-3-0 Introduction to concepts and methods of art history. Survey of the visual arts from the Paleolithic Era through the Middle Ages.
FIH 102 Survey of Western Art II: Renaissance to Neoclassicism 3-3-0 This course explores the classical tradition and its developments in painting, sculpture and architecture from the co-called rebirth of Greco-Roman Antiquity in the early 15 th century to the revival of classicism in the mid-18th century. Religious and secular key works from the Renaissance, Mannerism, Baroque, Rococo and Neoclassicism are studied in the changing social, cultural and political contexts of their production, such as humanism, the Reformation and Counter-Reformation, the academy, absolute monarchies, and the Enlightenment.

## Intermediate Period-Based Courses (200-level courses)

## FIH 219 Neoclassicism to Post-Impressionism <br> 3-3-0

This course examines major developments in painting, sculpture and photography. Neoclassicism, Romanticism, Orientalism, Realism, Impressionism, PostImpressionism and Symbolism are considered within the broad cultural context of their production, display and reception. The effects of the tumultuous political circumstances of social unrest and the Industrial Revolution will be observed from the min-19th to the mid-19th century, when art emerged as a politically-engaged, publicly-oriented force, until the end of the century, when artists retreated to a private, subjective realm.
FIH 220 Twentieth-Century Art to the Sixties 3-3-0 Western art from Expressionism to Abstract Expressionism. Major European movements (such as Cubism, Futurism, Dada, Surrealism, Constructivism) and American ones (from the Ashcan School to the New York School) will be studied. Topics include the paradigms of figuration and abstraction, innovations such as collage and photomontage, the contribution of literary movements, appropriations from non-Western cultures, and the influences of Freudian and Jungian theories, socialist ideas, the Russian Revolution, totalitarian regimes, and two World Wars on artists.
FIH 221 Art from the 1960s to the end of the Twentieth-Century 3-3-0 The international art scene from the 1960s to today. Topics include Pop art, French Nouveau Réalisme, Minimal art, Italian Arte Povera, Conceptual Art and the International Fluxus movement from the sixties; the pluralistic seventies - when performance, video, Body Art, Land art, installation and Feminist art seemed to proclaim the 'death' of painting; the drastic return of painting by the eighties (with Neo Expressionism, Bad Painting, Graffiti art, etc.), and some of the challenges linked to the globalization of art in the nineties.

## Intermediate Thematic Courses (200-level courses)

## FIH 222 Art in the 21 ${ }^{\text {st }}$ Century

 3-3-0This course analyzes trends defining art since the turn of the 21 st century, and their theoretical underpinnings. Through a comprehensive approach surveying a vast array of art practices, this course establishes a typology of current approaches and methodologies characteristic of the new millennia. If the context allows it, lecture courses are to be complemented with exhibition visits and encounters with professional actors in the art world (artists, curators, gallery directors, and art critics).

## FIH 225 Special Topic in Canadian Art

3-3-0
This course deals with aspects, issues or themes in Canadian art ranging from the colonial times to the present. Possible topics include the art of the First Nations, the legacy of the early French and English settlers, national identity and cultural diversity, or recent developments in the visual arts of Canada.
FIH 230 History and Theories of Photography
3-3-0
An exploration of the changing nature of photographic thinking and practice from early 19th century experiments to present day digital and post-photography. Different visions and modes of representation are addressed, such as photographic 'truth', photography as art, and photography as a means of mass communication (i.e. photojournalism, advertising, fashion and celebrities photographs, propaganda, etc.). In light of its multiple functions in art and culture, the photographic image is studied as part of a larger social, economic, institutional and ideological frame. FIH 235 Moving Images in the Visual Arts 3-3-0 This course examines the way visual artists have made use of the film medium and subverted its narrative structures, from their early experiments to recent digital images and computer-generated images. It presents the notion of an expanded cinema that moves film out of the cinema into art galleries, museums and onto the web. Prevalent forms of engagement with moving images and film culture, including video, cinematic installations, virtual immersion and interactivity, network and database art,geolocation and surveillance will be addressed. The moving image has now become the arts' most innovative material.

## FIH 240 Art, Popular and Mass Culture 3-3-0

A historical and theoretical exploration of the relationships between the fine arts, popular art and mass art, and of the conditions that have produced these categories. The course looks at how image reproduction technologies, beginning with printing, photography and cinema, have conditioned public access to the arts and shaped various art audiences. It examines topics such as sampling culture, street art, postproduction and copyleft movements, and the impact of non-fungible tokens on digital art. The course also addresses issues of propaganda, entertainment, spectatorship, and the culture industry, and seeks to redefine the possibilities of a democratic and inclusive visual culture.

## Formerly FIN 105

## FIH 246 Public Art and Monuments

3-3-0
An exploration of art made for public spaces and public viewing taking into consideration aspects such as site, natural environment or urban settings, commemoration and politics, the public sphere and the audience.
$\begin{array}{ll}\text { FIH } 260 & \text { Art and Nature: From Landscape to } \\ & \text { Posthumanism and the Anthropocene }\end{array}$
This course analyses how the relationship between art and nature has been shaped by aesthetic and symbolic representations through time and across art paradigms. This course addresses early garden traditions up to posthumanist futures, by way of the emergence naturalism during the Renaissance, conventions of the beautiful, the picturesque and the sublime, landscaping practices, the active sculpting of nature in Earthworks and Land Art, and the ecosystemic views brought forth in eco art.

## FIH 290 Current Topics in Art History

3-3-0
This course explores issues of current importance in the practice and interpretation of art, such as: Art and Science; Art and Technology; Philosophy and Criticism of Art; Women and Art; Gender Issues in the Visual Arts;and Art and Politics. Specific topic to be posted in advance of registration

## Advanced Courses (300-level courses)

FIH 314 Colonial and Postcolonial Issues in the Visual Arts 3-3-0
This course addresses colonial and postcolonial experiences of art. It examines topics such as the representation of the exotic 'other', the construction of the colonial subject, the ideology of the colonizer, the Eurocentric gaze, racism, the impact on modern art of primitivism, ethnographic museums, and World Fairs, and ambivalent notions of the 'primitive'. In conjunction with multiculturalism, identity politics, and globalization, the course also explores the place of non Western art in the international scene.
Prerequisite: FIH 100, FIH 102, and two FIH 200-level courses

## FIH 318 Current Art Practices and Production

3-3-0
This course proposes a critical investigation of ongoing movements and tendencies in the visual arts within their socio-economic context and political history. Contemporary arts being concomitant with currently unfolding societies, they will be addressed in a climate of historical immediacy. Hence, this course takes on a theoretical approach to topics pertaining to contemporary conditions of art production and practice.
Prerequisite: FIH 100, FIH 102, and two FIH 200-level courses
FIH 320 Special Topic in Art History and Theory 3-3-0 This course will address an aspect, issue or theme in art from a multidisciplinary approach to a specific medium or time period ranging from the antiquity to the present, or across time, artistic styles and movements. Possible topics include: Issues in Sculpture, Performance, or Video Art; Art in the Digital Age; Relational Practices and their shortcomings; Art's Shifting Boundaries from Discipline to Extradisciplinarity.
Prerequisite: FIH 100, FIH 102, and two FIH 200-level courses
FIH 323 Seminar in Art History, Theory and Criticism of Art 3-3-0 Advanced course that explores in-depth a topic in art history, theory or criticism of art. Specific topics to be posted in advance of registration.
Prerequisite: FIH 100, FIH 102, and two FIH 200-level courses
FIH $350 \quad$ Independent Study in Art History I $\quad \mathbf{3 - 0 - 0}$
Open to students who have completed 27 credits in Art History. Students must submit a formal proposal to the art history program outlining a project to be undertaken independently in consultation with the instructor. Approval is contingent on acceptance of the proposed project or course of research.
Prerequisite: two FIH 300-level courses.
FIH 351 Independent Study in Art History II $\quad \mathbf{3 - 0 - 0}$
Open to students who have completed 27 credits in Art History. Students must submit a formal proposal to the art history program outlining a project to be undertaken independently in consultation with the instructor. Approval is contingent on acceptance of the proposed project or course of research.
Prerequisite: FIH 350

## Cross-Listed Courses

FIN 235 Museology 3-3-0
An introduction to theoretical and practical aspects of museology. The history and function of art museums, collection and conservation, museum administration and the organization of exhibitions are treated in the course, which includes projects in exhibition management.
Prerequisite: FIH 100 or FIH 102 or consent of instructor
FIN 292 /
SOC 291 Sociology of Art
3-3-0
An introduction to the Sociological study of the Arts. The course focuses on the social practices and organizational frameworks related to artistic production/ creation, mediation processes, and the reception of art works and artists. Attention will be given to issues related to race, gender, class, and power.

## FIN 388 /

HIS 298 Museums and Communities 3-3-0
This inter-disciplinary lecture/seminar course offers students an introduction to a range of theoretical approaches and contemporary developments in the field of Museology. Through case studies and actual work with community groups students will have the chance to experiment with key processes around critical museum work today (rational, documentation, mediation, scenography).
Prerequisites: FIH 100 or FIH 102 or consent of instructor

## Cognate Courses

## Credited for Art History Concentration and Honours

AAD 250 Arts Administration: Internal Operations 3-3-0
The course will examine various types of arts organizations from the perspective of the management of artistic resources: accounting, finance, human resources, project management and production organization.
AAD 251 Arts Administration:
The External and Legal Environment 3-3-0
This course will examine the social/political context of cultural operations. Among the topics analysed are: the legal aspects in not-for-profit organizations, board governance, labour issues and the status of the artist, funding structures government and private sector, networking.
Prerequisite: AAD 250 or permission of instructor

## AAD 252

Arts Administration:
Communications and Marketing
3-3-0
The course will examine the area of public relations and business communication as it relates to cultural promotion: marketing, press releases, advertising, sponsorship, consumer behaviour.
AAD 353 Arts Administration: Practicum 3-3-0
This course will be a directed independent study in which the student is placed in a range of posts in the arts industry and in not-for-profit cultural agencies.
Prerequisites: AAD 250, AAD 251, AAD 252
CLA 110 The Art and Archaeology of Ancient Egypt 3-3-0
A survey of the art and architecture of ancient Egypt from the Pyramids to the Valley of the Kings and an introduction to the archaeological discoveries made in Egypt in the twentieth and twenty-first century.
CLA 205 Greek Art and Architecture 3-3-0
Western art and architecture begin in ancient Greece. From miniature vases to monumental statues of ivory and gold, we will explore the creations of potters and painters, sculptors and architects, and study Greek art from the Bronze age to the time of Alexander the Great.
Open to first-year students.

## CLA 206 /

RSC 203 Early Christian and Byzantine Art 3-3-0
This course examines the ways in which the Christians adapted elements from Greek, Roman and Near Eastern art and architecture to their religious beliefs and requirements and also studies the development of this new Christian art in the Byzantine Empire. Major topics include: Catacomb art, early Christian and Byzantine architecture, mosaic and painting, manuscript illuminations, textiles and the minor arts.
Open to first-year students.
CLA 207 Early Roman Art 3-3-0
In this course we will begin with a study of the colorful wall paintings of Etruscan tombs where men and women drink and dance, and panthers and lions guard the dead. Once rulers of Rome, the Etruscans and their art declined as the Roman Republic grew powerful. We will examine how the Romans developed an innovative art and architecture which expressed the values of their society.
CLA 208 Art and Architecture of Imperial Rome 3-3-0 A survey of Roman art and architecture from the first century C.E. to the fourth century C.E. The course examines the use of art as propaganda and the tension between tradition and innovation in Roman Art.

## CLA 238 /

RSC 238 Greece, Land of the Gods 6-6-0
This six-credit course examines the sacred art and architecture of ancient Greece from Mycenae to Byzantium on site in Greece. Offered in the Spring semester. After preliminary lectures on campus students will spend two weeks traveling to the major sacred sites of mainland Greece. Travel plans must be finalized by the middle of January prior to departure in May. Contact the Classics department for information.
American students on US Federal aid cannot enrol in this course for credit. Open to first-year students. Instructor's permission required.

LIB 213 The Use and Abuse of Beauty
3-3-0
French writer Stendhal said in the 19th century that "beauty is the promise of happiness" and, upon seeing the beauty of Florence, he wondrously proclaimed, "I was in a sort of ecstasy... absorbed in the contemplation of sublime beauty ...Everything spoke so vividly to my soul." Yet only decades later his compatriot, poet Arthur Rimbaud, claimed that he wanted to "abuse" beauty, for he found her "bitter." Dadaist and surrealist artist Tristan Tzara went even further, "I have a mad and starry desire to assassinate beauty..." Does Tzara signal not only a dramatic change in Western art, but the claim that all forms of harmony and beauty, including the personal and the political, are conservative. Or is the beautiful in some important sense still of what we might call "transcendent" importance to human life? This course will explore the fate of the beautiful, from the Greeks to 21 st century life.
PHI 346 Topics in The Philosophy of Art 3-3-0
A look at some attempts by major thinkers to account for the nature of art and beauty, focusing on texts of Plato and Aristotle, Kant and Hegel, Nietzsche and Heidegger.

# Arts Administration <br> <br> Faculty 

 <br> <br> Faculty}

Jean L. Manore,
B.A. (Western), M.A., Ph.D. (Ottawa); Professor
Chair of the Program

## Program Overview

Students are admitted to a Humanities Divisional Major in Arts Administration (MAJDHA). This 75-credit interdisciplinary program combines the study of business, creative arts, and public history and arts administration. The goal is to provide students with the skills and knowledge needed to participate in the business and organizational areas of the cultural sector. Students normally begin the program with core courses in Arts Administration, Business and one of the Arts concentrations (Drama, Fine Arts, Film Studies, Music, Public History). As they proceed through the program, they will enrol in two practicum courses: AAD 253 (Internal Practicum), where they will be placed with an on campus organization (Centennial Theatre, Foreman Art Gallery, Musique Chez Nous, Drama department, etc.) for their first work experience; and nearer to graduation AAD 353 (External Practicum), in an off-campus cultural venue consistent with their disciplinary focus.

Students should identify which of the concentrations they wish to follow at the time of application to the program. Please consult the Chair of the Arts Administration Program for advice concerning program requirements. The two practicum courses will be arranged by the professor of the Arts Administration courses, along with representatives of the different concentrations. Students are permitted to register in a program that combines Arts Administration and a Major in their Arts concentration (i.e. 42 or 48 credits instead of 30 ). Those in 120 -credit degrees are strongly encouraged to do so, or to pursue a minor ( 24 credits) in a second Arts or Business discipline. Concentration courses may be double-counted towards the Major. A Minor in Arts Administration is open to students Majoring in Business or one of the Arts Concentrations of the program. Students following an Arts Administration program who wish to add a Business program should contact the Williams School of Business.

## Required courses:

## Arts Administration (21 credits)

Of the 21 credits, 15 will be mandatory: AAD 150, AAD 251, AAD 252 and the two practicums. These specialized courses will provide students with specific knowledge of arts administration, as well as hands-on experience. Students will also take an additional 6 credits to complete their Arts Administration course requirements:
AAD 150 Introduction and Internal Operation 3-3-0
The course will examine various types of arts organizations from the perspective of the management of artistic resources: accounting, finance, human resources, project management and production organization.
Note: Students who have completed AAD 250 may not take AAD 150.
AAD 200 Arts Administration Special Topic 3-3-0
This will be a lecture course offered by different professionals in the field on topics not covered in the regular Arts Administration courses. The course will be taught on an occasional basis.
AAD 202 International Market Development for the Arts 3-3-0 In this course, students will acquire the basic knowledge, tools and strategies to successfully develop an artistic international project, for example: planning tours, co-productions, exhibits, or presenting international artists in Canada, etc. e will look at such subjects as: criteria needed to succeed on the international scene; strategic planning for international access and expansion; market study and expertise; financial support; branding and promotion; cultural competencies in work ethics and social codes; feasibility study; visas and fiscal regulations, cultural diplomacy.

## AAD 203 Managing the Unexpected:

Pandemics and Other Crises in the Cultural Sector 3-3-0 Crisis management has become an important responsibility of Arts Administrators, whether that crisis is created by environmental disruptions, terrorism attacks, various social tensions or pandemics. As a result, through discussions, case studies and readings, this course will explore concepts of readiness, risk and crisis management as a means of developing students' capacities to recognize and respond to crises when they arise.
AAD 204 Financing the Arts:
Fundraising in the Private and Public Sector 3-3-0 This course provides students with an in-depth understanding of the public and private funding systems in Canada at the federal, provincial and municipal level for artists, and for not-for-profit and, to a lesser degree, for-profit cultural organizations. It will also provide students with the knowledge to build networks within these sectors and to undertake fund-raising initiatives.

AAD 251
Arts Administration:
The External and Legal Environment
3-3-0
This course will examine the social/political context of cultural operations. Among the topics analyzed are: the legal aspects in not-for-profit organizations, board governance, labour issues and the status of the artist, funding structures.
Prerequisite: AAD 250 or permission of instructor.
AAD 252
Arts Administration:

## Communications and Marketing

3-3-0
The course will examine the area of public relations and business communication as it relates to cultural promotion: marketing, press releases, advertising, sponsorship, consumer behavior.
AAD 253 Arts Administration - Internal Practicum
3-1-10
This course is to provide students with administrative experience working with real-life artistic and cultural organizations, on the Bishop's campus. It will be supervised by the faculty member who runs the organization. This course can be taken any time after the completion of AAD 150, and must be completed before taking AAD 353.
Prerequisites: AAD 150.
AAD 300 Independent Study 3-1-0
An individual project on a subject approved by a Faculty member from the program.
AAD 353 Arts Administration: External Practicum 3-3-0 This course will be a directed independent study in which the student is placed in a range of posts in the arts industry and in not-for-profit cultural agencies. This course should be taken before the final semester.
Prerequisites: AAD 250, AAD 251, AAD 252

## Business (27 credits)

Full descriptions of the following can be found in the calendar section of the Williams School of Business. These courses will provide a foundation in the major functional area of business management. For assistance in registering in Business courses, please contact the Department Chair of the Williams School of Business.
BAC 121 Intro to acct
BHR 221 Organizational Behaviour
BHR 224 Human Resources Management
BCS 220 Mgt of Info Systems
BMG 214 Entrepreneurship
BMG 100 Business and Society
BMK 211 Marketing
ECO 103 Principles of Economics: Macroeconomics
Plus one from:
ECO 102, BFN 200, (need prerequisites), BMA 140
In terms of when to take these courses, the following sequence is recommended: First-year: ECO 103, BAC 121, BMG 100, BMK 211 Subsequent years: BCS 220, BHR 221, BHR 224, BMG 214, plus either ECO 102, BFN 200, (note: prerequisites required) or BMA 140

## Concentrations: Drama, Fine Arts, Film Studies, Music or Public History

Full descriptions of these courses can be found in the calendar sections of the departments. A Concentration in one of these departments will ensure that students gain a solid grounding in one of the creative arts. Inquiries regarding prerequisites or any problems concerning the lists below should be addressed to the Chair of the appropriate Department.

## Drama ( 27 credits)

MAJAAD
(all of the following)
DRA 101 Introduction to Technical Theatre
DRA 102 Introduction to Theatre
DRA 110 Introduction to Theatre II
DRA 131 Acting I
DRA 201 Contemporary Canadian Drama
DRA 222 Introduction to Shakespeare
DRA 246 Directing I
One (3-credit) course from:
DRA 211, DRA 212 or DRA 230
One course (3 credits) chosen from:
DRA 250 Intermediate Technical Theatre Stagecraft
DRA 251 Lighting Design
DRA 370
DRA 341
DRA 342
DRA 352 Independent Study Stage Management

Fine Arts (27credits)
Fine Arts History Courses (18 credits)
FIH 100 The Art of Viewing: Introduction to Art History
FIH 102 Survey of Western Art II: Renaissance to Neoclassicism
Any 12 credits selected from:
FIH $220 \quad$ Twentieth Century Art to the Sixties
FIH 221 Art from the 1960s to the end of the TwentiethCentury
FIH 225 Special Topic in Canadian Art
FIH $230 \quad$ History and Theories of Photography
FIH 240 Art, Popular and Mass Culture
FIH 246 Public Art and Monuments
FIH 260 Art and Nature:-From Landscape to Posthumanism and the Anthropocene
FIH $290 \quad$ Current Topics in Art History
FIH 314 Colonial and Postcolonial Issues in the Visual Arts (Prerequisite)
FIH 318 Current Art Practices and Production (Prerequisite)
FIH $320 \quad$ Special Topic in Art History and Theory (Prerequisite)
FIH 323 Seminar in Art History, Theory and Criticism of Art (Prerequisite)
FIN 235 Museology (Prerequisite or consent from the instructor)
FIN 388 Museums and Communities (Prerequisite or consent from the instructor)

## Fine Arts Studio Courses (9 credits)

One course each in Drawing, Painting, and Sculpture

## Film Studies (27 credits)

MAJAAI
ENG 102 Approaches to Media Studies
ENG 170 Introduction to Film Studies
ENG 279 Film History to 1939
ENG 280 Film History after 1939
At least one course chosen from:
ENG 281 Canadian Cinema
FRA 259 Québec Cinema
At least one course chosen from:
ENG 382 Screen writing
ENG 383 Digital Filmmaking
ENG 384 Documentary Filmmaking
Additional courses from the following list to meet the required 27 credits:
CDC 200
Communication and Media Studies:
Theory and Practice
CLA 150 The Ancient World in Film and Television
ENG 124 The Graphic Novel
ENG 217 The Arthurian Tradition
ENG 218 The Gothic Tradition
ENG 236 Popular Culture
ENG 278 Science Fiction in Literature and Film
ENG 282 Film Adaptation
ENG 283 Documentary Film
MAJAAF

ENG 287
ENG 291
ENG 293
ENG 294
ENG 295
ENG 297
ENG 298
ENG 350

ENG 381

FIH 230
FIH 240
FRA 250
GER 270
GER 271 Rebels with a Cause: East German Cinema
ITA 309 Italian Cinema and Society
ITA 310 Italian Cinema and Society II
MUS 115 Music for the Movies I
MUS 116 Music for the Movies II
PHI 345 Topics in Philosophy of Film
RSC 237 Film and Religion
SOC 105 Media and Society I
SOC 241 Cinema
SOC 321 Sociology of Technology
SOC 381 Media and the Environment
SPA 318 Spanish Cinema
SPA 333 Hispanic Literature and Film
Music (27 credits) ..... MAJAAM

Music History and/or Literature.
$\qquad$
.9 credits

Music Theory .10 credits
( 6 credits MUS 103-135 theory and 4 credits ear training MUS 120-125)
Ensemble Courses ..................................................... 2 credits
Practical Study ...................................................... 3 credits
Music Electives ....................................................... 3 credits

## Public History and Heritage

 ( 28 credits)MAJAAH
HIS 101 History Methods Lab
Two of
HIS 104 The West in the World to 1750
HIS 105 Introduction to Global Studies: A Century of Conflict and Resistance
A Global History of Indigenous Peoples
New World: The Americas to 1850
HIS 109
Mandatory
HIS 200 Historical Methods and Theories
HIS 240 History and Heritage
HIS 396 Public History
Any twelve credits from
HIS 227 The Stuff of History:
An Introduction to Material Culture
HIS 236 Public Art and Monuments
HIS 239 History and the Archives
HIS 298 Museums and Communities

HIS 391 Archival or Institutional Internship
CLA 110 The Art and Archaeology of Ancient Egypt
CLA 120 An Introduction to Classical Archaeology
CLA 205 Greek Art and Architecture
CLA 206 Early Christian Art and Architecture
CLA 207 Early Roman Art
CLA 208 Art and Architecture of Imperial Rome
CLA 240 Signs of the Past: Archaeological Interpretation
CLA 335 Sacred Space in the Ancient World
CLA 365 Topics in Classical Art and Archaeology

## Minor in Arts Administration (24 credits)

MINAAD
The minor in Arts Administration provides an introduction to the discipline of Arts Administration. The Minor consists of 24 credits including 12 credits in Arts Administration. For Arts students, the AAD Minor would be limited to Majors already enrolled in one of the following Arts disciplines: Drama, Fine Arts, Music, Film/ Media Studies, Public History. Students enrolled in Business may also add this Minor to enrich their degree.

## Requirements:

## 1.) For Arts Students

The AAD Minor would be limited to Majors already enrolled in one of the following Arts disciplines: Drama, Fine Arts, Music, Film/Media Studies, History

## Required Courses:

12 credits in Arts Administration: AAD 150, 251, 252 plus one additional AAD course (recommended internal or external practicum)
12 credits in Business: BMG 100, BMK 211, BAC 121 plus one Business elective
N.B. Humanities students may not combine an AAD minor with a Business program.

## 2.) For Business Students

12 credits in Arts Administration: AAD 150, 251, 252 plus one additional course (recommended internal or external practicum) 12 credits in one of Drama, Fine Arts, Music, History or Film/ Media Studies, as specified by each program:

Drama: DRA 101, 102, 201+ one other course in dramatic literature

Fine Arts: 12 credits taken from list supplied
Music: MUS 130+9 credits in Music Literature and Performance, in consultation with the Chair

Film/Media: ENG 102, DRA/ENG 170 + two of ENG 279, ENG 280, ENG 281 and ENG 259

Public History and Heritage: Any 100 level HIS, 200, $240+$ one of HIS 227, 229, 236, 239, 298

## 3.) For students not enrolled in the above-mentioned Arts programs or Business

Students must have six credits in either Drama, Film Studies, Fine Arts, Music or History before enrolling in the minor.

6 credits in their Arts concentration
9 credits in Arts Administration: AAD 150, 251, 252
9 credits in Business: BMG 100, BMK 211, BAC 121

## Certificate in Arts Management (30 credits) CONAMG

The Certificate in Arts Management has been designed to provide students who are working or interested in working in the artistic and cultural fields as managers with a professional background in Arts Administration. The program is composed of ten 3-credit courses (for a total of 30 credits) in Business Administration, Arts Management, and in the Arts.

## I. Required courses 18 credits:

3 courses in Business Administration (9 credits)
BMG 100 Understanding Business and Society
BMK 211 Marketing Management
BAC 121 Purposes of Accounting
A minimum of 3 courses in Arts Administration (9 or 12 credits)
AAD 150 Introduction and Internal Operation
AAD 251 Arts Administration:
The External and Legal Environment
AAD 252 Arts Administration: Communications and Marketing
AAD 353 Arts Administration: External Practicum

## II. Optional courses:

Arts courses: 3 or 4 courses ( 9 or 12 credits) in one of the ArtsDrama, Fine Arts, Music, Film Studies or Public History and Heritage
Courses should be taken in one of the five disciplines only

## DRAMA:

DRA 101 Introduction to Technical Theatre
DRA 102 Introduction to Theatre
DRA 201 Contemporary Canadian Drama
And any other course in dramatic literature.


## Classical Studies

## Faculty

## Jenn Cianca,

B.A. (Bishop's), M.A., Ph.D. (Toronto); Professor

Catherine Tracy,
B.A. (Dalhousie, University of New Brunswick), M.A. (Dalhousie), Ph.D. (Southern California), Associate Professor
Chair of the Department

## Program Overview

Socrates; Julius Caesar; Gladiators; The Olympic Games; Cleopatra; The Sphinx...
A student in the Classical Studies (a.k.a. Classics) department will enter the world of the ancient Mediterranean. We focus especially on the civilizations of Greece and Rome and offer courses in their literature, mythology, history, culture, art, and archaeology. Students have the opportunity to learn Latin (the language of Roman emperors and Christian popes) and Greek (the language of philosophy, tragedy, and the New Testament). The courses offered by the faculty of the Classics department are also supplemented by related courses in the departments of Philosophy, Religion, Society \& Culture, and the Liberal Arts program. Many of our classes do not have prerequisites and thus we welcome students from all disciplines. In this regard, most of the $200-$ level courses are suitable for students in their first year. All you need are interest and enthusiasm to begin your journey into the Classics.

## Programs

## Honours in Classical Studies ( 60 credits)

## Requirements:

An overall average of $70 \%$ or more in courses counting towards the honours.

A minimum of 24 credits in Latin and Greek.
A minimum of two third-year courses.
CLA 400 and CLA 401 (thesis)
The remaining credits may be taken in any combination of CLA, GRE, or LAT courses.

## Major in Classical Studies (42 credits)

MAJCLA

## Requirements:

Majors must take CLA 100 or CLA 101 in their first or second year, as well as a minimum of two third-year courses during their degree. Six credits in LAT or GRE are strongly encouraged. The remaining credits may be taken in any combination of CLA, GRE, or LAT courses.

## Minor in Ancient Mediterranean Studies

## ( 24 credits)

MINCLA

## Requirements:

Credits in CLA, GRE, and/or LAT count towards the Minor in Greek and Roman Civilization.

## Minor in Classical Languages ( 24 credits)

MINCLL

## Requirements:

Credits in at least two of the following ancient languages: Hebrew, Greek, or Latin. At least 12 credits in either Greek or Latin.

## Minor in Classical Art and Archaeology ( 24 credits)

## Requirements:

One of: Cat I: CLA 120, CLA 238, and CLA 240; Four of Cat II: CLA 110, CLA 205, CLA 206, CLA 207, CLA 208;
One of Cat III: CLA 309, CLA 328, CLA 335, CLA 350, CLA 365, CLA 366; Two of Cat IV: any other CLA, LAT, or GRE courses.
Students may also choose to fulfil CAT IV by taking any of the following courses: HIS 240, HIS 277, HIS 236, HIS 239, HIS 275, HIS 298.

## List of Courses

CLA 100 Food, Community and Culture
in the Greek and Roman World
3-3-0
The aim of this course is to introduce students to the cultures of ancient Greece and Rome. We will explore language, literature, art, religion, myth, history, politics, geography, science, and technology as we investigate the many aspects of food production and consumption, from cannibalism in Greek tragedy to the best way to stuff a dormouse. At the end of the course, we will cook a meal and celebrate the Classical world.
CLA 101
Travellers, Tourists, and Foreign Wars:
Getting About in the Ancient Mediterranean World 3-3-0 Odysseus' epic voyage home from the Trojan War; the Greek colonization of brave new worlds; the spice trade routes; the long marches of Roman soldiers; ancient maps for adventurous tourists: these and other Classical examples of travel will introduce students to the fascinating world of the ancient Mediterranean. At the end of the course, we will hold a colourful and flavourful Classical Food Fair to celebrate ancient exotic vacation destinations.
CLA 102 Ancient Greece: History and Culture
3-3-0
The alphabet; the Olympic Games; philosophy; democracy; tragedy and comedy; history: was there anything the Greeks didn't invent? This course introduces students to the cultural, intellectual, political and literary achievements of the ancient Greeks.

## CLA 109 /

RSC 109 Egypt and Mesopotamia:
From the Rise of Civilization to the Persian Conquest 3-3-0 The geographical region of Mesopotamia (modern Iraq) saw the development of the first complex urban society more than 5,000 years ago. At the same time, a second complex society, Egypt, was forming along the banks of the Nile River in Africa. Employing a mixture of historical texts and archaeological research, this course will give an overview of ancient Egypt and Mesopotamia covering the time from the Neolithic Period (generally said to have begun ca. 10,000 BCE) to the Persian conquest in the sixth century BCE. The course will begin with the development of seed agriculture and animal domestication, followed by the formation of early complex societies (civilizations), including the formation of the first cities, the first writing systems, and major building projects in the form of temples and pyramids. In addition to examining the lives and the political careers of important historical characters, the course will also explore the religious beliefs and the techniques of astronomy, medicine and warfare prevalent at the time.

CLA 110 The Art and Archaeology of Ancient Egypt 3-3-0
A survey of the art and architecture of ancient Egypt, from the Pyramids to the Valley of the Kings, and an introduction to the archaeological discoveries made in Egypt in the twentieth and twenty-first centuries.
CLA 112 /
RSC 120 Ancient Greek Mythology 3-3-0
The origin and development of Greek mythology, and the importance of myths in understanding ancient literature and religion: theories of myth, cult and ritual, mystery religions, the epic tradition. Greek sources are read in translation.
CLA 113 Classical Mythology: The Greek Influence on Rome 3-3-0 Myth and tragedy, myth and history, lyric poetry, Roman mythology. Greek and Latin sources are read in translation.
CLA 120 An Introduction to Classical Archaeology 3-3-0
A survey of the history of classical archaeology from the discoveries of Schliemann at Troy and Evans at the Palace of Knossos to a study of the techniques of modern field archaeology.
CLA 130 Sports and Games in the Ancient World 3-3-0
The Olympic Games in ancient Greece and the chariot races in Rome's Circus Maximus allowed athletes to compete and spectators to enjoy themselves under the hot Mediterranean sun. Athletic training was useful in preparing men for war, but women also trained and competed in sports events. People of the ancient past liked to amuse themselves just as we do today, but dramatic festivals and even gladiatorial combat had religious origins. In this course we will use the sporting and recreational activities of the Greeks and Romans and their Mediterranean neighbours as a lens to reveal aspects of these ancient societies.

CLA 150 The Ancient World in Film and Television
3-3-0
Movies and television have shaped our ideas about Greek and Roman myth, history and civilization. In this course we will study "sword and sandal" films and television as popular art forms and their relation to the ancient literary and visual sources.
CLA 160 Rome: The Republic 3-3-0
The social, political and cultural events of the Roman Republic, including the exploits of Hannibal, Julius Caesar, Cleopatra, and others.

## CLA $170 \quad$ Greek and Latin Terminology for Medicine and the Life Sciences

3-3-0
This course teaches the Latin and Greek roots of scientific terminology in order to help students understand the technical vocabulary of medicine, biology, and other life sciences. Better understanding of the scientific terms also improves students ability to communicate with specialists and with the general public.
CLA 201 /
HIS 201 Ancient Slavery and its Legacy $\quad$ 3-3-0
Slavery was ubiquitous in ancient Greece and Rome due largely to frequent warfare. This course will examine the ways that the institution of slavery influenced societal and class structures, the economies, and the moral attitudes of ancient Greek and Roman societies. We will also examine how ancient slavery influenced modern attitudes around slavery, and the differences between ancient and modern slavery.
Open to first-year students.
CLA 202 The Classical Influence on Shakespeare 3-3-0
Despite Ben Jonson's claim that Shakespeare had "small Latine and lesse Greek" the bard had a strong background in the Classics. The Greek biographer Plutarch, the Roman poet Ovid, and the Roman comic playwright Plautus are among the Classical sources that profoundly influenced his plays and poems. Students will read select works of Shakespeare alongside their Classical influences (read in English translation).
Open to first-year students.
CLA 204 /
RSC $204 \quad$ Women in Religion
3-3-0
An investigation of the religious lives of early pagan, Jewish, and Christian women in the context of the Greco-Roman world. Literary and epigraphical sources from the fourth century BCE to the third century CE are analyzed in order to determine women's roles, rites and practices, with special attention to constructions of gender in the Graeco-Roman world.
Open to first-year students.

CLA 205 Greek Art and Architecture
3-3-0
Western art and architecture begin in ancient Greece. From miniature vases to monumental statues of ivory and gold, we will explore the creations of potters and painters, sculptors and architects, and study Greek art from the Bronze age to the time of Alexander the Great.
Open to first-year students.
CLA 206 /
RSC 203 Early Christian Art and Architecture 3-3-0
This course examines the ways in which the Christians adapted elements from Greek, Roman, and Near Eastern art and architecture to their religious beliefs and requirements and also studies the development of this new Christian art in the Byzantine Empire. Major topics include: Catacomb art, early Christian and Byzantine architecture, mosaic and painting, manuscript illumination, textiles and decorative arts.
Open to first-year students.

## CLA 207 Early Roman Art

 3-3-0In this course we will begin with a study of the colourful wall paintings of Etruscan tombs, where men and women drink and dance, and panthers and lions guard the dead. Once rulers of Rome, the Etruscans and their art declined as the Roman Republic grew powerful. We will examine how the Romans developed an innovative art and architecture which expressed the values of their society.
Open to first-year students.
CLA 208 Art and Architecture of Imperial Rome
3-3-0
A survey of Roman art and architecture from the first century CE to the fourth century CE The course examines the use of art as propaganda and the tension between tradition and innovation in Roman Art.
Open to first-year students.
CLA 217 The Ancient Epic
3-3-0
This course introduces students to the best epic poetry of the Greeks and Romans (poetry will be read in English translation). Sources to be studied may include the Iliad, Odyssey, Argonautica, Aeneid, and Metamorphoses.
Open to first-year students.
CLA 219 Origin and Development of the Greek Tragic Theatre 3-3-0 Myth and tragedy in the Greek theatre, using representative tragedies of Aeschylus and Sophocles (in translation).
Open to first-year students.
CLA 223 /
POL 223 Democracy in the Ancient World 3-3-0
The idea of government by the people is highly valued today, but it was first given the name of "demokratia" (democracy) in ancient Greece. The most famous example in Greece is Classical Athens, but democratic elements appeared in many other ancient states, including republican Rome. The course will examine popular participation in Athens, Rome, and various other ancient societies: how it began, who could participate, who was left out, and what ancient writers thought of it. Open to first-year students.
CLA 229 War and Society in the Greek and Roman World 3-3-0 War, omnipresent in the ancient Mediterranean, will be used to reveal socioeconomic, religious, and cultural aspects of ancient Greek and Roman societies. Was war waged for economic motives (plunder, booty, supply in slaves, exploitation of local resources...)? Were there sacred wars? How did war affect art and architecture? How did encounters with other societies change the perception of war and bring about an evolution in warfare? How was war declared? What is known of diplomacy, peace-talks and treaties between allies or former enemies? This course is not about wars but about the impacts war had on society and how society changed the ways to wage war.
Open to first-year students.
CLA 236 /
RSC 236 Death and Dying in the Ancient World
3-3-0
This course explores the myths, rituals and beliefs associated with death and dying in antiquity. Topics to be covered include myths associated with the afterlife; books of the dead; magic and death rituals; and understandings of heaven, hell and judgement.
Prerequisite: RSC 100 or RSC 101 or permission of instructor
Open to first-year students.

## CLA 238 / FIH 238 /

RSC 238 Greece, Land of the Gods 3-3-0
Greece, Land of the Gods" This course examines the sacred art and architecture of ancient Greece from Mycenae to Byzantium on site in Greece, and is offered in the Spring or Summer semester. After preliminary lectures on campus, students will spend two weeks traveling to the major sacred sites of mainland Greece. American students on US Federal aid cannot enrol in this course for credit.Open to first-year students. Instructor's permission required.
CLA 239 Exploring Ancient Egypt
6-3-0
The allure of ancient Egypt has gripped outsiders since the Greek historian Herodotus travelled to Egypt and wrote about their strange and impressive customs. This course proposes that the best way to understand the ancient Egyptians is by learning as you travel. Major themes of Egyptian civilization will be explored while visiting some of the most significant archaeological sites such as the cemetery at Saqqara, Giza, Karnak Temple and the Valley of the Kings.
American students on US Federal aid cannot enrol in this course for credit.
Open to first-year students. Instructor's permission required.
CLA 240 Signs of the Past: Archaeological Interpretation 3-3-0 A continuation of CLA 120 with the emphasis on the techniques and methodology of archaeology. Topics include the use of artifacts in creating chronologies and theories, preservation and conservation of sites, ethical questions and problems relating to archaeological excavation.
Open to first-year students.
CLA $250 \quad$ Sex and Gender in the Ancient World 3-3-0
This course will look at the ways that women and men of the ancient Mediterranean world interacted with each other, and at how ideas about sexuality and gender roles affected people's lives. Topics to be examined will include marriage and divorce, conception and contraception, masculine and feminine ideals, gender and the law, sex and social class, the effects of gender on religious expression, homosexuality, private versus public life, what ancient doctors knew about sex, how to use magic to get a lover, and deviations from ancient sexual and gender norms.
Open to first-year students.

## CLA 261 Rome: The Emperors

3-3-0
The social, political and cultural events under the emperors, featuring the Roman army, gladiatorial combat, religion, and other topics.
Open to first-year students.
CLA 271 /
PHI $271 \quad$ Philosophy of Socrates \& Plato $\quad$ 3-3-0
A study of the character and teaching of Socrates as portrayed in Plato's early and middle dialogues. Emphasis will be on theory of education.
CLA 272 /
PHI 272 Philosophy of Aristotle $\quad$ 3-3-0
A study of selected works of Aristotle with special emphasis on logic, metaphysics, and the concept of substance.
CLA 280 /
RSC 280 Roman Religion
3-3-0
This course examines the religion of the ancient Roman people, following the traditions and changes from the 8th century BCE to the Imperial period. Roman religion was very different from the monotheistic religions with which many of us are familiar today, but it was also significantly different from the mythology of the ancient Greeks, despite the Romans' willingness to absorb and adapt the Greek myths. Topics to be studied in this course will include the Roman concept of divinity, beliefs about the dead, religious and cult ritual, senatorial and imperial control of religion, emperor worship, divination and prophecy, festivals, and Roman responses to the introduction of foreign religions.
Open to first-year students
CLA 309 Study Abroad in the Mediterranean 6-6-0
While studying abroad, students will examine the societies that occupied the ancient Mediterranean world. Through visits to archaeological sites, museums, and/or work on archaeological field projects, they will study the societies' religious and mortuary practices, economy, transportation routes, politics, and public and private life. Moreover, students will explore how these patterns evolved throughout time in response to landscape and environmental change that impacted movement, access, settlement occupation, and land use.
American students on US Federal aid cannot enrol in this course for credit. Instructor's permission required

CLA 320 The Roman Family
3-3-0
This seminar course examines the characteristics and influences of the Roman "familia" (which included not only the extended family but also slaves and freed slaves) within Republican and Imperial Roman society. We will read primary sources (in translation) as well as modern scholarship.
Prerequisite: a previous Classics course or permission of the instructor
CLA 321 Laws and Outlaws in Ancient Rome
3-3-0
This seminar course will focus on Roman law and order, and on those who broke the law or challenged Roman hegemony. A series of case studies will cover some of the well-known villains of Roman history, as well as those who perpetrated private crimes. We will study Rome's response to threats to public order, how the city of Rome was policed, and which elements of Roman society were most likely to become victims of crime. Readings will include ancient sources in translation (legal, literary, and epigraphical texts) as well as modern scholarship.
Prerequisite: At least two Classics courses or permission of the instructor.
CLA 325 The Classical Tradition: the Use and Abuse of Classics 3-3-0 The influence of ancient Greece and Rome on western culture has been powerful and enduring, but not always for the best reasons. This course will examine how a better understanding of the Classical world can help us reject some of the modern justifications for White supremacy and gender-based violence that endure today. Prerequisites: At least one first-year Classics and one second-year Classics course, or permission from instructor
CLA 332 /
RSC 332 Magic and Divination in the Ancient Near East 3-3-0
Since the 19th century, magic and divination have been subjects of great scholarly interest. This seminar course will examine how these phenomena were manifested in the region of what is today called the Middle East. We will also look at the supposed polemic against magic and divination In the Hebrew Bible (Old Testament), where calling someone a magician or diviner was a strategy for social control and definition, serving as an element in the construction of views about legitimate and illegitimate religious authority.
CLA 335/
RSC 335 Sacred Space in the Ancient World 3-3-0
How did the ancients experience their surroundings? How did their conceptions of space and place affect their relationships with their deities, their ancestors, and each other? From lofty temples to humble shrines, sacred mountains to grottoes, we will explore the intimate connection between sacred places and the development of ancient identity. Archaeological and literary data, as well as modern theories of space and place, will be examined.
Prerequisites: At least two Classics courses or permission of the instructor.

## CLA 336 Greeks, Romans, and Others

 3-3-0"Hoi barbaroi" ("barbarians") was what the ancient Greeks called non-Greek foreigners, which originally included the Romans until the latter conquered Greece. At that point the term was redefined to mean neither Greek nor Roman. This seminar course will examine the ancient evidence for the peoples who came into contact with the Greeks and Romans. We will examine the ways in which Greek and Roman ethnocentrism and imperialism influenced their attitudes about foreigners, and how ancient prejudices relate to modern racism.
Prerequisites: At least two Classics courses or permission of the instructor.

## CLA 350/

RSC 350 The Goddess: History, Cult and Myth
3-3-0
From Diana's bow to Athena's shield, from the fearsome wail of the Erinyes to the dulcet tones of the Muses, the sacred feminine in all its manifestations has fueled the imagination. How we in the modern world perceive the female divine, however, also reflects our own changing attitudes towards women. In this seminar course, we will examine the sacred feminine in art, archaeology, and literature, from Paleolithic Europe to contemporary America, with a view to understanding the construction of tropes of femininity both in ancient cultures and our own. Topics may include Near Eastern and Graeco-Roman goddesses, Hindu goddesses, gendered archaeology, the virgin Mary, modern goddess movements, and more! Prerequisite: At least two Classics courses or permission of the instructor.
CLA 365 Topics in Classical Art and Archaeology 3-3-0 This seminar course will explore topics and problems in Classical Art and Archaeology. Possible topics include: Roman provincial art and archaeology; Greek vase painting; gender and sexuality in ancient art; the archaeology of Periclean Athens; Agean Bronze Age archaeology; Classical relief sculpture. Prerequisite: Permission of the instructor.
CLA $380 \quad$ Topics in Greek and Roman Drama
This seminar course will concentrate on the nature of ancient drama, and will involve discussion of a selection of tragedies and/or comedies from the ancient Greek and Roman world.

CLA 400 Honours Thesis Preparation 3-3-0
The student will work with faculty advisors and complete a proposal, outline and bibliography and give an oral research progress report. Students must achieve a $70 \%$ or higher in order to register in CLA 401.
CLA 401 Honours Thesis 3-3-0
The student will continue to work with faculty advisors, complete a written thesis, and give a public presentation of the year's research.
Prerequisite: CLA 400

## Independent Studies

The department offers opportunities to study independently for senior students who wish to pursue in-depth exploration of their research interests, under the direction of faculty members. Independent studies are available in all areas covered by the department, including upper-level or advanced Classical language study (Greek and Latin), history, and archaeology. Students wishing to undertake an independent study must secure permission of the instructor.

## Classical Languages

GRE 101F Beginners' Greek
6-3-0
Introducing the ancient Greek language to the beginning student.
GRE 200 Intensive Intermediate Greek
6-6-0
This intensive 6-credit-1-semester course ( 6 hours/week) may be offered either Fall or Winter instead of GRE 201 and GRE 202, with the mutual agreement of students and professor. The course will work on grammar, vocabulary and reading comprehension of ancient Greek.
Not open to students with credit in GRE 201 and/or GRE 202.
Prerequisite: GRE 101
GRE 201 Intermediate Greek I 3-3-0
Selections from Greek authors.
Not open to students with credit in GRE 200, except to replace the earlier grade. Prerequisite: GRE 101
GRE 202 Intermediate Greek II
3-3-0
Selections from Greek authors.
Not open to students with credit in GRE 200, except to replace the earlier grade. Prerequisite: GRE 101 and GRE 201

GRE 300 Intensive Advanced Greek
6-6-0
This intensive 6 -credit 1 -semester course ( 6 hours/week) may be offered either Fall or Winter instead of GRE 301 and GRE 302, with the mutual agreement of students and professor. Students will read selections of Greek authors while improving grammar and vocabulary.
Not open to students with credit in GRE 301 and/or GRE 302.
Prerequisite: two years of Ancient Greek

## GRE 301 Advanced Greek I

3-3-0
Selections from Greek authors.
Not open to students with credit in GRE 300 except to replace the earlier grade. Prerequisite: two years of Ancient Greek
GRE 302 Advanced Greek II
3-3-0
Selections from Greek authors.
Not open to students with credit in GRE 300 except to replace the earlier grade. Prerequisite: two years of Ancient Greek
GRE 401 Advanced Greek III
Selections from Greek authors.
Prerequisite: three years of Ancient Greek
GRE 402 Advanced Greek IV
3-3-0
Selections from Greek authors.
LAT 101F Beginners' Latin I
6-3-0
Introducing the Latin language for the beginning student. The course covers basic Latin grammar, Latin vocabulary, and English etymology (the Latin origins for English words), and provides sufficient background to translate simplified Latin passages.

LAT 200 Intensive Intermediate Latin
6-6-0
This intensive 6-credit 1-semester course (6 hours/week) maybe offered either Fall or Winter instead of LAT 201 and LAT 202, with the mutual agreement of students and professor. The course will work on grammar, vocabulary and reading comprehension of Latin.
Not open to students with credit in LAT 201 and/or LAT 202.
Prerequisite: LAT 101
LAT 201 Intermediate Latin I
3-3-0
Selections from Roman authors
Not open to students with credit in LAT 200, except to replace the earlier grades. Prerequisite: LAT 101
LAT 202 Intermediate Latin II
3-3-0
Selections from Roman authors
Not open to students with credit in LAT 200, except to replace the earlier grades. Prerequisite: LAT 101 and LAT 201
LAT 300 Intensive Advanced Latin
6-6-0
This intensive 6 -credit 1 -semester course ( 6 hours/week) may be offered either Fall or Winter instead of LAT 301 and LAT 302, with the mutual agreement of students and professor. Students will read selections of Roman authors while improving grammar and vocabulary.
Not open to students with credit in LAT 301 and/or LAT 302, except to replace the earlier grades.
Prerequisite: two years of Latin.
LAT 301 Advanced Latin I
3-3-0
Selections from Roman authors
Not open to students with credit in LAT 300, except to replace the earlier grade. Prerequisite: two years of Latin
LAT 302 Advanced Latin II
3-3-0
Selections from Roman authors
Not open to students with credit in LAT 300, except to replace the earlier grade. Prerequisite: two years of Latin
LAT 401 Advanced Latin III 3-3-0
Selections from Roman authors.
Prerequisite: three years of Latin
LAT 402 Advanced Latin IV
3-3-0
Selections from Roman authors.
Prerequisite: three years of Latin

## Independent Studies in

## Classical Languages

The department wants to facilitate language study, and therefore offers independent study courses in Greek and Latin for dedicated students who are unable to take the regularly scheduled language classes. Students wishing to undertake an independent study in Greek or Latin must secure permission of the instructor.

## Cognate Courses

The following courses in Classical Studies are recognized as cognate in other departments:
CLA 102, CLA 120, CLA 160, CLA 223, CLA 261 in History and Global Studies
CLA 112, CLA 113, CLA 219, CLA 220 in English
CLA 219, CLA 220 in Drama
CLA120, CLA 110, CLA205, CLA206, CLA207, CLA208 in Fine Arts
CLA 250, CLA 350 in Gender, Diversity, and Equity Studies

## CLA 110, CLA 113 in Religion, Society and Culture CLA 321 in Pre-Law

The following course is recognized as cognate in Classical Studies:
LIB 303

## Drama

## Faculty

## Rebecca Harries,

B.A. (Bishop's), M.A., Ph.D. (Toronto);

Professor
Chair of Department

## George Rideout,

B.A. (Toronto), M.A. (Simon Fraser); Professor

## Art Babayants,

M.A. (OISE), PhD. (Toronto)

Assitant Professor, Musical Theatre
program

## Program Overview

The Department of Drama offers a program balanced between practical theatre and academic study of dramatic literature and theatre history. Our aim is to permit undergraduates to explore the subject as a liberal arts discipline and prepare them for graduate, professional, and conservatory schools.

The Department offers Major and Honours programs designed to expose students to all facets of theatre practice and study as well as provide them with the flexibility to orient their program towards a particular field of study: History and theatre studies, Performance (acting, directing, and playwriting), and Production (technical, stage management, and design).

By the end of their final year, students will have had many opportunities to work on the Department's season of productions in the Studio Theatre and Centennial Theatre (including at least three productions in the Studio, one mainstage production in Centennial during the second semester, and student-run festivals of original work ). A number of students will also have had the opportunity to become Theatre Assistants for Centennial Theatre.

## Honours in Drama

HONDRA

## Without Thesis (60 credits*)

Courses as required for a Drama major: $\qquad$ 48 credits
Further courses in Drama (excluding independent studies): $\qquad$ 12 credits

## With Thesis (66 credits*)

Students must obtain a $75 \%$ average, as calculated from the last 60 credits in the Honour discipline (including cognates), in order to graduate with an Honours degree in Drama.

Students wishing to enrol in DRA 450 (Honours Thesis) must have $75 \%$ cumulative average when registering in FALL semester, and $75 \%$ average on required courses in thesis area of interest.

## Courses as required for Drama Major

Further courses in Drama
(excluding independent studies):
12 credits

DRA 450 Honours Thesis: 6 credits

## Major in Drama (48 credits)

MAJDRA
In their first two years, all drama Majors must adhere to the following required courses in their program:
1st Year (12 credits)
Fall:
(DRA 101) Introduction to Technical Theatre, (DRA 102)
Introduction to Theatre, (DRA 131) Acting I
Winter: (DRA 110) Introduction to Theatre Part II
2nd Year (6 credits)
Fall: (DRA 222) Introduction to Shakespeare
Winter: (DRA 201) Contemporary Canadian Theatre
After the second year the following seminar and production courses are required for all drama Majors ( 9 credits):
Seminar Courses: Two of DRA 311, DRA 312, DRA 313, DRA 391, DRA 392, DRA 393
Production Courses: One of (DRA 331) Production I, (DRA 332) Production II
The remaining eighteen credits required for the Major in Drama may be taken at anytime during the student's tenure at Bishop's provided that he or she has fulfilled the stated prerequisites for the individual course.

## Required Courses (12 credits)

One of (DRA 211) Ritual and Theatre, (DRA 212) Theatre and the State and (DRA 230) Women and Performance
One of (DRA 202) Contemporary American Drama, (DRA 203) Contemporary European Drama
One of (DRA 170 / ENG 170) Introduction to Film, (DRA 271) Modern Drama, (DRA 273) Women Dramatists [or a cognate course]
One of (DRA 246) Introduction to Directing, (DRA 281) Playwriting I

## Drama Electives (9 credits)

Three of all other drama courses (except independent studies)
Students must also complete any Divisional Requirements of the Division of Humanities.

## Minor in Drama (24 credits)

MINDRA

## Required courses ( 15 credits):

DRA 101 Introduction to Technical Theatre
DRA 102 Introduction to Theatre
DRA 131 Acting I
DRA 201 Contemporary Canadian Drama
DRA 222 Introduction to Shakespeare

## Drama electives:

Three courses ( 9 credits)
*All Honours students must complete both DRA 331 and DRA 332.
Students must also complete any Divisional Requirements of the Division of Humanities.

## Concentration in Musical Theatre (30 credits) MAJDMT

The departments of Music and Drama at Bishop's University are pleased to offer a new 30-credit concentration in Music Theatre as a supplement to the Major in Music or Drama. This is a program unique among Quebec universities. Students entering the Music program will be required to complete an additional 12 credits or cognates in Drama and vice versa. The successful student with a Drama or Music Major plus the Concentration in Music Theatre will earn a total of:

## 30 credits (Concentration) + 48 credits (Major) +12 credits (corequisites/cognates) $=90$ credits.

## Courses

MTH 100 - Intro. To Dance \& Movement I........... 3 credits
Plus 2 of:
MTH 200 - Dance II: Ballet ................................... 3 credits
MTH 201 - Dance III: Tap...................................... 3 credits
MTH 202 - Dance IV: Contemporary..................... 3 credits
MTH 203 - Dance V: Jazz ...................................... 3 credits

## Other required courses:

MTH 110 - Intro. to Acting with Song I ................. 3 credits
MTH 210 - Acting with Song II: Operetta ............ 3 credits
MTH 211 - Acting with Song III: The Golden Age... 3 credits
MTH 212 - Acting with Song IV: Modern ............. 3 credits
MTH 151 - Hist. of Musical Theatre to 1975......... 3 credits
MTH 152 - Hist. of Musical Theatre 1975-Present.. 3 credits
MTH 300 - Musical Production I ............................ 3 credits OR
MTH 301 - Musical Production II........................... 3 credits
Total: 30 credits

## Additional Elective Courses in Musical Theatre (offered on rotation):

| MTH 400 - Independent Study I ............................ 3 creditsMTH 401 - Independent Study II ............................ 3 creditsMTH 410 - Song Writing for Musical Theatre...... 3 credits |
| :---: |
|  |  |
|  |  |

## List of Courses

## MTH 100 Intro. to Dance \& Movement I

3-3-0
Students learn fundamental techniques commonly applied to all genres of dance including isolation exercises, posture and alignment study as well as dynamics, rhythm and interpretation.

## MTH 200 Dance II: Ballet 3-3-0

Students learn basic techniques commonly applied to the genre including barre, floor, and centre work as well as the concepts of rhythm, dynamics, space and balance. Elements of good posture, body alignment, turnout, pointing the toe, etc., are interwoven with the French terminology associated with specific ballet moves. Prerequisite MTH 100 or consent of instructor.

## MTH 201 Dance III: Tap 3-3-0

Students are presented with rigorous and repetitive series of isolation exercises series for the ankle and foot that develop the basic steps associated within the genre of tap. Development of a clear sense of rhythm and syncopation also a focus of the course.
Prerequisite MTH 100 or consent of instructor.
MTH 202 Dance IV: Contemporary 3-3-0
Students focus on rhythm and various types of movement, communication and interpretation, and the effective use of a performing space in both solo, duet and small ensemble settings.
Prerequisite MTH 100 or consent of instructor.

MTH 203 Dance V: Jazz
3-3-0
Students are presented with rigorous exercises to develop the basic moves associated within the 6 genres of jazz - Classic, Street, Afro, Commercial, Latin and Contemporary, Development of a clear sense of rhythm and syncopation also a focus of the course.
Prerequisite MTH 100 or consent of instructor.
MTH 110 Intro. to Acting with Song I 3-3-0
This course explores the intimate relationship between acting and music and will be centered around the analysis, discussion and performance of short scenes taken from the standard repertory.
Prerequisites: MUS 172, MUS 120, MUS 130, DRA 131, and/or consent of instructor(s).
MTH 210 Acting with Song II: Operetta
3-3-0
A continuation of MTH 110, this course explores the intimate relationship between acting and music and will be centered around the analysis, discussion and performance of short scenes taken specifically from the operetta repertoire.
Prerequisite MTH 110.
MTH 211 Acting with Song III: The Golden Age 3-3-0 A continuation of MTH 110, this course explores the intimate relationship between acting and music and will be centered around the analysis, discussion and performance of short scenes taken specifically from the Broadway repertoire. Prerequisite MTH 110.
MTH 212 Acting with Song IV: Modern 3-3-0
A continuation of MTH 110, this course explores the intimate relationship between acting and music and will be centered around the analysis, discussion and performance of short scenes taken specifically from the contemporary repertoire. Prerequisite MTH 110.
MTH 300 Musical Production I $\quad$ 3-3-0
This course prepares students to mount a public presentation of a full-scale musical theatre production taken from the standard repertory as well as new and hybrid musicals. Successful audition required.

MTH 301 Musical Production II 3-3-0
This course prepares students to mount a public presentation of a full-scale musical theatre production taken from the standard repertory as well as new and hybrid musicals. Successful audition required.
MTH 400 Independent Study I $\quad \mathbf{3 - 3 - 0}$
This upper-level course allows the advanced student the opportunity to develop projects under faculty supervision specific to their interest and career path.
MTH 401 Independent Study II $\quad \mathbf{3 - 3 - 0}$
This upper-level course allows the advanced student the opportunity to develop projects under faculty supervision specific to their interest and career path.

## MTH $151 \quad$ History of Music Theatre to 1975

(formerly MUS 109 Music and Theatre) 3-3-0
This course will cover the field of popular musical theatre from its origins in 19thcentury comic opera and operetta; and then Broadway musicals up to ca. 1975. Kern, Rogers and Hart/Hammerstein, Lerner and Loewe; the more sophisticated works of Bernstein. Not open to students who have successfully completed MUS 109.
MTH 152 History of Music Theatre: 1975-present 3-3-0
Musical Theatre starting in 1975 - the new "Golden Age" with sophisticated Sondheim; the blockbuster shows of Andrew Lloyd Weber, Shonberg/Boublil and Disney; "Poperettas"; Juke-box Musicals; and subjects as diverse as Wicked, Book of Mormon and Hamilton.
MTH 410 Song Writing for Musical Theatre 3-3-0
Students will analyze the standard musical theatre repertory, examining song forms, the incorporation of characters, time, place, mood, spoken dialogue, subtext etc. Students, composers and/or lyricists will collaborate to adapt dramatic scenes into songs for the musical stage. Works-in-progress will be collectively critiqued followed by performances of original works in class.
Prerequisite MUS 120 and MUS 230, or consent of instructor.

## Co-requisites / Cognate Courses:

In an effort to balance the skill sets between Music and Drama, Drama Majors entering the concentration must also complete the following Music courses (12 credits):

MUS 172, 173 \& 270 ............................................ 5 credits
MUS 181, 281 ......................................................... 2 credits
MUS I20................................................................. 2 credits
MUS 130 ................................................................. 3 credits

To balance the skill sets between Music and Drama, Music Majors entering the concentration must also complete the following Drama courses ( 12 credits):
DRA 101 $\qquad$ .3 credits
DRA 102 or DRA 110 .3 credits
DRA $131 \& 132$ 6 credits

## List of Courses

## Theatre History and Performance studies

These courses are primarily concerned with the study of drama as literature or with the study of theatre history. Some of these courses may be used to satisfy the degree requirements of the Department of English.

All courses are open to non-Drama students.

## DRA 102 Introduction to Theatre:

Theatre and Dramatic Literature Before 1800
3-3-0
This course provides students with an introduction to theatre history and to some of the important plays of various historical epochs. One of the focuses of the course is the socially created meaning of theatre, including interaction between audience and stage, the role of the theatre professional in society and the connections between theatre and political and religious institutions. The course will also introduce various theatrical styles. The dramas themselves are interpreted as blueprints for performance, not just as examples of literature.

## DRA 110 Introduction to Theatre Part II:

Theatre and Dramatic Literature After 1800
3-3-0
This course provides students with an introduction to the theatre history of the modern age and to some of the important plays of this era. The course will also introduce various theatrical styles, such as epic theatre, theatre of the absurd and naturalist theatre. The dramas themselves will be interpreted as blueprints for performance, not just as examples of literature. Among the playwrights included in the course are Henrik Ibsen, Anton Chekhov, Luigi Pirandello, Samuel Beckett, Caryl Churchill and Heiner Müller.

DRA 201 Theatre in Canada 1
3-3-0
On Theatre in Canada, until 1990, including the plays of Tremblay, French, Walker, Thompson and others.
DRA 202 Contemporary American Drama $\quad$ 3-3-0
American playwrights and theatrical movements of the post-Viet Nam war period. Playwrights include Shepherd, Mamet, Rabe, Wasserstein.
DRA 203 Contemporary European Drama 3-3-0
European drama since 1960 through examination of works of influential playwrights and dramatic theorists.
DRA 211 Ritual and Theatre 3-3-0
There is a persistent and complex relationship between theatre, the sacred and magic. This course explores this relationship through the study of performances/ performers and texts from a spectrum of cultures and times. Students will study theories including Aristotle, Victor Turner and Eugenio Barba. Other Texts include Aoi no Uye, A Winter's Tale and Death and The King's Horseman.
DRA 212 Theatre and the State 3-3-0
The political theatre in both senses of the phrase: what is the relationship between the stage of state and the theatrical stage? What legislation exists to restrict public performances and representations? How have performances in a variety of cultures and historical periods variously challenged and re-instated these cultural models?

## DRA 214 Theatre in Canada II

3-3-0
After 1990, new voices changed theatre in Canada. The works of writers such as Wajdi Mouawad, Hannah Moscovitch, Jordan Tannahill and Tara Beagan have challenged domestic and international audiences to re-assess ideas of nation and identity. Their work is seen in the context of emerging theatre companies in Canada and the development of techniques such as post-dramatic theatre, physical theatre, and devised theatre.
DRA 222 Introduction to Shakespeare $\quad$ 3-3-0
Close study of four to six plays from the following: Richard III, Macbeth, $A$ Midsummer Night's Dream, Henry IV pt. 1, Hamlet, Twelfth Night, Othello, The Tempest.

## WOM 230 /

DRA 230 Women in Performance 3-3-0
An analysis of the role of women in the performing arts as practitioners, creators, producers and spectators with emphasis on the modern era and western cultures. The course takes a cultural studies approach to the subject and includes readings by feminist theorists, sociologists and cultural historians.
DRA 271 Modern Drama 3-3-0
The major European drama and movements of the period from 1875-1939, including the works of Ibsen, Strindberg, Chekhov, among others.

## DRA 273 Women Dramatists 3-3-0

Discussion and analysis of a number of plays written by women. The plays will be studied in their cultural context and from the perspective of contemporary feminist theory.

## Interest Courses and Cognate Courses

DRA/
ENG 170 Introduction to Film $\quad$ 3-3-0
This course provides a broad introduction to the study of film as art. In the first few weeks of the course, we'll familiarize ourselves with the formal dimensions of Film Studies, exploring how screenwriting, cinematography, editing, lighting, sound, and production design contribute to this collaborative art form. Having developed this aesthetic vocabulary and understanding, the class will move on to investigate different modes of film production (fictional narrative, documentary, experimental), and the critical issues and debates that have shaped the discipline (topics may include genre, auteurism, industry structures, globalization, and ideology).
CLA 219 The Greek Tragic Theatre I 3-3-0
Myth and tragedy, origin and development of the Greek theatre; representative tragedies of Aeschylus and Sophocles, in translation.
CLA 220 The Greek Tragic Theatre II
3-3-0
Study of the later works of Sophocles and representative works of Euripides. (In translation)
ENG 334 Restoration and Eighteenth-Century Drama 3-3-0
This course covers a wide range of English drama from Etherege through Behn to Sheridan to indicate both the shifting social tastes and the permissiveness of the theatre.
FRA 283
3-3-0
Évolution de la production dramatique au Québec depuis Marcel Dubé. Le théâtre de revendication sociale et politique, les happenings et le théâtre expérimental, le théâtre d'improvisation, le genre comique et la recherche contemporaine de nouvelles formes théâtrales. Dramaturges étudiés: Dubé, Tremblay, Meunier, Lepage, Gilles Maheux et Carbone 14, etc.
FRA 261 Le Théâtre du XVIIe au XIXe siècle
3-3-0
Lecture et commentaire de pièces significatives du théâtre du XVIIe, XVIIIe et XIXe siècles. L'étude des divers genres (comédie, tragédie, drame, vaudeville) et des diverses esthétiques (classique, romantique) permettra de se familiariser avec les grandes tendances traditionnelles du théâtre.

## Performance and Production

These courses emphasize the performance and production aspects of theatre. DRA 101 and DRA 131 are required courses for Drama students. Most courses are open to non-Drama students, but enrolment may be limited.

## Acting

DRA 131 Acting I
3-3-0
Acting One establishes a physical and vocal warm-up routine, develops public speaking skills, and explores the fundamentals of acting for the stage. Project work is based on individual presentations.

## DRA 132 Acting II

3-3-0
Acting Two continues the focus on voice and movement. Students will begin character work, research, and scene study. Projects are partner based.
Prerequisite: DRA 131
DRA 135 Acting for Non-actors $\quad \mathbf{3 - 3 - 0}$
For students not planning a career on stage or screen, the course teaches acting skills and techniques helpful for becoming more expressive and comfortable in voice and body. Acting skills build confidence and ability in the areas of nonverbal and verbal communication, listening to and empathy with others, and managing the anxiety that often accompanies social situations and presentations.

FRA 136 Techniques de Jeu I
3-3-0
Introduction aux techniques d'interprétation d'art dramatique à partir de textes, et d'études des bases de la performance scénique. Travail en équipe sur des scènes tirées d'œuvres théâtrales modernes et contemporaines.

## DRA 191 Voice and Media: An Introduction <br> 3-3-0

Students would work with a foundation of breathing, vocal freedom, and articulation. Students would work with different dialects in English, and would work both live and in recording studio. The acquisition of skills in working with the voice in different media is an important preparation for actors, but also for anyone interested in voiceover for televisual media, games and recorded communication.

## DRA 233 Acting III

3-3-0
Approaches to text and character. The work is on a project and performance basis, some of which will be for presentation.
Prerequisite: DRA 132 and permission of the Department

## DRA 234 Acting IV

3-3-5
Scene study and collective creation: analysis, rehearsal techniques and final presentation in Studio Theatre.
Prerequisite: DRA 233
DRA 237 Theatre Lab 3-3-3
The course will focus intensively on the preparation and training of the physical means of acting. Workshops will concentrate on both voice and body movement exercises.
Prerequisite: DRA 233 or permission of the Department
DRA 334 Text and Language 3-3-0
Students will explore the relationship between the written text and the spoken text. Source material will include prose and poetry as well as dramatic dialogue. There is no production attached to this course, but in-class presentations, open to the public, will be given on an informal basis
Prerequisite: DRA 233
DRA 439 Scene Study 3-3-0
Students will explore scenes from the great works of the theatre. Texts will be chosen from those studied in the dramatic literature courses. Three in house presentations will be given during the term.
Prerequisite: DRA 233 or permission of the instructor
DRA $440 \quad$ Scene Study II - Shakespeare $\quad \mathbf{3 - 3 - 0}$
A senior level acting course that bridges the gap between the study of dramatic literature and full scale production. Each student in the class will have the opportunity to take on leading roles in scenes chosen from the Shakespeare canon. In addition, we will explore one text on acting theory that addresses Shakespearian verse.
Prerequisite: DRA 233 or permission of the instructor

## Directing

We offer six credits in directing. The opportunity to direct a short play is provided by our New Plays and TheatreActIV festivals.

## DRA 246 Introduction to Directing <br> 3-3-0

The basic elements of directing a play, including interpretation, analysis, visual presentation, use of space, and rehearsal techniques.
Prerequisite: No prerequisites required
DRA 247 Directing Theory and Practice 3-3-0
Study in depth of major directorial problems. Each student directs short scenes.
Prerequisite: DRA 246 and permission of the instructor

## Playwriting

Six credits of playwriting are offered. Student written plays are produced in New Plays Festival, and Theatre Act IV. Enrolment is limited but a few places are open to non-Drama students.
DRA 281 Playwriting I
3-3-0
A course in play appreciation and play structure as well as a practical workshop in the writing of one-act plays. Assignments include text analysis, scene writing, and the creation of a complete short play.

## DRA 282 Playwriting II

3-3-0
Classes take the form of standard playwriting workshop sessions. Each student will write an extended monologue, a series of dramatic sketches, and a one-act play. All work will be read and critiqued by other members of the group.

## Seminar Courses

These courses were created for students to engage in theatre research and praxis; course material will integrate with preparations for senior productions and with guest artists.
DRA 311, DRA 312, DRA 313
Production Dramaturgy: Theatre Research in Action I, II, III 3-3-0
Production Dramaturgs are the Editors of the theatre world. Each course involves in-depth research into the historical period, theatre styles and key issues connected to the Centennial Theatre Production. The dramaturgy team in these classes would not only research these issues, but would learn how to effectively communicate them to the creative team and both special and general audiences through web content and program material.
Prerequisite: DRA 102 and 9 other DRA credits or permission of the instructor
DRA 391, DRA 392, DRA 393
Theatre Praxis: Contemporary Theatre Creation I, II, III
3-3-0
This series of studio-based courses offer the student to engage in an important method of contemporary theatre creation. While complimenting production courses, here the focus is on exploration and investigation of theatre methods that challenge traditional commercial practices. An individual course may focus on verbatim theatre (working with documentary materials to create performance) applied theatre (theatre for social change that works with a community) and multimedia performance (the mixture of live and mediated materials in performance).
Prerequisite: DRA 131, DRA102 and 6 other DRA credits or by permission of the Department

## Technical Theatre

DRA 101 is open to all students interested in theatre production. Enrolment in subsequent technical courses is limited.
DRA 101 Introduction to Technical Theatre
3-3-3
An introduction to the elements, processes, and systems of the stage environment through lectures and group tutorials.
DRA 250 Intermediate Technical Theatre Stagecraft $\quad$ 3-3-5
This course will examine in more detail several areas of study encountered in Introduction to Technical Theatre. In order to prepare students for more advanced courses, we will concentrate on the use of sound, lighting and scene shop equipment. We will also focus on basic drafting, set construction, scene painting and rigging.
Prerequisite: DRA 101
DRA 251 Lighting Design
3-3-5
This course covers both the aesthetics and the techniques of stage lighting. In addition to exploring the theory and process, the students will design the lighting for Drama Department student productions.
Prerequisite: DRA 101 and permission of the Department

## Design

Six introductory credits are offered in set and costume design. The two courses are offered in alternate years. Enrolment is limited. These courses are cognate courses and open to Fine Arts students.
DRA 161 Introduction to Costume Design for Theatre 3-3-0
This course offers an introduction to the history, basic elements and practice of costume design. Course work will include both an investigation of the principles of design for theatre and an understanding of the practical elements of costume creation.
DRA 162 Introduction to Scenography $\quad \mathbf{3 - 3 - 0}$
This course offers an introduction to the history and development of scenography, text analysis, the principles and the process of scenography. Course work will include project-based designs as well as lecture/discussion in this field.

## Production

These courses involve a major role or function in faculty directed productions in Studio or Centennial Theatres.
DRA 331 Production I: Performance
3-3-5
The course will consist of major involvement in and responsibility for Department production(s) in the areas of acting, stage management or directing. Productions will take place in the Studio Theatre.
Prerequisites: DRA 131, DRA 132, DRA 233, DRA 234

DRA 341 Production I: Technical Production
3-3-5
This course will consist of major involvement in and responsibility for Department production(s) in the areas of design, technical direction and production. Productions will take place in the Studio Theatre.
Prerequisites: DRA 101, DRA 131, either DRA 250 or DRA 251
DRA 332 Production II: Performance
3-3-5
The course will consist of major involvement in and responsibility for Department production(s) in the areas of acting, stage management or directing. Productions will take place in Centennial theatre; students will be required to work during Reading Week.
Prerequisites: DRA 131, DRA 132, DRA 233, DRA 234
DRA 342 Production II: Technical Production
3-3-5
The course will consist of major involvement in and responsibility for Department production(s) in the areas of design, technical direction and production. Productions will take place in Centennial Theatre; students will be required to work during Reading Week.
Prerequisites: DRA 101, DRA 131, either DRA 250 or DRA 251

## Thesis

Honours students will undertake a thesis project under the supervision of one or more members of the Department
DRA 450F Honours Thesis
6-1-0 or 6-0-5
Thesis proposals must be submitted before classes begin for the academic year in which the thesis is to be completed.
Students undertaking a thesis in the area of Dramatic Literature and Theatre History will write a thesis-length research paper on a subject approved by the Department. Students undertaking a thesis in the area of Production (acting and directing) will write a research paper related to their project and submit all materials related to that project.
Before planning a production thesis, students should thoroughly familiarize themselves with the document "Criteria for Acceptance of an Honours Thesis." (available from the chair of the Department.)

## Independent Study

The Department offers a variety of independent study options for either special projects, approved by the Department, or advanced work in theatre production or drama study. Students may register for a maximum of twelve independent study credits.
DRA 310 Independent Study: Theatre Research and History
3-1-0
Advanced study of dramatic literature or theatre history.
Prerequisite: DRA 101, DRA 102, DRA 131, DRA 222 and permission of Department

DRA 337 Independent Study: Performance I
Advanced work in major role in faculty directed show.
Prerequisite: DRA 331
DRA 339 Independent Study: Performance II
Advanced work in major role in faculty directed show.
Prerequisite: DRA 234, DRA 237, DRA 331
DRA 350 Independent Study: Theatre Production I $\mathbf{3 - 0 - 5}$
Advanced work in theatre production; major responsibility for production function in Studio Theatre show.
Prerequisite: DRA 331 and permission of the Department
DRA 351 Independent Study: Theatre Production II
3-0-5
Advanced work in theatre production; major responsibility for production function in Studio or Centennial Theatre show.
Prerequisite: DRA 332 and permission of the Department
DRA 352 Independent Study: Stage Management
3-0-5
Advanced work in stage management; responsibility for stage managing a faculty directed show.
Prerequisite: DRA 250, DRA 254, DRA 331 or DRA 332 and permission of the Department
DRA 363 Independent Study: Design
3-0-5
Advanced work in set, lighting, or sound design; major responsibility for design of faculty directed show.
Prerequisite: DRA 251 or DRA 262, DRA 331 or DRA 332 and permission of the Department

DRA 365 Independent Study: Costume Design
3-0-5
Advanced work in costume design; major responsibility for design of faculty directed show.
Prerequisite: DRA 160 and DRA 331 or DRA 332 and permission of the
Department
DRA 370 Independent Study: Special Project
3-0-5
Advanced work on a special project approved by the Department.
DRA 380 Independent Study: Playwriting
3-0-5
Advanced work in playwriting. Interested students must submit a completed first draft two weeks prior to registration.
Prerequisite: DRA 282

## English Language Studies

The English as a Second Language Program offers courses in grammar, composition, oral expression, and academic skills. All courses have in common the aim of assisting students in all disciplines to improve their understanding of English language and communication. Within the Department of Modern Languages, Literatures and Cultures, a Major in English Language Studies is offered.

## English as a Second Language

English as a second language courses at the 100 and 200 level may be taken as free electives in any program, or they may be taken towards a Major in Modern Languages (English Language Studies Component) or a Certificate of Proficiency in English as a Second Language.

## Major in Modern Languages: English Language Studies Component

In order to be accepted into this program, students must have attained at least an intermediate level of competence in English. This level will be established according to the following criteria:

1) A result of over $40 \%$ on the Bishop's University E.S.L. placement test.
and
2) Successful completion of two CEGEP English Courses at the 604-100 level (normally 604-101 \& 604-102).
or
3) A result of 480/157-525/206 on the TOEFL test. or
4) A result of 575-690 on the TOEIC test. or
5) A result of 4.5-5.5 on the IELTS test.

Students may also enter the program at the advanced level, which will be defined according to the following criteria:

1) A result of over $65 \%$ on the Bishop's University ESL placement test.
and
2) Successful completion of two Cegep English courses at the 604-100 level, including Anglais 604-102 and 604-103, with an average of over $75 \%$ in each.

## or

3) A result of over 525/206 on the TOEFL test.
or
4) A result of over 690 on the TOEIC test.
or
5) A result of over 5.5 on the IELTS test.

In all cases, the University's standards will prevail. The University reserves the right to deny admission into these courses and programs to students who are already proficient in English. The University also reserves the right to reassign students to different levels/courses/ programs should in-class performance be inappropriate for the level of instruction. Students who have completed a university program with English as the language of instruction will not normally be eligible for English Language Studies programs or ESL courses.

## Course Groupings for Modern Languages Major (English Language Component)

## Group I: Core Courses

ESL 103: Intermediate English as a Second Language I
ESL 104: Intermediate English as a Second Language II
ESL 110: Introduction to English for Academic Purposes I
ESL 111: Introduction to English for Academic Purposes II
ESL 210: Advanced Writing and Text Analysis
ESL 211: Advanced Communicative Skills I
Group II: Special Purposes/Special Focus Courses
ESL 121: English Grammar I: Tense and Idiom
ESL 122: Advanced English Grammar:
Tense, Stylistic and Text Analysis
ESL 125: English Phonetics and Pronunciation
ESL 126: Oral Discourse I
ESL 127: Oral Discourse II
ESL 131: Business English
ESL 212: Advanced Communicative Skills II
Group III: Writing, Literature, Translation Courses
ENG 100: Introduction to English Studies
ENG 104: Approaches to Short Fiction
ENG 108: The American Short Story
ENG 110: English Writers of Quebec
ENG 111: Canadian Short Story
ENG 116: Effective Writing
ENG 202: History of the English Language
FRA 301: Stylistique et traduction I
FRA 302: Stylistique et traduction II
NB: Any English Literature (ENG) course may count towards the Group III requirements, although we recommend first-year courses, in particular ENG 104, ENG 108, ENG 110, ENG 111.

With the permission of the Modern Languages Department, very advanced ESL students may substitute ENG courses for one or more of their Group II requirements.

## Major in Modern Languages: English Language Studies Component Requirements

All students undertaking the English Language Studies Component of the Major in Modern Languages must complete 30 credits from course groups I, II, and III.

## Intermediate Level Students:

Students entering at the intermediate level must complete four of the courses ( 12 credits) in Group I including ESL 210 and ESL 211; three courses ( 9 credits) in Group II; and three courses (9 credits) in Group III, including ENG 116: Effective Writing.

## Advanced Level Students:

Students entering at the advanced level must complete ESL 210 and ESL 211 or ESL 212 ( 6 credits) in Group I; four courses ( 12 credits) from Group II; and four courses (12 credits) from Group III, including ENG 116: Effective Writing. NB: FRA 301 or 302 may be taken only by those students who are combining the English Language Studies and the French components of the Major in Modern Languages, and these courses may be counted only once towards the Major.

## ELA-ENG Concentrations

Advanced level students may choose a modified concentration offered by the English Department, in either Literature or Film and Media Studies. Students must take ESL 210, 211, and ENG 116, then two English foundation courses and then five 200 or 300 level English courses in the concentration (including some specific courses where applicable). If students already possess strong writing skills in English they may be excused from the ESL/ ELA component and take the regular stream recommendations.

Please Note: Students are not permitted to double-count courses from other Language Sections for the following concentrations.

## Literature Concentration

ESL 210, ESL 211, ENG 116; two foundation year courses (ENG 106 and one of ENG 105, ENG 112, or ENG 113); five 200 or 300 level ENG courses with a focus on Literature.

## Film and Media Studies

ESL 210, ESL 211, ENG 116; two foundation year courses (ENG 102, and one of ENG 100, ENG 112, or ENG 113); ENG 236, ENG 279, ENG 291 and DRA 170 (12) credits; one other ENG (film) course.

## Certificate of Proficiency in English as a Second Language/Intensive English Language Studies:

The Certificate of Proficiency in English as a Second Language may be pursued part- or full-time in the English Language Studies program and it comprises a sequence of courses in English as a Second Language. English Language and Composition, and/or English Literature.

Students who complete the Certificate will have attained a level at which they are capable of taking university course s in English, in addition to being able to use English comfortably on the job and in their leisure activities.

## Admissions requirements:

Students at all levels may register for the certificate program; however, students must normally have reached an intermediate level of competence before being admitted to full-time status.
Please note: Students entering certificate/intensive studies at the beginning or intermediate level may not be able to complete all program requirements in two regular sessions.

## Certificate Requirements

10 courses according to the following regulations and a cumulative average of $65 \%$ in courses taken towards the Certificate.

## Group I

The following six courses are required (depending upon the level of entry into the program):
ESL 70 English Second Language: Beginners I 3-3-0 EXT
ESL 102
Beginners English as a Second Language II
3-3-0
ESL 103 Intermediate English as a Second Language I 3-3-0
ESL 104 Intermediate English as a Second Language II 3-3-0
Note: ESL 110 and ESL 111 (Introduction to English for Academic Purposes I and II) may be substituted for ESL 103 and ESL 104.
ESL 210 Advanced Writing and Text Analysis 3-3-0
ESL 211 Advanced Communicative Skills I 3-3-0
Following the result obtained in the Bishop's University ESL placement test, students may be exempted from some or all of the following courses: ESL 070, ESL 102, ESL 103, ESL 104. To replace these exemptions, students may choose courses from group III.
All students in the Program must complete ESL 210 and ESL 211.

## Group II

A minimum of three courses must be chosen from the following: ESL 121 English Grammar I: Tense and Idiom 3-3-0
ESL 122 English Grammar II: Tense/Stylistic and Text Analysis 3-3-0
ESL 125 English Phonetics and Pronunciation 3-3-0
ESL 126 Oral Discourse I
3-3-0
ESL 127 Oral Discourse II
3-3-0
ESL 131 Business English
3-3-0
ESL 212 Advanced Communicative Skills II

## Group III

At least one course must be chosen from the following:
ENG 116 Effective Writing
Any course with an ENG code.

## English as a Second Language

## Course Descriptions

## Extra-Degree Credit Course

The following course is offered through the Office of Continuing Education in the evening and during the summer for extra-degree credit. THIS COURSE MAY NOT BE COUNTED TOWARDS DEGREE REQUIREMENTS.
ESL 70 Beginners I 3-3-0 (extra-degree credit)
Students entering this level have had a limited exposure to the language and have little or no ability to communicate. The purpose of the course is to provide students with a knowledge of the basic sounds and structures of the language along with a confidence which will permit them to begin to have meaningful exchanges in the English-speaking world. Through various communicative activities and exercises in grammar and pronunciation, students develop basic listening and speaking skills. At this level, reading and writing are used primarily to assist in the acquisition of the structures of the language. Upon completion of this course students should be able to understand and respond to communication of a simple, specific nature.
Entry level: $0 \%$ to $28 \%$ on the placement test

## Full-Credit ESL Courses

The following courses are offered both by the Office of Continuing Education (in the evening, summer and in various intensive programs) and by the Department of Modern Languages, Literatures, and Cultures (English Language Section) in the regular day programs.
ESL 102 Beginners English as a Second Language II 3-3-0
This course is intended for students who have already been exposed to the language, have a rudimentary understanding of its sounds and structures, and are able to communicate basic messages. The emphasis is on understanding and speaking, while students begin to participate actively in communication exercises and activities. Students are also introduced to simple reading and writing activities. Upon completion of this course, students should be able to function in a variety of real-life situations, and they should have a good knowledge of the basic structures of the language.
Prerequisites: $29 \%$ to $40 \%$ on the Bishop's ESL placement test or $65 \%$ or over in ESL 070.
ESL 103 Intermediate English as a Second Language I 3-3-0 This course is for students who are able to communicate yet need additional exposure to the basic structures and functions of the language. Students participate in speaking, listening, reading, and writing activities which demand increasing independence and concentration. Upon completion of this level, students should be able to produce simple, clear written texts and convey a desired oral message in a variety of social, occupational, and educational contexts. They should also have developed an awareness of some of the more complicated structures of the language.
Prerequisites: 41\%-52\% on the placement test or $65 \%$ or over in ESL 102 Antirequisite: ESL 110
ESL 104 Intermediate English as a Second Language II 3-3-0
This course is for students who are able to communicate with confidence in a variety of situations yet wish to improve their knowledge of and proficiency in the more complicated structures and functions of the language. Basic structures are reviewed at this level, but the main emphasis is on introducing students to more unusual grammatical and idiomatic structures and to more complex tasks and materials. Students are exposed to a greater variety of reading sources and are required to write texts with increasing accuracy. Upon completion of this level students should be able to engage in extended discourse in a variety of social, occupational, and educational contexts.
Prerequisites: 53\%-65\% on the placement test or $65 \%$ or over in ESL 103 Antirequisite: ESL 111
ESL 110 Introduction to English for Academic Purposes I 3-3-0 This is a broadly focused course designed to familiarize students with the varieties of English that they will encounter in an academic milieu, and give practice in the skills that are essential to this milieu: comprehending lectures, reading texts of varying length and complexity, note-taking, summarizing, paraphrasing,
presenting brief seminars. In addition, students will write and revise short texts with the aim of improving their command of grammar and vocabulary.
Entry level: $41 \%-52 \%$ on the placement test.
Antirequisite: ESL 103
ESL 111 Introduction to English for Academic Purposes II 3-3-0
This course is a continuation of Introduction to English for Academic Purposes I. Students will continue to be exposed to a wide variety of materials and will continue to improve in the four main skill areas: listening, speaking, reading, and writing. However, the emphasis at this level will be placed on activities of increasing complexity which require a greater degree of autonomy.
Pre- or corequisites: $53 \%-65 \%$ on the placement test, $65 \%$ in ESL 110, may be taken concurrently with ESL 110.
Antirequisite: ESL 104
The passing grade for these courses is $50 \%$; however, students will not be permitted to take advanced core courses until they have demonstrated adequate ability through achieving $65 \%$ or over in at least two 100-level ESL courses.
ESL 113 ESL for Special Purposes - Beginner Level
3-3-0
This beginner level ESL course will address specific needs of students - for example ESL for Tourism and ESL for Arts and Culture - both within and outside of the BU community. As such, the content will vary from semester to semester. Prerequisites: ESL 070 or ESL 102 or tested level
ESL 114 ESL for Special Purposes - Low- Intermediate Level 3-3-0 This low-intermediate level ESL course will address specific needs of students - for example ESL for Tourism and ESL for Arts and Culture - both within and outside of the BU community. As such, the content will vary from semester to semester.
Prerequisites: ESL 103 or ESL 104 or tested level

## ESL 121 English Grammar: Tense and Idiom 3-3-0

This course provides a comprehensive review of the basic tense systems in English, while focusing on grammar at the phrase and sentence level. Presentation of grammatical material will be contextualized and reinforced by oral and written exercises. Students will also learn phrasal verbs and various idiomatic features of the language (prepositions, gerund and infinitive collocations, article use).
Prerequisite: Over $40 \%$ on placement test

## ESL 122 Advanced English Grammar:

Tense, Stylistic and Text Analysis
3-3-0
This course provides an examination of more complex aspects of English grammar (particularly tense), and the features of the language which contribute to text coherence. In addition, students will develop an understanding of the factors that influence style and structure in written texts, and register in spoken texts. They will also learn to employ different reading strategies to suit various texts and rhetorical situations.

## Prerequisite: Over $40 \%$ on placement test

## ESL 125 English Phonetics and Pronunciation

3-3-0
This course is designed to provide students with an in-depth knowledge of the stress, rhythm and intonation patterns of English. In doing so, it will assist students in their understanding of variations in formal and informal spoken English, and in improving the accuracy of their spoken language. Students will learn the International Phonetic Alphabet.
Prerequisite: Over $40 \%$ on placement test

## ESL 126 Oral Discourse I

3-3-0
In this course students will encounter different types of oral discourse and learn the organizational and presentation strategies necessary for effective oral communication. Although some emphasis will be placed on oral comprehension, most of the activities will provide students with practice in direct address before a group with special emphasis on effective organization of ideas and clear delivery. Prerequisite: Over $40 \%$ on placement test

## ESL 127 Oral Discourse II

 3-3-0This course continues to focus on the objectives of Oral Discourse I. However, at this level students will be exposed to texts of greater complexity, and there will be an increasing emphasis on more demanding rhetorical situations. Students will analyse speeches, engage in debates and impromptu and extemporaneous presentations. Students will also carry out research on current issues and engage in related discussions.
Prerequisite: Over $40 \%$ on placement test

ESL 131 Business English
3-3-0
This course will focus on improving business communication skills. Objectives will include the effective writing of e-mail correspondence, memos, business letters, and reports; effective oral communication in various settings on the telephone, in meetings, in debates and discussions. Students will also encounter videos, readings and discussions dealing with topics such as customer services, leadership, stress management, sexual harassment.
Prerequisite: Over $40 \%$ on placement test
ESL 200 Supplementary Advanced Writing and Text Analysis 3-3-0 This course is intended for students who have already studied at the advanced level yet need to achieve a more thorough mastery of the required competencies. Students will read a variety of texts from popular and academic sources and analyse them for grammar, structure, and rhetorical strategies. Students will also learn the conventions of the academic essay and the characteristics of English style and discourse. Objectives are the same as for ESL 210 (Advanced Writing and Text Analysis), but content is varied for more thorough practice of the necessary skills.
ESL 201 Supplementary Advanced Communicative Skills I 3-3-0 This course is intended for students who already studied at the advanced level yet need to achieve a more thorough mastery of the required competencies. Students will be exposed to more complex aspects of grammar and communication, more diverse vocabulary and test types, and more challenging listening and reading comprehension activities. There will continue to be a substantial writing component at this level. This may take the form of essays, reports or other assignments, at the discretion of the instructor.
Prerequisites: $66 \%$ or over on placement test of $65 \%$ or over in ESL 111. Permission of instructor required in all cases.
ESL $210 \quad$ Advanced Writing and Text Analysis
3-3-0
This course is intended for students who have reached an advanced level of competence. Students will read a variety of texts from popular and academic sources and analyse them for grammar, structure, and rhetorical strategies. Students will also learn the conventions of the academic essay and the characteristics of English style and discourse.
Prerequisites: $66 \%$ or over on placement test; $65 \%$ or over in ESL 111a; or permission of instructor
ESL 211 Advanced Communicative Skills I 3-3-0
This course is intended for students who have reached an advanced level of competence. Emphasis will be placed on familiarizing students with more complex aspects of grammar and communication, increasing vocabulary and knowledge of different text types, and improving listening and reading comprehension. At the end of this level students should be able to function comfortably in any anglophone environment, whether social, professional, or academic. There will continue to be a substantial writing component at this level. This may take the form of essays, reports or other assignments, at the discretion of the instructor.
Prerequisites: $66 \%$ or over on placement test; $65 \%$ or over in ESL 111; or permission of instructor.
ESL 212 Advanced Communicative Skills II 3-3-0
This course is a continuation of ESL211 in its approach, focusing on further developing the four language skills: speaking, listening, reading and writing. Additional and more complex grammatical forms will be examined, particularly those which are common in everyday speech and writing but which often prove problematic for even advanced speakers of English as a second language. As with ESL211, practice will take place in a communicative environment. The reading and listening content of ESL212 will focus on English Canadian popular culture, with the intention of providing an introduction to this culture for francophone Quebeckers, exchange students and new Canadians. There will continue to be an extensive writing component at this level.
ESL 213 ESL for Special Purposes - High- Intermediate Level 3-3-0 This high-intermediate level ESL course will address specific needs of students - for example ESL for Tourism and ESL for Arts and Culture - both within and outside of the BU community. As such, the content will vary from semester to semester.
Prerequisites: ESL 110 or ESL 111 or tested level
ESL 214 ESL for Special Purposes - Advanced Level 3-3-0 This advanced level ESL course will address specific needs of students - for example ESL for Tourism and ESL for Arts and Culture - both within and outside of the BU community. As such, the content will vary from semester to semester. Prerequisites: ESL 210 or ESL 211 or tested level

## English

## Faculty

Gregory Brophy,

B.A. (Trent), B.Ed. (Queen's), M.A. (Western), Ph.D. (Western); Associate Professor

Claire Grogan,
B.A., M.A. (Oxon), P.G.C.E. (Oxon),

Ph.D. (Calgary); Professor
Shawn Malley,
B.A., M.A. (UNB), Ph.D. (UBC); Professor

Patrick McBrine,
B.A. (UNB), B.A. (Queen's), M.A., Ph.D. (Toronto); Associate Professor

Linda Morra,
B.A. (Toronto), M.A., Ph.D. (Ottawa); Professor

## Jessica Riddell,

B.A. (St. Mary's), M.A., Ph.D. (Queen's); Professor

## Steven Woodward,

B.A. (Queen's), B.A.A. (Toronto Metropolitan University), M.A., Ph.D. (Toronto); Professor; Chair of the Department

## Program Overview

Within the liberal education environment of Bishop's University, the Department of English offers a diverse range of courses and programs to help students develop their critical appreciation of texts of all kinds (literature, film, television, popular culture, etc.), and broaden their understanding of culture and its relationship to the individual, from historical and theoretical perspectives. Students of English develop analytical, research, and communication skills that are well-suited to many careers in today's information economy. Recent graduates have pursued graduate studies and careers in fields as diverse as videogame design, teaching English, advertising and marketing, filmmaking, law, politics, publishing, television, education, journalism, and business communications.

## Foundation Year

The four Foundation Year courses taken by ALL English Majors and Honours students are:
ENG 100, Introduction to English Studies; ENG 102, Approaches to Media Studies; ENG112, English Literary Tradition: The Middle Ages and the Renaissance; and ENG 113, English Literary Tradition: The Eighteenth Century to the Present.

## Cognate Courses

Students in the Honours Literature program and the Major Concentration in Literature and Education may count Drama courses in English Literature, CLA 202 "The Classical Influence on Shakespeare" and Education 211 "Introduction to Young Adult Literature" as satisfying English requirements, subject to the approval of the Department. Courses in Classical, French, German, and Spanish literatures, as well as mythology and the Biblical Literature may also be considered as cognates. No more than two cognate courses ( 6 credits) may be counted as part of these programs.

## Double Counting Policy

No more that 2 courses ( 6 credits) may be double-counted between any English programs.

## Divisional Requirements

Majors and Honours students in English must satisfy the Humanities Divisional requirements outlined at the beginning of the Humanities section of this calendar. Students with program combinations which require more than 72 credits are exempt from this requirement.

## English Honours

## Honours in Literature ( 60 credits)

HONENL
The Honours in English Literature is designed for students who wish to specialize in the study of English Literature, especially with the goal of continuing to study the subject at the graduate level.

Students in this program take at least 60 credits, including:

1) The Foundation Year courses (12 credits): ENG 100, ENG102, ENG 112, ENG 113
2) The Core Required course (3 credits): ENG 215, "Introduction to North American Literatures"
3) At least 10 courses ( 30 credits) from the Areas of Specialization. Of these 10 courses, 4 courses ( 12 credits) must be selected from Group A, 4 courses (twelve credits) from Group B, and 2 courses (six credits) from Group C. At least four of the courses in the Areas of Specialization must be 300- or 400-level seminars. Students are strongly encouraged to take courses from all ten areas, and are required to take at least two of the areas in Group A and at least three of the areas in Group B.

## Group A:

Old English and Middle English: 216, 221, 222, 310, 315
Sixteenth and Seventeenth Century: 223, 224, 225, 226, 320, 321, 325, DRA 222
Eighteenth Century: 332, 390

## Group B:

Romantic: 249, 295, 342, 348
Victorian: 254, 255, 350
Twentieth-Century British: 250, 251, 258, 360
Canadian: 252, 253, 275, 352, 358, 359
American: 256, 257, 260, 261, 353

## Group C:

Postcolonial: 123, 228, 358, 375
Critical Theory: 202, 232, 234, 236, 239, 395
4) And five elective English courses ( 15 credits), at least two of which must be at the 200 or 300 level or ENG 471 and ENG 472 in their stead.

As per Humanities Division guidelines, students must attain an average of $70 \%$, calculated on the best 60 credits in the program (including cognates) in order to graduate with an Honours degree.

## Honours in Film and Media Studies (60 credits)

HONENF
The Honours in Film and Media Studies is designed for students who wish to specialize in these areas, especially with the goal of continuing to graduate studies.

Students in this program take at least 60 credits in Film and Media, including:

1) The Foundation Year courses (12 credits): ENG 100, ENG 102, ENG 112, ENG 113
2) Three Core Requirements (9 credits): ENG/DRA 170, ENG 279 (formerly ENG 289), ENG 280
3) One of ENG 287 or ENG 291 (3 credits)
4) Seven Core Electives ( 21 credits): CDC 100, CDC 200, CLA 150, ENG 124 (formerly ENG 219), ENG 217, ENG 218, ENG 236, ENG 237/PSY 247, ENG 278, ENG 281, ENG 282, ENG 283 , ENG 287, ENG 291, ENG 293, ENG 294, ENG 295, ENG 297, ENG 298, ENG 350, ENG 381, ENG 382, ENG 383, ENG 384, ENG 463, FIH 235, FIH 240, FRA 250, FRA 259, GER 250, GER 270, GER 271, MUS 115 (formerly MUS 102), MUS 116, PHI 345, RSC 237, SOC 105, SOC 241 , SPA 318, SPA 320, SPA 333
5) Five English Electives ( 15 credits). At least two elective courses must be at the 200 or 300 level, or ENG 471 and ENG 472 in their stead.
As per Humanities Division guidelines, students must attain an average of $70 \%$, calculated on the best 60 credits in the program (including cognates) in order to graduate with an Honours degree.

## English Majors

## Literature Concentration (48 credits) MAJENL

 Students in the English Major, Literature Concentration, take at least 48 credits in English, including:1) The Foundation Year courses ( 12 credits): ENG 100, ENG 102, ENG 112, ENG 113
2) The Core Required course (3 credits): ENG 215 , "Introduction to North American Literatures"
3) At least three courses ( 9 credits) in English Literature before 1900, chosen from CLA 202, DRA 222, ENG 115, 216, 217, 221, 222, 223, 224, 225, 226, 249, 254, 255, 260, 261, 295, $310,315,320,321,332,342,348,350,356$ and 390
4) Eight English electives ( 24 credits)

## Film and Media Studies Concentration

 (48 credits)MAJENF
Students in the English Major, Film and Media Studies Concentration, take at least 48 credits in English, including:

1) The Foundation Year courses ( 12 credits): ENG 100, ENG 102, ENG 112, ENG 113
2) ENG/DRA 170 "Intro to Film" (3 credits)
3) At least two Core Courses ( 6 credits) from ENG 279, ENG 280, ENG 287, ENG 291
4) Five Core Electives ( 15 credits), chosen from CDC 100, CDC 200, CLA 150, ENG 124 (formerly ENG 219),

ENG 217, ENG 218, ENG 236, ENG 237/PSY 247, ENG 278, ENG 279 (formerly ENG 289), ENG 280, ENG 281, ENG 282, ENG 283, ENG 287, ENG 291, ENG 293, ENG 294, ENG 295, ENG 297, ENG 298, ENG 350, ENG 381, ENG 382, ENG 383, ENG 384, ENG 463, FIH 235, FIH 240, FRA 250, FRA 259, GER 250, GER 270, GER 271 MUS 115 (formerly MUS 102), MUS 116, PHI 345, RSC 237, SOC 105, SOC 241, SPA 318, SPA 320, SPA 333
5) And four English Electives (12 credits)

## English Minors

For students in any discipline at Bishop's who, in addition to their major concentration, wish to develop a secondary area of expertise in one of the fields offered through the English Department, we offer five different minors.

## The English Minor ( $\mathbf{2 4}$ credits)

MINENG
This minor allows students to sample from the many different aspects and areas of English literatures, film and media studies, and communication offered through the English department. The English Minor requires any 8 courses ( 24 credits) from the department's List of Courses.

## The Literature Minor (24 credits)

MINENL
This minor allows students to focus on English literary texts. The Literature Minor requires any 8 literature courses ( 24 credits) from the department's List of Courses.

## The Film and Media Studies Minor (24 credits)

MINFIL
The Film and Media Studies Minor provides an introduction to the study of film through the increasingly rich, interdisciplinary approach that now defines this field. Film courses are typically taught in the cinema class room (Nicolls 4), which is equipped with excellent projection and sound equipment, as well as cinema seating. The Film and Media Studies Minor requires the completion of 24 credits in the following manner:

1) Core Requirements ( 6 credits): DRA/ENG 170 and ONE of ENG 279, ENG 280, ENG 287, ENG291
2) Core Electives ( 18 credits): Choose SIX courses from the following:
CDC 100 Introduction to Communication
CDC 200 Communication and Media Studies:
Theory and Practice
CLA 150 The Ancient World in Film and Television
ENG 102 Approaches to Media Studies
ENG 124 Introduction to the Graphic Novel
(formerly ENG 219)
ENG 217 The Arthurian Tradition
ENG 218 The Gothic Tradition
ENG 236 Popular Culture
ENG 237/PSY 247 Lessons from the Marvel Universe
ENG 278 Science Fiction in Literature and Film
ENG 279 Film History to 1939 (formerly ENG 289)
ENG 280 Film History after 1939
ENG 281 Canadian Cinema
ENG 282 Film Adaptation

ENG 283 The Documentary Film
ENG 287 Image and Communication
ENG 291 Film Theory
ENG 293 Four Filmmakers
ENG 294 Film Comedy
ENG 295 Jane Austen and Film
ENG 297 From Aliens to Zombies
ENG 298 Studies in Directors/Actors: Alfred Hitchcock
ENG 350 Technology, Media and Literature in Victorian England.
ENG 381 The Evolution of the Fairy Tale in Literature and Film
ENG 382 Screenwriting
ENG 383 Digital Filmmaking
ENG 384 Documentary Filmmaking
FIH 235 Moving Images in the Visual Arts
FIH 240 Art, Popular and Mass Culture
FRA 250 French Cinema
FRA 259 Québec Cinema
GER 250 German History in Recent Films
GER 270 Introduction to German Film
GER 271 East German Cinema
MUS 115 Film Music I (formerly MUS 102)
MUS 116 Film Music II
PHI 345 Topics in Philosophy of Film
RSC 237 Film and Religion
SOC 105 Media and Society I
SOC 241 Cinema
SPA 318 Spanish Cinema
SPA 320 Hispanic Cinemas and Social Engagement
SPA 333 Hispanic Literature and Film

## Communication and

Digital Culture Minor
MINCDC
The Communication and Digital Culture minor offers practical and theoretical instruction in writing and speaking in a variety of academic, creative, and professional contexts, including communication, journalism, copywriting, and various modes of digital production. Housed within an English department that prepares students as critical readers and effective writers, the Minor works to "broadcast" these strengths by networking with the rich spectrum of cultural production and critique underway at Bishop's. Drawing on multiple disciplines, this program develops technical expertise in various modes and media, providing training in the skills of communication, critique and collaboration that will help students to develop confident and compelling voices in their chosen field. Students must choose 24 credits from the two categories below, "Core Requirements" and general "Electives."

Note: Individual departments choose when to offer their own courses and whether or not to preregister students or limit enrollment. Therefore, it is best to consult the BU Timetable each semester in conjunction with the list below, to see which courses in the minor will be offered.

1) Core Requirements ( 6 Credits): CDC 100 Introduction to Communication AND CDC 201Writing for Digital Media OR ENG 116 Effective Writing
2) Electives ( $\mathbf{1 8}$ credits). Choose any $\mathbf{6}$ courses from the following:

Communication and Digital Culture (CDC) Electives
CDC 200 Communication and Media Studies: Theory and Practice
CDC 400 Senior Professionalization Seminar: Portfolio

## Williams School of Business

BMK 211 Marketing Management
BMK 214 Consumer Behaviour
BMK 323 Marketing Communication
BMK 354 Digital Marketing
BMK 345 International Marketing and Export Management

## Arts Administration

AAD 252 Arts Administration:
Communications and Marketing
AAD 150 Arts Administration:
Internal Operations (formerly AAD 250)

## Drama

DRA 191 Voice and Media
DRA 271 Playwriting I
DRA 282 Playwriting II

## English

ENG 102 Approaches to Media Studies
ENG 116 Effective Writing
ENG 200 Creative Writing: Poetry
ENG 201 Creative Writing: Prose
ENG 202 History of English Language
ENG 203 Creative Writing: Experiments in Prose
ENG 204 Creative Writing: Experiments in Poetry
ENG 205 Art of Persuasion:
Rhetoric from Classical to Contemporary
ENG 206 Creative Writing: The Graphic Novel
ENG 209 Introduction to Creative Writing
ENG 236 Popular Culture
ENG 285 Journalism
ENG 286 On-Line Journalism
ENG 287 Image and Communication:
Visual Culture and Critique
ENG 296 Sports Writing
ENG 382 Screenwriting
ENG 383 Digital Filmmaking
ENG 384 Documentary Filmmaking
Experiential Learning (limit 6 credits)
ENG 450 Experiential Learning: Journalism
ENG 456 Experiential Learning:
ENG 457 Communications:
Analysis, Design, and Implementation
ENG 458 Experiential Learning:
Literary Editing and Publishing
ENG 459 Experiential Learning:
AcademicEditing and Publishing
Fine Arts
FIN 218
FIN 348
FIS 182
FOS 385 Printmaking: Contemporary Practice

## History

HIS 275 Digital History

## Music

MUS 378 Introduction to RecordingTechnology
MUS 379 Recording Technology II
Computer Science/Graphic Design
CS 203 Interactive Web Page Design
CS 301 Computer Ethics
CS 330 Developing Mobile Apps (formerly CS230)
Sociology
SOC 105 Media and Society
SOC 280 Interpersonal Communication

## Sports Studies

SPO $\quad 170$ Social Media and Sport
SPO $\quad 370$ Public Relations in Sport

## Indigenous Studies Minor

## (24 credits)

MININD
A number of English courses contribute to the Indigenous Studies Minor an interdisciplinary program designed to introduce students to the global processes of cultural encounters and the resultant responses of resistance, accommodation, and adaption. Students will be exposed to theories and world-wide applications of, and responses to, imperialism and colonialism, as well as decolonization and post-colonialism. For more information on the Indigenous Studies Minor, please consult the program description in the Academic Calendar.

## List of Courses

## CDC 100 Introduction to Communication 3-3-0

This course provides a dynamic introduction to the four pillars of communicationoral, written, visual, performative-and offers effective strategies for success in each area. The course combines lectures and workshops, modeling the critical skills in the study of communications while developing the practical skills students require to claim an active role in shaping the cultural conversation. Units culminate in a series of productions-ranging from public addresses, to web design, to podcasting-that emphasize the public nature of the course's interventions into culture, pushing student creations beyond the margin of the page and the classroom.
CDC 200 Communication and Media Studies:
Theory and Practice
3-3-0
An examination of the forms and theories of communication, this course introduces students to critical and practical knowledge of a variety of communication frameworks, from the nature of the self, to constructive participation in groups. With a focus on the English language and meaning-making (semiology), we will move outward from the self-concept and self-perception, to the nature of language, listening, non-verbal communication, group communication, and the nature of persuasion and power as they apply to language use.
CDC $201 \quad$ Writing for Digital Media
3-3-0
This course introduces students to the world of professional digital writing.
Nearly every business today requires an in-house team to create internal and external communication strategies for multiple digital channels. This course covers the most common forms of online content production with emphasis on effective writing skills and strategies for a variety of media platforms and audiences. It also considers the effective use of image and sound to promote written materials, teaching students how to reach different audiences through multimedia

## CDC 400 Senior Professionalization Seminar: Portfolio <br> 3-3-0

This senior professionalization seminar focuses on the development of student portfolios that showcase the unique experience, education and training of each student in the Communication and Digital Culture program. Coursework will support students in crafting an authentic and compelling expression of their distinctive vision and values.
Prerequisites: CDC 100

ENG 100 Introduction to English Studies
3-3-0
A gateway to English studies, this course challenges students to develop critical thinking, speaking, and writing about a wide array of texts, from poetry and fiction to television, film and digital media. The course's workshop structure stresses collaborative work and active engagement with the subject matter through various forms of creative and critical expression (e.g. creative revisions of poetry, journals, Moodle posts, debates, and short essays). Exercises will isolate and develop the core critical skills upon which students will depend throughout their studies in English.
Note: Students who have received credit for ENG 105 are not eligible for ENG 100. Offered every Fall
ENG 102 Approaches to Media Studies 3-3-0
Through a close examination of the different forms of contemporary culture people are frequently exposed to and consume - movies, TV sitcoms, internet blogs, pop music, and so on - this course considers how our understandings of reality and our perceptions about society and our identities are shaped by the various media that surround us. Informed by both cultural theory and the history of media, this course offers a series of case studies of media texts with the goal of helping students understand the nature and effects of our contemporary media culture.
Offered every Winter
ENG 104 Approaches to Short Fiction
3-3-0
This course introduces students to the study of fiction through the analysis of short stories and novellas from various literary traditions and historical periods. Stories will be discussed in terms of such aspects of fiction as plot, character, setting, point of view, voice, discourse, tone, symbol, and theme.

## ENG 108 The American Short Story

3-3-0
This course examines the development of the short story form in the United States from its beginnings in the work of Irving, Poe, and Hawthorne, through Fitzgerald and Hemingway, up to such contemporary writers as Oates and Barth. Subjects to be examined include the Gothic tradition, the influence of Puritanism, the AfricanAmerican experience, gender, and madness.
ENG 110 English Writers of Quebec
3-3-0
Selected short stories, novels, plays, and poems of such writers as Hugh MacLennan, Mordecai Richler, Brian Moore, Joyce Marshall, Ralph Gustafson, David Fennario, A.M. Klein, F.R. Scott, and Irving Layton will be studied. Such topics as "English-French Relations," "The Immigrant Experience," "MaleFemale Relationships," "Class Conflicts," and "The Jewish Experience" will be examined.
ENG 111 Canadian Short Story 3-3-0
This course will examine a wide variety of Canadian short stories, from the late nineteenth century until the present. The authors studied may range from Roberts and Callaghan, to such contemporary writers as Munro, Atwood, Glover, and Vanderhaeghe.
Offered every year

## ENG 112 English Literary Tradition:

The Middle Ages and the Renaissance
3-3-0
An introductory historical survey of major works and genres of British literature from its beginnings to the Restoration. Students will analyze literary works within their historical, social, and cultural contexts. The course emphasizes close reading of individual texts.
Offered every Fall
ENG 113 English Literary Tradition:
The Eighteenth Century to the Present
3-3-0
This course provides an introductory survey of major works and genres of British literature from the Restoration to the end of the Twentieth century. Close reading of individual texts will be informed by analysis of their historical, social, and cultural contexts.
Offered every Winter
ENG 115 Women Writers before 1900
3-3-0
A survey of literature in English by women from the Middle Ages until the beginning of the twentieth century in the perspectives of feminist critical theory. The course includes poetry, fiction, and nonfictional prose.

## ENG 116 Effective Writing

3-3-0
Writing is a key competency in communicating across the disciplines. Students will read a variety of texts of different genres so as to become familiar with various types of academic and professional discourse. Students will be encouraged to analyze writing strategies, content, organization, and style with a view to improving their overall writing abilities. Students will also be made aware of different writing situations, particularly those that may arise in their own disciplines.

Prerequisite: Students are normally expected to have achieved a result of at least "5-" on the EWP Exemption Credit Examination before they attempt ENG 116. Students who need a course in basic writing are encouraged to register in the course English Writing Proficiency (EWP 115)Note: Students who have received credit for ELA 116 are not eligible for ENG 116.
ENG 118 Literature of the Environment 3-3-0
This course will introduce students to a selection of literature -- fiction, poetry, criticism and literary non-fiction--that deals with the relationship of humans with the natural world.

ENG 123 Introduction to Indigenous Literatures in Canada 3-3-0 This course is an introduction to traditions and innovations in Indigenous literatures in Canada through textual analysis and an examination of cultural contexts. The primary focus will be on contemporary literatures; however, we will also read selections from earlier texts. We will explore how Indigenous writers draw from European, American, and Indigenous traditions, and how their more recent works reflect histories of struggle both in style and content. Although written texts will form the core of the course, we may also examine contemporary popular mediaespecially film-and their representations of the Indigenous.

ENG 124 The Graphic Novel
3-3-0
This course will introduce students to the genre of the Graphic novel and will examine visual rhetoric in literature, history, journalism and popular culture. Possible topics include superhero fantasy, gender stereotypes, sexuality, war, racism and drug abuse.
Formerly ENG 219
ENG 170 /
DRA 170 Introduction to Film
3-3-0
This course provides a broad introduction to the study of film as art. In the first few weeks of the course, we'll familiarize ourselves with the formal dimensions of Film Studies, exploring how screenwriting, cinematography, editing, lighting, sound, and production design contribute to this collaborative art form. Having developed this aesthetic vocabulary and understanding, the class will move on to investigate different modes of film production (fictional narrative, documentary, experimental), and the critical issues and debates that have shaped the discipline (topics may include genre, auteurism, industry structures, globalization, and ideology).
ENG 200 Creative Writing: Poetry
A workshop seminar for students interested in writing poetry.
Not open to 1st year students
ENG 201 Creative Writing: Prose 3-3-0
A workshop seminar for students interested in writing fiction.
Not open to 1st year students
ENG 202 History of the English Language
3-3-0
A survey of the transformations of the English language from its beginnings to the present studied in the context of the major social, political, and literary developments in English history. The course includes an introduction to basic linguistic concepts as applied to the study of the English language and an overview of Canadian English.
ENG 203 Creative Writing: Experiments in Prose 3-3-0
A practical course in writing a variety of fiction and non-fiction prose forms. Work will be edited and critiqued in workshop sessions by peers and the instructor.
Not open to 1st year students
ENG 204 Creative Writing: Experiments in Poetry 3-3-0
A practical course in writing a variety of poetic forms. Work will be edited and critiqued in workshop sessions by peers and the instructor.
Not open to 1st year students
ENG 205 The Art of Persuasion: Rhetoric, and its Uses and Abuses, From Classical to Contemporary Culture 3-3-0
This course focuses on the history, theory, and practice of rhetoric across disciplinary boundaries. While exploring texts drawn from philosophy, literature, history, psychology, religion, and politics, we will trace common themes, including a sustained attention to the deployment of rhetoric to serve various ideological and polemical purposes, the ethical dimensions of rhetorical use, and the ways in which language seeks to build consensus and create meaning even as it is always at risk of being destabilized, troubled, or deconstructed. The objectives of the course are two-fold: 1) to develop a critical acumen for the identification and analysis of persuasive strategies in arguments 2) to be able to produce persuasive texts and speeches informed by classical theories and techniques.

ENG 206 Creative Writing: The Graphic Novel

3-3-0
This course further examines graphic novels and other sequential storytelling examples with an emphasis on applying literary theories to visual rhetoric. Students will also learn about Book Arts, and how to exploit all elements of "the book" to create artist's books. The class will examine theories on graphic storytelling, wordless communication, colour, layout and typography. Students will be required to produce multiple copies of their original work to learn reproduction techniques.
ENG 209 Introduction to Creative Writing
3-3-0
This is an introduction to reading and writing poetry and prose, an opportunity to develop your craft through dynamic exchange with the traditions and innovations that drive contemporary literary practice. Interlacing critical reflection and creative application, the course alternates between seminar-style discussions of literature designed to introduce students to an array of formal tools and techniques, and workshops where students submit their original work for class discussion and development. Assessment will be based on preparation and participation, timely submissions, and a final portfolio.
ENG 210 History of Children's Literature
3-3-0
An historical and critical study of children's literature in English. The course includes an overview of the history of children's literature and introduces students to the critical analysis of a variety of its genres, including nursery rhymes, folk and fairytales, myths and legends, fables, poetry, and "classic" novels. Some of the issues to be discussed may include didacticism, oral and written discourse, appropriation, the development of special literature for children, and the representation of social issues.
ENG 212 Crime Stories: The Great Detectives
3-3-0
An exploration of the development of narratives dealing with crime and punishment from some of its earliest manifestations as pulp fiction or popular reading to sophisticated modern fiction that continues to dominate the best-seller lists. Assigned texts cover both British and North American crime writing in order to demonstrate the evolution of different conventions and themes of the genre. The course will also explore how detective fiction in particular can reveal or even subvert the dominant ideology and culture of its time and place.
ENG 215 Introduction to North American Literatures
3-3-0
This course prepares students for the broader study of American, Canadian and Indigenous literatures by contextualizing and analyzing national literary texts; making linkages between these disparate bodies of literature; and drawing insights about socio-political, literary and cultural developments.

ENG 216 Chaucer: The Canterbury Tales
3-3-0
Travel the pilgrimage road with the master storyteller of medieval England, Geoffrey Chaucer. Meet some of the most famous characters of English literature and read tales that range from high romance and tragedy to low comedy and burlesque. The focus of the course will be on reading The Canterbury Tales in Middle English within their particular literary, social, and historical contexts. Students with credit for ENG 314 cannot receive credit for ENG 216

## ENG 217 The Arthurian Tradition

3-3-0
A survey of the evolution of the mythic romance of King Arthur and the Knights of the Round Table from its earliest beginnings to modern times. Various works representative of the tradition will be selected from different historical periods and from different media, including film and the visual arts as well as literature.

ENG 218 The Gothic Tradition
3-3-0
In this course, we shall read representative texts from a wildly popular genre that emerged in the late eighteenth century: the Gothic! Beginning with an examination of the medieval connotations of the term "gothic" and its resonances in 18th-, 19th-, and 18th- century aesthetics, our reading will consider the form, readership, and social vision of various types of gothic literature.

ENG 220 Fantasy
3-3-0
This course will explore the genre of fantasy in literature and film either through study of several works by a particular individual (Tolkien, Pullman) or a theme present in a selection of works by different authors.
ENG 221 God, Good Kings and Vikings:
Early Medieval Literature

3-3-0
This course offers an introduction to the language and literature of the early Medieval period ( $600-1100 \mathrm{CE}$ ) in translation. All texts will be in modern English.
ENG 222 The Garden of Desire: Late Medieval Literature 3-3-0
This course offers a survey of late Medieval Literature (1100-1500) from a variety of texts and genres, including the ballad, the lyric, the romance, the saint's life, etc. All texts will be in Middle English.

ENG 223
Elizabethan Shakespeare (1590-1603)
3-3-0
Close study of six plays written and performed in the reign of Elizabeth in relation to the theatrical, social, political, and cultural practices of Elizabethan society and the Elizabethan court.
ENG 224 Jacobean Shakespeare (1603-1614)
3-3-0
Close study of six plays written and performed in the reign of James I in relation to the theatrical, social, political, and cultural practices of Jacobean society and the Jacobean court.
ENG 225 The Stratford "Shakesperience"
3-3-0
The focus of the course will be the study of 6 plays (3-4 Shakespeare plays) from the annual Spring season of the Stratford Festival in Stratford, Ontario. The course will start with an intensive classroom experience (online and in-person) and involve a discussion of the theoretical questions that underlie performance and performance criticism. Together as a class, we will explore the themes of the plays, engage in careful analysis and close reading, and compare various film versions. The field study component takes students to Stratford, Ontario, for an immersive experience watching 6 plays, participating in workshops, meeting with actors and directors, taking backstage tours, and hearing guest lectures from various experts with a focus on repertory theatre

## ENG 226 Fashioning the Self:

 An Early Modern Literary Guide to Identity3-3-0 A central preoccupation in the early modern period was the belief that identity is something to be made, performed, and constantly refined through persistent effort. For many 16th century courtiers, the possibilities are almost limitless. But how does one go about fashioning one's identity in this brave new world?
Perhaps not surprisingly, the early modern period also saw the proliferation of self-help books aimed at individuals learning to navigate a whole new ontological terrain. Baldassare Castiglione's The Book of the Courtier, Thomas Elyot's The Book of the Governor, Pico della Mirandola's Oration on the Dignity of Man, and even William Caxton's preface to Thomas Malory's Morte D'Arthur provide guidance and practical advice about how to make it in the world. We will read early modern texts and also explore how these highly performative strategies of self-fashioning resonate in our post-modern world.
ENG 228 Introduction to Post-Colonial Literature
3-3-0
This course is an introduction to post-colonial literature and theory. We begin with a discussion of what "post-colonial" means to writers of countries formerly colonized by the British before moving into literatures composed by writers from Africa, Australia, the Caribbean, India, Ireland, and the Pacific.

## ENG 232 Ecocriticism

3-3-0
Students in this course will study the rise of Ecocriticism by tracing the changing attitudes towards the environment as seen in a selection of English literature from the eighteenth century through to the present day. The class will study literary works in a range of genres as well as the central eco-critical theorists such as Williams, Kolodny, Rueckert, Buell and McDowell.
ENG 234 Contemporary Literary Theory
3-3-0
This course explores diverse topics and debates in contemporary literary criticism. The student will examine the assumptions, intentions and rhetoric of representative critical texts and theoretical schools. Practical application of literary theory to texts is emphasized.

## ENG 236 Popular Culture

3-3-0
A very large portion of contemporary culture is mass culture, and mass culture has generally been disparaged by intellectuals from the early 20th century on. More recently, however, critics have begun to celebrate the utopian possibilities of mass culture, the way that individuals actually put mass cultural products to use, converting mass culture (culture produced for the masses) into popular culture (a culture used by the people). The tension between these two views of contemporary culture will underpin this course as we examine theories about and practices of popular culture, including advertising, movies, romances and comics, sitcoms and soap operas, stardom and fandom, blogging and online shopping, and pornography.

## ENG 237 Lessons from the Marvel Universe

3-3-0
In this class we examine the psychology of storytelling in the Marvel universe and what it tells us about our own untapped superpowers. We explore issues of morality, identity, leadership, and learning by exploring how we can connect with literary and psychological theory in a close reading of the storytelling in the Marvel Universe. We will take a deep dive into characters such as Captain Marvel, Loki, Wanda, Black Panther, and Black Widow. Evaluation will be on collaborative participation, writing, and creative assignments
Cross Listed with PSY 247

ENG 238 Confessions, Memoirs and Life Writing 3-3-0
This course will begin with the explosion in confessions, memoirs and life writing in the 18th century and then move through later works in the 19th and 20th centuries. As we read these works we will consider how fact and fiction merged in presentations of self to challenge the reader, society, and literary genres.
ENG 239 Feminist Literary Theory
3-3-0
A survey of contemporary feminist theory, including feminist literary history, the economic and social conditions of women writers, the connections between gender and genres, the distinguishing characteristics of feminist and women's reading and writing, and feminist debates about subjectivity.
ENG 241 War and Literature
3-0-0
This course will examine how a particular modern war is depicted in literature. We will consider the role such literary depictions play in shaping public opinion and creating an understanding of warfare. Students will study works in a range of genres including poetry, prose, and drama.
ENG 249 Early Romantic Poetry: Revolutionary Experiments 3-3-0 This course will study poetry of the early British Romantic period (1780-1800) to examine how it challenged and revolutionized our critical understanding of a poet and of poetry. We will study works by Blake, Burns, Coleridge, Robinson, Smith, and Wordsworth to trace these changes in the role of the poet, experimentation with poetic form, and a broadening of poetic subject matter.
ENG 250

## The Modern British Novel: <br> Experiments in Fictional Form

3-3-0
This course examines the way British novelists of the early twentieth century created new fictional forms to explore the interior life of their characters as well as the problems of their day. Novelists such as Conrad, Ford, Woolf, Forster, Lawrence, Huxley, and Waugh will be studied in relation to a variety of topics, including Imperialism, anarchism, the Suffragette movement, the Great War, psychoanalysis, science and technology, the rise of Fascism, and class conflicts.
ENG 251
Keep Calm and Carry On:
The British Dystopian Novel
3-3-0
This course traces the development of the British novel after high modernism, paying special attention to the dystopian tradition. Against the backdrop of the decline of the British Empire, the legacy of WWII, multiculturalism, terrorism and the surveillance state, we will explore how these novels negotiate problems of labor and exploitation, desire and consumption, gender and oppression, language and propaganda. We'll also try to make sense of the dystopian novel's current extraordinary popularity, particularly given the genre's typically oppositional stance towards popular culture and consumer society.
ENG 252 English-Canadian Literature to the First World War 3-3-0 This course explores English-Canadian literature from the nineteenth century through to the First World War. Analysis focuses on the development of national identities in relation to various cultural, political, social and historical factors.

## ENG 253 English-Canadian Literature from the First World War to the Present

3-3-0
This course explores English-Canadian literature from the First World War to the present. Analysis focuses on the aesthetic and cultural developments in English Canada and the impact of international, national, and regional issues.
ENG 254 Tooth and Claw: Animal Nature in Victorian Culture 3-3-0 This survey of Victorian fiction and poetry investigates the variety of symbolic uses to which animals were put during the nineteenth century, a revolutionary moment in which discoveries in geology and paleontology were throwing into question humanity's place in the natural world. Reading a range of literary forms (from children's fables to lyric poetry to the realist novel), we'll explore how animals served the Victorian imagination, cast alternately as indices of humane and moral quality, as embodiments of domestic ideology and "savage" desires, as grotesque figures of political caricature, and as exotic objects of imperial curiosity.
ENG 255 Legal Bodies: Crime \& Culture in Victorian England 3-3-0 This course explores a range of Victorian literary forms, paying particular attention to the culture's deep fascination with crime. We'll investigate the scene of the crime and the body of the criminal as sites of societal crisis that allowed artists to probe anxieties about class, gender, race, urbanism and empire. Works by Braddon, Browning, Dickens, Collins, Rossetti, Stevenson and Wilde will be examined.
ENG 256 The Early Twentieth-Century American Novel 3-3-0
The modern American novel to 1955. Such novelists as Fitzgerald, Hemingway, Faulkner, West, Steinbeck, Ellison, and Hurston will be studied. Among the topics to be considered: "The American Dream," religion, society, race relations, and war.

ENG 257 The Contemporary American Novel
3-3-0
This course focuses on the contemporary American novel, 1960 to the present. Of particular note will be the postmodern novel and the manner by which it reacts to and shifts away from the literature of the modern period. Depictions of popular culture and satiric renderings of high culture will form part of the discussion.
ENG 258 Contemporary British Novels 3-3-0
This course explores literature in English over the past forty years, following a diverse range of authors who have complicated and expanded our ideas about the United Kingdom and its "national" literatures. As the old empire gives way to new political formations, literature reflects experiences of British culture that are subversively postmodern and postcolonial. The course focuses on the novel as a panoramic art form that is uniquely equipped to depict the scope of social networks in contemporary life. We'll examine the ways that contemporary subjects are marked by immigration, globalization, sexual revolution, mass communication, class and identity politics-changes echoed in novelistic experiments with form and style. Writers to be studied may include Martin Amis, Angela Carter, Kazuo Ishiguro, Hanif Kureishi, Salman Rushdie, Zadie Smith, and Jeanette Winterson.
ENG 260 Literature of the American Renaissance, 1820-1860 3-3-0 This course examines representative works of the "American Renaissance," a literary period defining the emergence of an American literary style characterized by literary experimentation rooted in transcendentalism (intuition as the source of truth). Reading authors from a diverse range of genders and ethnicities, topics include, but are not limited to, the Gothic imagination, nature, social reform, and civil disobedience.

## ENG 261 Literature of the American Civil War and Reconstruction, 1860-1900

3-3-0
This course examines the work of American writers from 1860 to 1900, a period whose literature encompassed and reflects the tumult of civil war and the painful process of nation-building. Topics include, but are not limited to, narratives of the war, emancipation, native American voices and the realist reaction to prewar romanticism in the reconstruction period, including the popularity of frontier writing, local colorists, and the emergence of New Woman fiction.
ENG 275 The Contemporary Canadian Novel
3-3-0
The contemporary novel, from the 1970 s to the present. The novelists to be studied may include Atwood, Laurence, Munro, Davies, Ondaatje, Hodgins, and Shields. Topics to be considered may extend to the role of women, depictions of masculinity, history and myth, sainthood, the portrait of the artist.
ENG 278 Science Fiction in Literature and Film
3-3-0
An examination of the futuristic worlds of science fiction as they focus on rather than distract readers from prevalent cultural anxieties and concerns. Students shall consider how science fiction as a symbolist genre variously constructs and deconstructs hegemonic cultural practices within our present digital, networked, information age. Taking an interdisciplinary approach, students shall consider both the history and form of science fiction and some of the theoretical and cultural issues endemic to the genre.

## ENG $279 \quad$ Film History to 1939

3-3-0
This course offers a survey of the technological innovations and aesthetic movements that shaped film production and direction from the 1890s to the outbreak of World War II. Topics to be studied include early experiments in photography, the beginnings of narrative cinema, German Expressionism, French Poetic Realism, forms of comedy, Soviet Silent Cinema and the theory of montage, the Hollywood studio and star systems, and the introduction of sound and colour to motion pictures. A wide range of films are studied to acquaint students with the contours of film history to 1939.
ENG 280 Film History after 1939
3-3-0
This course offers a survey of the development of cinema from the outbreak of WWII until the present by considering a range of national cinemas, directors, and aesthetic movements. Topics will include propaganda and documentary films of the war period, Neorealism, Film Noir, genre filmmaking and auteur cinema of the 1950s, Eastern European cinema, Ealing Comedies and Hammer Horror, Japanese post-war cinema, the French New Wave, Italian films of the 1960s, German New Cinema, Canadian cinema after 1970, the New Hollywood, and China's three cinemas.
ENG 281 Canadian Cinema
3-3-0
Covering the entire history of Canadian cinema, this course examines the challenging economic and cultural context of film production and distribution in Canada, the tension between pan-Canadian and regional cinemas, the documentary tradition, First-Nations cinema, experimental filmmaking, and the thematic links of Canadian cinema to Canadian literature and culture more generally.

ENG 282 Film Adaptation
3-3-0
What is lost, and what is found, in translation? This class explores the theory and practice of filmic adaptation, exploring a variety of texts (often multiple remediations of the same story) that allow us to perform a comparative analysis of linguistic and visual art forms. Class discussion and course assignments are designed to provide ongoing training in the formal study of film. We'll consider how these translations highlight the "specificity" of film (the resources and limits, industry and audience, that are peculiar to cinema), as well as showcasing the remarkably adaptive nature of a medium that has evolved by absorbing and synthesizing other forms of art, from magic and burlesque shows to comic books and video games.
ENG 283 The Documentary Film 3-3-0
This course will trace the historical evolution and impact of English language documentary film and video. From John Grierson's original definition of "the creative treatment of actuality," documentary has evolved from propaganda to direct cinema/cinéma verité to docudrama. Two important questions will be addressed: Do documentary film and video's reductive forms of interpreting events truly illuminate our media-saturated world? How can studying documentary better help us understand a society dominated by media giants?
ENG 285
Journalism
3-3-0
This course teaches the basic requirements of reporting and news writing: interviewing, clear writing, critical thinking, accuracy, story organization, news judgment, and ethical considerations. Students will practice writing news and study some examples of good journalism.

## ENG 286

Online Journalism
3-3-0
A hands-on, real-life approach to accurate reporting of local news stories through an online newspaper created and maintained by course participants with active supervision/involvement by the instructor/managing editor. The online paper will be a modified collaborative news website: students will generate the news, but all copy must be funneled through the managing editor to maintain accuracy and quality of content.
ENG 287 Image and Communication: Visual Culture and Critique

3-3-0
This course aims to cultivate visual literacy, primarily by examining our ingrained "ways of seeing" and interrogating common-sense ideas about the relation between images and reality. Lectures and class discussion will be devoted to close analysis of objects that both illustrate and critique established theories of the image. From photography, to graffiti, to everyday iconography such as traffic signs and advertising, we'll consider the ways in which images carve up the world we live in, possessing the capacity to naturalize or defamiliarize the conventions of everyday life.
ENG 291 Film Theory
3-3-0
This course introduces students to some of the more influential theoretical perspectives that have shaped the viewer's understanding of film over the past century. The course will begin with the realist-formalist debates of classical theory and proceed to examine the impact of literary criticism, semiotics, feminism, psychoanalysis, and Marxism on contemporary film theory. Films from different genres and national cinemas are used to illustrate the various approaches to interpreting and evaluating cinema.
ENG 293 Four Filmmakers
3-3-3
The diversity of cinema since its invention more than 100 years ago will be explored through the examination of a selection of the films of four filmmakers representing different periods, nations, and/or genres of cinema. The filmmakers chosen for study will vary from year to year.
ENG 294 Film Comedy
3-3-0
Filmmakers discovered film's potential for comedy almost from the moment of the invention of the movies, and quickly developed a wide range of techniques and genres to amaze and amuse audiences. This course surveys the full history of this major branch of film production, considering its key figures and wide variety of genres, from the slapstick antics of Chaplin and Keaton through the screwball comedies of Howard Hawks, Frank Capra, and Billy Wilder, to the scathing satires of Monty Python and others.
ENG 295 Jane Austen and Film
3-3-0
This course will examine Jane Austen both as a British novelist and also as an iconic figure taken up by the film industry. The class will study four of her novels, their publication histories, and recent phenomenal success as films. Where possible, a selection of the various film adaptations of each novel will be studied to allow the student to gain a better appreciation of Austen as a writer and consider how the various novels and film adaptations reflect the ideologies of their own period.

ENG 296 Sports Writing 3-3-0
This course examines themes and styles of the sports writing genre in journalism, fiction, and documentary narratives. One focus will be on the basics: interviewing athletes, writing tight, running game stories on deadline in CP style, and producing lively features and in-depth profiles. Students will also read works from Gary Smith, Al Stump, George Plimpton, A.J. Liebling, Jim Boulton, Ken Dryden, Maya Angelou, Hunter S. Thompson, among others and examine film segments based on athletes and events that are representative of sports writing themes, including: Cobb, Eight Men Out, Slap Shot, Hoosiers, Breaking Away, Rudy, Raging Bull, Rocky, and The Greatest. Students will produce sports-related stories in CP style, as well as analyses of sports writing, reportage, and films.

## ENG 297 From Aliens to Zombies: Everything You Ever Wanted to Know about Horror but Were Afraid to Ask <br> 3-3-0

In this course, we'll explore cinema's obsession with "monster movies." A key concern will be the depiction of the monster as inhuman: an embodiment of hostile difference that threatens the security and integrity of human experience and identity. We'll ask how this foreignness is imagined by different cultures at different times, often functioning as an index of political tensions, and a symptom of societal fears and sexual taboos. Turning from the strange creatures depicted on screen, we'll also consider the effects these films have on the bodies of viewers. Horror films captivate and appall us because they remind us that we have nerves, desires and appetites. What sort of unusual pleasures do we derive from subjecting ourselves to sensations of fear, pain and awe?

## ENG 298 Studies in Directors/Actors: Alfred Hitchcock

3-3-0
Alfred Hitchcock is often titled the "master of suspense" because of his brilliant manipulation of audiences through the thriller movies (like Vertigo and Psycho) he made over a fifty-year career. By the 1960s, he was also being recognized as an auteur, a commercial filmmaker exploring a particular range of subjects, including the power of cinema itself, and expressing something like an artistic vision. That vision, his technical innovations, and his self-reflexive commentaries on the cinema have been the subject of much critical attention. This course examines a range of the movies he made over the full span of his career, split between Britain and the United States, and considers the rich critical legacy that surrounds his work.

## ENG 310 Old English

3-3-0
This course offers an introduction to the language and literature of the Old English period ( $600-1100 \mathrm{CE}$ ). Here lie the foundations of the English language and the origins of social, political and religious institutions that would help to shape the next thousand years in England. Translations do not do this writing justice, and so we will learn to read Old English in the original. In doing so, we will gain special insight into the English language. No previous experience is expected or required.
ENG 315 Romance and Dream Vision in Medieval England:

## The Sacred and the Profane

3-3-0
Romance and dream vision represent two of the most significant genres of medieval literature. Both are well represented by major texts in Middle English whose subjects range from sophisticated philosophical and religious themes to social comedy and pure escapism - often all within the same work. The focus of the course will be on reading primary texts in Middle English within their particular literary, social, and historical contexts.
ENG 320 Sixteenth-Century Poetry and Prose: Exploration and Discovery

3-3-0
After nearly a century of civil war, England under the Tudors experienced a period of relative peace and stability and an opportunity for cultural catching up. The writers of the time confronted a broad range of ideas and phenomena associated with the European renaissance and the intensified exploration by Europeans of the world beyond their continent. They needed to think about their relationships to classical civilization, to the peoples and places described by travelers and explorers, and to the other within their midst as mediated by the powerful influence of Petrarch on the ideas and practices associated with the erotic. The course will examine some of the ways in which writers of the sixteenth century both responded to these relationships and shaped them.

## ENG 321 Seventeenth-Century Poetry and Prose:

 Civil War and Revolution3-3-0
The seventeenth century was a period of intense political, social, and religious conflict that finally resulted in the outbreak of civil war. The course will examine some of the ways in which the writers of the period divided themselves according to the large lines of the conflict between parliament and the crown, their contributions to the parties to which they adhered, and their reflections on the divisions that tore their society apart.

ENG 332 18th-Century Literary Journeys
3-3-0
In this course we shall examine a diverse range of 18 th-century texts that have one thing in common: each uses travel as a plot-triggering device. We will begin the course with a reflection on what travel is, what forms it takes, and why we do it. We shall then consider why travel is such a pervasive narrative form in post-Restoration Britain. Among issues to be considered are contemporary debates on human nature and civilization, as well as relationships between scientific, historical, commercial, and colonial discourses in an age of vigorous exploration.
ENG 342 Revolution and Romanticism
3-3-0
In this course we will examine the prose writings of the British Romantics from 1789-1832. Readings will explore a variety of topics generated by the French Revolution and the ensuing period of intense political anxiety and intellectual activity. Works by Paine, Burke, Wollstonecraft and Godwin will be examined.
ENG 348 Later Romantic Poetry: The Egotistical Sublime 3-3-0 Poetry of the later Romantic period (1800-1832) by poets such as Byron, Baillie, Keats, Shelley, Hemans and Clare. Particular attention will be paid to the social and political role of the poet, poetic form, imagination and inspiration.

## ENG 350 Ghosts in the Machine: Technology, Media

 and Literature in Victorian England3-3-0
This course investigates the pervasive influence of machinery on Victorian literature and culture. We'll ask how technological advancements in the fields of industry, information technology and popular entertainment changed the way Victorians thought about consciousness, labour, class, spirituality and sexuality. In addition to studying a range of nineteenth-century media, from poetry and prose to photography and early cinema, we'll also explore how contemporary culture-in genres such as sci-fi and steampunk - has worked to revision and mythologize Victorian technology.
ENG 352 Canadian Literature and Theories of Globalization 3-3-0
This course will consider twentieth-century Canadian literature in the context of recent theories and aspects of globalization. We will read work by some of the important scholars who have contributed to these debates, including Anthony Giddens, David Harvey and Arjun Appadurai. Their theories will provide the framework of discussion, which will focus on immigrants and immigration, diaspora formation, experiences of alienation and racism, multiculturalism, evolving conceptualizations of Canadian citizenship, and other related themes.

## ENG 353 Boy Meets Girl: Masculinity Scholarship,

Feminist Theories, and American Literature
3-3-0
The first National Women's Rights Convention, in Worcester, Massachusetts, was held in 1850: it signaled the emergent figure in popular culture referred to as the "New Woman." But the evolution of the "New Woman" meant complications for the role of and confusion for men. Using masculinity scholarship and feminist theories, we will explore how the male and female figure appeared in (previously) asymmetrical or imbalanced relationships, and constructions of family, race, and masculinity and femininity.
ENG 358 Approaches to Indigenous Literary Cultures in Canada 3-3-0 This course will examine theoretical approaches to Indigenous literatures in Canada. It will begin by looking at literary developments from oral to contemporary written literary forms, and how the latter developed in response to colonial contact. Authors may include Thomas King, Lenore Keeshig Tobias, Eden Robinson, Armand Ruffo, Warren Cariou, and Tomson Highway.
ENG 359 Approaches to Canadian Culture (Canadian Studies) 3-3-0 This course will examine a range of aesthetic representations (Canadian "wilderness," historical events, Indigenous cultural imagery, and so forth) that are conceived of as indigenous to Canada. These representations, as they have evolved from the late nineteenth to the early twentieth century, will include the cultural production of Canadian writers, painters, film directors, and musicians in order to demonstrate the (often conflicting) social and political ideological structures from which these artists operated.
ENG 360 Low Modernism: Taste, Waste, and the Marketplace 3-3-0 Discussions of literary Modernism often turn upon the distinctions between high and low culture; but what, exactly, is "low" modernism? In this course we'll question assumptions about modernist literature's hostility to popular culture, exploring how writers participated and engaged (if ambivalently) with the tastes, conventions, and experiences of mass culture. Against a monolithic vision of Modernist aesthetics as reactionary, difficult, abstract and austere, this course aims to take pleasure seriously, reading the canon of Modernism (Joyce, Eliot, Woolf) in boisterous conversation with popular forms of entertainment, guilty pleasures, camp and kitsch.

## ENG 375 Colonial Narratives

3-3-0
In this course, we will examine the narration of colonial experiences in various world and historical contexts. Our reading will range from the nineteenth century imperial fictions of Rudyard Kipling and Henry Rider Haggard to a selection of postcolonial texts dealing with the cultural impact and legacy of British imperialism in the Caribbean, India, Kenya, Nigeria, and Ireland. Our discussions will be informed by readings in postcolonial theory.
ENG 381 The Evolution of the Fairy Tale in Literature and Film 3-3-0 This course will investigate how one kind of text, the fairy tale, a genre supposedly appropriated from the oral culture of peasants, has been modified and reworked to suit a wide range of other cultural contexts. By investigating both the production and reception of fairy tales - within the literary culture of the court of Louis XIV and of 19th century England, in the folklore movements of 19th century Germany and Britain, in children's culture from the late 19th century to the present, throughout American movie culture in the 20th century, and within late-20th century feminist circles - we will see how this genre so focused on the image of metamorphosis has itself been transformed and used in radically liberating or deeply repressive ways.

## ENG 382 Screenwriting

3-3-0
This course introduces students to the art and techniques of screenwriting for a variety of contexts and genres, such as feature films and television drama. Through critical analysis of existing screenplays and the shows and films that derive from them, students will gain an understanding of the narrative and stylistic conventions of screenwriting and will apply their understanding in the development of their own creative projects.
ENG 383 Digital Filmmaking
3-3-0
Combining their own technological resources (cell phones, laptops) with the university's, students will develop skills in the fundamentals of digital filmmaking: directing for film, camerawork, sound recording, production design, lighting, picture editing, and post-production sound. They will work in groups and individually to tight schedules, in a variety of genres, including documentary, narrative, and experimental film.
Prerequisites: ENG 382, DRA 281 or permission of instructor
ENG 384 Documentary Filmmaking
3-3-0
This film production course is designed to help students understand, analyze and produce documentary films. Over the course of the term, students will work independently and in groups on practical exercises and the production of several short documentary films. Lectures will introduce students to documentary scripting and workflow. Class discussions and screenings will address the theoretical and ethical challenges particular to the documentary process. Workshops will familiarize students with the university's production resources and develop essential technical skills such as interview setups, hand-held cinematography, location sound recording, and editing.

ENG 385 News Editing and Ethics
3-3-0
Fast, Fair and Factual. Learning the nuances of news editing is an art that requires lots of practice, but will make you a better writer in the process. Editors act as gatekeepers to ensure credibility in the news and to keep the news outlet from getting into legal trouble. Editing techniques for print, broadcast and online newswriting will be a major part of class, combined with discussions of ethical standards in journalism. Students will also study current and past legal cases that affect journalism and learn about laws governing libel, privacy, copyright, and obscenity.
Prerequisites: ENG 285 or ENG 286
ENG 390 Restoration Literature: Sex, Politics and Intrigue 3-3-0 An investigation of a selection of literature produced during the Restoration period. A period marked by the return of the English monarchy to power in 1660 and the ensuing debate in all literary genres about political turmoil, kingship, power, and sexuality.

## ENG 395 Women Writers \& their Archives

3-3-0
This course will focus on women writers' archives and literary exchanges, characterize the socio-political contexts that undergird them, and explore what incarnations these archives and literary papers may assume at different epochs. Exploring some critical work of the last twenty years that addresses archival theory, we will investigate how literary archives may be seen as an extension of literary lives and characterized multiply—as feminist, queer, activist-and therefore might be called upon to generate collective action; to go against a patriarchal, sexist, racist, or imperial grain; or to develop networks and alliances that supersede political or national borders.

ENG 450 Experiential Learning: Journalism
3-0-10
A practical course in composing news copy and assisting in the production of a commercial newspaper. Specific duties will be negotiated between the English Department and the newspaper.
ENG 454 Experiential Learning: Broadcast Journalism 3-0-10 A practical course in composing news copy and producing radio news programming. Specific duties will be negotiated between the English Department and the radio station.

## ENG 456 Communications: Analysis, Design, and Implementation <br> 3-3-0

This course challenges students to design a communications strategy based on the needs and profile of the projects they are assigned. Students analyze communications strategies with the help of industry experts, work together to design a communications plan tailored to the needs of the project, and implement the strategy. Students are trained on the most up to date industry standard design software with mentorship from communications professionals. Students have an opportunity to develop skills and competencies in some of the following professional fields: social media strategies; strategic marketing and guerrilla advertising; communications strategies \& platforms; copyrighting and professional writing; metrics and segmented narratives; website content design and optimization; fundraising.
Admittance into the course is limited and therefore subject to instructor permission.
ENG 457 Magazine Editing and Publishing
3-3-0
This experiential course focuses on effective editing of magazines, with a primary focus on magazine articles (sometimes referred to in the industry as substantive editing) to build capacities for writing both style and content, grounded in the liberal arts. Skills developed in this course include assigning or acquiring manuscripts; tailoring content for specific readerships; coaching writers according to their individual strengths and weaknesses; editing for completeness and clarity; effective cutting and silken transitions; and use of imagery, anecdote, and a variety of voices and rhythms to delight and provoke readers. Students will form an editorial board and work together to design and launch a magazine (e.g. Be you @ BU for the Recruitment Office, BU Alumni Magazine for the Advancement Office, etc). This course is invaluable for anyone planning to edit longer manuscripts, explore the magazine industry (online or in print), and for aspiring professional writers.
Admittance into the course is limited and therefore subject to instructor
permission.
ENG 458 Experiential Learning: Literary Journal Editing 3-0-10 A practical course in editing The Mitre. Specific duties will be negotiated between the English Department and the Student Representative Council.
ENG 459 Experiential Learning: Public Scholarship and Academic Editing and Publishing

3-3-0
A practical course in the assessment, editing and publication of undergraduate academic work. In consultation with a faculty advisor from the English Department and the QUEUC conference coordinator, the student will coordinate the selection of student papers for the conference and oversee the subsequent publication of conference proceedings.
ENG 460 Senior Seminar
3-3-0
Advanced studies on a special topic

## ENG 471 Honours Research Proposal

The preparatory stage of an individual specialized research project on a topic chosen by a student under the supervision of a member of the English Department. The student will develop a research proposal, an annotated Bibliography, and a 12-15 page essay on the initial findings of the project.

ENG 472 Honours Thesis
3-0-0
Continuation of ENG 471. The student will complete the research agenda detailed in ENG 471, and present the findings In the form of a thesis. An oral examination will be required, and the thesis will be assessed by three members of the English Department.
Prerequisite: ENG 471

# Études françaises et québécoises 

## Faculty

## Sarah Théberge

B.A. (Université Bishop's), M.A. (Université de Sherbrooke), Diplôme d'études supérieures (McGill), Ph.D. (Université de Sherbrooke) Directrice du département

## Simon Gilbert

B.A. (Université Bishop's), M.A. (Université de Sherbrooke), Doctorant (Université de Sherbrooke)
Dalle Malé Fofana
M.A. (Université Lorraine, Nancy, France), Ph.D. (Université de Sherbrooke)

## Caroline Dault

B.A. (Université du Québec à Montréal), M.A. (Concordia University), Doctorante (Université de Sherbrooke)

## Olivier Leroy

M.A. (Université de Rouen, France)

## Vicky Poirier

B.A. (Bishop's University),
M.A. (Université de Sherbrooke), Diplôme d'études supérieures (Concordia University), Doctorante (Université de Sherbrooke)

## Program Overview /

## Description des programmes

The Département d'études françaises et québécoises puts the emphasis on the acquisition, the quality, and the improvement of the French language at all levels, and intends to serve beginner, intermediate, and advanced students as well as native speakers. The program is composed of five levels, each of which contains a minimum of two grammar and writing courses and one course focusing on oral comprehension and expression. This provides our students with a coherent and logical learning process by the end of which they can understand, read, speak, and write French correctly.

The Department also offers a number of inter and multidisciplinary courses designed for both native and advanced non-native speakers. These courses allow students to progressively master the French grammar and language, and to become acquainted with a variety of cultural movements that are significant to the francophone world. Through the study of the works of meaningful francophone artists, students will better understand and appreciate the history of the francophonie and its evolution.

Le Département d'études françaises et québécoises concentre ses efforts sur l'apprentissage, l'amélioration et la qualité de la langue française pour les étudiant.e.s. de niveaux débutant, intermédiaire et avancé ainsi que pour les francophones. Chacun des cinq niveaux proposés comprend un minimum de deux cours axés sur la grammaire et la rédaction, et un sur l'expression et la compréhension orale, l'ensemble assurant aux étudiant.e.s une progression linguistique logique et cohérente au terme de laquelle ils pourront comprendre, parler, lire et écrire le français correctement et avec aisance.

Le département offre également une série de cours inter et multidisciplinaires, destinés aux étudiant.e.s francophones ou allophones avancés, qui permet de mieux maîtriser la langue française, d'acquérir de solides connaissances des divers mouvements culturels ayant marqué la francophonie, et de mieux comprendre pour ainsi apprécier davantage les créations artistiques fondatrices de son histoire et de son évolution.

## French Placement Test

Students who have completed Grade 11 French in a Canadian institution should register directly in FRE 140; those who have studied in a francophone institution can only register in the courses with the "FRA" label (below). All other students must take the Bishop's University French Placement Test before enrolling for the first time in a course given by our department. Hyperlink is available on the Études françaises et québécoises and the Registrarial Services section on the Bishop's website. Test results are valid for a year, and are deleted in May.

Les étudiant.e.s ayant suivi des études à temps complet dans des établissements francophones doivent faire leur sélection parmi les cours précédés du sigle "FRA", et n'ont pas à compléter le test de placement.

Pour toutes questions concernant le Test de placement, veuillez contacter la directrice du département à stheberg@ubishops.ca

## Regulations regarding the Minor, Major, or Honours in French

French as a Second Language courses ("FRE") taken by students prior to their first semester at Bishop's University cannot count for a Minor, a Major, or an Honours in French unless approved by the department. French as a Second Language courses taken outside of Bishop's University (such as an immersion course) during the students' stay at Bishop's University must also receive departmental approval - before they are undertaken. Students might be requested to take an evaluation test upon completion of those courses in order to receive Bishop's University credits.

## Programs

## Micro-Certificate in French for Beginners ( 15 credits)

To provide a short yet intensive program to a variety of learners, which develops students' language skills in French to an elementary level and prepares them to undertake an experiential learning activity in a francophone business or organization. For more information on this program and its first cohort, please contact stheberg@ubishops.ca

## Required courses:

FRE 192 Intensive and Interactional French for Beginners -Level I (6 credits)
FRE 193 Intensive and Interactional French for Beginners -Level II (6 credits)
FRE 115 Introduction to French Phonetics and Aural Comprehension (3 credits)

## Micro-Certificate in French for

## Professional Integration in a

## Francophone Environment

## ( 15 credits)

MCEFRP
To provide a short yet intensive program to a variety of learners, which develops students' language skills in French to an upperintermediate level, and prepares them to undertake an experiential learning activity in a francophone business or organization, to join the marketplace and/or to fulfill language requirements for immigration. For more information on this new program and its first cohort, please contact stheberg@ubishops.ca
Required courses:
FRE 194 Intensive and Interactional French for Intermediates -Level I (6 credits)
FRE 195 Intensive and Interactional French for Intermediates -Level II (6 credits)
FRE 155 Culture and Society. Conversational French II

## Honours in French as a Second Language / Honours in Études françaises et québécoises ( 60 crédits) <br> HONFRA

These programs are designed for students who wish to specialize in French as a Second Language or Études françaises et québécoises. Often, but not necessarily, students in these programs are planning to pursue their studies at the Master's level. Each program is composed of 60 credits ( 20 courses) with the combined designations FRE and FRA for an Honours in French as a Second Language, and FRA only for an Honours in Études françaises et québécoises. Up to 9 credits (3 courses) in appropriate fields, previously approved by the Department, could be counted as cognates. Students must maintain an average of at least $70 \%$, calculated on the best 60 credits in the Honours discipline (including cognates), in order to graduate with an Honours degree in any Division of Humanities.

Ces programmes sont destinés aux étudiant.e.s désirant se spécialiser en français langue seconde ou en Études françaises et québécoises. Souvent, mais pas nécessairement, les étudiants qui optent pour ces programmes planifient poursuivre des études de deuxième cycle. Chaque programme est composé de 60 crédits ( 20 cours) ayant les sigles FRA et FRE combinés pour le Honours French as a Second Language, et FRA seulement pour les Honours en Études françaises et québécoises. Jusqu'à 9 crédits (3 cours) suivis dans des champs d'études connexes peuvent être reconnus par le département. L'étudiant.e doit avoir maintenu une moyenne d'au moins $70 \%$, calculée sur les 60 meilleurs crédits de sa discipline Honours (y compris les cours connexes), pour obtenir un baccalauréat avec mention d'un programme Honours dans toutes les disciplines de la Division des arts et des sciences. Les étudiant.e.s ayant étudié dans des établissements francophones, ou qui ont déclaré le français comme langue maternelle ou langue d'usage, ne peuvent s'inscrire à une majeure ou Honours en French as a Second Language.

## Major in French as a Second Language

 (48 credits)MAJFSL
This program is designed for students who wish to become bilingual or pursue a career where a very good knowledge of French is a strong asset.

## Majeure en études de la langue française et des cultures francophones

 (48 crédits)MAJFPE
La Majeure en études de la langue française et des cultures francophones est un programme qui s'adresse aux étudiant.e.s francophones ou allophones de niveau avancé désirant acquérir les connaissances nécessaires pour bien maîtriser la langue française et explorer les différentes expressions culturelles de la francophonie et particulièrement du Québec.
Les étudiant.e.s devront consulter la directrice ou le directeur du Département d'études françaises et québécoises au sujet de leur sélection de cours, qui les mènera à explorer diverses disciplines, comme la rédaction, la grammaire, la traduction et la création littéraire. Un nombre maximal de trois cours FRE, de niveau 3-avancé (voir la section Progression par année de l'annuaire universitaire), peuvent être inclus dans cette majeure qui compte un total de 16 cours.

## Major in Modern Languages with a French component / Majeure en langues modernes avec une composante en

 français ( 60 crédits) MAJMLA+CONFLSThe Major in Modern Languages offered by the Department of Modern Languages requires the completion of 60 credits in two languages ( 30 credits in each language) and French may be chosen as one of the two languages.

La majeure en langues modernes, offerte par le Département des langues modernes, est composée de 60 crédits dans deux langues ( 30 crédits chacune) et le français peut être choisi comme l'une de ces deux langues.

## Certificate in French as a Second Language

CONFSL
To obtain the Certificate in French as a Second Language, students must complete 10 courses in FRE French as a Second Language (which might include FRA courses according to the student's level). The B2 level (Common European Framework of Reference for Languages) in all four language competencies (oral comprehension, oral production, written comprehension, and written production) is mandatory to graduate from this program. Experiential learning components and outings in the local Francophone community are also strongly encouraged in the curriculum.

The objectives of the Certificate in French as a Second Language is to train non-francophone students - mature, immigrant, refugee, second-degree, etc. - in becoming functional and fluent in all four language competencies (oral production, oral comprehension, written production, and written comprehension,
and to reach the B2 level of the Common European Framework of Reference for Languages (CEFR) or Level 7 of the Échelle québécoises des niveaux de compétence en français des personnes immigrantes adultes.

The TEFAQ or the TEF Canada exam, offered at Bishop's University, is strongly recommended as an exit assessment for the program.

## Minor in French as a Second Language (24 credits) <br> MINFSL

This program is designed for students with little or no French who wish to acquire a good working knowledge of the French language. To complete this minor, students must have at least completed FRE 141 at Bishop's.

## Mineure en Études de la langue française ( 24 crédits)

MINFRA
This program is designed for students with a good knowledge of French who wish to improve their grammar and develop a wider knowledge of the francophone culture. Students in this program can focus on the various language skills and/or on culture and literature courses. To complete this minor, students should choose 8 courses from our "FRA" offering, although a maximum of two (2) FRE Level 3-advanced courses can be accepted in this minor.

Ce programme de 24 crédits ( 8 cours) s'adresse aux étudiant.e.s francophones ou allophones ayant déjà une bonne connaissance du français et qui désirent améliorer leurs connaissances linguistiques ou acquérir une perspective d'ensemble des cultures francophones. Pour obtenir cette mention sur son diplôme, l'étudiant.e devra avoir complété 8 cours précédés du sigle «FRA», bien qu'un nombre maximal de deux cours FRE, de niveau 3-avancé, soient acceptés dans cette mineure.

## Independent Studies / Études dirigées

Only students in their last year in the Majeure en langue et culture française avec programme d'échange are entitled, upon proposal of a detailed study plan and with a minimum average of $70 \%$ in their area of specialisation (including cognates), at the end of the previous semester, to request an independent study with the professor of his/her choice.

Seuls les étudiants et étudiantes en dernière année d'une Majeure en langue et culture française avec programme d'échange (MAJFPE) peuvent, sur dépôt d'un plan d'études détaillé et ayant, à la fin du semestre précédent, maintenu une moyenne minimale de $70 \%$ dans leurs cours de spécialisation (incluant les cours connexes), faire une demande d'études dirigées à la professeure ou au professeur de leur choix.

## Departmental Policy regarding FRE and FRA Courses

FRE courses are French as a Second Language courses and are therefore designed and reserved for non-francophone students. We consider to be francophone a student whose parents (one or both) are native French speakers, and/or a student who has studied fulltime, at any moment during his/her schooling, in a francophone institution (aside from immersion programs). Exceptions can be
made for some francophone students, with a mandatory permission from the Chair of the Department, to register and to obtain credits for an FRE course. Francophone students are allowed to take, without any restrictions other than specific prerequisites, any of the FRA courses offered by our department.

## Politique du département pour les cours FRE et FRA

Les cours FRE sont des cours de français langue seconde. Ils sont conçus spécifiquement pour les non-francophones et leur sont donc réservés. Nous considérons comme étant francophone un étudiant ou une étudiante dont les parents (un seul ou les deux) ont le français comme langue maternelle, et un étudiant ou une étudiante qui aurait étudié à temps plein dans un établissement francophone, peu importe le niveau, au cours de son cheminement scolaire (ce qui exclut les programmes d'immersion). Avec la permission écrite de la directrice du département, un francophone pourrait faire figure d'exception et suivre un cours FRE (et en obtenir les crédits). Les francophones peuvent s'inscrire à tous les cours FRA offerts par le département. Il faut tout simplement s'assurer d'avoir les prérequis, s'il y a lieu.

## Year by year progression for a student in a Major or a Minor (depending on the entry level) / Progression par année pour un étudiant.e inscrit.e à une majeure ou à une mineure

## Level 1 - Beginners

FRE 100 French I and
FRE 101 French II
FRE 190 Intensive French - Level 1 (6 credits)
FRE 115 Introduction to French Phonetics and Aural Comprehension (optional to advance to Level 2)
FRE 180 French for the Arts and Culture Sector (multilevel course)
FRE 181 French for the Health Sector (multilevel course)
FRE 182 French for the Tourism, Hospitality and Restaurant Sectors (multilevel course)
FRE 183 French for the Information Technology Sector (multilevel course)

## Level 2 - Intermediate

FRE 120 French III and
FRE 121 French IV
or
FRE 191
FRE 122
FRE 123
FRE 135
FRE 136

Intensive French - Level 2 ( 6 credits) Atelier de conversation multiniveau I Atelier de conversation multiniveau II Culture and Society. Conversational French I French Written Communication I

## Level 3 -

## Advanced (Grade 11 French) /

## Niveau 3 - Avancé

Culture courses (literature, cinema, sociocultural history, etc.) are offered on rotation.
FRE 140 Grammatical Review (French V)
FRE 141 Grammatical Review (French VI)
FRE 155 Culture and Society. Conversational French II
FRE 156 French Written Communication II
MLA 101 Issues in Language and Linguistics (mandatory for Majors / Honours; counts as an FRA course)
FRA 136 / DRA 136 Techniques de jeu I
FRA 160 Le français, langue des affaires
FRA 165 Textes en contexte : initiation à la littérature française
FRA 166 Textes en contexte : initiation à la littérature québécoise
FRA 181 Histoire socioculturelle du Québec I
FRA 182 Histoire socioculturelle du Québec II
FRA 187 Introduction au théâtre québécois

## Level 4 - Advanced / Niveau 4 - Avancé

FRA 206 Histoire de la langue française
FRA 208 Histoire du français au Québec
FRA 209 Littérature jeunesse
FRA 212 Le génie de la langue : stylistique comparée du français et de l'anglais (mandatory for Majors / Honours)
FRA 213 Traduction générale
FRA 228 Practice Makes Perfect : traduction journalistique et publicitaire
FRA 229 Practice Makes Perfect : traduction administrative
FRA 230 Tout est dans la logique : analyse grammaticale et phrase complexe (mandatory for Majors / Honours)
FRA 247 Rédaction et communication
FRA 250 French Cinema
FRA 252 De la contreculture à la contestation ouverte : les années 1960 et 1970
FRA 253 Contes, légendes et chansons de la francophonie
FRA 254 Littérature et cinéma en France
FRA 255 Littérature et cinéma au Québec
FRA 256 Les grands classiques du roman français
FRA 257 Les grands moments du théâtre français
FRA 258 La télévision : miroir de la société québécoise
FRA 259 Québec Cinema
FRA 260 Voyage et littérature
FRA 285 Roman québécois contemporain
Level 5 - Advanced / Niveau 5 - Avancé
FRA 308 Traduction en contexte réel
FRA 309 Assistanat en enseignement du français langue seconde
FRA 310 Tutorat au Centre d'aide en français
FRA 315 Pièges et mystères de la langue française I
FRA 316 Pièges et mystères de la langue française II
FRA 351 De l'aventure au réalisme : la fiction au 19e siècle
FRA 353 Littératures migrantes et de la francophonie

FRA 355
FRA 385

## List of Courses / Liste des cours

## Level 1 - Beginners

FRE 100 French I
3-3-0
Introduction to the basic structures of the French language. Emphasis is put on pronunciation, exchange of personal information, expressions using the present tense and the near future, knowledge and description of surroundings, and the various question forms. Designed for students who have no or almost no previous knowledge of French.
Prerequisite: according to result in placement test
FRE 101 French II
3-3-0
Continuation of French I. Acquisition of new grammatical structures in order to be able to relate past events, tell stories, describe various types of activities, give directions, etc. Introduction to the direct and indirect object pronouns and future tense. Prerequisite: according to result in placement test
FRE 115 Introduction to French Phonetics and Aural Comprehension

3-3-0
Designed for real and false beginners, this course aims at improving basic pronunciation (standard French) and to introduce students to real life conversation by a rigorous study of the various categories of sounds, the contrasts and the relationships between phonemes, etc. Oral exercises and aural comprehension activities.
Prerequisite: FRE 100 or FRE 101 or FRE 120 in progress or completed or permission from the Department
Antirequisite: FRE 121 or higher completed
FRE 180 French for the Arts and Culture Sector 3-3-0
French as a Second Language course based on communicative situations encountered when working in various organizations and businesses related to the arts and culture. Emphasis is placed on vocabulary acquisition, oral communication with clients and colleagues, reading comprehension and writing skills. Because of the special nature of the course, much of the material and activities used are adjusted to specific student needs. The course will include some out-of-class visits to artistic associations, as well as interactions with local artists, managers, and promotors.
Prerequisite: FRE100 French I or permission from the Department
FRE 181 French for the Health Sector
3-3-0
This course is offered to students who are planning to work or are currently working in all areas of health. Emphasis is placed on vocabulary acquisition, oral communication with patients and colleagues, reading comprehension, and writing skills. Because of the special nature of the course, much of the material and activities used are adjusted to specific student needs. The course will include some out-of-class visits to public and private health institutions and associations, as well as interactions with local health professionals.
Prerequisite: FRE100 French I or permission from the Department
FRE 182 French for the Tourism, Hospitality
and Restaurant Sectors
3-3-0
French as a Second Language, based on knowledge, lexicon, and communication skills specific to the tourism and hospitality field. The course covers written comprehension, aural comprehension, written expression, and oral expression, in the common communication situations encountered professionally in the tourism, hospitality and food services field.
Prerequisite: FRE100 French I or permission from the Department
FRE 183 French for the Information Technology Sector 3-3-0
French as a Second Language based on knowledge, lexicon, and communication skills specific to the technology field. The course covers written comprehension, aural comprehension, written expression, and oral expression, in the common communication situations encountered professionally in the technology field.
Prerequisite: FRE100 French I or permission from the Department
FRE 190 Intensive French - Level I
6-6-0
This course covers the contents of FRE 100 and FRE 101 in one semester.
Prerequisite: according to result in placement test
Antirequisite: FRE 100 or FRE 101

## Level 2 - Intermediate

FRE 120 French III
3-3-0
Continuation of French II. Intermediate level course where the students learn to express opinions, emotions, wishes, hypotheses, etc., and create a more complex discourse through the use of relative pronouns. Introduction to the conditional, the subjunctive and the plus-que-parfait (pluperfect). Group discussions focusing on technology and the environment, among other themes.
Prerequisite: FRE 101 completed or appropriate result in placement test
FRE 121 French IV 3-3-0
Continuation of French III. Introduction to more complex verb tenses and sentence structures (passive and active voice) where the students will learn to express themselves on a wide variety of subjects. Group discussion focusing on media, arts and entertainment, among other themes.
Prerequisite: FRE 101 or FRE 120 or appropriate result in placement test
FRE 191 Intensive French - Level II
6-6-0
This course covers the contents of FRE 120 and FRE 121 in one semester.
Prerequisite: according to result in placement test
Antirequisite: FRE 120 or FRE 121
FRE 192 Intensive and Interactional French for Beginners - Level I

6-6-2
An initiation to the French language in an authentic, interactive and intensive context for beginners (level I). This course emphasizes social interactions while including written comprehension, writing skills, and oral communication. Phonetic elements: basic French language sounds, the alphabet; grammatical elements: pronouns, conjugation in the present tense, adjectives; lexical elements: numbers, family, daily vocabulary words, targeted vocabulary to the students profile and professional interests; communication elements, exchanging concrete and simple information; interactional elements: frequent trips outside the classroom on and off campus to interact with Francophones in a work environment: greeting people, getting information, answering questions.
Students must also register for FRE 193
Prerequisite: according to result in placement test

## FRE 193 Intensive and Interactional

French for Beginners - Level II
6-6-2
An initiation to the French language in an authentic, interactive, and intensive context for beginners (level II). This course emphasizes social interactions while including written comprehension, writing skills, and oral comprehension and communication. Phonetic elements: oral vowels, nasal vowels; grammatical elements: full sentences, present tense verbs, determinants, quantities, negation; lexical elements: the workforce, targeted vocabulary according to students profile and professional interests; communicational elements: presenting oneself, presenting one's origins, exchanging concrete and simple information; interactional elements: frequent trips outside the classroom on and off campus in a work environment, answering questions.
Students must also register for FRE 192
Prerequisite: FRE 192 or permission from the Department

## FRE 194 Intensive and Interactional

French for Intermediates - Level I
6-6-3
This course prepares students for their professional life in a francophone context. Phonetic elements: phonetic correction; grammatical elements: past tense, imperfect, adverbs, pronouns; lexical elements: CV, opinion piece, description, comparison, appreciation, advice, targeted vocabulary according to the profile and professional interests of the student; communication elements, interactional elements: during visits to local businesses and organizations, students will have to introduce and market themselves, engage actively in workplace discussions, and carry out relevant tasks.
Students must also register for FRE 195
Prerequisite: FRE 193 or permission from the Department
FRE 195 Intensive and Interactional
French for Intermediates - Level II
6-6-3
This course prepares students for their professional life in a francophone context. Phonetic elements: phonetic correction; grammatical elements: conditional, future, imperative, subjunctive, prepositions; lexical elements: language register and level, some local expressions, targeted vocabulary according to the profile and professional interests of the student; communication elements: conversations about their professional life, hypothesizing, projecting themselves in the future; interactional elements: during visits to local businesses and organizations, students will have to engage actively in workplace discussions, and carry out relevant tasks. Students must also register for FRE 194
Prerequisite: FRE 194 or permission from the Department

FRE 122 Atelier de conversation multiniveau I
3-3-0
Through the use of authentic cultural texts (audio/audiovisual/written), this course aims at improving global pronunciation (standard French), oral communication, and aural comprehension of real-life conversations by listening to, watching, and analyzing diverse grammatical and cultural material published in French. Class time will focus on oral exercises and aural comprehension activities, and will include volunteer work in the surrounding francophone community.
Prerequisite: FRE 100 completed or permission from the Department Antirequisite: $F R A$ level students
FRE 123 Atelier de conversation multiniveau II 3-3-0
Through the use of authentic cultural texts (audio/audiovisual/written), this course aims at improving global pronunciation (standard French), oral communication, and aural comprehension of real-life conversations by listening to, watching, and analyzing diverse grammatical and cultural material published in French. Class time will focus on oral exercises and aural comprehension activities, and will include volunteer work in the surrounding francophone community.
Prerequisite: FRE 100 completed or permission from the Department
Antirequisite: FRA level students
FRE 135 Culture and Society. Conversational French I 3-3-0 This course is designed to improve the quality of spoken French and enhance the vocabulary through a series of interactive activities (aural comprehension, pronunciation, improvisation, role playing, interviews, etc.). Focuses on current events and related topics using francophone newspapers, magazines, and the electronic media.
Prerequisite: FRE 120 or FRE 121 completed or FRE 140 or FRE 141 in progress
FRE 136 French Written Communication I 3-3-0
This course is designed to improve the students' writing skills and increase their vocabulary and their understanding of the grammar learnt at the beginner and intermediate levels. Focus will be put on clarity and simple sentences. A variety of reading and writing tasks will be used to help students develop their abilities.
Prerequisite: FRE 120 or FRE 121 in progress or completed or equivalent in the placement test.

## Level 3 - Advanced

Il n'y a aucun prérequis pour les étudiant.e.s francophones sauf lorsque spécifiquement indiqué.
FRE 140 Grammatical Review (French V)
3-3-0
Intensive review of the basic French grammar, with an emphasis on past tenses and pronouns. Based on a practical approach with multiple aural comprehension, composition and conversation activities.
FRE 141 Grammatical Review (French VI) 3-3-0
Continuation of FRE 140, with an emphasis on the subjunctive mode, the passive voice and the relative pronouns. Based on a practical approach with multiple aural comprehension, composition and conversation activities.
Prerequisite: FRE 121 or Grade 11 French in a Canadian institution or result in placement test
FRE 155 Culture and Society. Conversational French II 3-3-0
Through small group exercises and the use of multimedia, this course focuses on improving fluency in the French language and developing aural comprehension. Emphasis is put on everyday life, current events and cultural manifestations in the francophone world (music, cinema, etc.).
Prerequisite: FRE 121 or FRE 140 or FRE 141 completed or in progress
Antirequisite: Completion of a FRA course
FRE 156 French Written Communication II
This course is designed to improve students' written French skills, to sharpen vocabulary and to put into practice the grammar covered in the early stages of the advanced level. Focus will be put on clarity and complex sentences. A variety of reading and writing activities will be used to help students produce idiomatic texts in French in a variety of formats.
Prerequisite: FRE 140 completed or equivalent in the placement test
MLA 101 Issues in Language and Linguistics
3-3-0
This course will provide students with an overview of issues in the study of languages. It will introduce them to basic concepts in linguistics, familiarize them with the main components of language and common pursuits of linguists, and expose them to some long-standing debates in language study. Course taught in English and offered through the Modern Languages Department.

## FRA 136 /

DRA 136 Techniques de jeu I $\quad$ 3-3-0
Introduction aux techniques d'interprétation d'art dramatique à partir de textes, et d'études des bases de la performance scénique. Travail en équipe sur des scènes tirées d'œuvres théâtrales modernes et contemporaines.

## FRA 160 Le français, langue des affaires

3-3-0
Rédaction et communication orale en français de correspondances administratives, commerciales et diplomatiques, élaborées selon les exigences culturelles et contextuelles du monde des affaires au Québec. Etude de notions grammaticales et lexicales à partir de modèles de lettres et de communications orales qui respectent les normes de l'Office québécois de la langue française.
Prerequisite: Aucun.
FRA 165 Textes en contexte : initiation à la littérature française 3-3-0 Aperçu de la littérature de la France par le biais d'une série d'extraits représentatifs des grands mouvements culturels et littéraires de son histoire. Initiation à diverses approches critiques et méthodes d'analyse, traditionnelles et contemporaines.
Lectures de textes, rédactions, etc. Ce cours est ouvert aux étudiant.e.s francophones, sans prérequis.
Prerequisite: FRE 140 or higher completed or FRE 141 in progress or appropriate result in placement test
FRA 166 Textes en contexte : initiation à la littérature québécoise 3-3-0 Aperçu de la littérature du Québec par le biais d'une série d'extraits représentatifs des grands mouvements culturels et littéraires de son histoire. Initiation à diverses approches critiques et méthodes d'analyse, traditionnelles et contemporaines. Lectures de textes, rédactions, etc. Ce cours est ouvert aux étudiant.e.s francophones, sans prérequis.
Prerequisite: FRE 140 or higher completed or FRE 141 in progress or
appropriate result in placement test
FRA 181 Histoire socioculturelle du Québec I $\quad$ 3-3-0 Examen des différents aspects de la société québécoise, depuis la NouvelleFrance jusqu'à la Seconde Guerre mondiale. Les découvreurs et l'Amérique, les tentatives de colonisation, les relations avec les Autochtones, la Conqu ête, la Rébellion des Patriotes, la lutte entre le libéralisme et l'ultramontanisme, les influences américaines, les querelles linguistiques, les deux guerres et les crises de conscription, la crise économique de 1929, etc. Lecture de textes d'époque.
Prerequisite: FRE 141 or any course with the designation FRA. No prerequisite for Francophones
FRA 182 Histoire socioculturelle du Québec II
3-3-0
Transformations dans la société québécoise depuis la Seconde Guerre mondiale. Le conservatisme de l'époque de Duplessis, la Révolution tranquille et le rejet des valeurs traditionnelles, la contreculture, la montée des idées de gauche et du nationalisme, le mouvement féministe, les problèmes linguistiques, le concept de société distincte, la mondialisation, etc. Lecture de textes représentatifs.
Prerequisite: FRE 141 or any course with the designation FRA. No prerequisite for Francophones
FRA 187 Introduction au théâtre québécois
3-3-0
Observation et analyse de l'évolution culturelle du Québec par la fenêtre de son théâtre. La censure du clergé à ses premières heures. L'émergence du vaudeville français et du burlesque américain comme expressions du populaire, en concurrence à la poussée du cinéma muet. Les mouvements de contreculture et les créations collectives durant la Révolution tranquille. L'intérêt renouvelé pour la comédie dans les années 1980. Le théâtre de l'ailleurs et de la fragmentation, le décloisonnement des genres, etc.
Prerequisite: FRE 141 or any course with the designation FRA. No prerequisite for Francophones

## Level 4 / Niveau 4

Non-francophone students must have at least completed FRE 141 (or its equivalent in the Placement Test), in order to take courses at Levels 4 and 5.

Il n'y a aucun prérequis pour les étudiant.e.s francophones sauf lorsque spécifiquement indiqué.

## FRA 206 Histoire de la langue française

3-3-0
Étude de la langue française, de l'ancien français au français moderne, incluant les tendances contemporaines de la diversité francophone. Approche chronologique et géolinguistique appuyée sur des textes significatifs, des documents sonores et audiovisuels.
Prerequisite: FRE 141 or any course with the designation FRA

FRA 208 Histoire du français au Québec
3-3-0
Étude de ce qui a contribué, dès sa traversée de l'Atlantique au 17 e siècle jusqu'à aujourd'hui, à modeler le français québécois comme variété autonome de français, notamment en ce qui a trait au sens, au lexique et à la prononciation. Le cours s'intéressera aux facteurs sociaux, politiques et culturels de différenciation, mais aussi de rapprochement entre les variétés québécoise et française.
Prerequisite: Aucun.
FRA 209 Littérature jeunesse
3-3-0
Ce cours offre une vue d'ensemble de la littérature jeunesse produite en français au Québec et à l'étranger. Il permet de se familiariser avec cette littérature spécifique, d'acquérir des connaissances théoriques nécessaires à l'analyse d'oeuvres littéraires pour les jeunes, de découvrir les ressources faisant la promotion de la lecture et de développer des compétences critiques permettant de faire des choix judicieux dans l'étendue de cette production.
FRA 212 Le génie de la langue :
stylistique comparée du français et de l'anglais
3-3-0
Stylistique comparée du français et de l'anglais. Cours d'initiation à la traduction, principalement de l'anglais vers le français, dans lequel les éléments lexicaux, grammaticaux, stylistiques et culturels de ces deux langues seront comparés afin d'approfondir les compétences langagières des étudiant.e.s. Études des différentes méthodes de traduction, des niveaux de langue et des expressions idiomatiques à travers des exercices pratiques.
Prerequisite: FRE 141, or any course with the designation FRA
Antirequisite FRA 227
FRA 213 Traduction générale 3-3-0
Cours de traduction, principalement de l'anglais vers le français, traitant de certaines difficultés d'ordre lexical, syntaxique et rédactionnel spécifiques au français et à l'anglais. Ce cours fera état de plusieurs problèmes de traduction tirés de textes diversifiés et encouragera les étudiants à développer le travail d'équipe. Retour sur les méthodes de traduction et lecture de textes pertinents sur la théorie de la traduction.
Prerequisite: FRA 212 or permission from the Department
Antirequisite: FRA 213
FRA 228 Practice Makes Perfect :
Traduction journalistique et publicitaire
3-3-0
Traduction de textes en français et en anglais tirés de la presse et du monde de la publicité. Travail pratique en classe avec différents outils de traduction incluant les ressources en ligne. Études d'idées fondatrices de la traductologie.
Prerequisite: FRA 212 or permission from the Department
FRA 229 Practice Makes Perfect: traduction administrative 3-3-0 Traduction de textes en français et en anglais tirés du domaine administratif et commercial. Travail pratique en classe avec différents outils de traduction incluant les ressources en ligne. Études d'idées fondatrices de la traductologie.
Prerequisite: FRA 212 or permission from the Department
FRA 230 Tout est dans la logique :
analyse grammaticale et phrase complexe
3-3-0
Apprentissage de la construction des phrases complexes. Étude des diverses composantes d'une phrase et analyse grammaticale dans le but d'apprendre à mieux maîtriser les règles de la syntaxe française. Exercices d'analyse et de rédaction visant à améliorer la qualité de l'expression écrite.
Prerequisite: FRE 141 or any course with the designation FRA
FRA 247
Rédaction et communication
3-3-0
Étude des théories et pratiques de l'écriture, avec une attention particulière portée aux théories de la communication, aux niveaux de langue, aux figures de style et à la présentation des arguments. Seront employés, créés et analysés des textes littéraires, publicitaires, d'opinion, etc.
Prerequisite: FRE 141 or any course with the designation FRA
FRA 250
French Cinema
3-3-0
From the Lumière Brothers to George Méliès to Émile Reynaud and the Gaumont and Pathé film companies, from the Avant-Garde of the 1920s to the Nouvelle Vague and to the comedies of the early 21st century, this course explores the French contribution to the evolution of the seventh art, and examines how it came to represent part of its personality and psyche. This course is given in English, but movies are shown in their original language, with subtitles. Honours, majors and minors in French must submit their assignments in French; all other students may submit their work in French or English. FRA 250 does not count towards the Divisional requirement in Languages.

FRA 252 De la contreculture à la contestation ouverte : les années 1960 et 1970

3-3-0
Étude des grands mouvements culturels et sociaux ayant marqué les années 1960 et 1970; le baby-boom, l'émergence du joual, la contre-culture, les contestations sociales, etc. Examen de sa littérature, de sa musique, de son cinéma et de son évolution politique. Comparaisons et relations entre le Québec, la France et les États-Unis.

## Prerequisite: FRE 141 or any course with the designation FRA

FRA 253 Contes, légendes et chansons de la francophonie 3-3-0 Évolution du concept de l'oralité dans différentes régions de la francophonie en relation avec l'histoire, les sciences et les différents types de manifestations de la culture populaire. Études des fonctions de Propp, des notions de littérarité et de réceptions, de mythocritique ainsi que des sources philosophiques et thématiques des contes, des légendes et des chansons.
Prerequisite: FRE 141 or any course with the designation FRA

## FRA 254 Littérature et cinéma en France

3-3-0
Analyse des œuvres significatives du cinéma français de ses débuts jusqu'à aujourd'hui. Étude des genres, des réalisateurs, des acteurs influents et des discours. Observation et discussion de certains thèmes récurrents ou novateurs d'un point de vue sociologique et historique. Lecture de romans ou de nouvelles et analyse de leur adaptation cinématographique.
Prerequisite: FRE 141 or any course with the designation FRA

## FRA 255 Littérature et cinéma au Québec

3-3-0
Analyse des œuvres significatives du cinéma québécois de ses débuts à aujourd'hui. Étude des genres, des réalisateurs, des acteurs influents et des discours. Observation et discussion de certains thèmes récurrents ou novateurs d'un point de vue sociologique et historique. Lecture de romans ou de nouvelles et analyse de leur adaptation cinématographique. Survol du genre court métrage. Prerequisite: FRE 141 or any course with the designation FRA
FRA 256 Les grands classiques du roman français
3-3-0
Survol original de la littérature française à travers les époques et les grands mouvements littéraires (le romantisme, le réalisme, le surréalisme et le modernisme) par le biais de quelques-unes de ses plus belles œuvres romanesques. Mise en lumière de l'impact de ces œuvres sur la société et les mœurs de leur époque. Seront à l'étude des auteurs tels Châteaubriand, Hugo, Colette, Stendhal, Balzac, Sand, Proust, Vian, etc.
Prerequisite: FRE 141 or any course with the designation FRA
FRA 257 Les grands moments du théâtre français
3-3-0
Puisées dans l'imposant répertoire français, les pièces à l'étude serviront d'introduction à l'histoire et à l'analyse de la dramaturgie, en commençant par ceux qui ont contribué à lui donner ses lettres de noblesse : Molière, Corneille et Racine. De ces grands noms de l'époque classique jusqu'au nouveau théâtre (Ionesco, Beckett), en passant bien sûr par le drame romantique (Hugo, de Musset), seront ainsi revisités les moments marquants du théâtre français.
Prerequisite: FRE 141 or any course with the designation FRA
FRA 258 La télévision : miroir de la société québécoise
3-3-0
Par l'étude de ses créations télévisuelles, ce cours explore les idées et les mentalités présentes dans la société québécoise du milieu du 20 e siècle jusqu'à aujourd'hui. L'importance du clergé et de la famille, la notion du survenant et de l'étranger, l'esprit d'indépendance, l'importance de l'enfance, le regard ironique et quelquefois comique posé sur son univers sont parmi les thèmes abordés dans ce cours.
Prerequisite: FRE 141 or any course with the designation FRA

## FRA 259 Québec Cinema

3-3-0
This course will survey the entire history of Quebec cinema, with a particular focus on narrative and documentary films. Through weekly screenings, students will become familiar with this cinema's major currents, schools, genres, styles, and directors, while lectures will explore the political, cultural, economic, and industrial contexts that have shaped this cinema.

## FRA 260 Voyage et littérature <br> 3-3-0

Aperçu de la littérature de voyage par le biais d'une série d'extraits représentatifs des grands écrivains de ce type de récit aux frontières des genres littéraires. Lectures de textes, commentaires, rédactions, créations et analyses littéraires. Une attention sera portée sur l'espace, l'altérité et le soi, éléments centraux du récit de voyage.
Prerequisite: Aucun.

## FRA 285 Roman québécois contemporain

3-3-0
La maturité du roman québécois, des années 1970 à nos jours. L'émergence de la littérature migrante, l'engouement pour la littérature jeunesse, le roman urbain et la littérature autochtone produite au Québec. Observation des liens avec le cinéma et la télévision.
Prerequisite: FRE 141 or any course with the designation FRA

## Level 5 / Niveau 5

FRA 308 Traduction en contexte réel $\quad$ 3-3-0
Traduction, principalement de l'anglais vers le français, de textes plus complexes en français et en anglais. Travail d'équipe pour lequel les outils de traduction en ligne seront employés. Réflexions métalangagières sur les différentes stratégies utilisées dans la production des textes d'arrivée.
Prerequisite: FRA 212 or permission from the Department
FRA 309 Assistanat en enseignement du français langue seconde 3-3-0 Ce cours permet aux futurs enseignants et enseignantes du français langue seconde (et autres étudiants francophones ou niveau équivalent) de gagner de l'expérience en salle de classe, tout en bénéficiant d'une supervision formatrice. Les étudiants et étudiantes participeront à la préparation du cours, à l'enseignement de notions grammaticales, à l'animation de discussions, à la création de grilles d'évaluation et à la correction de présentations orales et autres types d'évaluations. Initiation aux outils pédagogiques numériques.
Prerequisite: FRA 200 level
FRA 310 Tutorat au Centre d'aide en français
3-3-3
Ce cours permet aux futurs enseignants et enseignantes de français langue seconde (et autres francophones ou niveau équivalent) de travailler en situation d'enseignement individuel, dans le but de parfaire le rendement de leurs connaissances, tant à l'oral que dans la préparation des activités. Initiation aux outils pédagogiques numériques.
Prerequisite: FRA 200 level
FRA 315 Pièges et mystères de la langue française $I \quad$ 3-3-0
Cours de grammaire avancée qui s'attarde sur les difficultés particulières de la syntaxe de la langue française, ses exceptions, ses anomalies, etc. Ce cours vise également à corriger les erreurs les plus fréquentes présentes tant chez les francophones que les apprenants de langue seconde.
Prerequisite: FRA230 for non-francophones
Antirequisite: obligatoire pour les étudiant.e.s en enseignement.
FRA $316 \quad$ Pièges et mystères de la langue française II $\quad$ 3-3-0
Suite du cours FRA 315 avec, en complément, une révision des notions de la Nouvelle grammaire et une introduction à la nouvelle orthographe.
Prerequisite: FRA 230 for non-francophones
Antirequisite obligatoire pour les étudiant.es en enseignement.
FRA 351 De l'aventure au réalisme : la fiction au 19e siècle 3-3-0 Lecture et observation des œuvres romanesques les plus marquantes du 19 e siècle, tant en France qu'au Québec, en lien avec les grands courants culturels de l'Histoire. Un intérêt particulier sera porté à ces œuvres qui représentent des aspects particuliers des goûts et des modes de vie de ce siècle. Approche multidisciplinaire incluant la peinture, la musique, le cinéma, etc.
Prerequisite: FRE 141 or any course with the designation FRA
FRA 353 Littératures migrantes et de la francophonie
3-3-0
La littérature comme outil d'expression des particularités culturelles nationales. Étude de quelques œuvres d'écrivains migrants du Québec à travers les thèmes de l'exil, la perception de l'Autre, l'identité / l'altérité culturelle, la mémoire, etc. Observation de la complexité historique des différences culturelles rencontrées dans une variété d'aires géographiques reliées à la francophonie, à l'exception de l'Europe (les Antilles, les Caraïbes, le Maghreb et l'Afrique noire).
Prerequisite: FRE 141 or any course with the designation FRA
Antirequisite: obligatoire pour les étudiant.e.s en enseignement
FRA 355 Versification : voyage dans la poésie
française et québécoise
3-3-0
Apprentissage des règles de la versification par l'entremise de lectures commentées et d'analyses de poèmes issus des littératures françaises et québécoises. Survol historique des mouvements poétiques depuis la Renaissance française jusqu'à aujourd'hui (La Pléiade, Mallarmé, les poètes maudits, etc.) ainsi que des grands moments de la poésie québécoise (le phénomène Nelligan, les poètes de la Solitude et de l'Hexagone, la poésie identitaire, etc.)
Prerequisite: FRE 141 or any course with the designation FRA

FRA 385 Teaching in the Community - Experiential Learning I 3-3-1 Experiential learning course where the student is paired with an immigrant or a refugee living in Sherbrooke or in the immediate area. During a 12 -week period, the student will tutor French two hours a week and help that person with cultural and adaptation related matters. Student must keep a journal where elements of the language taught and linguistic problems encountered are noted and reflected upon, as well as a cultural differences and ways to overcome them.
Prerequisite: a $75 \%$ mark in FRA315 or in the French Assessment Test

## Fine Arts

## Faculty

## James Benson,

B.F.A., M.F.A. Ph.D. (Concordia); Professor, Chair of the Department

## Darren Millington,

B.A. (Bishop's), M.F.A. (UQAM), Ph.D. (Concordia); Professor

## Regine Neumann

B.A. (Bishop's), M.F.A. (Alanus)

Assistant Professor

## Program Overview

The mission of the Department of Fine Arts is to produce independent, critical thinkers who are able to discover and synthesize diverse types of knowledge and understand the interconnections between the fine arts and other academic disciplines. Students completing the programs in Fine Arts develop a well-rounded perspective on the world; develop critical thinking skills and creative problem-solving abilities; and communication skills transferable to many environments within and beyond fine arts related fields.

Moreover, our desire is to provide students with a broad-based Fine Arts education, one which will allow them the widest possible scope for continued study leading towards visual arts-related careers. By providing students with increasingly more specialized courses, particularly in their third year of study, such as: FIN 301 Art Education: Theory and Practice; FIN 303 Preparation of Professional Portfolio; FIN 218 Digital Imaging for the Artist I and II; students are introduced to fields of study potentially leading to graduate study and careers in Art Education, Studio, or professions involving digital imaging. The aim of these courses, as well as the attitude that underlies their conception, is to instill in the student a sense of purpose. We want students to see their education at Bishop's as having a real intrinsic and extrinsic worth. We want students to see their Fine Arts training as connected to the world in which they will become creative, critical, and productive citizens.

Fine Arts students are normally streamed through their first two years of full-time study. This streamed sequence creates a familiar and fertile atmosphere wherein students develop a strong understanding of each other's creative work, which in turn, promotes a cross-fertilization of ideas and approaches integral to the Studio environment. As well, this student cohesiveness set within a well-structured curriculum enables professors to pursue curriculum content that may be thematically related. In short, goals and conceptual approaches sought after in a sculpture, drawing or photography class, may be reinvestigated and re-emphasized in a painting or digital imaging class. Similarly, issues arising out of

Art History courses may be reinforced within the studio environment. The ultimate task as we see it is the creation of a unified, creative, and integrated learning environment for our students. We offer a number of programs designed to (to a greater or lesser extent), bring about this mandate.

It is important to note that the degree in Fine Arts is offered in two distinct profiles. Under the oversight of the Department of Fine Arts are programs including the Major in Fine Arts Studio Concentration, the Honours in Studio, the Minor in Fine Arts and the Studio Certificate. Under the oversight of the Art History and Theory faculty are programs including the Honours in Art History and the Major in Fine Art Concentration in Art History (please see the Art History program section of this calendar).

## Programs

## Major in Fine Arts-Studio Concentration (48 credits) MAJFIN+CONFST

The Major in Fine Arts-Studio Concentration requires a minimum of 48 departmental or cognate credits ( 16 courses) from three course groupings (courses listed below under the course descriptions): Studio (27 FIS), Art History (15 FIH), and Comparative Arts (6 FIN). Any student who wishes exemption from a requirement should submit a request and relevant documentation to the Department Chair before registration is completed.

Students as a group are normally streamed through their first 45 credits as follows:

## Year I

Fall FIS 140 Foundation Studio
FIS 160 Drawing I
FIH 100 The Art of Viewing
2 electives
Winter FIS 170 Sculpture I
FIS 181 Painting I
FIS 260 Drawing II
FIH 102 Survey of Western Art: Renaissance to
Neoclassicism
1 elective

## Year II

## Fall FIS 271 Sculpture II <br> FIS 281 Painting II <br> 2 FIS electives <br> FIH 220 Twentieth Century to the Sixties

During the second and subsequent years, students are offered a number of elective courses which include third and fourth level courses in Drawing, Painting, Sculpture, first and second level Printmaking and Photography, as well as the comparative course requirements including Digital Imaging I and II, Portfolio, Art Therapy, and Art Education, the required FIH 221: Art from the 1960s to the end of the Twentieth-Century, and 300 level FIH art history course (for more detail, see courses listed below).

## Studio (FIS) Courses

The studio course requirement is a minimum of 27 FIS credits including one at the $300-l e v e l$. Normally, in the first year of fulltime study these include 15 credits (5 FIS courses) from: FIS 140 Foundation Studio, FIS 160 Drawing I, FIS 170 Sculpture I, FIS

181 Painting I, and FIS 260 Drawing II. In the second year of full-time study, students will be required to choose a minimum of 12 FIS credits, (4 FIS courses) from the following: FIS 275 Introduction to Fibre Art, FIS 182 Photography I, FIS 190 Printmaking: Intaglio, FIS 271 Sculpture II, FIS 375 Fibre Art II, FIS 281 Painting II, FIS 291 Printmaking: Relief; FIS 296 Photography II, FIS 300 Drawing IV, FIS 360 Drawing III, FIS372 Sculpture III, FIS 373 Sculpture IV, FIS 382 Painting III, and FIS 383 Painting IV.
While registration priority will be given to Fine Arts students, students from other programs who may wish to study studio art may gain admittance to these courses. A student who believes he or she may have grounds to request exemption from one of the 100 -level studio courses is required to present a portfolio of work to one of the studio faculty before registration in order that a determination may be made. Normally, students must achieve a grade of at least $70 \%$ in 100 -level studio courses before they may be admitted to 200-level studio courses.

## Art History (FIH) Courses

The Art History course requirement of 15 specific FIH credits includes FIH 100 The Art of Viewing, FIH 102: Survey of Western Art II: Renaissance to Neoclassicism, FIH 220: Twentieth Century Art to the 1960s, FIH 221: Art from the 1960s to the end of the Twentieth-Century, and one 300-level Art History course.

## Comparative Arts (FIN) Courses

The comparative arts course requirement is a minimum of 6 FIN credits. These courses require students to consider the arts in a broader liberal arts context, as they are by their nature interdisciplinary. These courses are normally taken in the second and subsequent years of full-time study. (It is important to note that these can include the courses listed under comparative arts section of course descriptions that are not offered by the Fine Arts department.)

All majors and honours students in Fine Arts must satisfy the Humanities Divisional requirement outlined at the beginning of the Humanities section of the calendar.

## Studio Honours Program (60 credits)

HONFIS
Similar to the major, the Studio Honours program includes three course groupings. However, it requires a minimum of 60 departmental or cognate credits ( 20 courses). This program includes Studio (42 FIS), Art History (15 FIH), and Comparative Arts (3 FIN). Any student who wishes exemption from a requirement should submit a request and relevant documentation to the Department Chair before registration is completed.

This program is designed to prepare students for further studies at the graduate level in studio related practice. Normally after having completed 30 credits as a major in the Fine Arts studio concentration, students will have the option to apply for the Studio Honours program. Eligibility for admission to this program is determined by the following criteria: an overall average no lower than $70 \%$ in courses within the Major program. A comprehensive portfolio including work completed as a Major in the program, and a statement of artistic intent will be required for applicants. Academic eligibility of students aspiring to the Honours Program is established in their second year of full-time study.

## Studio (FIS) Courses

As students are not eligible to apply to change to the studio honours program until having completed 30 credits, the course requirements are identical to the major during the first year of full-time study. Course requirements consist of 42 credits (14 FIS courses) in Studio. Normally, during the first 30 credits as with the major these include 15 credits (5 FIS courses) from: FIS 140 Foundation Studio, FIS 160 Drawing I, FIS 170 Sculpture I, FIS 181 Painting I, and FIS 260 Drawing II. Following the first year as a major, honours students will be required to choose a minimum of 27 FIS credits, (9 FIS courses) from the following: FIS 275 Introduction to Fibre Art, FIS 182 Photography I, FIS 190 Printmaking: Intaglio, FIS 271 Sculpture II, FIS 375 Fibre Art II, FIS 281 Painting II, FIS 291 Printmaking: Relief; FIS 296 Photography II, FIS 300 Drawing IV, FIS 360 Drawing III, FIS372 Sculpture III, FIS 373 Sculpture IV, FIS 382 Painting III, and FIS383 Painting IV.

## Art History (FIH) Courses

As with the major, the Art History courses (FIH) include a minimum of 15 credits in Art History (5 FIH courses) including: FIH 100, The Art of Viewing, FIH 102: Survey of Western Art II: Renaissance to Neoclassicism, FIH 220: Twentieth Century Art to the 1960s, FIH 221: Art from the 1960s to the end of the Twentieth-Century, and one 300 -level Art History course.

## Comparative Arts (FIN) Courses

Unlike the major, in addition to the 57 credits listed above, students must choose 3 credits from either: FIN 301 Art Education: Theory and Practice, FIN 303 Preparation of a Professional Portfolio, or one additional 300-level Art History (FIH) course.

All majors and honours students in Fine Arts must satisfy the Humanities Divisional requirement outlined at the beginning of the Humanities section of the calendar.

## Minor in Fine Arts Program ( 24 credits)

MINFIN
The Minor in Fine Arts requires a minimum of 24 departmental or cognate credits, with 12 credits in Art History including: FIH 100: The Art of Viewing: Introduction to Art History, FIH 102: Survey of Western Art II: Renaissance to Neoclassicism, FIH 220: Twentieth Century Art to the Sixties, FIH 221: Art from the 1960s to the end of the Twentieth-Century and 12 credits in studio.

## Certificate in Studio Arts (30 credits)

The Certificate in Studio Arts is a structured program of study in Fine Arts with an emphasis on studio courses offered by the Department of Fine Arts. For part-time community students who do not wish to pursue a degree program, the Certificate in Studio Arts presents a rounded introduction to studio practice. Courses leading to the Certificate in Studio Arts are offered in the regular Fall-Winter semesters, the evening summer session and the Fine Arts Summer School. Credits obtained in the certificate program may be applied eventually towards a major or minor in the degree program in Fine Arts. Students may not be enrolled simultaneously in a degree program and the Certificate in Studio Arts.

## Admission requirements: <br> (See Regulations for Certificate Programs). <br> Transfer credits: A maximum of nine unassigned Fine Arts credits may be transferred from courses taken by a student at another university.

## 1) Required courses: 6 credits <br> FIH 101 (formerly FIN 101) <br> Survey of Western Art I: Prehistory to Medieval <br> 3-3-0 <br> FIH 102 (formerly FIN 102) <br> Survey of Western Art II: Renaissance to Neoclassicism 3-3-0 <br> 2) The remaining 24 credits must be chosen from the Studio course list.

FIS 160
(formerly FIN 160) Drawing I 3-0-6
FIS 170
(formerly FIN 170)
Sculpture I
3-0-6
FIS 180
(formerly FIN 180)
Colour Theory and Practice
3-0-6
FIS 181
(formerly FIN 181) Painting I 3-0-6
And any 12 credits chosen from other 100- and 200-level studio courses (see Fine Arts Studio section).

## COURSE DESCRIPTIONS

## Studio Courses (FIS):

## Foundation Level

FIS 106 Beginning Drawing 3-0-6
This is an introduction to basic drawing from observation. It will introduce the student to drawing as a common language of expression in the visual arts. Students will begin to develop visual literacy of form, proportion, value, and movement. This course is for non-majors.
Students may not take this course for credit if they have received credit for FIS160
FIS 107 Beginning Sculpture
3-0-6
This is an introduction to the fundamentals of sculpture. It will introduce student to two sculptural languages: the glyptic (methodology of subtraction), and the plastic (methodology of substitution through mold making). This course is for non-majors.
Students may not take this course for credit if they have received credit for FIS 170

## FIS 118 Beginning Painting

3-0-6
This is an introduction to basic painting. It will introduce the student to the fundamentals of painting as a common language of expression in the visual arts. Some rudimentary colour theory and techniques will be explored. This course is for non-majors.
Students may not take this course for credit if they have received credit for
FIS 181
FIS 128 Beginning Photography
3-0-6
This is an introduction to digital photography. It is intended to give students a firm background both aesthetically and technically in the uses of photography as a fine arts medium. This course is for non-majors.
Students may not take this course for credit if they have received credit for FIS 182.
Course requirement: A fully manual digital camera

## FIS $140 \quad$ Foundation Studio

3-0-6
An introduction to the media of studio art involving practice in drawing, sculpture and painting, combined with discussion of concepts in the analysis of visual experience and artmaking.

## FIS 145 Artists' Books I

3-0-6
This course is an introduction to the conceptual foundations and practical aspects of artists' books. Students will learn to produce a series of sculptural book objects and single copy artist's books through hands-on exploration of traditional bookbinding skills, non-traditional book structures, and content and image development.

FIS 146
Papermaking
3-0-6
This course will introduce students to the history and technique of European and Japanese papermaking and explore the potential of handmade paper as a medium for creative expression. Students will learn to make paper by hand, from preparing the fibres to sheet-forming techniques, including various working methods with texture, surface, and finishes.

FIS 160 Drawing I
3-0-6
This course is based on the premise that skills of visual observation derived from drawing are crucial to further studio practice. Students will explore the notions surrounding the articulation of physical space through drawing and come to an understanding of pictorial syntax by developing their skills of observation of form, proportion, value, and movement. Assigned projects will address fundamental and conceptual problems suggested by historical and recent practice.
Students may not take this course for credit if they have received credit for FIS 106
FIS 170 Sculpture I
3-0-6
This course is intended to introduce students to a variety of sculptural languages. These may include the glyptic, the plastic, and the assemblage and their corresponding techniques of subtraction, substitution and addition respectively. Although group discussions will be employed, this aesthetic inquiry will primarily take the form of individual hands-on activity as the basis of group critical/ theoretical study.
Prerequisite: FIS 140 or FIS 160
Students may not take this course for credit if they have received credit for FIS 107

FIS 180
Colour: Theory and Practice
3-0-6
This course is designed to familiarize students with aesthetic concepts and expressive uses of colour in painting. Emphasis is on the understanding of colour contrasts as well as the optical, sensory, emotional, and psychological effects of colour relationships. The introduction of historical contexts, and contemporary artistic practices will provide students with a greater understanding and critical awareness of the varied approaches to colour. Class will proceed through assignments using a variety of mediums.
FIS $181 \quad$ Painting I
3-0-6
This course is an introduction to the visual language and the materials and techniques in painting. Through observational study, and with an emphasis on the language of colour, pictorial syntax, and the articulation of space, students will develop a number of personal images. These projects, in conjunction with weekly studio critiques will increasingly challenge and help develop students' critical and creative thought processes. The study of key painting approaches in historical and contemporary painting will be an integral component of the course. Students are expected to develop a portfolio of the works and preparatory studies completed in class.
Prerequisite: FIS 140 or FIS 160
Students may not take this course for credit if they have received credit for
FIS 118

## FIS 182 Photography I <br> 3-0-6

This introductory course will familiarize students with the concepts and fundamental techniques of digital photography with emphasis on individual projects. A survey of photographic genres and contemporary practices present students with various approaches that expand ideas about photographic representation. The basics of photography from shooting to printing will be experimented by the student.

## Course requirement: A fully manual digital camera

Students may not take this course for credit if they have received credit for

## FIS 128

Prerequisite: FIS 140 or FIS 160
FIS $190 \quad$ Printmaking: Intaglio
This course introduces students to various techniques and experimental processes used in creating intaglio prints. Drypoint, etching, as well as various contemporary approaches to plate making and printing will be covered. Technical demonstrations, presentations, and individual projects will familiarize students with contemporary practices and concepts in print media. Discussion and critique of work aim at furthering student's aesthetic thinking and skills.
Prerequisite: FIS 140 or FIS 160

## Intermediate Level

## FIS 245 Artists' Books II

 3-0-6A continuation of exploring the book as a form of artistic expression. The focus will emphasize the relationship between form, material, structure, and content. Students will explore innovative methods and a broad range of practical and theoretical approaches to learn how to conceptualize and produce artists' books intended for the production of multiple copies.
Prerequisite: FIS 145
FIS 260 Drawing II 3-0-6 This course will concentrate on the variety of approaches to drawing from observation and the imagination. A variety of exercises in figurative drawing will be employed that are directed towards the development of disciplined observation and technical control of the the graphic media. Consideration will be given to how and why the figure is essential to contemporary practice.
Prerequisite: FIS 160, formerly FIN 160

## FIS $271 \quad$ Sculpture II

3-0-6
This course will involve an aesthetic inquiry in a variety of sculptural languages moving from the graphic to the plastic. Based on a theme, students will become aware of the process by which his/her imagery evolves from a low relief to a sculpture in the round. Attention is paid throughout the course to understanding and articulating form in 2- and 3 -dimensional space, and to helping students develop personal ways of working alongside, and in response to, the fellow students and current issues in contemporary sculpture.
Prerequisite: FIS 170, formerly FIN 170
FIS 272 Moldmaking and Casting 3-0-6
This course offers instruction in the practical aspects of mold making and casting in a variety of materials and techniques. The objective is to provide students with the principles of this traditional technology and infuse these techniques into their practice and creation of sculpture. A foundation in how objects around us are reproduced is essential for the modern sculptor in a culture of mass production. Contemporary issues of art and culture are also discussed.
Prerequisite: FIS 271
FIS 275 Fibre Art I
3-0-6
An introduction to the nature and possibilities of fibres and to their use in art. Two and three-dimensional studio projects using techniques such as wrapping, fabric manipulation, dyeing, and papermaking, will take into account the characteristics of the material and the process.
Prerequisite: FIS 140. FIS 260, FIS 181, FIS 170
FIS 276 Collage
3-0-6
In this course students will explore the multiple possibilities of collage, a contemporary medium derived from the traditions of painting and drawing. In studio projects using two- and three-dimensional supports in a variety of formats, students will experiment with paper, found objects, photocopies, paint, and other media. Development of visual vocabulary, technical skills and creative expression of personal concepts in a non-traditional means of expression will be the focus of this course
Prerequisite: FIS 260, FIS 170, FIS181

## FIS 281 Painting II

3-0-6
This course will involve a further exploration of concepts and techniques in painting, emphasizing the individuation of students' pictorial language and approach. Class investigations will examine various approaches to representational and abstract painting. Studio work is complemented by in-depth discussion, studio critiques, as well as the personal research of key issues in historical and contemporary painting. Students are increasingly expected to develop a personal portfolio of their works. Prerequisite: FIS 180 or FIS 181 (formerly FIN 180 and FIN 181)

## FIS 285 Landscape Drawing and Painting I <br> 3-0-6

Based on direct observation, this course will focus on the basic elements of line, shape, texture, value and colour as they unfold in nature. Students will learn to apply basic notions of composition and perspective while choosing the medium and format most appropriate to translate their impressions into visual language. Prerequisite: FIS 260, FIS 181

## FIS 291

Printmaking: Relief
3-0-6
This course offers an introduction to traditional techniques and experimental processes used in the pursuit of relief printmaking. Class involves an overview of techniques and materials including woodcut, use of a press and hand-printing relief processes. Conceptual concerns related to print media in a contemporary context are discussed and explored through technical demonstrations, presentations and individual assignments. Discussion and critique of work aim at furthering student's aesthetic thinking and skills.
Formerly FIN 191
Prerequisite: FIS 140 or FIS 160

This course develops and expands on digital image making techniques explored in Photo I. Students are encouraged to experiment and to integrate various contemporary issues and concepts in their assignments. Group discussion around body of images and the presentation of various contemporary approaches and practices in photography will encourage critical thinking.
Course requirement: A fully manual digital single lens reflex camera (DSLR). Prerequisite: FIS 182, formerly FIN 182

## Advanced Level

FIS 300 Drawing IV
3-0-6
This course will focus on Drawing in its relation to contemporary practice. Experimental aspects of drawing will be explored in a variety of media. Group discussions and presentations complement the studio work.
Prerequisite: FIS 360
FIS $302 \quad$ Photography III
3-0-6
This advanced course will provide students with the opportunity to explore hybrid or cross-disciplinary approaches to the photographic medium. Course range is determined by instructor and may include special topics such as installation, sitespecific projects, projections, non-traditional uses of photographic images, web, intermedia collaborations, artist books and time-based mediums. Lab work will be digital. Prerequisite FIS 296, formerly FIN 296
FIS 360 Drawing III
3-0-6
This course is a continuation of studies in life drawing. The figure will be considered using a range of approaches with emphasis on observation, anatomy, and spatial structure. Group discussions and presentations complement the studio work.

## Prerequisite: FIS 260

Students may not take this course for credit if they have received credit for FIS 261
FIS 372 Sculpture III 3-0-6
This advanced course will engage the student in a more intensive specialized study in sculpture. Assignments are designed to provide further investigation into the history of making and thinking in sculpture and to raise questions pertinent to contemporary practice. The opportunity exists to explore new techniques and materials while honing familiar skills. This inquiry is designed to help students become self-directed. Individual and group discussion, play a significant role in the development of a body of work.
Prerequisite: FIS 271, formerly FIN 271
FIS 373
Sculpture IV
3-0-6
This course provides the opportunity for a more advanced program of individual study in sculpture based on visual languages and techniques determined by the instructor. Group discussion of student projects, and readings, that address current art practice, are core to this course. Individual and group critiques monitor the progress of each project.
Prerequisite: FIS 372
FIS 375
Fiber Art II
3-0-6
This course is a continuation of Introduction to Fiber Art I.
Prerequisite: FIS 275
FIS 382 Painting III
3-0-6
This course challenges the student with several in-depth projects that will encourage the development of individual themes through independent studio practice. Students will be expected, in both verbal and written form, to situate their artistic explorations within historical and contemporary approaches in painting. Studio work will be complemented by critical individual and group discussion as well as through research of pertinent approaches and concepts in historical and contemporary painting. The ongoing development of a personal portfolio of work is also expected of the student.
Prerequisite: FIS 281, formerly FIN 281
FIS 383
Painting IV
3-0-6
This course will allow advanced students to explore the distinctions and similarities between painting and other visual art disciplines. As current art practice reflects an enormous range of possibilities of how art disciplines can interrelate, painting often becomes blurred, as hybrid approaches yield works that do not fit neatly into traditional historical categories. This course will examine connections between painting and the other studio disciplines through individual projects, historical analysis, and critique. Students will explore definitions and relationships and will consider how these forms of expression may overlap and how they may diverge. It is expected that students will gain a better understanding of how painting and other forms of visual expression intersect, and that students consider and arrive at new ways of connecting these distinct disciplines in their own work. The ongoing development of a personal portfolio of work is also expected of the student. Prerequisite: FIS 382

The advanced student is expected to create a body of work exploring an important issue from a personal point of view. The student will also contextualize his/her work within contemporary photographic practices and issues.
Prerequisite: FIS 302
FIS $385 \quad$ Printmaking: Contemporary Practice
3-0-6
This course is designed to encourage printmaking students to develop a consistent personal approach to subject matter and techniques in the print media of their choice. Students are expected to be self-motivated, explore new printmaking techniques and develop their technical abilities through continuous experimentation and research. Participation in critical discussion and critique aims at furthering their intellectual understanding of contemporary print media.
Prerequisite: FIS 190 Printmaking: Intaglio or FIS291 Printmaking: Relief
FIS 386 Landscape Drawing and Painting II
This course is a continuation of Landscape Drawing and Painting 1 Prerequisite: FIS 275
FIS 390 Independent Study in Studio Art I
3-0-0
FIS 391 Independent Study in Studio Art II 3-0-0
FIS 392 Independent Study in Studio Art III 3-0-0

Students who have accumulated 60 credits in the program and who have completed the course work in a given area may submit a formal proposal to the department outlining a project to be undertaken independently in consultation with the instructor. The Independent Study option is available only to Studio Honours students who have been in the Bishop's program for at least a year and who are currently pursuing other courses in the department on a full-time or parttime basis. Departmental approval is contingent on acceptance of the proposed project or course of research by the supervising instructor. Project proposals will be received no later than the add/drop deadline.

## FIS 395 Advanced Studio Problems I

3-0-6
The advanced student is invited to apply his/her acquired knowledge and techniques in two or three major projects that follow a conceptual approach and often extend image making from the personal to the public. Dialectic and deconstructive approaches are discussed and investigated while a clear discernment in the selection of imagery and materials is encouraged.
Prerequisite: 15 FIS credits
FIS 396 Advanced Studio Problems II
3-0-6
The further development of an emerging practice.
Prerequisite: FIS 395

## STUDIO COGNATES

Fine Arts majors normally will be permitted to take 6 cognate credits that will count towards the Studio component from among: DRA 101, 160, 161, 250, 251, and 262. With permission of the department, studio honours students may be permitted to take additional cognate courses. Fine Arts minors may apply one of the above cognates towards the minor.

## ART HISTORY COURSES (FIH):

Majors and honours are required to take FIH100, 102, 220, 221 plus any 300 level FIH for a total of 15 FIH credits (see course descriptions under the Art History programme).
FIH 100 The Art of Viewing: Introduction to Art History 3-3-0
FIH 102 Survey of Western Art II: Renaissance to Neoclassicism 3-3-0
FIH 220 Twentieth Century Art to the Sixties 3-3-0
FIH 221 Art from the 1960s to the end of the Twentieth-Century 3-3-0
FIH 314 Colonial and Post Colonial Issues in Visual Arts 3-3-0
FIH 318 Current Practices and Production 3-3-0
FIH 320 Special Topic in Art History 3-3-0
FIH 323 Seminar in Art History, Theory and Criticism in Art I 3-3-0
FIH 350 Independent Study in Art History I 3-3-0
FIH 351 Independent Study in Art History II $\mathbf{3 - 3 - 0}$

## COMPARATIVE ARTS COURSES <br> (FIN):

Majors are required to take 6 credits from the following list.
FIN 218 Digital Imaging for the Artist I
3-3-0
This course serves as an introduction to current practice on the computer in the graphic arts industry. Students will gain proficiency in the use of various software, particularly Photoshop, Illustrator, and InDesign on a Macintosh platform.
FIN 222 Art Therapy
3-3-0
This course acquaints students with the field of art therapy, by addressing relevant psychological background, theory and research as well as are therapy history approaches, and research. The course will include pertinent, gently guided practical experiences introducing students to therapeutic possibilities of art making.
FIN 301 Art Education: Theory and Practice 3-3-0
This course investigates various historical and critical approaches concerned with the identity of the artist and the artwork as they inform practice. Students will develop relevant methodologies that will apply to the planning and teaching of art in a variety of educational settings and will explore a variety of paradigms for teaching studio practice.
Prerequisites: FIS 160, FIS 170, FIS 181, and either one of FIS 360, FIS 372, or FIS 382
FIN 348 Digital Imaging for the Artist II $\quad$ 3-3-0
Students will delve deeper into the creative potential of Adobe Creative Suite and will work individually and in groups on real-world print and multimedia productions in collaboration with students involved in performances in the fine and creative arts.
Pre-requisite: FIN 218 or consent of instructor
FIN 303 Preparation of a Professional Portfolio
3-3-0
The purpose of this course is to encourage students to situate their works within the broad stream of contemporary art as a means of either continuing their study in a variety of fields at the graduate level, or as a preparation for a career as practicing artists. The students should use this course to prepare a professional portfolio of their works, as well as to consider some of the conceptual approaches within which, or against which, they will be operating as contemporary artists.
Prerequisites: FIS 160, FIS 170, FIS 181, and either one of FIS 360, FIS 372, or FIS 382
FIN 397 Graduating Exhibition $\quad$ 3-3-0
This course is intended for advanced students who intend to continue studio studies at the graduate level, or as preparation for a professional career as practicing artist. Students will consider the trajectory of their work as a participant in a group exhibition within the context of a professional gallery Prerequisites: FIS 360, FIS 372, FIS 382, or permission of Instructor

## Additional Comparative Arts courses:

AAD 250 Arts Administration I
AAD 251 Arts Administration II
AAD 252 Arts Administration III
CLA 110 The Art and Archaeology of Ancient Egypt
CLA 120 Classical Archaeology
CLA 205 Greek Art and Architecture
CLA 206 Early Christian and Byzantine Art
CLA 207 Early Roman Art
CLA 208 Art and Architecture of Imperial Rome
CLA 238 Greece, Land of the Gods
CLA 240 Archaeological Interpretation
CLA 365 Topics Archaeology I
CLA 366 Topics Archaeology II
FIN 235 Museology
FIN 388 / HIS 298 Museums and Communities
PHI 346 Topics in Philosophy of Art
PHI 364 Topics in Postmodern Philosophy
RSC 237 Film and Religion
FIN 292 / SOC 291 Sociology of Art

## History and Global Studies

## Faculty

## Gordon Barker,

B.A. (McGill), M.A., Ph.D. (William and Mary) Professor

## Cristian Berco,

B.A. (Toronto), M.A., Ph.D. (Arizona); Professor Chair of the Department
Jean L. Manore,
B.A. (Western), M.A., Ph.D. (Ottawa); Professor

David Webster,
B.A. (York), M.A., Ph.D. (British Columbia)

Professor

## Program Overview

In an increasingly compartmentalized and specialized world, historical study is one of the best ways to promote an ability to synthesize information, to expand cultural awareness, and to gain access to the many creative ways in which humans have responded to the challenges which face them. In addition, historical study deepens a number of specific skills which are invaluable assets for graduates entering the labour market and taking on the duties of citizenship, such as the ability to think critically, to devise strategies, to solve complex problems, to engage in research, and to present conclusions in an organized, reasoned and coherent way, both orally and in writing.

Graduates who have an ability to work across cultures and who are able to engage the world both as workers and as citizens are valued in today's increasingly globalized societies. The study of history is ideally suited to produce such individuals. The Department of History and Global Studies is keenly aware that the study of the past is not just about dates and events; it is primarily about developing in the individual student the ability to understand the world and to undertake reasoned, effective, well-informed action as a result. Our program is designed to enable you to accomplish these goals.

We believe that all graduates, whether Majors or Honours, must possess the ability to undertake self-directed intensive research, to be familiar with a wide range of past societies and to be aware of the interpretive and methodological options for analyzing them. Our programs are constructed to allow students to acquire a deep historical knowledge and to develop both historical and general, transferable skills.

Courses in our program lead to a B.A. with either an Honours, Major, or Minor in History and Global Studies. Students may also take advantage of pursuing historical studies in interdisciplinary contexts. Such programs include a B.A. in Arts Administration (Public History Concentration). Finally, students may also be interested in combining their History and Global Studies with a Minor in Pre-Law. Further information on those programs can be found in their respective section of the Academic Calendar.

## Areas of Specialization

The History and Global Studies Department offers introductory courses which cover the historical development of four main geographic areas: Canada, the United States, Europe and the Global South, often within a global context. In the senior years, courses reflect the research interests of its faculty, which include gender and family history, race relations, human rights, and Indigenous history, cultural theory, and the history of disease.

## PROGRAMS AND REQUIREMENTS

## Honours in History and Global Studies (61 credits)

An overall average of $70 \%$ is required to obtain an honours. The last 30 credits of the program must be completed at Bishop's.

The 61 credits required for the Honours degree must include:

| Program Requirements <br> Honours |  |  |
| :--- | :--- | :--- |
| Calendar Category | Courses | Credits |
| Introductory Courses | 2 out of: | 6 |
|  | HIS 104 |  |
|  | HIS 105 |  |
|  | HIS 108 |  |
|  | HIS 109 |  |
| Historiography and Methods | HIS 101 | 1 |
|  | HIS 200 | 3 |
|  | HIS 240 | 3 |
| Global Courses | 3 courses | 9 |
| National Histories | 1 Canada Course | 3 |
|  | 1 US Course | 3 |
|  | 1 Europe Course | 3 |
|  | 1 Asia, Lat Am, or <br> MENA Course | 3 |
| Professional Courses | 2 courses* <br> *May include one <br> internship | 6 |
| Seminars | 3 courses | 9 |
| Other | 1 Internship OR <br> 1 Senior Paper | 3 |
| Electives | 3 HIS xxx | 9 |
| Total | 21 courses | 61 credits |

## Major in History and Global Studies (49 credits) MAJHIS

A minimum of 24 credits must be completed at Bishop's, including:

| Program Requirements Major |  |  |
| :---: | :---: | :---: |
| Calendar Category | Courses | Credits |
| Introductory Courses | 2 out of: | 6 |
|  | HIS 104 |  |
|  | HIS 105 |  |
|  | HIS 108 |  |
|  | HIS 109 |  |
| Historiography and Methods | HIS 101 | 1 |
|  | HIS 200 | 3 |
|  | HIS 240 | 3 |
| Global Courses | 3 courses | 9 |
| National Histories | 1 Canada Course | 3 |
|  | 1 US Course | 3 |
|  | 1 Europe Course | 3 |
|  | 1 Asia, Lat Am, or MENA Course | 3 |
| Professional Courses | 1 course* <br> *May include one internship | 3 |
| Seminars | 2 courses | 6 |
| Electives | 2 HIS xxx | 6 |
| Total | 17 courses | 49 credits |

## Minor in History (24 credits)

MINHIS

- 9 credits in 100-level courses
- 9 credits in 200-level courses
- 6 additional credits of either history, cognate, or cross-listed courses


## Indigenous Studies Minor (24 credits)

## MININD

The Indigenous Studies Minor is designed to introduce students, through an interdisciplinary approach, to the global processes of cultural encounters and the resultant responses of resistance, accommodation, and adaptation. Students will be exposed to theories and world-wide applications of, and responses to, imperialism and colonialism, as well as decolonization and postcolonialism.

## Program prerequisites:

No specific prerequisites are necessary, except for the ESG courses which will be subject to the instructor's approval.

## Course sequence:

The Minor requires the completion of 24 credits; one of which must be either HIS 108, A Global History of Indigenous Peoples, ENG 123 Introduction to Indigenous Literatures or SOC 107 Indigenous and First Nations Peoples in Canada. The other mandatory course would be at the higher end of the student's scholastic learning. Students take either HIS 300 The Law of the Land: Indigenous Treaties with Canada or ENG 358 Approaches to Indigenous Literary Cultures in Canada. Both sets of mandatory courses are designed to give students the opportunity to experience Indigenous Studies within an interdisciplinary framework. The remaining 18 credits must be taken from the list of courses below. Note that the courses will be offered on a rotational basis so students may wish to consult with the course instructor or the ISM coordinator when considering their course options.

The required courses for the minor are the same for the 120 -credit and 90 -credit programs. $\backslash$

## ONE of the three following courses:

HIS 108 A Global History of Indigenous Peoples
SOC 107 Indigenous and First Nations Peoples in Canada
ENG 123 Introduction to Indigenous Literatures in Canada

## SIX (18 credits) from:

ABE 101 Abenaki Language and Culture I
ABE 102 Abenaki Language and Culture II
AGR 100 Intro to Sustainable Agriculture and Food Systems
AGR 172
AGR 344 Indigenous Food Systems
HIS 269 First Nations/Settler relations in Canada
HIS 255 History of Modern Southeast Asia
HIS 257 Latin America to 1800
HIS 279 The Middle East in the Twentieth Century
HIS 289 Transatlantic Slave Trade and the Atlantic World, 1500 to 1867
EDU 205 Education, Colonialism and De-Colonization
ENG 228 Introduction to Post-Colonial Literature
ENG 375 Colonial Narratives
ESG 266 Environmental Policy
ESG 350 Environmental Justice
POL 236 Introduction to Middle East Politics
SOC 207 Sociology of Indigenous-Settler Relations
SOC 233 Carceral Studies and Justice Clinic
SOC 235 Women and the Penal System
SOC 295 Social Inequalities
SOC 309 Advanced Seminar in Global Colonization and Decolonization

ONE of:
HIS 300

ENG 358

SOC 309
The Law of the Land: Indigenous Treaties in Canada Approaches to Indigenous Literary Cultures in Canada Advanced Seminar in Global Colonization and Decolonization

## Minor in Global Change

## ( 24 credits)

MINHGC

## Structure:

## 4 required courses:

Core foundational course: HIS 105.
Core course 2: HIS 277 (South: The Making of the Third World).
Core experiential learning course: HIS 376 Global Studies Internship or HIS 292 Research internship if no overseas placement is possible. Please contact the department chair for placement.
Capstone seminar: HIS 398 New Histories of the United Nations and Internationalism.

## 4 Electives from the following list:

All HIS courses in the current "Global" category: HIS 203, 206, 208, 228, 229, 238, 242, 245, 249, 268, 285, 289, 294, 296.

All HIS courses in the current Asia, Latin America, Middle East and North Africa category: HIS 255, 256, 257, 279, 283, 284, 291.
HIS 397 Asia: Constructing a Region

## Electives from other disciplines:

ECO 220 Economic Development I
ENG 228 Introduction to Post-Colonial Literature
FIH 314 Colonial and Postcolonial Issues in the Visual Arts
JSE 150 Japanese Society and Culture
RSC 101 Eastern Religions
RSC 124 Hinduism
RSC 125 Buddhism
RSC 126 Judaism
RSC 127 Islam
SOC 296 Globalism and Culture
SPA 313 Mexico: Civilization and Culture
SPA 314 The Central American Region and the Spanish Caribbean: Civilization and Culture
SPA 317 The Southern Cone and the Andean Region: Civilization and Culture
Any Language course from FRE (French), ABE (Abenaki), CHI (Mandarin), SPA (Spanish), GER (German), JSE (Japanese)

## North American Studies Minor ( 24 credits)

MINHNA

## Structure:

## 2 required courses:

Core foundational course: HIS 109, the New World. Provides the historical background and comparative aspect necessary to understand the creation and development of settler societies and states on the continent. This course will be a pre-requisite for continuing in the minor and should normally be taken before the electives.

Core Seminar: Any HIS seminar on Canada or US topics, with the requirement for a comparative essay addressing both Canada and the US, and/or an integrative paper on a North American Studies topic, which can be coded as HIS 399 Senior Research Paper

## 6 Electives from the following list:

## From History:

HIS 207 Canada 1867-1945
HIS 211 Canada Since 1945
HIS 214 The United States, 1877-1945
HIS 215 The United States to 1877
HIS 217 The United States Since 1945
HIS 228 The Cold War
HIS 241 Canada and the World
HIS 249 The Hispanic world in the 17th Century
HIS 250 The American Civil War and Reconstruction
HIS 256 Latin America from 1800
HIS 257 Latin America to 1800
HIS 262 Women in America, 1765-1920
HIS 263 Pre-industrial Quebec
HIS 265 Québec: Political Change and Industrialization
HIS 267 History of Sport in Canada
HIS 269 First Nations/Settler Relations in Canada
HIS 288 Women in 19th and 20th Century Canada
HIS 289 Trans-Atlantic Slave Trade and Atlantic World
HIS 290 Survey of the African American Experience
HIS 292 American Foreign Relations
HIS 296 The Americas: A Comparative Colonial History

## Electives from other disciplines:

FIH 225 Special Topic in Canadian Art
DRA 201 Contemporary Canadian Drama
DRA 202 Contemporary American Drama
ENG 108 The American Short Story
ENG 110 English Writers of Quebec
ENG 111 Canadian Short Story
ENG 123 Introduction to Indigenous Literatures in Canada
ENG 215 Introduction to North American Literatures CORE??
ENG 252 English-Canadian Literature to the First World War
ENG 253 English-Canadian Literature from the First World War to the Present
ENG 256 The Early Twentieth-Century American Novel
ENG 257 The Contemporary American Novel
ENG 275 The Contemporary Canadian Novel
ENG 281 Canadian Cinema
ENG 352 Canadian Literature and Theories of Globalization
ENG 353 Boy Meets Girl: Masculinity Scholarship, Feminist Theories, and American Literature
ENG 356 Early Nineteenth-Century American Literature
ENG 357 Late Nineteenth-Century American Literature
ENG 358 Approaches to Indigenous Literary Cultures in Canada
ENG 359 Approaches to Canadian Culture
ESG 162 Canada: A Nation of Regions
ESG 339 The Canadian Arctic
ESG 340 The Circumpolar North

| FRA 166 | Textes en contexte : initiation à la littérature <br> québécoise |
| :--- | :--- |
| FRA 181 | Histoire socioculturelle du Québec I |
| FRA 182 | Histoire socioculturelle du Québec II |
| FRA 187 | Introduction au théâtre québécois |
| FRA 255 | Littérature et cinéma au Québec |
| FRA 258 | La télévision : miroir de la société québécoise |
| FRA 259 | Québec Cinema |
| FRA 285 | Roman québécois contemporain |
| RSC 310 | The Religious Right in the United States: |
| POL 112 | From Moral Majority to FOX NEWS |
| Introduction to Canadian Politics |  |
| POL 213 | Canadian Sport System and Policy |
| POL 217 | Business and Government in Canada |
| POL 317 | Globalization and the Canadian State |
| POL 172 | Introduction to American Politics |
| POL 173 | U.S. Government and Public Policy |
| POL 343 | Canadian-American Relations |
| SPA 313 | Mexico: Civilization and Culture |
| SPA 332 | Introduction to Spanish American Literature |
| SOC 102 | Québec Society I |
| SOC 107 | Indigenous and First Nations Peoples in Canada |
| SOC 207 | Sociology of Indigenous-Settler Relations |

Any Language course from FRE (French), ABE (Abenaki), SPA (Spanish)

## Micro-Certificate on Racism and Resistance ( 15 credits)

This Micro-certificate aims to give students the opportunity to learn about the historical and current construction of racism and related systems of oppression and marginalization, in multiple geographic and chronological contexts. The program equally intends to raise the profile of resistance stories that are less known, in order to reject ahistorical excuses such as "he was a man of his times" by showing that in all historical moments, there has been active resistance to racism and oppression.

## Required foundational course:

SOC 190 Introduction to Postcolonial Study or
HIS 109 New World: The Americas to 1850

## Two courses from the following:

HIS 201 / CLA 201 Ancient Slavery and its Legacy
HIS 203 The History of Law Enforcement: From State to Social Justice
HIS 214 U.S. from 1877 to 1945
HIS 217 U.S. to 1877
HIS 241 Canada and the World in the 20th Century
HIS 250 American Civil War
HIS 257 Latin America to 1800
HIS 277 South: The Making of the Third World
HIS 289 The Transatlantic Slave Trade and the Atlantic World, 1500 to 1867
HIS 290 Survey of the African American Experience, 1619 to 1896
HIS 294 The Age of Imperialism, 1870-1914
CLA325 The Classical Tradition: the Use and Abuse of Classics

CLA336
ENG 239
SOC 233
SOC 245

Greeks, Romans, and Others
History of Feminist Theory
Carceral Studies and Justice Clinic

Required integrative experience ( 2 courses):
This requirement provides students with the chance to apply some of the analytical frameworks and methodologies from the previous introductory courses to higher-level research and practice.
Students may therefore choose one course from:
The following Seminars (all seminars require an original arti-cle-length research component)
HIS 307 The American Civil War
HIS 397 Asia: Constructing a Region
ENG 352 Globalization Theory and Canadian Literature
SOC 402 Honours I
For students who demonstrate the expertise and capability to do so, they may substitute a seminar with HIS 399 Senior Research Paper in History (on an appropriate topic, determined in consultation with supervisor)
And one Practical applied course from:
HIS 391 Archival or Institutional Internship (to be taken with an anti-racist organization)
HIS 392 Research Internship (research on a topic relevant to anti-racist work.)
SOC 304 Experiential Learning in Sociology II (Note: SOC 233 may be a pre-requisite; consult with the instructor)

## Micro- Certificate on Archives

## ( 15 credits)

MCEARC
This Micro-Certificate aims to give students the opportunity to earn a credential and good knowledge of archival creation, management and research
through an experiential learning micro-certificate that will boost job prospects for our graduates by providing them with experience in archiving and information management systems, both paper and digital.

## Required:

HIS 239 History and the Archives
HIS 275 Digital History
HIS 200 Historical Theories and Methods.
HIS 391 Archival or Institutional Internship
ENG 395 Women Writers \& their Archives.

## Micro-Certificate in Canadian Studies <br> (15 credits) <br> MCECAS

This Micro-Certificate aims to have students, both domestic and international, engage with the various ideas, myths, and presentations of Canada and in so doing explore the "great" questions of today and in the past: national development and progress, identity politics, race and racism, colonization and decolonization, gender, military involvement, social justice, climate change, etc. In exploring these ideas and issues, students will have a better understanding of the challenges Canada has faced and is facing. They will also be able to adapt to changing circumstances, as well as challenge existing circumstances in ways that address the pressing social and political issues of the day.

CDN 100 Introduction to Canadian Studies

DRA 201 Contemporary Canadian Drama
DRA 311,312,313
Production Dramaturgy

ENG 252 English-Canadian Literature to the First World War

ENG 253 English-Canadian Literature from the First World War to the Present

ENG 275 The Contemporary Canadian Novel
ENG 359 Approaches to Canadian Culture

FRA 166

FRA 181
FRA 182
FRA 187
FRA 208
Textes en contexte : Initiation de la littérature québécoise

FRA 255
Histoire socioculturelle du Québec I
Histoire socioculturelle du Québec II
Introduction au theatre québécois
Histoire du français au Québec
Litterature et cinema au Quebec
FRA 258 La télévision: miroir de la société québécoise
FRA 252 De la contreculture a la contestation ouverte :
les années 1960 et 1970

HIS 109
HIS 207
New World The Americas to 1850
Canada 1867-1945
HIS 211
Canada Since 1945
HIS 221
HIS 227

HIS 239
Pre-Confederation Canada
The Stuff of History:
An Introduction to Material Culture

HIS 240
History and the Archives

HIS 241
HIS 263
HIS 265

HIS 267
HIS 269
HIS 288
HIS 391

HIS 392

HIS 399

HIS 300

HIS 302
HIS 396

POL 112
Introduction to Canadian Politics
POL 118
POL 216
POL 214
POL 312
POL 317
POL 315
POL 318
POL 410

SPO 390 Sport and Social Inequality

## Double Counting

The maximum number of courses that can be double counted towards a History Major or History Honours degree is 4 courses. For a History Minor, the maximum number of courses is 2 .

## List of Courses

## Introductory Courses

HIS 104 The West in the World to 1750 3-3-0
An introduction to the major developments in Western history from the end of the ancient world to the eve of the French Revolution, focusing specifically on the interconnectedness of the West with the rest of the world. Topics will include the origins of Civilization in the Near East, classical Greece and Rome, medieval civilization and its breakdown in the Renaissance and the Reformation; European encounters with the Americas, and the Scientific Revolution and Enlightenment.

## HIS 105

## Introduction to Global Studies:

A Century of Conflict and Resistance
3-3-0
From the First World War to the present, the planet has faced multiple challenges political, economic, social, environmental, cultural, health-related, and many more. From the First World War and the "Spanish flu" until today, people have faced global processes and transformations, the rise of totalitarian movements, wars, cold wars and other conflicts, decolonization, economic crisis, genocides, racism, natural and man-made environmental disasters, pandemics and other challenges. They have responded with calls for human rights, global understanding, economic and ecological justice, the empowerment of women, and other movements. This course surveys the past century of conflict and resistance and introduces the field of global studies through close reading and critical inquiry into how the world got to where it is today, and how people have confronted global challenges
HIS 108 A Global History of Indigenous Peoples 3-3-0 This introductory course is designed to acquaint students with the global processes of contact and colonization through the presentation of colonial and post-colonial theory and the examination of specific case studies within Asia, Africa and North America. While largely historical in content, guest speakers and other resources will be used to expose students to interdisciplinary approaches to studying these continuing phenomena.
HIS 109
New World: The Americas to 1850
3-3-0
An introduction to the history of North and South America from the pre-Columbian era to the mid-19th century. The main topics include a survey of pre-Columbian civilizations, contact between native Americans and Europeans, the rise and fall of European empires in the Americas, the creation and growth of independent nation states in the New World.

## Historiography and Methods Courses

HIS 101 History Methods Lab
1-0-1
This lab introduces students to research methods in history through the use of tutorials and workshops. Topics to be covered include use of research databases, organization of research materials, reporting research results, and proper notation and referencing techniques.

## HIS 200 Historical Theories and Methods

3-3-0
This course will survey the discipline of history as a branch of human knowledge. It consists of two main components. The first section will provide a survey of the development of the western historical consciousness through a detailed study of classical, medieval, modern and postmodern texts. The second component will focus on practical problems in historical methodology through a study of the key works in the various historical subdisciplines, and through projects focusing on applied research and analytical techniques.
HIS 240
History and Heritage
3-3-0
This course is designed to introduce students to the practice and presentation of history in public institutions and spaces, such as museums, archives and historic sites. It will explore practical applications of history, the history vs heritage debates and the theoretical underpinnings of public history including the use and creation of memory, ideas of performativity and voice, and identity studies, and analytical techniques.

## Global Courses

HIS 201 /
CLA 201 Ancient Slavery and its Legacy
3-3-0
Slavery was ubiquitous in ancient Greece and Rome due largely to frequent warfare. This course will examine the ways that the institution of slavery influenced societal and class structures, the economies, and the moral attitudes of ancient Greek and Roman societies. We will also examine how ancient slavery influenced modern attitudes around slavery, and the differences between ancient and modern slavery.
Open to first-year students.
HIS 203 The History of Law Enforcement:

> From State to Social Justice

3-3-0
"Protect and Serve" are words that are used to epitomize police functions, but what is being protected and who is being served? The same questions could be asked of justice systems generally. Through multimedia presentations and group discussions, this course will explore these questions by presenting and examining case studies of policing and court proceedings within North America, Europe and Asia and elsewhere.
HIS 204 Playing the Past Understanding History
through games and simulations
3-3-0
Through games and simulations of past events, students play historical figures in order to understand major events in the past and significant historical processes. Students will use historical sources to simulate events such as the Black Death in medieval Europe, Indigenous-settler relations, the French revolution, Korean adaptation to European incursions, international responses to apartheid in South Africa and genocide in Rwanda, or global climate change conferences (games change from year to year). The course builds oral and written communication skills, understanding of the past and its relevance to today's issues

## HIS 206 The History of Night:

An Exploration of the 'Darker' Side of Life 3-3-0
Half of our existence as human beings resides in the night, and while most of that time is spent sleeping, the night has been a dominant presence in our waking lives as well. Night-time has historically been associated with criminality, ghosts and goblins, and sexual deviance, but the night-sky has also represented contemplation of eternity and our beginnings. This course will explore ideas of night as an historical subject of inquiry. It will examine the various ways that night has been culturally constructed as an object of fear but also as a place of inspiration and wonder.
HIS 208 History of Torture
3-3-0
From the mutilated body as a form of public warning in the pre-modern world and the use of legal torments in medieval trials to the extra judicial application of torture in various modern contexts, this course examines the history of torture from a thematic perspective. In particular, the course will analyze the changing factors that shaped how societies across time and space resorted to such extreme measures. This will include torture in jurisprudence and practice, changing scientific understandings of the body and pain, the involvement of state and nonstate actors in rationalizing and employing torture, and the sociocultural aspects informing its application, whether in the private or public realms.

HIS 209 Engaging with activists: the Global Studies webinar 3-3-0 A wave of activism for a better world is sweeping the global South ("Third World") but is little-known in Canada. Through online presentations from activists in Asia, Africa and Latin America, reading of their work and direct engagement with their ideas and actions, students will gain knowledge about activist struggles in global perspective, global justice themes, and activist strategies
HIS 228 Remembering Atrocities:
Truth and Reconciliation in Global Context
3-3-0
One major method for reconciling post-conflict societies to the traumatic memories of conflict in recent years has been the "truth commission." This course surveys truth and reconciliation commissions in throughout the world and the ways in which they are used to construct alternative national narratives in the search for usable pasts.
HIS 229 Human Rights and Humanitarian Organizations 3-3-0 Have non-governmental organizations made a difference? How have they interacted with and altered the international system? This course examines the border-crossing activities and influence of transnational human rights, humanitarian and other non-governmental organizations from 19th century struggles against colonialism to 20th century campaigns to ban land mines and promote universal human rights.
HIS 238
The Cold War in Global Context
3-3-0
This course will analyze the origins, evolution and consequences of the Cold War from the end of World War II to the collapse of the Berlin Wall. Among the topics to be studied are the ideological and geopolitical foundations of SovietAmerican antagonism, the assumptions and objectives of each bloc, the emergence of the Third World and the impact of Cold War on its evolution, the building of non-alignment and neutrality as responses to a bipolarized world, and political/ diplomatic competition and 'hot wars', in particular in Asia and Africa.
HIS 242 History of Animals: Prey, Predator and Partner 3-3-0
This course explores the various ways in which humans have interacted with animals throughout modern history. Human understandings of animals, whether as predators, prey or partners will be examined, as will changing societal attitudes over the treatment of animals, as reflected, for example, in the rise of animal welfare and animal rights organizations. While the focus will be on North America, examples from other continents may be included.
HIS 245 Global History of Water
3-3-0
Water's importance to human societies is pervasive, yet as an historical agent, it is little studied. This course seeks to correct that by examining, within a global context, water systems such as oceans, rivers and lakes and how they have shaped and supported cultures, economies and political territories. It will examine water systems as foundational myths, as coursed for food and energy resources and as vehicles for imperialist and nationalist aspirations.
HIS 249 The Hispanic World in the 17th Century
3-3-0
By 1600 , Spanish kings boasted that they ruled over an empire on which the sun never set referring to the vast territories they controlled in Europe, the Americas, and the Far East. Over the next century, internal demographic and economic crises as well as setbacks in war and trade would test the integrity of the empire. This course explores Hispanic societies and cultures, as they grappled with rapid change, unexpected pressures, and increasing global interconnectedness during the seventeenth century.

## HIS 268 Changing the World:

A Global History of Activism and Protest 3-3-0
For centuries people have tried to change the world in campaigns for human rights, peace, and the environment. How have they done so? When have they succeeded, and why? In this course, we examine activist movements in historical perspective, with a focus on the 20th century and attention to different parts of the world. Examples to be studied may include the anti-slavery movement, Indigenous rights campaigns, movements for decolonization, and 1960s protest movements on both sides of the Cold War divide.

## HIS 285 The Pacific World

3-3-0
Contacts and exchanges across the Pacific Ocean go back for centuries. As with other bodies of water, exchanges within the Pacific allow the region to be considered as a "world" unto itself that was also in contact with other world regions. The Pacific World surveys economic, political and social currents within the Pacific region over the past five centuries, with the emphasis on the 20th century and on contacts between North America and Asia during this period.

The Transatlantic Slave Trade and the Atlantic World, 1500 to 1867

3-3-0
This lecture course examines the development of the transatlantic slave trade and its role in the integration of the Atlantic World, 1500 to 1867 . Students will explore the growth of the trade, its impact on Africa, the rise of New World slavery in the Americas, its contribution to European and American expansion through to the second half of the 19th Century, and how the trade shaped social, cultural, economic, and racial development globally. Students will study the Transatlantic Trade's sources of slaves by age, gender, and country of origin, as well as recent documentation of disease, death, and slave rebellions on the Middle Passage. The abolition of the trade will be dealt with. Issues of memory and reconciliation will also be addressed.
HIS 294 The Age of Imperialism, 1870-1914 3-3-0
Few nineteenth-century topics have generated more controversy than the establishing of a European overseas hegemony. The course examines the motives behind expansion within the metropolitan states and the impact of the European presence on those areas of the globe which became the objects of a European embrace.
HIS 296 The Americas: A Comparative Colonial History 3-3-0 Examines the rise and fall of the great European empires in the Americas, with an emphasis on the process of implantation and growth of new societies. Topics to be examined include contact with Native peoples, demographic features of early colonial populations, slavery and colonial economies, the rise of colonial elites and their challenge to imperial authority.

## National Histories and Area Surveys

## Canada

CDN100 Introduction to Canadian Studies
3-3-0
This course surveys the political, economic, social and cultural development of Canada from the pre-contact period to the twentieth century. The objective of the course is to provide students with an introduction to the study of Canada by thinking through narratives about origins, identities, and destinies. For that conversation to be meaningful, energetic, and controversial, students will explore basic facts and the recurring themes in Canadian history, culture, and society.

## HIS 207

Canada 1867-1945
3-3-0
This course will trace the political, social, economic, and cultural history of the Canadian federation from 1867 to 1945 . Special attention will be given to such topics as geographic expansion, relations among the founding peoples, the Riel Rebellions, the move towards Canadian autonomy, foreign relations, the world wars, the role of women in society, the Great Depression, and politics and reform movements.

HIS 211
Canada Since 1945
3-3-0
This course will trace the political, social, economic, and cultural history of Canada since the end of World War Two. Special attention will be given to such topics as postwar economic prosperity, relations with the United States, the "golden age" of Canadian foreign policy, the baby-boomer generation, feminism and the rights of women, constitutional change, bilingualism, Pierre Trudeau, and multiculturalism.

HIS 221 Pre-Confederation Canada
3-3-0
A history of the various Canadian peoples and communities of pre-Confederation Canada beginning with First Nations through the establishment of FrenchCanadian society on the St Lawrence, the Anglo-American settlers of early Nova Scotia, the Loyalists of Ontario and the Maritime provinces, and including the migrants of the early nineteenth century. The focus of the course will be on social, economic, and cultural development.

## HIS 241 Canada and the World in the 20th Century

3-3-0
Topics include Canada and imperialism, the two world wars, the development of Canadian foreign policy, the golden age of Canadian diplomacy, Canada and the League of Nations, and the United Nations.

## HIS 263 Pre-Industrial Quebec 1608-1840 <br> 3-3-0

This course traces the establishment, growth and eventual decline of traditional French-Canadian society in the St. Lawrence valley from the founding of New France in 1608 to the end of the eighteenth century. Topics to be explored include the French-Amerindian relationship, the seigneurial regime and the role of the Church, the evolution of a market-oriented economy, the advent of representative institutions and the crisis of the colonial order in the first decades of the nineteenth century.

## HIS 265

Québec: Political Change and Industrialization 1840-1930

3-3-0
Beginning with the Union period, this course traces the main political, economic and social developments of an age marked by Confederation, the growing conflicts between French and English Canada, and successive waves of industrialization and urbanization. The course will also deal with cultural development in this period, with particular emphasis on the struggle between liberalism and traditional nationalism.

HIS 267
History of Sport in Canada
3-3-0
This course will examine the development of Indigenous, recreational, and professional sports in Canada. It will include examinations of specific themes within sports history such as gender, race and colonialism, and it will examine sport's contributions to the creation of national identities. Additionally, it will provide an historical view of specific contemporary issues like violence and drug use in sports, and its use as an agent of international diplomacy.
HIS 269 First Nations/Settler Relations in Canada 3-3-0
Through a variety of lectures, readings and films, this course will focus on the legal and political issues and events that have shaped First Nations/settler relations from 1763 to the present. Topics to be examined include: treaties, education, the Indian Act, Aboriginal protest movements and self-government negotiations.

HIS 288 Women in 19th and 20th Century Canada
3-3-0
This course will expose students to a variety of issues and experiences that have been historically relevant to women. Particular attention will be paid to the experiences of Aboriginal women, the impact of changing technology on women's work and women's participation in politics.
HIS 297 A History of Communications 3-3-0
Examines the evolution of different modes of communication from the advent of writing systems, through the printing press to the electronic media of the twentieth century. The focus of the course will be on the social, cultural, and economic impact of communication revolutions.

## United States

HIS 214 The United States, 1877-1945 3-3-0
This course will examine American political, social, cultural, economic, diplomatic, and military history from the era of reconstruction until the end of World War II. Special emphasis will be placed upon industrial growth, continental expansion, the closing of the frontier, urbanization, immigration, progressivism, the two world wars, the depression, and America's rise to global power.
HIS 215 The United States to 1877 3-3-0
This course traces the evolution of American society from the Colonial period, through the Revolutionary Era to the Civil War and Reconstruction. Among the topics to be discussed are the colonial experience, the forging of American republicanism, the Constitution, the growing complexity of ante-bellum society, the problem of slavery and the crisis of American federalism.
HIS 217 The United States Since $1945 \quad$ 3-3-0 This course will examine American political, social, cultural, economic, diplomatic, and military history since 1945 . Emphasis will be placed on the postwar economic boom, social change, civil rights, the cold war confrontation, the war on poverty, the 1960s and the war in Vietnam, Nixon and Watergate, Reaganism, and the culture wars of the 1990s.
HIS 250 The American Civil War and Reconstruction 3-3-0 This course surveys events contributing to sectional strife in the late antebellum period and explores scholarly interpretations of both the Civil War and Reconstruction. It also deals with how these formative periods have been remembered by succeeding generations of Americans. The course examines the military campaigns and draws on recent advances in social, cultural, and AfricanAmerican history to study the home fronts and identify social changes in both the North and South that help to provide new perspectives on Emancipation, the politics of Reconstruction, and the onset of Redemption.
HIS 262 Women in America, 1765-1920
3-3-0
This course focuses on the experience of women from colonial times to the adoption of the 19th Amendment in 1920. Drawing on the growing literature on Women's History and recent scholarship on gender, sexuality, and race, students will explore the conditions and challenges women faced during the Revolutionary Era through to the nineteenth century. The course will examine changing perceptions of gender, women's roles in the public and private spheres, female education and work experience, and the impacts of the Revolution, Civil War, and World War I on women. Slavery and women's demand for the franchise will also be discussed.

## Survey of the African American Experience,

 1619 to 18963-3-0
Through a combination of lectures and discussions, this course explores the African-American experience in slavery and freedom from colonial times to the late nineteenth century. Topics include: Indi frontier race relations, the Atlantic and domestic slave trade, industrial as well as plantation slavery, slave resistance and revolt, African-American religiosity and culture, free blacks in antebellum America, black abolitionism, the role of African Americans in the Civil War and Reconstruction, and the emergence of segregation. Drawing on recent advances in cultural and social history, the course also focuses on legislation, executive policy, and landmark Supreme Court opinions.
HIS 292 American Foreign Relations in the Twentieth Century 3-3-0 The participation of the United States in world affairs from the Spanish-American War to the Cold War: the conflict of ideals and self-interest, of ideology and realism, in the conduct of foreign policy.

## Europe

HIS 232 France: Enlightenment \& Revolution 3-3-0
An examination of eighteenth-century social and political controversies, key enlightenment figures and intellectual trends, the 1789 Revolution, counterrevolution, the Terror, and Napoleon.
HIS 234 The Italian Renaissance $\quad$ 3-3-0
This course will examine the Italian Renaissance as a pivotal moment for social, cultural, and political change. By examining the relationship between developments in art, literature, and popular mentalities of the time, the course will explore the Italian Renaissance as a catalyst for the broader transformation of the early modern world.
HIS 235 Europe's Queer History
3-3-0
This course explores the role of sexual and gender minorities in European history. Through lectures and discussions around primary texts, students will engage the changing configurations of European queerness. Topics of study will include processes of constructing sexual difference, the daily lives of queer historical actors, the use of political and judicial power to control sexuality, and the meanings of emerging forms of queer identity. The course will cover Classical Greece and Rome, medieval Christian Civilization, the emerging queer urban culture of Renaissance and Enlightenment Europe, and the modern transition to full-fledged queer subjectivity.
HIS 237 The Formation of Modern Europe 1815-1914 3-3-0 This course will provide an analysis of the concepts, forces and movements which created modern Europe in the nineteenth century. It will study the articulation of ideologies, the contest for emancipation in its various forms, the construction of new concepts of citizenship and political power, the technological and economic growth of the period, with its associated social tensions, and the growing rivalries among the emerging nation-states of the Continent. It will end by looking at the internal and external conflicts - socioeconomic, political, and cultural - that set the stage for the murderous struggles of the early 20th century.
HIS 244 Europe from the Black Death to the Wars of Religion 3-3-0 This course surveys early modern Europe, from the trauma of the Black Death in 1348 to the end of the Wars of Religion and the Peace of Westphalia in 1648. Over these three centuries, European society grappled with the slow loss of traditional medieval certainties in a rapidly changing world. Factors to explore include the Renaissance, the breakdown of the Christian unity, the encounter with the Americas, and the persecution of marginalized groups.
HIS 248
Tudor and Stuart Britain
3-3-0
This course will focus on the transition of Britain from an island divided between two feudal polities and societies into the first recognizably modern state. It will deal extensively with the stresses, resistances and complexities involved in this process. Themes which will be particularly highlighted include the rise of the Tudor state in England, religious conflicts in both island kingdoms and their impact on social and political developments, mid-17th century wars and civil wars, the transition to a market economy, popular culture and popular beliefs, and the emergence of a unified Britain as a European and world power. These themes will be explored through a combination of lectures, texts and the extensive use of documentary sources.
HIS 252
The Medieval Mediterranean World
3-3-0
This course explores the Medieval Mediterranean World from the historical perspectives of its three main regions: The Middle East, North Africa and Southern Europe. Themes to be examined include religion and politics, gender, and sexuality, as well as the production and transfer of knowledge.

HIS 253 A History of Medieval Europe
3-3-0
This course is an introduction to the history of Europe from the breakdown of the ancient world to the beginning of Modern Europe. After a survey of the Germanic, Roman and Christian roots of medieval society, special attention is given to those institutions and developments which characterized the civilization of the high Middle Ages: the 12th century renaissance, the Christian ideal, the medieval university, relations between church and state, feudal society, the crusades, chivalry and the medieval style in the fine arts.
HIS 280 Europe under the Dictators, 1917-1945
3-3-0
This course explores European history from the Russian Revolution to the Second World War by focusing on the brutal dictatorships that emerged in Bolshevik Russia, the Stalinist Soviet Union, Fascist Italy and Nazi Germany. Key themes include the principles of communist and fascist ideologies; the character and experiences of the dictators themselves (Lenin, Stalin, Mussolini and Hitler); the role of terror, state violence and resistance in everyday life in the Soviet Union, Italy and Germany; the responses of women and targeted minorities to state violence and oppression; the nature of the Second World War as an ideological conflict, including its ultimate horror of the Holocaust.
HIS 281 The Secret World: Spies, Saboteurs and Secret Agents 3-3-0
Secret intelligence, as an historical agent, is a large and controversial part of modern governance: we need to view it as an aspect of international statecraft, which raises legal, constitutional, and ethical issues. This course focuses upon the growth of the 'secret world' of modern intelligence communities across the twentieth century. It will consider: the creation of the modern intelligence community during the two World Wars and its massive expansion during the Cold War; the role of special operations and covert action (including state-sponsored assassination); the motivations and impact of spies and traitors, particularly the ideologically-driven agents working for the Soviet Union.
HIS 293 Cities: Urban Life and Society in Early Modern Europe 3-3-0 This course introduces students to some of the central issues in the study of early modern European urban history, and to the diverse possibilities of investigation available within it. Among the topics to be discussed are the relationships between citizens and the urban environment in which they lived, the organization of urban life, as well as the many faces of urban culture.
HIS 295 European Diplomacy since 1914
3-3-0
This course examines the international relations and foreign policies of the major European states from the beginning of World War I to the Cold War and the emergence of modern Europe.
Cross listed as POL 277

## Asia, Latin America, Middle East and North Africa (MENA)

HIS $255 \quad$ History of Modern Southeast Asia
3-3-0
The dozen countries south of China and east of India are diverse but nevertheless form a coherent region of study. In this course, the national experiences of each country are compared since about 1800 . Topics to be covered include the emergence of indigenous political units, trade, European and American colonial rule, the rise of nationalism, the impact of the Pacific War in the 1940s, economic development after independence, the creation of regional organizations, human rights, and environmental change.
HIS 256 Latin America 1800 to the Present
3-3-0
This course will survey the history of Latin America and the Caribbean from c. 1800 to the present day. The course will deal with the major social, economic and political processes of the period. The class will also provide insight into problems of development and underdevelopment as well as a discussion of the movements for social change.
HIS 257 Latin America to 1800 3-3-0 This course will provide a survey of the history of Latin America and the Caribbean from pre-Columbian times to the wars of independence. Topics to be explored include the nature and development of pre-Columbian cultures and civilizations, the impact of European contact and transatlantic migrations, the formation and evolution of colonial societies, economies and cultures, and the origins of national political movements in the late $18^{\text {th }}$ century.

The majority of the world's people live in the Global South, a region covering Africa, Asia, the Middle East, Latin America and the Pacific that is often called the "Third World." How was this region created and how has it been re-made over time? What are its key features? This course examines the origin, growth and evolution of the Global South with a stress on colonial legacies, economic development, social change and political assertion and non-alignment.
HIS 279 The Middle East in the Twentieth Century 3-3-0
The course is a study of the forces and events that have shaped the contemporary Middle East since the First World War. It explores the role played by Western colonial powers in forging a new political and territorial order in the region, the rise and growth of nationalism and the struggles for independence that marked the first half of the century. It examines the stormy relations between the Middle East and the West after the Second World War and the ways in which the involvement of major world powers in the area and internal regional developments molded the political evolution of the contemporary Middle East. Special attention will be given to the growing dominance of the United States, the resurgence of Islam, the Arab-Israeli conflict and the Gulf wars.

## HIS 283 A History of Chinese Civilization 3-3-0

This course introduces China's history and cultural heritage from antiquity to the $19^{\text {th }}$ century C.E. Political history, modes of governmental and socioeconomic organization, and developments in thought and religions will be examined in three major epochs: a formative age, from antiquity into the third century B.C.E.; an early imperial age, from the third century B.C.E. to the $10^{\text {th }}$ century C.E.; and a later imperial age, from the $10^{\text {th }}$ century C.E. to the late $18^{\text {th }}$ century C.E.
HIS $284 \quad$ History of Modern China
3-3-0
The course examines China's transformation into a modern nation-state. Topics to be discussed include China's four political revolutions, the role of Japanese aggression and civil war, the construction of an industrializing economy, as well as the transformation of Chinese society and culture.

## HIS 291 Women in the Islamic World 3-3-0

This course examines the history of the Islamic world from the pre-Islamic era to modern times, through women's lives. Following a mix of thematically and chronologically organized topics, this course covers key historical events, mainly in the Middle East and North Africa, such as women's status in early Arabia, gendered citizenship in the Islamic state and Islamism's contemporary debate over gender.

## Professional Courses

## HIS 225 /

FIN 235 Museology
3-3-0
An introduction to theoretical and practical aspects of museology. The history and function of art museums, collection and conservation, museum administration and the organization of exhibitions are treated in the course, which includes projects in exhibition management.
HIS 227

## The Stuff of History:

An Introduction to Material Culture
3-3-0
The purpose of this course is to expose students to the nature and role of material culture in various public history venues, notably museums and archives. Students will be introduced to theoretical and methodological approaches to material culture and gain experience in working with artifacts as historical evidence. Themes to be discussed include: provenance, artifact conservation, and the role they play in commemoration and preservation of historical memory. Assignments will include the creation of "artifact biographies" and essays on issues pertaining to material culture history.
HIS 236 /

## FIH 246

Public Art and Monuments
3-3-0
An exploration of art made for public spaces and public viewing taking into consideration aspects such as: site, natural environment or urban settings, commemoration and politics, the public sphere and the audience.
HIS 239 History and the Archives 3-3-0 Archives house the history that people access to find out about their past. It is in archives, they can discover their personal genealogy or the root causes of political or economic crises; it is there, they can recover the institutional or cultural memory of people, communities, or nations. How archivists collect, organize, and preserve this diversity of histories will be the focus of this course. Through lectures, readings and discussions, students will be introduced to the practices of archival sciences and management and will be provided with the necessary preparation for participating in HIS 391, as an archives intern.

HIS 275 Digital History
3-3-0
Digital history uses computers and other tools to analyze and present historical research. In ways that relate to current issues. This is a skills course on how to digitize and analyze textual and visual information; hare findings online through web sites, open access publishing and other methods; and apply historical methods to online information. No technological knowledge is required to enroll, but curiosity and a passion for telling stories digitally is an asset!
HIS 298 Museums and Communities
3-3-0
This inter-disciplinary lecture/seminar course offers students an introduction to a range of theoretical approaches and contemporary developments in the field of Museology. Through case studies and actual work with community groups, students will have the chance to experiment with key processes around critical museum work today (rational, documentation, mediation, scenography).
Cross listed as FIN 388

## Seminars

Pre-requisite for all 300-level History seminars is HIS 200 or permission of the instructor
HIS 300 The Law of the Land:
Indigenous Treaties with Canada
3-3-0
Foundational to Canada's geography, economy, and politics are the numerous treaties negotiated between it and the Indigenous Peoples who lived and live within its borders. Central to the treaties are differing interpretations as to who owns or controls Indigenous territories and who owns or controls the resources within them. This course, using settler documents, oral accounts, government legislation and court decisions, from the late 1700s to the present, will examine the historic understandings of the treaties and how they represent the "law of the land" within this country.
HIS 301 Colonial America
3-3-0
Examines through readings and seminar discussions, the social, economic, cultural and political development of the Anglo-American colonies to 1776 . Topics to be covered include the formation of colonial societies, the creation of slave and free economies, religious and political thought in transition, and the Anglo-American colonies as part of the British empire.
HIS 302 British North America 3-3-0
Examines the history of the British North American colonies from a regional and thematic perspective. Topics include economic growth in an imperial context, immigration, the rebellions in the Canadas, regional and ethnic identities, and relations with the United States.
HIS 306 Environment and Society in North America 3-3-0
This course traces the relationship Canadians and Americans have had with their environment within a political, economic and intellectual context. Intertwined with this history will be First Nations' views and issues with respect to the land and natural resources.
HIS 307 The American Civil War 3-3-0
A seminar course which will analyze both the cause of the conflict and its political, social, military, and diplomatic consequences.
HIS 338 War and Society in Europe, 1914-1945
3-3-0
The first half of the 20th century in Europe was unprecedented in terms of the extent and intensity of war-related destruction and general social turmoil. Through assigned readings and discussions, this seminar course examines the causes and the impact of violent conflict in this period.
HIS 353 The War in Vietnam
3-3-0
This course examines, through a series of seminars, the causes and events of the Vietnam War, its political and social impact on the United States, as well as its effects on international relations.
HIS 354 Gender and Sexuality in the Pre-Modern World 3-3-0 This seminar course examines both the construction and everyday practices of gender and sexuality before the rise of modern viewpoints and sensibilities on the subject. By looking at various cultural groups, discussions will focus on the legal, socio-economic, and cultural processes that shaped pre-modern understandings of these changing concepts. Issues such as the role of women in society, gender identity, masculinity/femininity, and marginalized sexual or gender practices will be analyzed taking into account the development of different perspectives within the historical profession.

HIS 393 Inquisitions, Law and Society
3-3-0
This seminar course focuses on the changing faces of inquisitorial practice, from the nascent medieval Inquisition and infamous characters like Bernard Gui to the modern papal version headed by Cardinal Ratzinger, not forgetting of course Torquemada's Spanish Inquisition and its less known Portuguese cousin. Relying on a thematic approach, the course will particularly examine the social and legal contexts of inquisitorial practice.
HIS 394 The Social History of Disease in the West
3-3-0
This seminar course will explore the construction of disease and its social and political repercussions by focusing on specific epidemics that have indelibly left their mark on the West. In particular, students will utilize primary sources within a corpus of historical literature to unravel the complex interactions brought about by epidemics such as the Black Death in Medieval Europe, Syphilis across the Early Modern World, Smallpox in the Americas, and most recently AIDS.

HIS 396 Public History
3-3-0
This course is designed to introduce students to both the theory and practice of public history by examining sources from both Canada and the United States. By focusing on the origins and current issues of the field and by highlighting certain public history domains such as government consulting, museums and heritage sites, and the media, students will learn about information management, the demands of the client-contractor relationship and the ethical issues and controversies which make public history exciting and challenging.
HIS 397 Asia: Constructing a Region
3-3-0
Asia was imagined by Europeans and constructed from outside; yet Asians have increasingly asserted "Asian ways." This course interrogates the idea of Asia and its shifting borders, from orientalism to the discourse of the "Pacific Rim" to panAsian and nationalist narratives that place China, Japan, India or Southeast Asian states at the centre. Stress is placed on decolonization, nationalism, economic development through modernization paradigms and their challengers, internal challenges to the developmentalist state, and the interplay of local and international currents.

HIS 398 New Histories of the United Nations and Global Studies

3-3-0
The United Nations has been derided as a useless talking shop, and praised as the best hope of humanity. This course aims to examine the UN, along with its predecessor and affiliated international organizations, on their own terms, as international actors in their own right. It exposes students to newer theoretical approaches in transnational history and highlights the role of international organizations in global politics, economics, and social relations.
Prerequisite: HIS 200 or HIS 277

## Internships and other Capstone Courses

HIS 376 Global Studies Internship $\quad \mathbf{6 - 6 - 0}$
Unpaid internship at an approved overseas organization under the joint supervision of organization staff and a member of faculty. Students will be evaluated on the completion of pre-established objectives which will include a written reflection component. The course requires some in-person preparation before departure. A reflection paper is expected after completion of the overseas experience. Note: American students on financial aid cannot take this course for credit Unpaid internship
Prerequisite: Permission from the instructor.
HIS 377 Teaching Internship in History 3-3-0
Unpaid internship working directly with a Bishop's professor. Students will assist in teaching the course through such tasks as leading discussion groups and develop teaching skills under the supervision of a member of faculty. Students will be evaluated on various scales including a reflection paper on their experience Prerequisite: Permission from the instructor.
HIS 391 Archival or Institutional Internship
3-3-0
Unpaid internship in a local archival repository or other institution under the joint supervision of an archivist or other representative and a member of faculty. Students will be evaluated on the completion of pre-established objectives and must be prepared to perform a variety of projects such as writing a major report, preparing an archival inventory or a finding aid.
Prerequisite: Permission of the public history coordinator.
HIS 392 Research Internship $\quad \mathbf{3 - 3 - 0}$
Unpaid internship under the supervision of a member of the department. The student will be responsible for undertaking research related activities in support of the research project of a faculty member.
Prerequisite: Permission from the instructor.

HIS 399 Senior Research Paper in History
3-3-0
Individualized research project in consultation with a faculty advisor. Students will be expected to make an original contribution to a topic through primary source research in relation to existing literature. The final product will be an article-length paper and a formal oral presentation to department faculty and other students. Prerequisite: Permission from the instructor.

## Independent Studies and Other Courses

HIS 286 Independent Studies for U2 Students
HIS 287 Independent Studies for U2 Students
HIS 299 Special Topics in History $\quad$ 3-3-0
A course that addresses the historical background of current headlines or special topics of contemporary interest for both History majors and other interested students. Topics vary from year to year and explore different regions, time periods, and methods.

## Cognate Courses

## Classics:

CLA 102, CLA 120, CLA 160, CLA 223, CLA 229, CLA 261
CLA 320, and CLA 336
Politics: Cognate courses must be selected in consultation with the Chair prior to registration in the course.
Psychology: PSY 342, PSY 443.
Religion, Society and Culture: RSC 257.
Sociology: SOC 207.
Students in the Major or Honours program may count a maximum of 12 credits in cognate courses toward the degree. Students in the Minor program may count a maximum of 6 credits in cognate courses toward the degree.

## College of Liberal Arts

## Faculty

## Jenn Cianca,

B.A. (Bishop's), M.A. Ph.D. (Toronto);

Full Professor

## Bruce Gilbert,

B.A. (Toronto), M.A. (McGill), Ph.D. (Penn.State); Full Professor Coordinator for the Minor in Social Justice and Citizenship
Chair of the Department
Program Overview
The Bishop's College of Liberal Arts offers a dynamic, interdisciplinary major for particularly motivated students interested in the intensive study of the great themes and texts of Western civilization. The heart of the program can be found in the Liberal Arts Foundation Courses (LIB 210-218), each of which engages, in an interdisciplinary and historical way, with a key theme in the history of the human condition. Students enrolled in Liberal Arts are welcomed into Bishop's with an introductory seminar (LIB 100) and culminate their experience with a final year seminar (LIB 300) or any LIB $300-\mathrm{level}$ course. Liberal Arts majors also complete a series of requirements from other departments (see below), for a total of 63 credits. Students in the Liberal Arts Program are encouraged to complete a second Major in a discipline of their choice. Many courses may be counted towards the requirements of both Majors. The Liberal Arts Program also offers an Honours degree, which requires the completion of a comprehensive research thesis.

## Programs

## Liberal Arts Honours Degree (69 credits)

HONLIB
Liberal Arts students may opt to complete an Honours Degree. In addition to fulfilling the normal requirements for a Major (see below), an Honours student must register in the fall of his or her final year for LIB 400 (fall) and LIB 401 (winter), the requirement of which is to write a supervised, interdisciplinary Honours thesis. In keeping with Divisional regulations, at least a $70 \%$ average, calculated on the best 60 credits in the program, would be necessary for graduation with an Honours degree.

> LIB $400 \quad$ Honours Thesis I
> Each student researches, writes, and publically defends a comprehensive thesis proposal under the supervision of at least two faculty members who are from different departments. Students must receive a grade of $75 \%$ or higher in this course in order to be permitted to register for LIB 401 .

LIB 401 Honours Thesis II 3-3-0 Based on the proposal completed in LIB 400, students draft, revise, and defend an honours thesis, as examined by all members of the Liberal Arts Program and relevant supervisors.
Prerequisite: LIB 400

## Liberal Arts Major (63 credits) <br> MAJLIB

## Required Courses

## 1. First Year Seminar Course

First year Liberal Arts majors enroll in this course in their first semester at Bishop's, or the first time it is offered after they become a Liberal Arts Major.
LIB 100 Encountering Western Culture 3-3-1 By means of a study of classic texts in the Western cultural tradition, this class develops foundational skills in interdisciplinary education, reading, writing, conversation and seminar presentation.

## 2. Other First Year Requirements

- All Liberal Arts Majors must take CLA 100 or CLA 101 along with LIB 100, a Liberal Arts Foundation Course, and two electives in their first semester at Bishop's.
- All Liberal Arts Majors must take an Introduction to Philosophy and an Introduction to Religion, Society and Culture course, as well as a Liberal Arts Foundation Course and two electives in their second semester at Bishop's.
- All Liberal Arts Majors must take FIH 101 or FIH 102 and HIS 104 in their first or second year at Bishop's. These courses help students get a sense of the broad scope of Western history (as opposed to more specialized historical topics).


## 3. Liberal Arts Foundation Courses

Normally Liberal Arts students are enrolled in one Liberal Arts Foundation Course in each semester of their degree. Majors must complete at least four Foundation Course credits. Each course has a "culture" or "social change" component that requires students to attend and discuss a selection of plays, musical performances, art exhibitions, social justice events, or lectures each semester.
LIB 210 Eros, Love and Desire
LIB 211 Empire and Its Enemies
LIB 212 In Search of Justice
LIB 213 The Use and Abuse of Beauty
LIB 214 Ecological Crisis and the Struggle for
Environmental Justice
LIB 215 Ecstasy and Excess
LIB 216/
RSC 208 The Divine and Ultimate Concern
LIB 217 Space, Place \& the Human Experience
LIB 218 The History and Philosophy of Science

## 4. Graduating Year Seminar

LIB 300 Interdisciplinary Seminar $\quad$ 3-3-0
A team-taught seminar which will explore a selected theme of interdisciplinary interest.

## 5. Language Requirement

Liberal Arts Majors are required to take three courses in any single language (ancient or modern) and must have begun their language requirements by their second year.

## 6. Social Sciences Requirement

Any two Social Science courses ( 6 credits).

## 7. Natural Sciences/Mathematics Requirement

At least one course ( 3 credits) from Natural Sciences or Mathematics.

## 8. Humanities Breadth/Depth Requirements

Liberal Arts Majors are required to take 6 credits from two of the following three departments: Drama, English, Music.
Liberal Arts Majors are also required to take three 300 -level courses in the Humanities (including LIB capstone course).

## List of Courses

## Liberal Arts Foundation Courses

LIB 210 Eros, Love and Desire

3-3-0
When Plato wrote that eros is "giving birth in beauty," he sparked a debate that has lasted millennia. Does the erotic lead us upwards toward wisdom, truth, and love of thy neighbour? Or is eros the chaotic, anti-social, and even destructive force of Dionysian rapture? This course will explore these and other classic theories of eros, love and desire.
LIB 211 Empire and its Enemies
3-3-0
"The sun never sets in my empire," said Spanish King Carlos I in the 16th century-a phrase adopted by the British to signal not only the planetary breadth of their imperial achievement, but also the divine, solar blessing conferred on their conquests by God. What is this imperial aspiration, the desire to dominate? Why is Western history in a sense the history of empires constructed and empires resisted and destroyed? This course will trace the imperial aspiration and its enemies from the Roman city-state to the British nation-state to the eclipse of the state altogether by the modern capitalist corporation. It will analyze the various forms and modes of dominance and resistance up to and including the non-state actors of today.
LIB 212
In Search of Justice
3-3-0
"Let justice roll down like water, and righteousness like an ever flowing stream." So cried the prophet Amos, echoed thousands of years later when Martin Luther King insisted that "Power at its best is love implementing the demands of justice!" This course will explore the changing and always contested meaning of justice in its many forms in Western history. Is justice little more than the ancient Greek claim that one should "do good to one's friends, and harm to one's enemies"? Or is there a universal form of justice that recognizes civil rights and social justice for the poor, women, racial and ethnic minorities, gays and lesbians, and other marginalized peoples?

## LIB 213 The Use and Abuse of Beauty

3-3-0
French writer Stendhal said in the 19th century that "beauty is the promise of happiness" and, upon seeing the beauty of Florence, he wondrously proclaimed, "I was in a sort of ecstasy... absorbed in the contemplation of sublime beauty ... Everything spoke so vividly to my soul." Yet only decades later his compatriot, poet Arthur Rimbaud, claimed that he wanted to "abuse" beauty, for he found it "bitter." Dadaist and surrealist artist Tristan Tzara went even further, "I have a mad and starry desire to assassinate beauty..." Does Tzara signal not only a dramatic change in Western art, but the claim that all forms of harmony and beauty, including the personal and the political, are conservative. Or is the beautiful in some important sense still of what we might call "transcendent" importance to human life? This course will explore the fate of the beautiful, from the Greeks to 21st century life.

## LIB 214

Ecological Crisis and the Struggle for Environmental Justice

3-3-0
Global warming, mass extinction and runaway pollution by toxic waste, plastics and other contaminants are only the most widely publicized aspects of what scientists agree is an ecological crisis that affects everyone and everything on the Earth. Paradoxically, nature and wilderness are not only necessary conditions for human well-being, but also have been amongst the greatest sources of our spiritual and artistic inspiration for centuries. Given that new generations will play a decisive role in addressing this crisis, this course will explore international dimensions of the historical, philosophical and cultural background of various forms of the human relationship with Nature, as well as examine some of the theories (agro-ecology, eco-feminism, deep ecology, emergence, etc.) and kinds of social movement organizing (Greenpeace, 350 org, Leap, etc.) that reply to the ecological crisis. The course will also introduce certain aspects of the experience and struggle of Indigenous peoples (e.g. Idle No More, Dakota Access, socioenvironmental rights in Brazil, etc.), including of the Abenaki First Nation, upon whose unceded land Bishop's University is built.
LIB 215 Ecstasy and Excess
3-3-0
"Joy is the most comprehensive mind...and it is from the summits of joy alone that each one will see the path to take." American philosopher Alphonso Lingis claims here that humanity is the "ecstatic" species. In Greek the ek-static means literally to be outside, even beyond oneself-to transcend what and who one is. In the last few hundred years, artists, writers, philosophers, and others have claimed that ecstasy and excess are not merely temporary states, but the very condition of human life. This course will explore a variety of theories, from the biological to the philosophical and the virtual, inspired by the idea that there is no "human nature" that we can't exceed.
LIB 216 /
RSC 208
The Divine and Ultimate Concern
3-3-0
The divine is that about which we are "ultimately concerned"-so said theologian Paul Tillich of Union Seminary in New York. Is this just a last-ditch attempt to salvage faith and spirituality in the midst of charges that religion is, at best, an "opiate of the masses" (Marx) and, at worst, "patently infantile" (Freud)? Or again, is the role of religion being taken over by its long time sister in spirit-art? This course will explore the troubled and passionate place of religious experience and the aesthetic in Western civilization.
LIB 217 Towards Spatial Justice 3-3-0 Building a just society is not only an ideological concern. Our bodies, our landscapes, and our built environments all participate in the production of just and unjust spaces. Inclusion and exclusion, belonging and exile, power and disenfranchisement, home and homelessness: all of these modes of being play out on the canvas of our place and our body. In this course, we will examine cultural and social theories of placemaking and investigate the powerful relationship between our politics and our places, with a view to understanding how we can build justice into our environments.
LIB 218 The History and Philosophy of Science 3-3-0 Modern science has given us an unprecedented understanding of Nature - and with it, the power to transform our natural environment irrevocably. This interdisciplinary course will explore some key themes In the history and philosophy of science: the origins and evolution of Modern science; its roots in pre-Modern philosophy of Nature; its flowering in the Scientific Revolution; the Modern era, in which science ad scientific method is often taken for granted as the authoritative paradigm for all knowledge; the enormous contribution of science to society, economy and culture; as well as some important criticisms of the extent and character of scientific exploration of nature and human beings.

## Liberal Arts Thematic Seminar Courses

These courses are in-depth, interdisciplinary seminar courses on topics relevant to the program of study of Liberal Arts majors. Instructors and topics are determined each year.
LIB 222 Citizenship and Democratic Practice I
3-3-0
Students learn not only the role and importance of civil society organizations, such as social movements, community groups, NGOs, churches and so on, but also commit themselves to an ongoing supervised internship in one or more of these organizations in Lennoxville, Sherbrooke, the wider Eastern Townships or indeed in other parts of Canada or the world. At least one or both of these internship courses (depending on the demands of each internship) is required for the Minor in Social Justice and Citizenship.

LIB 223 Citizenship and Democratic Practice II 3-3-0
Students learn not only the role and importance of civil society organizations, such as social movements, community groups, NGOs, churches and so on, but also commit themselves to an ongoing supervised internship in one or more of these organizations in Lennoxville, Sherbrooke, the wider Eastern Townships or indeed in other parts of Canada or the world. At least one or both of these internship courses (depending on the demands of each internship) is required for the Minor in Social Justice and Citizenship.

LIB 270 /
ITA 270 Venice And Its Mystique 3-3-1*
"As the Twentieth century draws to a close, no one knows quite what to expect, if anything, of the future. There is a strong need for magic, for a place that is outside of time, for a postponement of reality. For Venice." -Gore Vidal
Once the crossroad of western and eastern civilizations, over the centuries Venice has been seen as the symbol of freedom and cosmopolitanism, but also as the city where artistic and cultural production can thrive. Venice surreal setting and the lushness of its artifacts have become emblematic of the cultural production of Western civilization, creating a unique landscape of unsurpassed aesthetic richness. It is in this exceptional urban scenery, that blends together water, art and culture, that this five-week course will take place. This language and culture course will provide students with a basic knowledge of Italian and familiarize them with the history and culture of one of the few cities that can fulfill our "need for magic," the "Serenissima." This course will be taught in English. Students who wish to count the course for Italian credit will submit their assignments in Italian and participate in certain additional activities in Italian.

## LIB 289 /

## GER 289 History and Memory in Berlin

3-3-1
This interdisciplinary course will explore (re)writings of German history by intellectuals and artists associated to Germany's capital, (re)writings which expose the flaws and fallacies of a nation's narrative. We will focus on the Weimar Republic, The Cold War and its aftermaths. Starting with a brief overview of Georg Simmel's sociological depiction of the metropolis, we will then look at how works from Weimar Berlin revealed not only the instability of the nation's founding myths but also the conflicts and contradictions which plagued the Weimar Republic (in literature, Benjamin, Brecht, Döblin; in visual arts, Dix, Grosz, Kirchner). We will then turn to the Cold War and its aftermaths, to examine how memory gets (de) constructed in literary texts and songs (Brussig, Grünbein, Bargeld), films (Wings of Desire, Berlin is in Germany), and architecture (Jewish Museum, Holocaust Memorial, documentary Berlin Babylon).
No prerequisite

## LIB 290 /

GER 290 (De) constructing Identity in Vienna 3-3-1
In this course, we will examine how intellectuals and artists associated to Austria's capital have been, ever since the advent of Freudian psychoanalysis, enlightened witnesses to their nation's identity construction. Our interdisciplinary approach will enable us to investigate our topic from a variety of angles, focusing on two periods of Austrian history, namely the period around 1900 and the aftermaths of WWII. Starting with a brief introduction not only to Freud's psychoanalytical theories but also to his sociological observations (Civilization and its Discontents), we will look at how literature (Schnitzler, Hofmannsthal, Zweig) and visual arts (Klimt, Schiele, Kokoschka), in the Vienna of 1900, portrayed the individual's unconscious desires and torments. We will then turn to the aftermaths of WWII and study literary texts (Bachmann, Bernhard, Jelinek) and films (Haneke) which engage with Austrian history and culture, with a nation's repressed feelings of anger and guilt.
No prerequisite

GER 292 /
LIB 292 The Problem of Education 3-3-1
For Madame de Staël, a French contemporary of Goethe's, Germany was das Land der Dichter und Denker, whereas for many of our contemporaries, Germany is but the land of National-Socialism. How could the people who gave the world the humanistic ideal of Bildung also be the people who devised concentration camps and the final solution? It is impossible to avoid this question when engaging with German Studies. This course will examine the pedagogical intent, philosophy of education and critique of German education present in the works of some of the most important German writers from the Enlightenment to the post-war period. By means of discussions of fiction and non-fiction, we will explore the German discourse on education, from the early bourgeois ideal of Bildung (Lessing, Humboldt, Goethe, Schiller) to Nietzsche's critique of educational institutions, from Musil's depiction of the joyless life of a Gymnasium to later explorations (by Brecht, E. Mann, Arendt - but also in films by Riefenstahl, Schlöndorff and Haneke) of the perversion of the ideal of education in 20th century Germany, namely under National-Socialism.
GER 293 /
LIB 293
In Sickness and in Health
3-3-1
This interdisciplinary course will explore representations of sickness and health in the German cultural tradition. Literary masterpieces from various epochs will be analyzed: Hartman von Aue's Poor Heinrich (ca. 1190) will serve as springboard for discussion of the human body's vulnerability to sickness and ultimate mortality. Poetical, philosophical and medical texts of the Romantic era (Novalis, Heine, Schelling, Hahnemann) displaying how pathology opens the path to self-knowledge and creativity will be examined. Seminal essays such as Nietzsche's The Case of Wagner and Susan Sontag's Illness as Metaphor will serve as theoretical framework for the study of 20th and 21st centuries' key examples of narratives dealing with the topics of tuberculosis (Thomas Mann's Tristan, Thomas Bernhard's The Cold), cancer (Christa Wolf's The Quest for Christa T.), anorexia (Franz Kafka's A Hunger Artist), depression (Christine Lavant's Memoirs from a Madhouse) and dystopian state surveillance of humans' health (Juli Zeh's The Method). Social and political movements that have helped shape German mentality towards health (Freikörperkultur, Lebensreform) as well as their darker fascists counterparts (degenerate art, Aktion T4) will also be exposed.

## GER296 /

LIB296
Goethe's Faust
3-3-1
In this course, students will read THE masterpiece of German literature: Goethe's Faust, in Walter Kaufmann's celebrated translation. We will read all of part I and excerpts of part II. We will look at Goethe's sources - from the early Historia von Dr. Johann Fausten (based on a true story - that of a magician) to travelling puppet shows about Faust which Goethe enjoyed as a child. This discussion of sources will enable us to see just how modern Goethe's Faust is - in its (for the time) subversive depictions of God, the devil, the quest for knowledge and the pleasures of the flesh. We will also examine how the story of Faust never ceased to inspire artists who created countless variations on the theme - from Gounod's opera to Murnau's expressionist film, from Mann's novel Doktor Faustus to Kurosawa's film Ikiru, to name but a few.

## GER297/

LIB297

## From Cosmos to Chaos:

## The Discourse on Nature in German Culture

3-3-1
The aim of this interdisciplinary course is twofold: to introduce students to the emergence and evolution of ecological thought in German culture from the Middle Ages to the present, and to reflect on the resonance of such thought in 21st century's most pressing preoccupation: the destruction of our planet and the extinction of species. Particular attention will be given to the spiritual, artistic, and literary expression of humans' relationship to nature. Among the famous thinkers and artists whose works will be studied are Hildegard von Bingen, Alexander von Humboldt, Joseph Beuys, W. G. Sebald.

## LIB 303 /

RSC 303 On the Road Again: Pilgrimage in Theory and Practice 3-3-0 This course will examine pilgrimage as embodied experience, with a special focus on contemporary pilgrimage. Cross-cultural approaches and historical context will be key to understanding the current fascination with walking as transformative practice. Theories of identity, community, and belonging will also be discussed. Students will have an opportunity to participate in a short pilgrimage.

LIB 370 Social Movements and Social Change in Brazil
3-3-0
This is an intensive spring course that takes place primarily in Brazil. It consists of the study of Brazilian social movements, politics and culture in general and, in particular, the Movement of Landless Rural Workers (Movimento de Trabalhadores Rurais Sem Terra do Brasil, or MST). The course will include
studies of and meetings with Brazilian social movements, labour unions, political parties, universities and other actors on the political scene in Brazil. The period in Brazil would be preceded and followed by research and essay assignments. The language of instruction is English, and all meetings in Brazil are translated.

## LIB 371 New Orleans: Art, Activism and Culture

 before and after Katrina3-3-0
Students in this course prepare for a March study trip to New Orleans by researching the history, politics and culture of this extraordinary city. There will be a particular focus on the aftermath of the Hurricane Katrina disaster, including activist and social movement organizing in response to the destruction of whole neighborhoods. On the basis of their research and experiences in New Orleans, each student will write and submit a comprehensive research paper at the end of the semester.
LIB 384 /
ITA 384 Dante's Divine Comedy 3-3-1
According to Dante Alighieri, none of us can salve the wound in our souls without undertaking our own pilgrimage to hell, without purging our sins, and without letting go of ourselves so as to experience ecstatic union with the foundations of all reality. This is perhaps what James Joyce meant when he said that Dante is his "spiritual food" and that reading Dante is like "looking at the sun." This course will unfold some of the philosophical, poetic, religious, political and historical richness of Dante's allegorical masterpiece and lead each student on a personal journey through Inferno, Purgatorio and Paradiso.

## LIB 385 /

ITA 385 Giovanni Boccaccio's Decameron 3-3-0
One of the most enjoyable, beloved and imitated literary works of all time, the Decameron by Giovanni Boccaccio (1313-1375) is among the great texts whose influence transcends the written word and expands into almost every area of the Western cultural tradition. A book on love according to Boccaccio himself, this masterpiece is in reality an audacious and sophisticated human comedy that brings to the reader the richness of life. Through an in-depth reading of the short stories that comprise the work, this course will explore the philosophical, historical, political, social, and gender related issues that arise from this literary masterpiece. We will also examine the enormous influence this text had on future visual and performative arts, literature and music
LIB 386 Montaigne's Essays and Early Modern Humanities 3-3-0 This course is an exploration of Michel Montaigne's Essays, published in three volumes between 1580-1588. Framed by his celebrated phrase "What do I know?" (Que sais-je?), these writings examine the human condition with the fresh outlook of early modern skepticism. As Montaigne searches for moral examples that can assist us in the conduct of our lives, he gives surprising new inflexions to traditional wisdom on topics such as love, friendship, education, conversation, health, and dying.
LIB 387 Exuberant Beauty: The Poetry, Visual Art and Philosophy of William Blake

3-3-0
For William Blake beauty is not the delicate, the calm or the harmonious, but the exuberant. For Blake the pathway to wisdom is not prudence or fear, but excess. This extraordinary poet, visual artist and philosopher created a new world of culture in which humans are fulfilled only in the creative imagination. His poetry, engravings and paintings are unique and brilliant and his philosophy stakes revolutionary claims that are usually credited to later thinkers like Hegel and Nietzsche. In this course we will study Blake's works with an eye to understanding his philosophical originality. We will follow the great literary critic Northrop Frye's advice to "Read Blake or go to hell."

## Liberal Arts Independent Studies

LIB 230 Independent Study I $\quad \mathbf{3 - 3 - 0}$
Students pursue a course of directed, independent study on an interdisciplinary theme under the supervision of a faculty member.
LIB 231 Independent Study II $\quad \mathbf{3 - 3 - 0}$
Students pursue a course of directed, independent study on an interdisciplinary theme under the supervision of a faculty member.
LIB 232 Independent Study III $\quad \mathbf{3 - 3 - 0}$
Students pursue a course of directed, independent study on an interdisciplinary theme under the supervision of a faculty member.
LIB 233 Independent Study IV 3-3-0
Students pursue a course of directed, independent study on an interdisciplinary theme under the supervision of a faculty member.

## Minor in Social Justice and Citizenship ( 24 credits)

A healthy democracy requires that its citizens have the insight and skills to freely govern themselves. The university is therefore a vital institution to democracy. Accordingly, Bishop's University is committed to help its students learn "to practice the respectful and informed dialogue that sustains democracy [and] to exercise the rights and responsibilities of good citizenship."

While each department and program in the university implements this principle in its own way, the Minor in Social Justice and Citizenship takes this goal as its explicit aim. Each student enrolled in this minor completes eight courses ( 24 credits) made up of a mandatory theory course (LIB 212 or LIB 217), an internship of either one or two semesters (LIB 222 and LIB 223) and a further five or six courses chosen from the elective list below. In LIB 212, "In Search of Justice," students seek to understand the nature of human freedom, the institutions and cultural practices that seek to cultivate it, and the forms of power and manipulation that threaten and undermine it. In LIB 217, "Space, Place, and the Human Experience," students explore questions of social justice inside a spatial framework, in an attempt to understand how place making and spatial structures play into the formation of society \& culture. In LIB 222 and LIB 223, "Citizenship and Democratic Practice," students not only learn about the agents of democratic practice in civil society (individuals, artistic and cultural communities, social movements, NGOs, churches, etc) but are also required to participate in supervised internships in local and regional community and civil society organizations. Students in the Minor are also encouraged to do at least one of the international courses affiliated with the Minor: LIB 370 Social Movements and Social Change in Brazil, LIB 371 New Orleans: Art, Activism and Culture before and after Katrina, and SLP 399 Praxis Malawi.

## Elective Course List for the Social Justice Minor:

Students must take any five or six courses from this list, albeit no more than three from any one department (depending on their internship).
CLA 325 The Classic Tradition;
CLA/HIS 201 Ancient Slavery and its Legacy
CLA/POL 223 Democracy in the Ancient World
EDU 305 Multicultural Education
ENG 239 Feminist Literary Theory
ENG 342 Romanticism and Revolution
ESG 224 Human Impact on the Environment
ESG 248 Geography of Food
ESG 266 Environmental Policy
ESG 268 Global Environmental Change
ESG 350 Environmental Justice
ESG 366 Ethical Perspectives on Environmental Problems
HIS 108 A Global History of Indigenous Peoples
HIS 217 The United States Since 1945
HIS 269 First Nations/Settler Relations in Canada
LIB 211 Empire and Its Enemies
LIB 214 Human Will and Nature
LIB 370 Social Movements and Social Change In Brazil
LIB 371 New Orleans: Art, Activism and Culture before and after Katrina
PHI 100 On the Way to the Good Life
PHI 104 The Hopes and Conflicts of Social and Political Life
PHI 349 Topics in Feminist Philosophy
PHI 324 The Philosophy and Politics of Karl Marx
PHI 240 Topics in Ethics
PHI 342 Seminar in Social and Political Philosophy
PHI 366 Critical Theory
RSC 200 Politics and Religion
SOC 207 Sociology of Indigenous-Settler Relations
SOC 208 Criminology
SOC 235 Women and Penal System
SOC 250 Social movements
SOC 260 Community
SOC 292 Social Policy
SOC 298 Social Problems
SOC 309 Advanced Seminar in Global Colonization and Decolonization
SOC 340 Women: Theory and Idelogy
SOC 396 Post-Colonial Theory
WOM 101 Introduction to Women's Studies
WOM 201 Women and Feminism in Canada
WOM 305 Women and Feminism: Selected Topics
SLP 399 Situated Learning and Praxis (Praxis Malawi)

# Modern Languages, Literatures and Cultures 

## Faculty

Modern Languages, Literatures and Cultures German Studies
Sophie Boyer,
B.A., M.A., Ph.D. (McGill); Professor

Hispanic Studies
Gilberto D'Escoubet,
B.A., M.A. (U de Montréal), Senior Instructor
Jordan Tronsgard,
B.A., M.A. (Calgary), Ph.D. (Ottawa) Professor
Chair of the Department

## Program Overview

The Department of Modern Languages, Literatures, and Cultures offers an Honours program in Hispanic Studies, Majors in Modern Languages and Hispanic Studies, International Major in German, as well as Concentrations/Minors in German Studies, Hispanic Studies, and Japanese Studies (International Concentration).

## Major in Modern Languages

## (60 credits)

MAJMLA
This major is equally divided between two language Concentrations (30/30), which will be specified on the student's final transcript. The languages available for Concentrations are German, Japanese and Spanish, as well as English Language Studies or French (offered by the Département des études françaises et québécoises). Students may choose one of their Concentrations in English or French, but completing Concentrations in English and French is not permitted for the Major in Modern Languages. The requirements and courses for the Concentrations within the Major in Modern Languages are listed under each specific language.

## * Please note:

1) MLA 101 is a graduation requirement for all Majors in the MLA department and will normally be taken in the first year of studies. The following students are exempt from this requirement: Students with an Honours in Hispanic Studies, students taking the Major in Hispanic Studies on a part-time basis, students with more than one major. Other students may request an exemption if there is not sufficient space in their curricula.
2) Students registered in the Major in Modern Languages must declare their two languages by the end of their first year.
3) Students enrolled in all Majors in the MLA department must successfully complete the Information Retrieval and Evaluation Skills for the Humanities Lab (ILT 102). This one-credit laboratory course should be taken in the first or second year of studies.
4) Unless otherwise stated, all courses will be taught in the language specified in the course title.

## Adjunct Concentration in Modern Languages (30 credits)

A 10-course concentration in a single language:

## German Studies

CONAGS

## Hispanic Studies <br> CONAHS

Japanese Studies (International) CONAJS

## French (intermediate or advanced levels) CONAFS

This is effectively one half of a two-language Major in Modern Languages with the typical 10 -course concentration. The specifications for this adjunct concentration are identical to those currently specified in the different language sections in the academic calendar.

## Certificate in Modern Languages (30 credits)

The Certificate is designed to provide part-time students with a working knowledge of at least two of the modern languages taught at Bishop's University: French, German, Japanese, and/or Spanish.

Students must choose two main languages of concentration and complete at least 12 credits in each. The 6 remaining credits may be taken in either of these two main languages, or in one other language. Please consult course offerings under individual languages within the Department of Modern Languages, Literatures, and Cultures, the Department of English and the Département des études françaises et québécoises.

Credits obtained in the certificate program may be applied towards a degree program in Modern Languages; however, students may not be enrolled simultaneously in a degree program and in the Certificate in Modern Languages.

## Modern Languages Course

MLA (Modern Languages) courses are offered by the Department of Modern Languages, Literatures and Cultures through the collaboration of the different language sections. These courses may be taken as free electives or as part of the Humanities Divisional Requirement.
MLA 101 Issues in Language and Linguistics $\quad$ 3-3-0 Does language actually shape the world that surrounds us? Are there definitive language universals? Are all languages of equal complexity? This course will provide students with an overview of issues in the study of languages. It will introduce them to basic concepts in linguistics, familiarize them with the main components of language and common pursuits of linguists, and expose them to some long-standing debates in the field.
No prerequisite
Anti-requisite: EDU105

# Abenaki Language Courses 

ABE 101 Abenaki Language and Culture I 3-3-1
This course will provide an introduction to the basic elements of the Abenaki language and culture. Emphasis will be on basic grammatical structures and vocabulary, listening comprehension and pronunciation. Key features of Abenaki culture will be examined, such as oral tradition, historical and cultural context. No prerequisite
ABE 102 Abenaki Language and Culture II
3-3-1
This course is a continuation of ABE101. Further development of vocabulary building, grammar skills and fluency. Further exploration of various aspects of Abenaki culture.
Prerequisite: ABE 101 or equivalent

## Mandarin Courses

CHI 101 Introduction to Modern Chinese (Mandarin) I 3-3-1 Designed for students with no previous knowledge of Chinese, this course provides an introduction to the basic elements of modern vernacular (Mandarin) Chinese. Emphasis will be on basic grammar, vocabulary, written characters, listening comprehension and pronunciation. Students will also be introduced to various aspects of Chinese culture.

CHI 102 Introduction to Modern Chinese (Mandarin) II 3-3-1
This course is a continuation of Chinese 101a. It aims at further developing listening, speaking, reading and writing skills in Modern Chinese.
Prerequisite: CHI 101 or equivalent

## German Studies

The German Studies Section offers courses in the following categories: Language, Literature, Cinema and Civilization, and Independent Studies. Third-year course offerings will vary regularly over a three-year cycle.

All Literature, Cinema, and Civilization courses are offered in English. Students in a German Studies program who have completed at least GER 102 or equivalent will attend a weekly labhour where texts will be read and discussed in German. Written work in German will also be assigned within the framework of the lab-hour.

## Please note:

(1) Majors in Modern Languages with the German Studies Conce ntrations, adjunct concentration students, and minors in German Studies must take GER 203 Intermediate German: Topics and Texts I concurrently with GER 201 Intermediate German Language I, and GER 204 Intermediate German: Topics and Texts II concurrently with GER 202 Intermediate German Language II.
(2) Independent Study Courses are only offered to students with high academic standing.

## Major in Modern Languages with concentration in German Studies (30 credits for concentration)

MAJMLA + CONGER

The German Studies Concentration in the Major in Modern Languages consists of 30 credits with a minimum of 6 credits in literature, film and civilization courses.

## International Major in German Studies (45 credits) <br> MAJGIN

The International Major in German Studies requires the completion of 42 credits in German and MLA 101. Among the German credits, at least 12 must be drawn from courses in literature, film and civilization. With departmental approval, some of these courses may be double-counted for another program concentration.

This program requires the completion of German course credits abroad; students are thus expected to spend at least one semester at a partner university in Germany. Students should apply for acceptance to this program before going on exchange, and they should consult with the Head of the German Studies Section regarding the selection of appropriate exchange courses.

## Minor in German Studies ( 24 credits) <br> International Exchange

MINGER

All Bishop's students wishing to take part in the International Exchange Program to Germany have to provide proof that they possess a level of proficiency in German adequate to the demands of such a program in one of two ways: 1-certification by Bishop's German Studies Section or, 2-an official certification issued by the Goethe Institut called TestDaF (Test Deutsch als Fremdsprache). The German Studies section certifies that a student has an adequate degree of proficiency in German once they have completed 18 credits at our institution if they are beginners without a previous background in German (GER 101, GER 102, GER 201, GER 202, GER 203, and GER 204) [ Students who have previously taken German-language courses at the CEGEP or High School levels are excused from the first two courses (GER 101, GER 102)] Students who do not wish to take German-language courses at Bishop's can provide proof of their proficiency level in German by producing a document that attests they have successfully passed the TestDaF. In order to qualify for the exchange program, the student has to pass the TestDaF at the B2 (Advanced level), which is the equivalent of the curricular plan at Bishop's. Under no circumstances can the German Studies section certify the level of proficiency of students who have not completed the courses required by its curricular plan.

## List of German Courses

## Language Courses

GER 100 Introductory German Language I-II: Intensive Course 6-6-2 This course covers the contents of GER 101 and GER 102 in one semester. No prerequisite
GER 101 Introductory German Language I 3-3-1
This course provides students with a sound basis for learning German as it is used in spoken and written communication today within the context of Germanspeaking culture. It also familiarizes students with contemporary life and culture in German-speaking countries. Language laboratory exercises are included.
No prerequisite
GER 102 Introductory German Language II $\quad \mathbf{3 - 3} \mathbf{1}$ Continuation of GER 101. This course offers systematic practice in the four language skills of listening, speaking, reading, and writing. It also provides a firm foundation in the basic elements of German grammar. Language laboratory exercises are included.
Prerequisite: GER 101 or equivalent

GER 201 Intermediate German Language I
3-3-1
This course is designed to increase students' ability to function in German. It offers a comprehensive review of German grammar through written and oral assignments. Authentic cultural texts and video activities, as well as the systematic development of vocabulary, help students further develop their communicative skills. Language laboratory exercises are included.
Prerequisite: GER 100 or GER 102 or equivalent
GER 202 Intermediate German Language II
3-3-1
Continuation of GER 201. Further emphasis on active vocabulary building and grammar review. Language laboratory exercises are included.
Prerequisite: GER 201 or equivalent
GER 203 Intermediate German: Topics and Texts I 3-3-0
The purpose of this course is to provide students with an authentic context for the assimilation of vocabulary and culture necessary for oral and written communication. Methodology includes the use of dialogues, journalistic and literary texts, video and audio material on specific topics relevant to the Germanspeaking world.
Prerequisite: GER 100 or GER 102 or equivalent
GER 204 Intermediate German: Topics and Texts II 3-3-0
Continuation of GER 203. Further emphasis on written assignments and speaking activities such as small group discussions and oral reports.
Prerequisites: GER 201 and GER 203 or equivalent

## GER 301 Advanced German Language: Reading and Translating

German I 3-3-1
This practical course will introduce students to reading and translating German. We will read a contemporary novel in German. We will also practice translating shorter German texts of different genres into English (students may be allowed to translate into French). This course will enable students to enrich their vocabulary, review German grammar, familiarize themselves with translation from German and develop their cultural competency with regard to the German-speaking world. Language laboratory exercises are included.
Prerequisites: GER 202 and GER 204 or equivalent
GER 302
Advanced German Language:
Reading and Translating German II
3-3-1
Continuation of GER 301. Language laboratory exercises are included.
Prerequisite: GER 301 or equivalent
GER 303 Advanced German Language:
Language and Culture I
3-3-1
This course provides students with a review of German grammar as well as an overview of German history and culture. This course will enable students to review and practice grammatical structures previously learned and to develop their cultural competency by engaging with key developments within German-speaking cultures, including aspects of history, philosophy, literature, music and visual arts. Language laboratory exercises are included.
Prerequisites: GER 202 and 204 or equivalent
GER 304 Advanced German Language:
Language and Culture II
3-3-1
Continuation of GER 303. Language laboratory exercises are included.
Prerequisite: GER 303 or equivalent
GER 305 Advanced German Language:
Language, Literature and Film I
3-3-1
This course provides students with a review of German grammar as well as an overview of German literature and German cinema. This course will enable students to review and practice grammatical structures previously learned and to acquaint themselves with key German-language texts and films. Language laboratory exercises are included.
Prerequisites: GER 202 and GER 204 or equivalent
GER 306 Advanced German Language:
Language, Literature and Film II
3-3-1
Continuation of GER 305. Language laboratory exercises are included.
Prerequisite: GER 305 or equivalent

## Literature, Cinema, and Civilization Courses

## GER 235 Gods and Heroes, Devils and Witches: Introduction to German Literature and Culture <br> 3-3-1

This course provides students with an introduction to German literature and culture, from the Middle Ages to the end of the 19th century. The selected texts depict popular characters that have shaped, inspired and influenced the German national narrative. Students will get acquainted with Germanic mythology, the story of Dr. Faustus, popular fairy tales and operas by Richard Wagner, amongst others. It will examine a representative selection of German literary masterpieces from various periods and genres.
No prerequisite
GER 250 German History in Recent German Films
3-3-1
This course will explore how the German past (fascism, terrorism, communism) is depicted in recent German films. Students will get acquainted with key events of German history in the 20th century, with key developments in recent German cinema and with Germany's national narrative at the beginning of the 21 st century. This involves viewing and critiquing films in class.
No prerequisite
GER 270 Introduction to German Film
3-3-4
This course provides an overview of the different movements that shaped the history of the German cinema: from expressionism to the new German comedy, from the Oberhausen manifesto to the Defa film industry of the former GDR. The ways in which film and its imagery reflect key features of Germany's recent past and present will be examined and discussed. Prominent directors to be studied may include Murnau, Lang, Staudte, Fassbinder, Wenders, Dörrie, Carow, Wolf, vonTrotta and others.
No prerequisite
GER 271 Rebels with a Cause: East German Cinema
3-3-4
This course explores the history of East German cinema through the films produced by the state-owned studios of the DEFA (Deutsche Film-Aktiengesellschaft) from 1946 to 1992, and focuses on the following issues: the possibilities and limitations of socialist realism; censorship; the pursuit of individual freedom; gender and sexuality. A diversity of film genres will be studied including rubble films (Trümmerfilme), westerns, science fiction, and musicals. Attention will also be drawn to the post-Wende film production from directors who express nostalgia, Ostalgie, for life in the former GDR.
No prerequisite

## GER 289 /

LIB 289 History and Memory in Berlin 3-3-1
This interdisciplinary course will explore (re)writings of German history by intellectuals and artists associated to Germany's capital, (re)writings which expose the flaws and fallacies of a nation's narrative. We will focus on the Weimar Republic, The Cold War and its aftermaths. Starting with a brief overview of Georg Simmel's sociological depiction of the metropolis, we will then look at how works from Weimar Berlin revealed not only the instability of the nation's founding myths but also the conflicts and contradictions which plagued the Weimar Republic (in literature, Benjamin, Brecht, Döblin; in visual arts, Dix, Grosz, Kirchner). We will then turn to the Cold War and its aftermaths, to examine how memory gets (de) constructed in literary texts and songs (Brussig, Grünbein, Bargeld), films (Wings of Desire, Berlin is in Germany), and architecture (Jewish Museum, Holocaust Memorial, documentary Berlin Babylon).
No prerequisite
GER 290 /
$\begin{array}{lrr}\text { LIB } 290 & \text { (De) constructing Identity in Vienna } \\ \text { In this course, we will examine how intellectuals and artists associated to Austria's }\end{array}$ In this course, we will examine how intellectuals and artists associated to Austria's capital have been, ever since the advent of Freudian psychoanalysis, enlightened witnesses to their nation's identity construction. Our interdisciplinary approach will enable us to investigate our topic from a variety of angles, focusing on two periods of Austrian history, namely the period around 1900 and the aftermaths of WWII. Starting with a brief introduction not only to Freud's psychoanalytical theories but also to his sociological observations (Civilization and its Discontents), we will look at how literature (Schnitzler, Hofmannsthal, Zweig) and visual arts (Klimt, Schiele, Kokoschka), in the Vienna of 1900, portrayed the individual's unconscious desires and torments. We will then turn to the aftermaths of WWII and study literary texts (Bachmann, Bernhard, Jelinek) and films (Haneke) which engage with Austrian history and culture, with a nation's repressed feelings of anger and guilt.
No prerequisite

War, Sex, and Crime:
Weimar Germany's Culture of Crisis
3-3-1
This course explores one of the most troubling, yet creative periods within German culture: the interwar years (1918-1939). Its aim is to provide students with a historical and aesthetic understanding of Weimar's artistic production, focusing mainly on literature. Attention will first be given to the traumatic experience of World War I and the ensuing father-son conflict. We will then turn to the rise of Berlin as metropolis and its many outsider figures, most importantly the criminal. A variety of works will be examined in which the criminal, and particularly the sex offender, both mirrors modernity's alienated individual and embodies the porous boundaries between the "normal" and the "abnormal". Works to be studied may include: Remarque's All Quiet on the Western Front, Ungar's The Maimed, Kafka's The Judgment, Döblin's Berlin Alexanderplatz, Kolmar's A Jewish Mother from Berlin, Lang's M.
No prerequisite
GER 292 /
LIB 292 The Problem of Education 3-3-1
For Madame de Staël, a French contemporary of Goethe's, Germany was das Land der Dichter und Denker, whereas for many of our contemporaries, Germany is but the land of National-Socialism. How could the people who gave the world the humanistic ideal of Bildung also be the people who devised concentration camps and the final solution? It is impossible to avoid this question when engaging with German Studies. This course will examine the pedagogical intent, philosophy of education and critique of German education present in the works of some of the most important German writers from the Enlightenment to the post-war period. By means of discussions of fiction and non-fiction, we will explore the German discourse on education, from the early bourgeois ideal of Bildung (Lessing, Humboldt, Goethe, Schiller) to Nietzsche's critique of educational institutions, from Musil's depiction of the joyless life of a Gymnasium to later explorations (by Brecht, E. Mann, Arendt - but also in films by Riefenstahl, Schlöndorff and Haneke) of the perversion of the ideal of education in 20th century Germany, namely under National-Socialism.
GER 293 /
LIB 293
In Sickness and in Health
3-3-1
This interdisciplinary course will explore representations of sickness and health in the German cultural tradition. Literary masterpieces from various epochs will be analyzed: Hartman von Aue's Poor Heinrich (ca. 1190) will serve as springboard for discussion of the human body's vulnerability to sickness and ultimate mortality. Poetical, philosophical and medical texts of the Romantic era (Novalis, Heine, Schelling, Hahnemann) displaying how pathology opens the path to self-knowledge and creativity will be examined. Seminal essays such as Nietzsche's The Case of Wagner and Susan Sontag's Illness as Metaphor will serve as theoretical framework for the study of 20th and 21st centuries' key examples of narratives dealing with the topics of tuberculosis (Thomas Mann's Tristan, Thomas Bernhard's The Cold), cancer (Christa Wolf's The Quest for Christa T.), anorexia (Franz Kafka's A Hunger Artist), depression (Christine Lavant's Memoirs from a Madhouse) and dystopian state surveillance of humans' health (Juli Zeh's The Method). Social and political movements that have helped shape German mentality towards health (Freikörperkultur, Lebensreform) as well as their darker fascists counterparts (degenerate art, Aktion T4) will also be exposed.
GER 296 /
LIB 296
Goethe's Faust
3-3-1
In this course, students will read THE masterpiece of German literature: Goethe's Faust, in Walter Kaufmann's celebrated translation. We will read all of part I and excerpts of part II. We will look at Goethe's sources - from the early Historia von Dr. Johann Fausten (based on a true story - that of a magician) to travelling puppet shows about Faust which Goethe enjoyed as a child. This discussion of sources will enable us to see just how modern Goethe's Faust is - in its (for the time) subversive depictions of God, the devil, the quest for knowledge and the pleasures of the flesh. We will also examine how the story of Faust never ceased to inspire artists who created countless variations on the theme - from Gounod's opera to Murnau's expressionist film, from Mann's novel Doktor Faustus to Kurosawa's film Ikiru, to name but a few.

From Cosmos to Chaos:
The Discourse on Nature in German Culture The aim of this interdisciplinary course is twofold: to introduce students to the emergence and evolution of ecological thought in German culture from the Middle Ages to the present, and to reflect on the resonance of such thought in 21 st century's most pressing preoccupation: the destruction of our planet and the extinction of species. Particular attention will be given to the spiritual, artistic, and literary expression of humans' relationship to nature. Among the famous thinkers and artists whose works will be studied are Hildegard von Bingen, Alexander von Humboldt, Joseph Beuys, W. G. Sebald.

## Independent Study Courses

GER 315 Independent Study I $\quad \mathbf{3 - 0 - 0}$
Advanced level projects within the area of German language, literature or civilization.
Prerequisite: Permission of Instructor
GER 316 Independent Study II 3-0-0
Advanced level projects within the area of German language, literature or civilization.
Prerequisite: Permission of Instructor
GER 317 Independent Study III 3-0-0
Advanced level projects within the area of German language, literature or civilization.
Prerequisite: Permission of Instructor
GER 318 Independent Study IV $\mathbf{3 - 0 - 0}$
Advanced level projects within the area of German language, literature or civilization.
Prerequisite: Permission of Instructor

## Hispanic Studies

All courses are taught in Spanish and fall into the areas of language, civilization and culture, linguistics, and literature. The Hispanic Studies Section strongly encourages students with an Honours or Major in Hispanic Studies to spend an immersion semester abroad (Spain, Argentina, Chile, Mexico, etc.) The following programs are offered: Honours in Hispanic Studies ( 60 credits), Major in Hispanic Studies (42 credits), Concentration in Hispanic Studies as part of the Major in Modern Languages or adjunct to another major (30 credits), Minor in Hispanic Studies ( 24 credits), and Certificate in Hispanic Studies (30 credits).

## Please note:

- For all programs, standard course requirements are indicated for beginner-level students. Students who have already attained a degree of competence in Spanish will be required to replace lower-level courses with higher-level courses to complete program requirements.
- Students who have completed a Spanish course or are taking a course at a certain level (200-level, 300-level) may not take courses at a lower level without permission
- Independent Studies courses are offered only to students with high academic standings and in consultation with the professor
- Placement: Students with the following profiles are not required to undergo a placement evaluation and can simply register themselves in the corresponding course(s) or contact the Chair of the Modern Languages department to have them registered. Any placement inquires can also be directed to the Chair of the department

| Experience | Placement at BU |
| :--- | :--- |
| No previous experience, <br> high school Spanish, or <br> CEGEP Intro. Spanish I | SPA 100 or SPA 101 |
| CEGEP Intro. Spanish II or CEGEP <br> Intermediate Spanish I | SPA 201 and 203 |
| CEGEP Intermediate Spanish II or <br> more advanced | SPA 202 and 204, <br> SPA 325 |

## Honours in Hispanic Studies (60 credits)

The Honours in Hispanic Studies adds 18 credits to a Major in Hispanic Studies for a total of 60 credits:

## Required courses:

SPA 443 Advanced Research Methods: Honours Thesis Proposal (3 credits)
SPA 444 Honours Thesis (3 credits)
SPA 435 Directed readings and Research I (3 credits)
SPA 436 Directed readings and Research II (3 credits)
Students must also take an additional 6 SPA credits at the 300-level in order to fulfill the 60 credit requirement.

To qualify for the Honours program, students must have a cumulative average of at least $80 \%$ in the Hispanic Studies Major program and have permission from the Hispanic Studies section. Admission into SPA 444 Honours Thesis requires an average of at least 75\% in SPA 443 Advanced Research Methods: Honours Thesis Proposal.

## Major in Hispanic Studies (45 credits*)

MAJHSP
Hispanic Studies Majors are required to complete 42 credits in Spanish and MLA 101. *Students with a Major in Hispanic Studies and another full major and students who are pursuing Hispanic Studies Major on a part-time basis are exempt from the MLA 101 requirement.
SPA 101 Beginner Spanish Language I
SPA 102 Spanish Language II
SPA 201 Intermediate Spanish Language I
SPA 202 Intermediate Spanish Language II
SPA 203 Intermediate Spanish Conversation, Composition, and Cultures I
SPA 204 Intermediate Spanish Conversation, Composition, and Cultures II
SPA 301 Advanced Spanish: Topics and Texts I
SPA 302 Advanced Spanish: Topics and Texts II

## Any two of the following:

SPA 331 Introduction to Peninsular Literature
SPA 332 Introduction to Spanish American Literature
SPA 342 Seminar in Literature
Plus at least four additional 300 or 400 level SPA courses as part of the 42 SPA credits required

## Major in Modern Languages with concentration in Hispanic Studies (30 credits for concentration) <br> MAJMLA+CONHSP

SPA 101
SPA 102
SPA 201
SPA 202
SPA 203

SPA 204
SPA 301
SPA 302
SPA 331
SPA 332
Introduction to Spanish American Literature
Plus at least two additional 300 or 400 level SPA courses as part of the 30 SPA credits required

## Minor Hispanic Studies (24 credits)

## SPA 101 Beginner Spanish Language I

SPA 102 Beginner Spanish Language II
SPA 201 Intermediate Spanish Language I
SPA 202 Intermediate Spanish Language II
SPA 203 Intermediate Spanish Conversation, Composition, and Cultures I
OR
SPA 204 Intermediate Spanish Conversation, Composition, and Cultures II
SPA 301 Advanced Spanish: Topics and Texts I OR SPA 302 Advanced Spanish: Topics and Texts II
Plus at least two additional 300 or 400 level SPA courses as part of the 24 SPA credits required

## Certificate in Hispanic Studies (30 credits)

CONHSP
SPA 101
Beginner Spanish Language I
SPA 102 Beginner Spanish Language II
SPA 201 Intermediate Spanish Language I
SPA 203 Intermediate Spanish Conversation, Composition, and Cultures
SPA 202 Intermediate Spanish Language II
SPA 204 Intermediate Spanish Conversation, Composition, and Cultures II
SPA 301 Advanced Spanish Language: Topics and Texts I
SPA 302 Advanced Spanish Language: Topics and Texts II
And two additional 300 level SPA courses

## International Exchange

Students who wish to participate in the International Exchange Program in a Spanish-speaking country and who require proof of Spanish competency to do so must complete SPA 202 and/or SPA 204 or have a DELE (Diploma de Español Lengua Extranjera) certificate at the B2 level. Under no circumstances can the Hispanic Studies Section certify the level of proficiency of students who have not completed these requirements.

## List of Spanish Courses

## Language Courses

SPA 100 Beginner Spanish Language I-II $\quad$ 6-6-0
The course covers the contents of SPA 101 and SPA 102 in one semester. Language of instruction: Spanish.
SPA 101 Beginner Spanish Language I $\quad$ 3-3-0
The course is designed for students with little or no background in Spanish. Speaking skills are developed with an orientation to real-life tasks and genuine communication. Listening exercises help students recognize words, phrases, and patterns in spoken Spanish. Reading comprehension and written communication are introduced through in-class and at-home activities
SPA 102 Beginner Spanish Language II 3-3-0
This course is a continuation of Beginner Spanish Language I (SPA 101)
Prerequisite: SPA 101 or permission from the instructor
SPA 200 Intermediate Spanish Language I-II
The course covers the contents of SPA 201 and SPA 202 in one semester. Language of instruction: Spanish.
Prerequisite: SPA 100 or SPA 102 or permission from the instructor
SPA 201 Intermediate Spanish Language I $\quad \mathbf{3 - 3 - 0}$
This course provides an in-depth understanding of the Spanish language for students who have completed SPA 102, or who have basic proficiency in Spanish. It offers a comprehensive review of Spanish grammar and emphasis is placed on using the acquired language. Students will be able to communicate their own ideas more easily with enhanced written and oral communication. Language audio exercises are included. Language of instruction: Spanish.
Prerequisite: SPA 100 or SPA 102 or permission from the instructor
SPA 202 Intermediate Spanish Language II
3-3-0
This course is a continuation of SPA 201. Language of instruction: Spanish.
Prerequisite: SPA 201 or permission from the instructor
SPA 203
Intermediate Spanish Conversation, Composition, and Cultures I

3-3-0
This course is designed to complement Intermediate Spanish Language I (SPA 201) through the study of Hispanic Cultures with specific attention given to oral communication, listening comprehension, written communication, and reading comprehension. Students will analyze and discuss written and aural texts from the Spanish-speaking world including the close reading of a novel, and will practice grammar concepts covered in SPA 201 through conversation and written activities. Language of Instruction: Spanish.
Prerequisite: SPA 100 or SPA 102 or permission from the instructor
SPA 204 Intermediate Spanish Conversation,

> Composition, and Cultures II

3-3-0
This course is designed to complement Intermediate Spanish Language II (SPA 202) through the study of Hispanic Cultures with specific attention given to oral communication, listening comprehension, written communication, and reading comprehension. Students will analyze and discuss written and aural texts from the Spanish-speaking world including the close reading of a novel, and will practice grammar concepts covered in SPA 202 through conversation and written activities Prerequisite: SPA 201 or SPA 203 or permission from the instructor
SPA 301 Advanced Spanish: Topics and Texts I 3-3-0
The purpose of this course is to develop linguistic competence using the Hispanic world as a focus for class discussion, grammar review, and introduction to Hispanic social contexts and texts. Course materials may also include films, interviews, selections from the press, as well as literary or historical readings.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor

SPA 302 Advanced Spanish: Topics and Texts II 3-3-0
This course continues to reinforce the practice of oral and written communication in Spanish through topics in contemporary cultural materials from Spain and Spanish American countries. Students will focus on refining pronunciation and developing vocabulary. Course work involves grammar review and practice writing.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor

## Civilization and Culture

SPA 311 Spain: Civilization and Culture
3-3-0
The course examines Spain through its Roman, Arab, Jewish and Christian history, and through its literature, art, language and customs. The objective of the course is an understanding of present-day Spanish culture and society. The use of compact discs, CDrom and video will complement the information from the textbook. Prerequisite: SPA 202 or SPA 204 or permission from the instructor

## SPA 313

Mexico: Civilization and Culture
3-3-0
This course will focus on the different periods in the history of Mexican culture and society. Beginning with pre-Aztec civilization, the course will examine the political, economic and cultural organization that evolved up to the Spanish Conquest of the 16 th century. The Mexican Baroque and succeeding periods will then be examined with particular emphasis on the structure and composition of the indigenous and Spanish populations. Special attention will be paid to this socio-economic context of each period, specifically those characteristics which led ultimately to the Revolution. Finally, the course will focus on the leading intellectuals of the 19th and 20th centuries, including the muralists, and the crucial events that have shaped present-day Mexico.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor

## SPA 314 The Central American Region and the Spanish Caribbean: Civilization and Culture <br> 3-3-0

This course offers an overview of major historical movements involving political, social, economic and cultural developments. Emphasis is on the major achievements of Cuba, Puerto Rico, the Dominican Republic, Venezuela, Colombia, and the Central American countries.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor

## SPA 317 The Southern Cone and the Andean Region: <br> \section*{Civilization and Culture}

3-3-0
This course involves a study of the culture and civilization of the region from a variety of viewpoints: historical, literary, sociological, anthropological, and political. Emphasis is on the major achievements of Argentina, Peru, Uruguay, Paraguay, Ecuador, Bolivia, and Chile.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor
SPA $318 \quad$ Spanish Cinema
3-3-2
This course is designed to familiarize students with the Spanish Cinema and will consider the political, sociological and cultural context within which Spanish Cinema has developed. The course will examine works of film-makers who have contributed to the creation of contemporary Spanish Cinema, including, Buñuel, Saura, Pilar Miró, Almodóvar and others, Students will be required to watch films in addition to attending class.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor

## SPA 319 Topics in Hispanic Culture

3-3-0
Cultural issues in the Spanish-speaking world. Topics include film, journalism, religion, language in society, popular and mass culture, visual arts, immigration, mestizaje, and slavery.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor

## SPA $320 \quad$ Hispanic Cinemas and Social Engagement 3-3-2

This course explores the representation of social and political engagement in and by Spanish-language cinema, with particular emphasis on films from Latin America. The purpose is twofold: to introduce students to notable films and filmmakers in Spanish, and to approach issues of social and political conflict in the Hispanic world through the filmic lens. The topics covered will be both universal and particular to Hispanic cultures and will include, among others: indigenous peoples, dictatorships, globalization, and women's rights.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor

SPA 336 Spanish Conquest and Colonial Encounters
3-3-0
This course is a survey of major works from the Spanish Conquest and Colonial periods in the Americas (between 1492 and 1825). Students will analyze and interpret primary source material such as chronicles, essays, epistolary exchanges, and poetry contextualized vis-à-vis the medieval and Renaissance values of Imperial Spain. Students will also study secondary criticism and film in order to contextualize the themes presented in the primary texts. Authors may include Cabeza de Vaca, Bartolomé de las Casas, Colón, Cortés, Diaz del Castillo, Lope de Aguirre, El Inca Garcilaso de la Vega, Guaman Poma de Ayala, Sor Juana Inés de la Cruz. The course will be taught in Spanish.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor

## Literature

SPA 330 Major Hispanic Authors
3-3-0
This course offers a selection of representative works from the major writers and literary periods in Spain and Spanish America. Authors include Cervantes, Lope de Vega, Calderón, Galdós, García Márquez, Cortázar, Fuentes, Paz, Carpentier, and others. A variety of literary genres will be examined.
Prerequisite: SPA 331 or SPA 332 or permission from the instructor
SPA 331
Introduction to Peninsular Literature
3-3-0
A course designed to cover the development of literature in Spain through selected readings with particular attention to the Twentieth Century. Such authors as Camilo José Cela, Miguel Delibes, Carmen Gaite, Ana Maria Matute will serve to develop reading facility and appreciation of the written language. Specific topics which arise from the readings will initiate discussions, oral expositions and compositions. Prerequisite: SPA 202 or SPA 204 or permission from the instructor
SPA 332 Introduction to Spanish American Literature 3-3-0
A course which surveys the development of literature in Spanish America with emphasis on modern authors. Included are works by such outstanding writers as Alejo Carpentier, Julio Cortázar, José Donoso, Carlos Fuentes, Gabriel García Márquez, Juan Rulfo. The course provides opportunities to develop reading facility and appreciation of literature through selected texts. Discussions and oral presentations on specific topics arising from the readings will help to develop oral fluency. Writing competence will be reinforced by compositions.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor

## SPA $333 \quad$ Hispanic Literature and Films

3-3-2
This course is a survey of Hispanic cinema on literary masterpieces. Students will examine literary texts, scripts, and their screen adaptations. Writers and directors include Gabriel Garcia Márquez, Manuel Puig, Camilo José Cela, Edmundo Desnoes, Almudena Grandes, Luis Buñuel, Héctor Babenco, Carlos Saura, Pedro Almodóvar, Tomás, Gutiérrez Alea, and others.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor
$\begin{array}{ll}\text { SPA } 335 & \begin{array}{l}\text { Death, Dictatorship, and Discovery: } \\ \text { Representations of the Spanish Civil War }\end{array}\end{array}$
3-3-0
The Spanish Civil War (1936-1939) was a defining moment in Spanish, European, and world history, maintaining to the present a close relationship with cultural production. This course explores the representation of the Civil War from the propagandistic works of the conflict itself, to the censorship of the subsequent dictatorship under Francisco Franco, toe the memory-politics of the current democratic era. The primary focus of this course will be narrative fiction, in particular novels and films, though poetry, art, music, architecture, and documentaries will also be discussed.
Prerequisites: SPA 202 or SPA 204 or permission from the instructor
SPA 435 Directed readings and Research I
3-3-0
This course will involve tutorial supervision of research on subjects and readings from Peninsular Literature not treated in regular courses.
Prerequisite: SPA 331 and by permission of Hispanic Studies Section.
SPA 436 Directed readings and Research II
3-3-0
This course will involve tutorial supervision of research on subjects and readings from Spanish American Literature not treated in regular courses.
Prerequisite: SPA 332 and by permission of Hispanic Studies Section.

## Linguistics

SPA 321 History of the Spanish Language
3-3-0
This course focuses on the evolution of the Spanish language from its origins to the present. This diachronic analysis will encompass linguistic aspects such as phonology, morphology, syntax, and semantics.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor
SPA 325 Advanced Spanish Grammar
3-3-0
The main objective of this course is an intensive review of the more complex aspects of Spanish grammar for non-native speakers. The curriculum will cover specific areas of grammar: indicative/subjunctive, ser/estar, prepositions
Prerequisite: SPA 202 or SPA 204, or SPA 203 allow concurrent, or permission from the instructor
SPA 329 Introduction to Hispanic Linguistics
3-3-0
This course introduces students to the study of the main areas of Hispanic linguistics (morphology, syntax, and semantics). General theories on the formation of languages and on language change will be examined. Attention will also be given to the distinct geographical and sociological varieties of contemporary Spanish.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor

## Seminars

SPA 342
Seminar in Literature
3-3-0
Research and individual projects within an area of Peninsular or Spanish American Literature.
Prerequisite: SPA 331 or SPA 332 or permission from the instructor
SPA 443 Advanced Research Methods: Honours Thesis Proposal 3-3-0 This course explores the theory, methodology, and practice behind the creation of a research project in Spanish or Latin American literatures, cultures, or Spanish linguistics. In consultation with a supervising member of the Hispanic Studies faculty, students will prepare a research proposal that outlines the specific topic to be explored, establishes clear objectives and parameters for the study, and provides a preliminary bibliography of key primary and secondary sources. This course constitutes the first step in the completion of the Honours Thesis in Hispanic Studies.
Prerequisites: SPA 331 and SPA 332 or equivalent
SPA 444
Honours Thesis
3-0-0
This course constitutes the second step in the realization of the Honours Thesis as students will complete the research project outlined by their work in SPA 443.
Prerequisite: SPA 443

## Independent Studies

SPA 315 Independent Studies I $\quad \mathbf{3 - 0 - 0}$
Individual study projects within an area of Spanish linguistics, literature or civilization.
Prerequisite: SPA 331 or SPA 332
SPA 316 Independent Studies II $\mathbf{3 - 0 - 0}$
Individual study projects within an area of Spanish linguistics, literature or civilization.
Prerequisite: SPA 331 or SPA 332

## Japanese Studies

Students who wish to complete a Japanese International Concentration within the Major in Modern Languages, or an Adjunct Concentration, or a Minor in Japanese Studies, must go on exchange in Japan. Courses to be taken on exchange are chosen in consultation with the departmental Chair.

## Modern Languages Major: <br> Japanese International Concentration <br> (30 credits for concentration)

MAJMLA+CONJSI

## Minor in Japanese Studies <br> ( 24 credits) <br> List of Japanese Courses

MINJSE

## Japanese Language Courses

JSE 100 Introduction to Japanese Language I-II Intensive Course
This course covers the contents of JSE 101 and JSE 102 in one semester.
JSE 101 Introduction to Japanese Language I $\quad \mathbf{3 - 3} \mathbf{1}$
The purpose of the course is to equip students with grammatical patterns and basic vocabulary of present day, standard Japanese. Hiragana, one of the three writing systems of the language, will be gradually introduced, followed by Katakana and Kanji. Grammar sessions will be conducted in English while in drill sessions maximum use of Japanese will be expected. Concurrent registration of JSE 150 strongly recommended for exchange programs.
JSE 102 Introduction to Japanese Language II
Continuation of Introduction to the Japanese Language I.
Prerequisite JSE 101 or equivalent
JSE 201 Intermediate Japanese Language I
3-3-1
This course introduces students to more grammatical (as well as lexical) items that can be put to immediate use. The purpose of the course is to equip the students with comprehensive grammatical patterns and vocabulary of present-day, standard Japanese at the basic level.
Prerequisite JSE 100 or JSE 102 or equivalent
JSE 202 Intermediate Japanese Language II
Continuation of Intermediate Japanese Language I.
Prerequisite JSE 201 or equivalent

## Courses on Japan

JSE 150 Japanese Society and Culture 3-3-0 This course is designed to give a basic level of knowledge on the main aspects of modern Japanese society and culture. The aim is twofold: first, to present modern Japan as it might be seen by the Japanese themselves, in hope that the student might learn to perceive Japanese society and culture from a Japanese point of view, and; second, to introduce some of the minute details - the intricacies - of everyday life in Japan which the student might not be aware of, yet which will help him or her to better understand and experience the ways of Japan. Concurrent registration of JSE 101 strongly recommended for exchange programs.

## Music

## Faculty

## Mathieu Désy

B.Mus., M.Mus., CSPM. (Cons. De musique et d'art dramatique Montréal);
D.Mus. (U. de Montréal);

Associate Professor
Chair of the Department

## Ross Osmun

A.R.C.T. (Royal Cons.); B.Sc., B.Mus., B.Ed., (Windsor); M.Mus., D.M.A. (Eastman); Professor

## Program Overview

The Department of Music offers a wide range of courses that provide a general introduction to the subject or that lead to a B.A. degree with either an Honours, Major or Minor in Music. Students also have the option to choose between Music Performance (MPE) or Music and Culture (MCU) programs. A popular interdisciplinary program is the B.A. in Arts Administration (Music Concentration). A new Concentration in Music Theatre draws the worlds of Drama and Music together in an exciting collaborative enterprise. The Department also welcomes students from across campus to select from a wide range of courses geared to those with little or no background in music.

Courses leading to the B.A. in Music, in either the Performance or Music and Culture stream, are drawn from four areas of study: history and literature; theory and composition; lessons on both instruments or voice; and choral or instrumental ensembles. Courses in the history and literature of music include historical surveys, genre studies, and special interest courses on many topics. Theory courses are combined with musicianship classes (ear-training, sight-singing and keyboard harmony). Advanced courses in composition, harmony, form and analysis, counterpoint and orchestration are also available. Performance study is available on all orchestral, band and keyboard instruments, as well as voice. Instruction is provided by professional musicians. Ensembles include the University Singers, Chamber Music Ensembles, Jazz Combos and Rock/Pop Bands. Numerous performing opportunities both on and off campus are available as early as the first semester of study for students keen on building their confidence on stage.

The Department proudly boasts the acoustically superb, 165seat Bandeen Recital Hall. Other facilities include studios for teaching and ensemble rehearsal, classrooms, a recording studio and a number of practice rooms all equipped with Yamaha upright pianos. The Department also owns a Karl Wilhelm continuo organ, a 2-manual French Baroque harpsichord made by Montreal craftsman Yves Beaupré, two 7-foot Hamburg Steinway pianos and a 7-foot American Steinway piano. Students also have access to a 2-manual Wilhelm tracker organ in St. Mark's Chapel. As a general rule, students should possess their own instruments (with the exception of piano, double bass, harpsichord and organ).

In addition to its academic role, the Department of Music is the center of cultural activities for the University community and beyond. The Department offers a full series of concerts by Canadian and international musicians in Bandeen Hall. Artists-in-Residence visit the Department each year to present concerts and master classes for Bishop's music students. A fully-staged musical is mounted each year, in collaboration with the Drama department.

## Admission

Students seeking admission must satisfy the general requirements for admission to the university. In addition, the Music Department requests that each applicant submit a letter detailing their previous musical studies and experience. An audition, in video format, is also required. Please contact the Admissions Office admissions@UBishops.ca or the Department Chair for details.

## Programs

## Honours in Music ( 60 credits) HONMUS

In addition to the requirements listed below for the Music Major, the following courses are required for students pursuing the Honours Program, whether in the Classical or Popular Music Studies stream.

## Special Project Option:

Electives related to topic 6 credits
MUS 455 6 credits

## Performance Option:

Elective related to topic 3 credits
MUS 372 \& MUS 373 .4 credits
MUS 475 .6 credits
Students intending to choose the Honours program should declare their intent in writing by the fourth full-time semester. An Honours thesis or recital proposal must be approved by the Department. An average of at least $70 \%$, calculated on the marks obtained in all courses attempted in both the first and second 30 -credit program years, is required. In performance, a grade of at least $80 \%$ is required in MUS 373 to continue in Honours Performance.

## Major in Music and Culture (48 credits)

MAJMCU
Core Requirements:
MUS 140 .3 credits
MUS 111 (or 170). 1 credit
MUS 160 .2 credits
MUS 295
.3 credits
Music elective course.
.3 credits

## Music History and Literature:

Any 2 from all actual MUS courses offered in the calendar under Music History and Music Literature

MUS 101-102-103-104-106-107-115-116-203-204-
251-252-253-295(RFC)-310-311 6 credits

## Music Theory and Composition:

MUS 120-125 ..... 4 credits
MUS 220 or MUS 123 ..... 2 credits
MUS 130-135 \& MUS 230 ..... 9 credits
Any 2 from all actual MUS courses offered in the calendar under Theory and Composition from MUS 234-235-291-
312-313-338-392-395(RFC)-438 MUS 234-235- 291-312-313-338-392-395-438.6 credits
Practical Study:
Ensemble Courses3 credits
MUS 172-173 \& 272 as principal instrument or MUS 172-173 as principal instrument + MUS 170-270 as elective instrument/style or MUS 170-171-270-271 as elective instrument . 6 credits
Year 1 Recommended Music Courses (18 or 19 credits) ..... MAJMCU
MUS 140 3 credits
MUS 111 (or 170). ..... 1 credit
Any MUS courses offered under Music History and Music Literature 3 credits
MUS 120 \& MUS 125 4 credits
MUS 130 \& MUS 135 ..... 6 credits
MUS 170 or 172 .1 or 2 credits
Year 2 Recommended Music Courses ( 17 or 18 credits)
MUS 220 or MUS 123 2 credits
MUS 230 ..... 3 credits
MUS 160 ..... 2 credits
Any MUS courses offered under Music History and Music Literature ..... 3 credits
Any MUS courses offered under Theory and Composition ..... 3 credits
Any Ensemble Course (taken from MUS 180 - MUS 189)

$\qquad$
1 credit
MUS 171-270 or MUS 173-272 .3 or 4 credits
These remaining required music credits may be taken at any time during the student's stay at Bishop's. Majors and Minors may take more than the required number of music credits.

## Major in Music Performance (48 credits)

## MAJMPE

Core Requirements:MUS 1403 credits
MUS 111 (or 170) ..... 1 credit
MUS 160 ..... 2 credits
Music elective course ..... 3 credits

## Music History and Literature:

Any from all actual MUS courses offered in the calendar under Music History and Music Literature MUS 101-102-103-104-106-107-115-116-203-204-251-252-253-295(RFC)-310-311 $\qquad$
Music Theory and Composition:
MUS 120-125 ..... 4 credits
MUS 220 or MUS 123 ..... 2 credits
MUS 130-135 \& MUS 230 ..... 9 credits
Any from all actual MUS courses offered in the calendarunder Theory and Composition from MUS234-235-291-312-313-338-392-395(RFC)-438............... 3 credits
Practical Study:
Ensemble Courses ..... 6 credits
MUS 172-173-272-273-372 \& 373 12 credits

* Elective instruments may be considered for multi-instrumentalist
Year 1 Recommended Music Courses
(19 credits) MAJMPE
MUS 140 ..... 3 credits
MUS 111 (or 170) ..... 1 credit
MUS 120 \& MUS 125 ..... 4 credits
MUS 130 \& MUS 135 ..... 6 credits
Any Ensemble Course (taken from MUS 180 - MUS 189) ..................... 1 credit
MUS 172 \& MUS 173 ..... 4 credits
Year 2 Recommended Music Courses ( 20 credits)
MUS 160 ..... 2 credits
MUS 220 or MUS 123 ..... 2 credits
MUS 230 ..... 3 credits
MUS 234 ..... 3 credits
Any MUS courses offered underMusic History, Music Literature orTheory and Composition3 credits
Any 2 Ensemble Courses (taken from MUS 180 - MUS 289) ..... 3 credit
MUS 272 \& MUS 273 ..... 4 credits ..... 4 credits
These remaining required music credits may be taken at any timeduring the student's stay at Bishop's. Majors and Minors may takemore than the required number of music credits.
Minor in Music and Culture ( 24 credits) MINMCU
MUS140 ..... 3 credits
MUS 120 ..... 2 credits
MUS 130 \& MUS 135 ..... 6 credits
Music Electives ..... 6 credits
Any from all actual MUS courses offered in the calendarunder Music History and Music LiteratureMUS 101-102-103-104-106-107-115-
116-203-204-251-252-253-295(RFC)-310-311 . 3 credits
Any Ensemble Courses(taken from MUS 180 - MUS 188)1 credit
170-171 or 171-172 3 credits


## Minor in Music Performance (24 credits) MINMPE

MUS 120 2 credits
MUS 130 \& MUS 135 ..... 6 credits
Music Electives ..... 5 credits
Any from all actual MUS courses offered in the calendarunder Music History and Music LiteratureMUS 101-102-103-104-106-107-115-116-203-204-251-252-253-295-310-3113 credits
Any 2 Ensemble Courses (taken from MUS 180 - MUS 189) ..... 2 credits
MUS 172-173 \& 272 ..... 6 credits ..... 6 credits
Arts Administration: Music Concentration (30 credits)MAJAAMRefer to the Arts Administration, Concentration: Drama, Fine Arts, Film Studies, Music or Public History - Music (30 credits) MAJAAM section in the Academic Calendar for course requirements.

## Concentration in Musical Theatre (30 credits)

The departments of Music and Drama at Bishop's University are pleased to offer a new 30-credit concentration in Music Theatre as a supplement to the Major in Music or Drama. This is a program unique among Quebec universities. Students entering the Music program will be required to complete an additional 12 credits or cognates in Drama and vice versa. The successful student with a Drama or Music Major plus the Concentration in Music Theatre will earn a total of:

## 30 credits (Concentration) +48 credits (Major) $+\mathbf{1 2}$ credits (corequisites/cognates) $=90$ credits.

## Courses

MTH 100 - Intro. To Dance \& Movement I........... 3 credits
Plus 2 of:
MTH 200 - Dance II: Ballet
3 credits
MTH 201 - Dance III: Tap................................... 3 credits
MTH 202 - Dance IV: Contemporary.................... 3 credits
MTH 203 - Dance V: Jazz .................................... 3 credits

Other required courses:
MTH 110 - Intro. to Acting with Song I ................ 3 credits
MTH 210 - Acting with Song II: Operetta ............ 3 credits
MTH 211 - Acting with Song III: The Golden Age .. 3 credits
MTH 212 - Acting with Song IV: Modern............. 3 credits
MTH 151 - Hist. of Musical Theatre to 1975......... 3 credits
MTH 152 - Hist. of Musical Theatre 1975-Present3 credits
MTH 300 - Musical Production I .......................... 3 credits
OR
MTH 301 - Musical Production II......................... 3 credits
Total: 30 credits-
Additional Elective Courses in Musical Theatre
(offered on rotation):
MTH 400 - Independent Study I .......................... 3 credits
MTH 401 - Independent Study II .......................... 3 credits
MTH 410 - Song Writing for Musical Theatre....... 3 credits

## List of Courses

MTH 100 Intro. to Dance \& Movement I 3-3-0
Students learn fundamental techniques commonly applied to all genres of dance including isolation exercises, posture and alignment study as well as dynamics, rhythm and interpretation.

## MTH 200 Dance II: Ballet 3-3-0

Students learn basic techniques commonly applied to the genre including barre, floor, and centre work as well as the concepts of rhythm, dynamics, space and balance. Elements of good posture, body alignment, turnout, pointing the toe, etc., are interwoven with the French terminology associated with specific ballet moves. Prerequisite MTH 100 or consent of instructor.
MTH 201 Dance III: Tap
3-3-0
Students are presented with rigorous and repetitive series of isolation exercises series for the ankle and foot that develop the basic steps associated within the genre of tap. Development of a clear sense of rhythm and syncopation also a focus of the course.
Prerequisite MTH 100 or consent of instructor.
MTH 202 Dance IV: Contemporary
3-3-0
Students focus on rhythm and various types of movement, communication and interpretation, and the effective use of a performing space in both solo, duet and small ensemble settings.
Prerequisite MTH 100 or consent of instructor.
MTH 203 Dance V: Jazz 3-3-0
Students are presented with rigorous exercises to develop the basic moves associated within the 6 genres of jazz - Classic, Street, Afro, Commercial, Latin and Contemporary, Development of a clear sense of rhythm and syncopation also a focus of the course.
Prerequisite MTH 100 or consent of instructor.
MTH 110 Intro. to Acting with Song I
3-3-0
This course explores the intimate relationship between acting and music and will be centered around the analysis, discussion and performance of short scenes taken from the standard repertory.
Prerequisites: MUS 172, MUS 120, MUS 130, DRA 131, and/or consent of instructor(s).
MTH 210 Acting with Song II: Operetta 3-3-0
A continuation of MTH 110, this course explores the intimate relationship between acting and music and will be centered around the analysis, discussion and performance of short scenes taken specifically from the operetta repertoire.
Prerequisite MTH 110.
MTH 211 Acting with Song III: The Golden Age 3-3-0 A continuation of MTH 110, this course explores the intimate relationship between acting and music and will be centered around the analysis, discussion and performance of short scenes taken specifically from the Broadway repertoire. Prerequisite MTH 110.
MTH 212 Acting with Song IV: Modern 3-3-0
A continuation of MTH 110, this course explores the intimate relationship between acting and music and will be centered around the analysis, discussion and performance of short scenes taken specifically from the contemporary repertoire. Prerequisite MTH 110.
MTH 300 Musical Production I
3-3-0
This course prepares students to mount a public presentation of a full-scale musical theatre production taken from the standard repertory as well as new and hybrid musicals. Successful audition required.
MTH 301 Musical Production II 3-3-0
This course prepares students to mount a public presentation of a full-scale musical theatre production taken from the standard repertory as well as new and hybrid musicals. Successful audition required.
MTH 400 Independent Study I
3-3-0
This upper-level course allows the advanced student the opportunity to develop projects under faculty supervision specific to their interest and career path.

MTH 401 Independent Study II
3-3-0
This upper-level course allows the advanced student the opportunity to develop projects under faculty supervision specific to their interest and career path.

## MTH 151 History of Musical Theatre to 1975

(formerly MUS 109 Music and Theatre)
3-3-0
This course will cover the field of popular musical theatre from its origins in 19thcentury comic opera and operetta; and then Broadway musicals up to ca. 1975. Kern, Rogers and Hart/Hammerstein, Lerner and Loewe; the more sophisticated works of Bernstein. Not open to students who have successfully completed MUS 109.
MTH 152 History of Musical Theatre 1975-present 3-3-0
Musical Theatre starting in 1975 - the new "Golden Age" with sophisticated Sondheim; the blockbuster shows of Andrew Lloyd Weber, Shonberg/Boublil and Disney; "Poperettas"; Juke-box Musicals; and subjects as diverse as Wicked, Book of Mormon and Hamilton.
MTH $410 \quad$ Song Writing for Musical Theatre $\quad$ 3-3-0
Students will analyze the standard musical theatre repertory, examining song forms, the incorporation of characters, time, place, mood, spoken dialogue, subtext etc. Students, composers and/or lyricists will collaborate to adapt dramatic scenes into songs for the musical stage. Works-in-progress will be collectively critiqued followed by performances of original works in class.
Prerequisite MUS 120 and MUS 230, or consent of instructor.
Co-requisites / Cognate Courses:
In an effort to balance the skill sets between Music and Drama, Drama Majors entering the concentration must also complete the following Music courses ( 12 credits):

MUS 172, 173 \& 270 ............................................ 5 credits
MUS 180, 181 ......................................................... 2 credits
MUS I20. .2 credits
MUS 130 3 credits
In an effort to balance the skill sets between Music and Drama, Music Majors entering the concentration must also complete the following Drama courses ( 12 credits):
DRA 101
3 credits
DRA 102 or DRA 110
3 credits
DRA $131 \& 132$ 6 credits

## List of Courses

## Theory and Composition

MUS 100 Music Basics for Non-Musicians
1-3-0
Non-musician students learn the fundamentals of music theory and notation to be able to read and write a chart. It includes basics of music notation (staff notes and rhythmic figures), scales, chords, arpeggios, key and time signatures, dynamics, and expression notation.
MUS 120 Musicianship I $\quad \mathbf{2 - 2 - 0}$
An introduction to the fundamental skills of musicianship, including ear-training, sight-singing and basic keyboard skills.
Co-requisite: MUS 130.
MUS 125 Musicianship II
2-2-0
Continuation of MUS 120.
Prerequisite: MUS 120. Co-requisite: MUS 135.

## MUS 123 Introduction to Jazz Skills

2-2-0
An introduction to skills required for jazz performance, including understanding the modes, basic jazz harmony, and deciphering basic jazz charts.
Prerequisite: MUS 130, or permission of the instructor.
MUS 130 Materials of Music I 3-3-0
An introduction to basic musical literacy, including rhythmic notation, reading in all modern clefs; spelling scales, intervals and triads; and the structure of the tonal system. Co-requisite MUS 120.
MUS 135 Materials of Music II
3-3-0
Review of the rudiments of music followed by the study of diatonic harmony, melody and voice-leading in the common-practice era.
Prerequisite: MUS 130 or permission of the instructor. Co-requisite MUS 125.

MUS 220 Musicianship III
2-2-0
Essential musicianship skills extended to chromatic language, including ear training, sight-singing and keyboard harmony.
Continuation of MUS 125.
Prerequisite: MUS 125. Co-requisite: MUS 230.
MUS $230 \quad$ Materials of Music III 3-3-0
Continuation of MUS 135.
Prerequisite: MUS 135. Co-requisite MUS 220.
MUS 234 The Jazz/Pop Musician's Toolbox 3-3-0
This course offers a hands-on skills workshop for jazz musicians that will convert theoretical knowledge into practical performing skills. Understanding and hearing musical forms, converting scales, modes, chords and arpeggios into solos, transcribing pieces, understanding jazz etiquette and jargon will all be addressed in detail. Required for all students in the Popular Music program.
Prerequisite: MUS 135 or permission of instructor.
MUS 235 Materials of Music IV $\quad \mathbf{3 - 3 - 0}$
A continuation of the concepts introduced in MUS 230 including the introduction of chromatic harmony and more advanced modulation techniques.
Prerequisite: MUS 230.
MUS 291 Song and Instrumental Writing $\quad$ 3-3-0
This course provides the student with a history of the development of popular song styles from the early 20 th century onward. There will be a study of the various stylistic approaches by different composers of this era as well as an introduction to the composition of songs in each style.
Prerequisite: MUS 230 or permission of instructor.
MUS 312 Independent Study I: Theory $\quad \mathbf{3 - 1 - 0}$
MUS 313 Independent Study II: Theory $\quad \mathbf{3 - 1 - 0}$
MUS 338 Composition Styles $\quad$ 3-3-0
This course will focus on the composition styles of various composers with special attention paid to writing music in these various styles.
Prerequisite: MUS 220 and MUS 230.
MUS 392 Arranging and Scoring for Jazz and Pop Music 3-3-0
This course will provide students with the skills that will enable them to arrange pop and jazz tunes for a variety of instrumental/vocal ensembles.
Prerequisite MUS 230 and MUS 220 or MUS 123
MUS 395 Seminar in Music Theory
An in-depth study of a selected topic. May be repeated for credit.
Prerequisite: MUS 230 or permission of instructor.
MUS 438 Advanced Composition
3-3-0
This course will focus on the composition of works in the student's area of interest. Prerequisite:: MUS230 and consent of instructor.

## Music Literature

MUS 101 Rock 101
3-3-0
This course offers a survey of rock music from its origins and covers the most important songs of the fifties and sixties. Influences from blues, pop and other genres will be investigated to gain a deeper understanding of how this phenomenal movement changed the music world forever.
MUS 102 Rock/Pop Music 1975 to Present
3-3-0
The course will be of great interest to a wide body of students, since it will include the music they listen to at present. An effort will be made to explain how pop music is related to popular culture in a wider sense, and to contemporary society.
MUS 103 Classic Jazz
3-3-0
This course offers a chronological study of the different eras that have marked the evolution of Jazz in America up to 1945. Analysis of form, melody, harmony, rhythm and improvisation techniques of the major works of the masters will be covered.
MUS 104 Modern Jazz
3-3-0
This course offers a study of the different genres that have marked the evolution of Jazz in America since 1945. Analysis of form, melody, harmony, rhythm and improvisation techniques of the major works of the masters will be covered.
MUS 106 Song
3-3-0
The classical singer's repertoire is surveyed and analyzed. Special attention is given to German and French song literature of the nineteenth century as well as art song in England and France. Among the composers considered will be Schubert, Schumann, Brahms, Fauré, Duparc, Debussy, Britten and Ives.

MUS 107 Opera
3-3-0
Is it music or is it drama? The balance changes through the ages, but opera is always lyrical, emotional, sensational. This course will trace the evolution of opera from the earliest experiments in 1600 through the elaborate productions of the High Baroque; the birth of modern opera with Gluck and Mozart; the Golden Age of Italian bel canto from Rossini and Bellini through Verdi and Puccini; German opera from Beethoven to Wagner; and the new aesthetics of the 20th century, with Strauss, Berg and Britten.

MUS $115 \quad$ Film Music I
3-3-0
This course will survey the history of film music and its major composers beginning in the late 1920's and ending in the mid 1970's. Examples from many different genres - drama, Western, comedy, horror and animation will offer a wellrounded introduction to this fascinating art form.

## MUS 116 Film Music II <br> 3-3-0

This course will survey the history of film music and its major composers beginning in the late 1970's and ending with the most recent releases. Examples from many different genres - drama, Western, comedy, horror and animated will offer a well-rounded introduction to this fascinating art form.

MUS 140 The ABCs of Classical Music
3-3-0
This course is designed to introduce students to the world of Classical Music. The 3 B's, The ' 5 ', Les Six and other composers will be covered as well as the jargon necessary to navigate through any conversation about classical music as well as understand the hieroglyphics of any printed program seen in the concert hall.
MTH 151 History of Musical Theatre to $1975 \quad$ 3-3-0
This course will cover the field of popular musical theatre from its origins in 19th century comic opera and operetta to Broadway musicals. Composers include Kern, Rogers and Hart/Hammerstein and Loewe and the more sophisticated works of Bernstein.
Formerly MUS 109. Not open to students who have completed MUS 109.
MTH 152 History of Musical Theatre 1975-present 3-3-0 Musical Theatre starting in 1975 - the new "Golden Age" with sophisticated Sondheim; the blockbuster shows of Andrew Lloyd Weber, Shonberg/Boublil and Disney; "Poperettas"; Juke-box Musicals; and subjects as diverse as Wicked, Book of Mormon and Hamilton.
MUS 203 The Blues 3-3-0
This course traces the development of the blues genre from its beginnings in the Mississippi Delta to its modern-day manifestations. Perhaps the most influential popular music genre of the 20th century, blues underlines the foundations of jazz, swing, rock 'n' roll, rhythm \& blues, hard rock and many pop forms. Study will be made of blues classics by Son House, Charlie Patton, Robert Johnson, Blind Lemon Jefferson, Bessie Smith, T-Bone Walker, Stevie Ray Vaughan, Eric Clapton and others.

MUS 204 The Be-Bop Revolution
3-3-0
This course takes an in-depth look at the major figures of the Be-Bop era including Charlie Parker, Dizzy Gillespie, Thelonious Monk and Miles Davis, Biographical profiles, song analysis, and historical/social relevance will also be studied in detail. This course will contain both a research and writing component.
Prerequisite MUS 104 or permission of Instructor.

## Music History

MUS 251 Western Art Music to 1750 3-3-0
A survey of the major trends in the evolution of music from the Middle Ages through the Renaissance and Baroque periods.
Prerequisite MUS 150.
MUS 252 Western Art Music 1750-1900
Continuation of MUS 251. A survey of the major trends in the evolution of music during the Classic and Romantic periods.
Prerequisite: MUS 150.
MUS 253 Western Art Music 1900 - Today 3-3-0
A survey of the major trends in the evolution of music during the 20th and 21st centuries.

MUS 295 Seminar in Music History/Literature 3-3-0
An in depth study of a selected topic and/or composer(s).
Prerequisite MUS 150 or permission of instructor. May be repeated for credit.
MUS 310 Independent Study I: Music History
MUS 311 Independent Study II: Music History 3-1-0

MUS 455 Thesis: Special Project
6-1-0
Through two continuous semesters, students in Honours with special project option must prepare and present an individual topic with the possibility of a performance element to be chosen by the Honours student in consultation with the Department.
*There is a fee surcharge levied each term. Please see fee schedule
"Music Practicum" und er "Other Fees".

## Ensemble

The Music Department offers a wide variety of Ensemble courses every semester. Students outside the Music program may also participate in ensembles and are encouraged to join. A successful audition is required or consent of instructor.

## See the Music Department chair for audition details.

MUS $180 \quad$ Choral Ensemble I
1-3-0
Large choral group that explores the classical and/or popular repertoire.
Open to all campus and community members, by audition.
MUS 181 Choral Ensemble II
See description under MUS 180.
MUS 182 Chamber Music Ensemble I 1-3-0
Chamber music groups that perform classical repertoire. Good reading skills are expected. Entry by audition only.
MUS 183 Chamber Music Ensemble II 1-3-0 See description under MUS 182.
MUS 184 Jazz/Improvisation Workshop I 1-3-0
Mixed instrumental ensemble exploring the repertoires of popular music and jazz. Good reading skills are expected. Entry by audition only.

MUS 185 Jazz/Improvisation Workshop II 1-3-0 See description under MUS 184.
MUS 186 Chamber Orchestra I $\mathbf{1 - 3 - 0}$
Formed fundamentally to explore the great repertoire for string orchestra, this group may also include winds, brass and percussion. Good reading skills are expected. Offered when numbers permit.
MUS 187 Chamber Orchestra II
1-3-0
See description under MUS 186.
MUS 188 Rock/Pop Band I $\mathbf{1 - 3 - 0}$
These courses provide experience rehearsing and performing in a rock/pop band. Repertoire will be chosen from the rock and pop repertoire. Good reading skills are expected. Entry by audition only.

MUS 189 Rock/Pop Band II
1-3-0 See description under MUS 188.
MUS $280 \quad$ Choral Ensemble III
See description under MUS 180.
MUS 281 Choral Ensemble IV
See description under MUS 180.
MUS 282 Chamber Music Ensemble III 1-3-0 See description under MUS 182.
MUS 283 Chamber Music Ensemble IV 1-3-0
See description under MUS 182.
MUS 284 Jazz/Improvisation Workshop III 2-3-0
MUS284: Building on MUS185, this course is a mixed instrumental ensemble exploring the repertoires of popular music and jazz with the addition of students producing a musical arrangement for their ensemble and conducting its rehearsal. Good reading skills are expected. Prerequisite MUS185
MUS 285 Jazz/Improvisation Workshop IV 2-3-0
See description under MUS 284.
MUS 286 Chamber Orchestra III
See description under MUS 186.
MUS 287 Chamber Orchestra IV
See description under MUS 186.
MUS 288 Rock/Pop Band III
2-3-0
Following MUS189, this course provides experience rehearsing and performing in a rock/pop band. Repertoire will be chosen from the rock and pop repertoire with the addition of students producing a musical arrangement for their ensemble and conducting its rehearsal. Good reading skills are expected.
Prerequisite MUS 189

## MUS 289 Rock/Pop Band IV

See description under MUS 288.
MUS 380 Choral Ensemble V
See description under MUS 180.
MUS 381 Choral Ensemble VI
See description under MUS 180.
MUS 382 Chamber Music Ensemble V
See description under MUS 182.
MUS 383 Chamber Music Ensemble VI
See description under MUS 182.
MUS 384 Jazz/Improvisation Workshop V
See description under MUS 284.
MUS 385 Jazz/Improvisation Workshop VI
See description under MUS 284.
MUS 386 Chamber Orchestra V
See description under MUS 186.
MUS 387 Chamber Orchestra VI
See description under MUS 186.
MUS 388 Rock/Pop Band V
See description under MUS 288.
MUS 389 Rock/Pop Band VI
See description under MUS 288.

## Practical Study

MUS 111 Keyboard Proficiency
Being able to use the piano keyboard is an essential tool for musicians. Most music software uses it as their tool to input notes. For vocalists and instrumentalists (other than piano), this course provides minimum skills for being able to express yourself and create/rehearse music using the keyboard. This course is a core requirement for both Major programs. MUS170 may replace it for the skilled pianist.
MUS 160 Music Professional
Today's music professional must know how to act as a freelance artist, understand the music royalties system and how to receive music-specific grants. He also needs to be able to produce professional charts/scores using music notation software. Those are the tools to be provided through this course. This course is a core requirement for both Major programs.
MUS 265 Musical Theatre
In collaboration with the Drama department, a full musical play is mounted, normally in the Spring semester. Open, by audition only, to actors, singers, musicians and technical staff, as required for each show.
Co-listed as DRA 265.
MUS 374 Individual Practical Study: Special Project
A special project involving a performance aspect, on a topic approved by the Department.
*There is a fee surcharge levied each term. Please see fee schedule
"Music Practicum" under "Other Fees".
MUS 375 Instrument Techniques
Introduction to performing, teaching, and maintenance techniques of orchestral instruments: strings, woodwinds, brass, percussion. Recommended for B.Ed. students with a Music concentration, and open to others with permission of the Department.
*There is a fee surcharge levied each term. Please see fee schedule
"Music Practicum" under "Other Fees".
MUS 376 Improvisation 3-3-6
This course will develop the skills necessary for jazz/pop music improvisation. It is designed for students nearing graduation.
This course is not available to students who have previously completed MUS 290.
*There is a fee surcharge levied each term. Please see fee schedule
"Music Practicum" under "Other Fees".
MUS 378 Introduction in Recording Technology 3-2-6
This course is designed to introduce the student to basic sound recording, using modern digital equipment. The course is project-based, and will be individually tailored to the student's knowledge and background. Enrolment limited to Music students, or others with the permission of the Department and instructor.
*There is a fee surcharge levied each term. Please see fee schedule
"Music Practicum" under "Other Fees".

1-3-0

1-3-0

2-3-0

2-3-0

2-3-0

1-3-0

2-1-5

6-12-6

3-2-5

2-1-5
MUS 379 Recording Technology II
3-2-6
A continuation of MUS 378 which will introduce the student to more sophisticated techniques in the field.
*There is a fee surcharge levied each term. Please see fee schedule
"Music Practicum" under "Other Fees".
Prerequisite: MUS 378.

## 1. Required Performance Courses:

These courses consist of 10 times 60 minutes of private lessons on an instrument or in voice. Open to Music Minors, Majors, and Honours students or with permission of the instructor. An audition is required. There is no end-of-term jury for MUS 172. However, all other required principal instrument performance courses include a jury exam. The lesson schedule goes in the agreement of the instructor and the student. They start after add/drop date.
1-3-0 $\quad$ *For all required performance courses, there is a fee surcharge levied each term. Please see fee schedule "Music Practicum" under "Other Fees".
MUS 172 Principal Instrument I 2-1-5
Performance instruction on any classical or jazz instrument or voice. Attendance at studio recitals and Music Chez Nous concerts is a required element of this course. Co-requisite with MUS 180, MUS 182, MUS 184, MUS 186, or MUS 188.
MUS 173 Principal Instrument II
2-1-5
Description as for MUS 172 above. End-of-term jury exam is required.
Co-requisite with MUS 181, MUS 183, MUS 185, MUS 187, or MUS 189.
Prerequisite: MUS 172.
MUS 272 Principal Instrument III $\quad \mathbf{2 - 1 - 5}$
Performing in studio recitals, attendance at Music Chez Nous concerts and end-ofterm jury exam are required.
Co-requisite with MUS 280, MUS 282, MUS 284, MUS 286, or MUS 288.
MUS 273 Principal Instrument IV $\mathbf{2 - 1 - 5}$
Description as for MUS 272 above.
Co-requisite with MUS 281, MUS 283, MUS 285, MUS 287, or MUS 289.
MUS 372 Principal Instrument $V \quad \mathbf{2 - 1 - 5}$
Description as for MUS 272 above.
Intended for Music students enrolled in Performance Honours.
MUS 373 Principal Instrument VI
Description as for MUS 272 above.
Intended for Music students enrolled in Performance Honours.
Prerequisite: MUS 372.
MUS 475F Recital 6-1-14
Through two continuous semesters, students in Honours Performance must prepare and present a full recital at the end of the academic year. A written work on a topic chosen by the student in consultation with the Department must also be presented. Attendance at studio recitals and Music Chez Nous concerts is a required element of this course. Open only to Music Students enrolled in Performance Honours, who have completed MUS 373 (or MUS 273) with a grade of at least $80 \%$.

## 2. Elective Performance Courses:

After an initial audition, these courses are open to all music students and students outside of the Music program. They consist of 10 times 45 minutes of private lessons on an instrument or in voice. The lesson schedule goes in the agreement of the instructor and the student and starts after add/drop date. End-of-term juries are required for all " 71 " courses.
*Non-music students must consult with the Music Department before they enroll in MUS 170.
*For all elective performance courses, there is a fee surcharge levied each term. Please see fee schedule "Music Practicum" under "Other Fees".
MUS 170 Elective Instrument I
1-3/4-5
Performance instruction for either a principal or second instrument, which is not a program requirement. No jury exam is required.
MUS 171 Elective Instrument II
2-3/4-5
A continuation of MUS 170. End-of-term jury exam is required.
MUS 270 Elective Instrument III
See description under MUS 170.
MUS 271 Elective Instrument IV 1-3/4-5

A continuation of MUS 270. Jury exam is required.
MUS 370 Elective Instrument V 1-3/4-5 See description under MUS 170.
MUS 371 Elective Instrument VI 2-3/4-5

## Philosophy

## Faculty

## James Crooks,

B.Mus. (Mt. Allison), M.A.,

Ph.D. (Toronto); Professor

## Don Dombowsky,

B.A. (Concordia), M.A. (New School for

Social Research), Ph.D. (Ottawa);
Associate Professor

## Bruce Gilbert,

B.A. (Toronto), M.A. (McGill),

Ph.D. (Penn State); Professor
Chair of the Department

## Program Overview

Human beings are filled with wonder, curiosity and awe about the world we live in and about our own beguiling lives. Philosophy quite literally asks the "big questions" about the meaning of life and death, what human fulfillment is, the parameters of a just society, cosmology, metaphysics and a host of other similar topics. We also explore the nature of reason and good arguments.

Knowledge of the philosophical tradition is essential to a sound and liberal education. It lies at the heart of what Bishop's has understood historically and continues to embrace today as its educational mission.

In recognition of this, the Department of Philosophy offers a program designed to meet the needs of both specialists and those seeking to supplement their work in other disciplines. Honours and Majors follow a curriculum which emphasizes two broad areas: Continental European Philosophy and the Western Philosophical Tradition. Advanced students may also pursue independent studies of special topics in greater depth. These offerings are supplemented by a series of introductory and cross-disciplinary courses designed to provide the background, skills and tools for a thoughtful, critical approach to a wide variety of problems and issues and delivered, for the most part, at a level accessible to the non-specialist.

## Programs

## Honours in Philosophy (60 credits)

Candidates for the Honours program must obtain at least an average of $70 \%$ on the best 60 credits in Philosophy in order to be eligible to enter the Honours program. In addition to the requirements for a major, Honours students complete two further elective philosophy courses and are required to write an Honours thesis (PHI 400 / PHI 401, 6 credits).

## Major in Philosophy (48 credits)

MAJPHI
Honours and Majors in Philosophy must have the following courses:
Any 3 of:
LIB 210 Eros, Love and Desire
LIB 211 Empire and Its Enemies
LIB 212
LIB 213
In Search of Justice
LIB 214
The Use and Abuse of Beauty
Ecological Crisis and the Struggle for Environmental Justice
LIB 215
LIB 216
LIB 217
LIB 218
Ecstasy and Excess
Space, Place \& The Human Experience
(LIB courses beyond the three required courses for a Major and in all cases for a Philosophy Minor count only if they are taught by a member of the Department of Philosophy)
Any 3 of:
PHI 100 On the Way to the Good Life
PHI 101 On Thinking and Thinking Well
PHI 102 The Metaphysical Mysteries of Reality
PHI 103 But How Do You Know?
PHI 104 The Hopes and Conflicts of
Social and Political Life
PHI 105 Freedom, Anxiety and Authenticity:
Existentialist Philosophy
PHI106 Philosophy of Sex and Love
All 4 of:
PHI 271 Socrates and Plato
PHI 272 Aristotle
PHI 260 Kant
PHI 204 Analytic Philosophy
Language Requirement: All philosophy majors and honours must complete two courses in a language of their choice, modern or ancient.

The remaining 12 credits are made of philosophy electives.

## Minor in Philosophy ( 24 credits) <br> MINPHI

A minor consists of any 24 credits in philosophy.

## List of Courses

## General Introduction

PHI 100 On the Way to the Good Life 3-3-0
Every one of us strives to live the best possible life--to achieve real happiness and fulfillment. We taste deep joy and even ecstasy, and yet we face beguiling worries. Are we tragic beings that always undermine our own projects? Is there real evil in humanity such that our happiness is an illusion? It is possible to be truly fulfilled? To really flourish? In this course students not only engage with key texts from our tradition that tackle these issues, but are also encouraged to explore and develop their own pathways to the "good life".
PHI 101 On Thinking and Thinking Well
3-3-0
Thinking well is absolutely necessary to your freedom, for if we think poorly we are vulnerable to the manipulation and ideological coercion of others. Indeed, thinking permeates our lives, and poor thinking can undermine or even sabotage our most important and valued projects and activities. Whether we try to discern rhetoric from argument in political debate, solve a conflict in our personal lives or prove a scientific hypothesis, we must become good at the art of both discovering and giving good reasons for what we hold to be true. In this course we carefully study the art of good reasoning and argument in a manner directly oriented to strengthening each student's capacity to thrive as a student in the university, as a citizen of his or her community and in his or her personal life.
PHI 102 The Metaphysical Mysteries of Reality
3-3-0
Is reality fundamentally "one", such that humanity and nature are unified and interdependent, sharing a common purpose that we are only just starting to grasp? Or are we fragmented individuals adrift in a chaotic or even absurd and surreal universe in which, if there is to be meaning at all, it must be simply created by our will? Is some other notion of reality yet more convincing? In this course we will explore the great metaphysical mysteries of being and reality.
PHI 103 But How Do You Know? 3-3-0
From personal questions like "How do I know I am in love?" to scientific problems like "How do we know the universe began with a 'Big Bang'?", the problem of how do we know saturates our experience. Surely "seeing is believing", and yet so much intellectual and artistic experience requires that we posit ideas and images that are impossible to perceive with our senses. Moreover, is there still a way in which we can say there is Truth, or is truth really just disguised power? In this course we will explore great puzzles of knowing that animate problems from the Scientific Method to claims about religious knowledge.
PHI 104 The Hopes and Conflicts of Social and Political Life 3-3-0 We live in a time of great social and political turmoil. On the one hand, there is widespread consensus that democracy is the only form of governance adequate to the dignity of human freedom. Yet on the other hand, we are plagued by worries that enormous gaps of wealth and power make authentic democratic participation next to impossible. Or we worry that the state or large corporations are robbing citizens of their genuine liberty. Is our society dominated by the " $1 \%$ ", or are current inequalities of wealth and power actually of mutual benefit to everyone? This course will focus on concrete social and political conflicts and struggles in our own time, and trace the way that these raise fundamental philosophical and political problems about freedom, rights, gender and sexuality, race and ethnicity, economic justice and other important themes.
PHI 105 Freedom, Anxiety and Authenticity:

## Existentialist Philosophy

3-3-0
Beneath our freedom is nothing but an abyss, for there is no God or metaphysical foundation for humanity to lean upon. Freedom is thus less a liberty "to do what we want" than an anxiety-laden imperative to either create meaning for ourselves or flee from that responsibility. So said the larger than life existentialist philosophers of the 20th century, Jean-Paul Sartre, Simone de Beauvoir and others. In this course we introduce this dynamic philosophical movement that continues to have enormous influence over our culture by studying not only its main writers but also by exploring the many vital human themes it raises.
PHI 106 Philosophy of Sex and Love
3-3-0
What is gender? What is sexuality, and how is it different from eroticism? Is love just expression of reproductive drives or a higher calling to the Beautiful, the Good and the True? This course explores traditional and contemporary theories of love, desire and sexuality as problems at the heart of the human journey.

## Independent Studies

| PHI 207 | Independent Study I | $\mathbf{3 - 3 - 0}$ |
| :--- | :--- | :--- |
| PHI 208 | Independent Study II | $\mathbf{3 - 3 - 0}$ |
| PHI 307 | Independent Study III | $\mathbf{3 - 3 - 0}$ |
| PHI 308 | Independent Study IV | $\mathbf{3 - 3 - 0}$ |

## Thesis

PHI400
Honours Thesis I
3-3-0
Each student researches, writes and publically defends a comprehensive thesis proposal under the supervision of one member of the Department. Students must receive a grade of $75 \%$ or higher in this course in order to be permitted to register for PHI 401.
PHI 401 Honours Thesis II
3-3-0
Based on the proposal completed in PHI 400, students draft, revise and defend an honours thesis, as examined by all members of the Department of Philosophy. Prerequisite: PHI 400

## The History of Western Philosophy

## PHI 200 /

CLA 273 Ancient Philosophy 3-3-0
Exploration of key themes and problems in ancient Greek philosophy, including the Pre-Socratic and Hellenistic philosophers, but with special emphasis on the thought of Socrates, Plato and Aristotle. Ancient philosophers inaugurated our scientific and philosophical tradition, and this course will thus address vital themes like existence of pure ideas of the Good, the Beautiful and the Just, the nature of a human longing to fulfill or realize our nature, as well as the character of eros, friendship and dialogue (logos).
PHI 201 Medieval Philosophy 3-3-0 Exploration of the treatment of a range of philosophical issues prior to the Renaissance including: arguments for the existence of God, the relation between reason and revelation, the question of the eternity of the world, and the status of the universals. Text will be drawn from Augustine, Boethius, Eriugena, Anselm, Alfarabi, Avicenna, Averroes, Bonaventure, Siger of Brabant and Aquinas.
PHI 202 Modern Philosophy
3-3-0
Explores key themes, problems and debates in the rationalist and empiricist tradition in the Modern period of European philosophy. This includes especially the thought of rationalist philosophers like Descartes, Leibniz and Spinoza as contrasted with that of the great empiricists - Locke, Berkeley and Hume. This course will address topics such as the relationship of body and mind, of ideas to sensation, of necessity and freedom as well as the nature of human happiness.
PHI 203
Continental Philosophy
3-3-0
Explores key themes and problems in contemporary continental philosophy. Beginning with the transcendental philosophy of Kant, the continental tradition has focused on themes such as freedom, the body, emotion, and our concrete relationships with other people. Authors in this study include Hegel, Marx, Nietzsche, Sartre, Heidegger, de Beauvoir, Merleau-Ponty, and Derrida.

PHI 204 Analytic Philosophy
3-3-0
Introduction to 20th century analytic philosophy drawing on works of Frege, Russell, Wittgenstein, Ayer, Schlick, Carnap, Moore, Ryle, Austin, Quine, Davidson and Putnam.

## The Western Philosophical Tradition

PHI 250 Ethics on the Cutting Edge
To what degree and in what way are we responsible for other people? For nature? What is the relationship of our freedom to those profound experiences in which we sacrifice much of our liberty-like friendship, love, and family?. Is love truly the path to fulfillment, as so many have claimed over the centuries? This course will deal with these and other issues crucial to the lives of all people, and do so in a way that does not require any prior philosophical training. Our main sources will not only be contemporary philosophers, but also poets, novelists, painters and other artists.

## PHI 260 Kant <br> 3-3-0

Consideration of epistemological and ethical issues in Kant's first two Critiques.
PHI 271 /
CLA 271 Socrates \& Plato
3-3-0
A study of the character and teaching of Socrates as portrayed in Plato's early and middle dialogues. Emphasis will be on theory of education.

PHI 272 /
CLA 272 Aristotle
3-3-0
A study of selected works of Aristotle with special emphasis on logic, metaphysics, and the concept of substance.
PHI 374
Spinoza
3-3-0

An in depth study of Spinoza's Ethics with reference especially to the novelty of its method, its relation to philosophies of the tradition and its subsequent influence.

## Continental European Philosophy

PHI 263 Hegel
3-3-0
A study of Hegel's Phenomenology of Spirit with reference especially to the dialectical method and the origin of the philosophy of history.
PHI 265 Nietzsche
3-3-0
This course examines the development of Nietzsche's aesthetic, ethical and political views. Texts include The Birth of Tragedy, The Gay Science, Beyond Good and Evil and The Genealogy of Morals.
PHI 267 Heidegger
3-3-0
This course surveys the long career of Martin Heidegger with special attention to his analysis of human being, his articulation of a post-metaphysical philosophy and his pioneer work in environmental philosophy.
PHI 324 /
POL 324 The Philosophy and Politics of Karl Marx 3-3-0
A study of the philosophy and political theory of Karl Marx, with empahsis on Marx's theory of society, political economy and history. The course will consider a variety of Marx's texts, but focus on Capital, Volume 1.
PHI 362 Topics In Existentialism and Phenomenology 3-3-0
An in depth study of one of the major contributions to phenomenology (e.g. Husserl's Logical Investigations, Heidegger's Being and Time, Merleau-Ponty's Phenomenology of Perception).
PHI 364 Topics in Postmodern Philosophy 3-3-0
Discussion of recent philosophical critiques of modernity with reference especially to the question of whether the intellectual and social/political movements which have shaped the modern world give that world the resources for understanding itself genuinely. Texts will be drawn from Heidegger, Foucault and Deleuze and Derrida.
PHI 366 /
POL 325
Topics in Critical Theory
3-3-0
This seminar course will explore the development of Critical Theory from its roots in dialectical philosophy (especially Hegel and Marx), to its appropriation of psychoanalysis (especially Freud), to its engagement with contemporary politics, society and art. Authors studied may include Walter Benjamin, Theodor Adorno, Max Horkheimer and Herbert Marcuse.
Prerequisite: POL 228 or POL 229, or one course in Philosophy.

## Problems, Special Interests and Service Courses <br> PHI 279 Between Transcendentalism and Pragmatism 3-3-0

Inspired by the European romantics and idealists but charting a distinctly New World path, the great philosophical and literary authors of the 19th century New England Renaissance gave birth to Transcendentalist philosophy - especially in authors like Ralph Waldo Emerson and Henry David Thoreau. Spurning the elitism and dualistic battles of European thought, this movement affirmed the wisdom of emotion and sensuality but without spurning reason. The transcendentalists prepared the ground for the birth of Pragmatism in the late 19th century, especially in philosophers like Charles Sanders Peirce, William James and, in the next generation, John Dewey. Temporarily eclipsed by the rise of analytic philosophy in the mid-twentieth century, a new wave of pragmatism in authors like Hillary Putnam and Robert Brandom is becoming enormously influential on both sides of the Atlantic. This course will follow the development of pragmatism from its earliest roots right into the most important contemporary debates.
PHI 343 Topics in Philosophy of Language and Hermeneutics 3-3-0 This course will focus on the development of the hermeneutic philosophy of language whose origin dates to the late $18^{\text {th }}$ century. The major figures studied will include Wittgenstein, Heidegger and Gadamer.
PHI 345 Topics in Philosophy of Film
3-3-0
This course will explore key philosophical themes through film. Students will combine viewing and discussion of film with the study of related philosophical texts.
Pre- or Co-Requisite: Any course in philosophy or any course in the Film Studies minor.

PHI 346 Topics in The Philosophy of Art 3-3-0
A look at some attempts by major thinkers to account for the nature of art and beauty, focusing on texts of Plato and Aristotle, Kant and Hegel, Nietzsche and Heidegger.

## PHI 347 Topics in Philosophy of Literature 3-3-0

From the time of Plato's engagement with Homer to the contemporary philosophical dialogue with poetry and the novel, philosophy and literature have had a rich and sometimes controversial relationship. This course will explore this dynamic interaction through the careful study of philosophically significant works of literature and related works of philosophy.
PHI 348 /
POL 348 Topics in Social and Political Philosophy 3-3-0
This course will typically consist of a detailed study of a great work of Western social and political philosophy. Students will be expected to present seminars and do research on the text itself, the social and political context in which it emerged and its implications for all serious inquiry into questions of society and politics.
PHI 349 Topics in Feminist Philosophy
3-3-0
An introduction to feminist thought from the Enlightenment to the present, looking at some feminist discussions in ethics, theory of knowledge, philosophy of language, and philosophy of science.
PHI 352 Topics in Philosophy of Being
3-3-0
A detailed study of key themes in metaphysics and ontology, including topics like the nature of first philosophy, the nature of the philosophical God, the notion of Spirit and the character of our being in the world.
Prerequiste: at least one course in Philosophy
PHI 353 Topics in the Philosophy of Knowledge $\quad$ 3-3-0
A detailed study of key themes in epistemology, including topics like the nature of a priori concepts, empiricism, scientific method, knowledge as self-transcendence and the self-withdrawal of Being.
Prerequiste: at least one course in Philosophy
PHI 354 The Philosophy of Contemplation 3-3-0
When Plato said that "philosophy begins in wonder" he inaugurated a tradition in the West in which contemplation and the awe that accompanies it were elevated to among the richest and most sublime of human experiences. Here West joined East, which already had a centuries-old devotion to contemplation in the Hindu, Buddhist and Taoist traditions, among others. This course will develop not just a familiarity with the philosophical theories of contemplation but also cultivate precisely the kinds of contemplative experiences that draw us towards transcendence.

## PHI 355 Analysis Seminar 3-3-0

An in depth study of one of the major contributions to analytic philosophy (e.g. Strawson's Individuals, Quine's Word and Object, or Geach's Reference and Generality).
Prerequisite: PHI 204
PHI 387 Topics in World Philosophy $\quad$ 3-3-0
Explores one or more of the world's great philosophical traditions, such as Buddhist, Taoist, Hindu, African and North American philosophy.
Prerequiste: at least one course in Philosophy
PHI 399 Research Seminar 3-3-0
A senior seminar the focus of which is collaborative production of an original work based on philosophical exchange and reflection. Members of the seminar will gain experience in all facets of research, presentation and writing for publication.
PHI 541 Advanced Studies I Topic: Philosophy and Death 3-3-0 In this reading course, we examine some canonical treatments of the subject of death from the ancient, medieval and modern traditions. Texts will include Plato's Phaedo, Boethius' Consolation of Philosophy, excerpts from Spinoza's Ethics and from Heidegger's Being and Time.

## Cognate Courses

FRA 262
ESG 366
LIB 210, LIB 211, LIB 212, LIB 213, LIB 214, LIB 215, LIB 216, LIB 217, LIB 218
POL 323, POL 324, POL 329
PSY 342, PSY 443
SOC 122, SOC 320
RSC 232, RSC 233, RSC 252, RSC 253, RSC 330, RSC 331

## Pre-Law

## Program Overview

The Pre-Law Minor and Certficate programs are designed to ground students in the concepts of justice, law, and equity, civic governance and responsible citizenship, while also building a knowledge-base in a wide array of related disciplines, such as literature, history, politics, and criminology. The program will also expose students to core competencies - such as problem solving, critical reading, oral and written communications, research, organization and time-management, leadership, and team-building - that enhance capacities for success in law school or other careers within the justice system.

This program is interdisciplinary and offers students the opportunity to develop and/or hone their skills in the areas of logic and critical thinking, argumentation and debate, time-management, and group dynamics. The program aligns with the vision and values of Bishop's University, and seeks to enhance the mission to provide students with an exemplary undergraduate experience in the classroom and beyond. To develop these competencies, students will choose from a list of Humanities, Social Sciences, and other courses provided and will take one capstone course, to be offered annually during the Winter term. Participants should note that the program does not guarantee admission to law school but seeks rather to help in their success once admitted.

Course selection from a select list is based on LSAT criteria and disciplinary knowledge: Content, Reading Comprehension, Analytical Reasoning, Writing proficiency, and Logical Reasoning.

## Programs

## Pre-Law Minor (24 credits)

MINPRL
For the minor, students will take two courses each from the Logical and Analytical Reasoning lists, three from the Reading and Writing categories, and the capstone course.

For the minor, double counting will be allowed on the same basis as the certificate and students may not take more than two 100 level courses. Double counting of courses between the certificate and a student's major or honours program should be set at a maximum of two courses or six credits. To receive the certificate, students may not take more than three 100 level courses.

## Pre-Law Certificate ( $\mathbf{3 0}$ credits) CONPRL

For the certificate, students will be obliged to take one course from the Content list, two courses from each of the Analytical and Logical Reasoning lists and four courses from the Writing and Reading category, plus the capstone course, in order to complete the program.

In order to ensure that this is a selective program for students, the minimum average required for admission into the certificate will be $80 \% / 25 \mathrm{R}$ score.

Please note also: Courses taken within the Pre-Law Certificate program cannot be counted as courses towards a university degree. Students currently enrolled in an undergraduate program at Bishop's should therefore take the minor, the courses for which can be counted towards their degree.

## List of Courses

(Please refer to other sections of the Academic Calendar for full course descriptions)

## 1. Content

BMG 221
Business Law
CLA 321 Laws and Outlaws in Ancient Rome
DRA 131 Acting I
DRA 132 Acting II
DRA 212 Theatre and the State
FIH 240 Art Popular and Mass Culture
HIS 228 Memory, Truth and Reconciliation
HIS 229 Human Rights and Humanitarian Organizations
HIS 300 The Law of the Land: Indigenous Treaties with Canada
HIS 393 Inquisitions, Law and Society
LIB 370 Social Movements and Social Change in Brazil
RSC $200 \quad$ Politics and Religion
ECO 217 International Economics
ECO 237 Economics of the Environment
SOC 207 Sociology of Indigenous-Settler Relations
SOC 209 Young Offenders
SOC 235 Women and the Penal System
ESG 354 Environmental Impact Assessment
POL 101 Introduction to Comparative Politics
POL 112 Introduction to Canadian Politics
POL 118 Constitutional Law and Canadian Government
POL 214 Public Administration
POL 344 The Politics of International Trade and Investment

POL 345
PSY 356
Introduction to Public International Law
2. Analytical Reasoning (making connections)

BMG 322 Change Management - Prereq: BHR 221
BMG 323 Interpersonal Skills - Prereq: BHR 221
ENG 205 The Art of Rhetoric
ENG 255 Legal Bodies: Crime \& Culture in Victorian England
ENG 352 Canadian Literature and Theories of Globalization
FIH 314 Colonial and Postcolonial Issues in the Visual Arts
HIS 235 Europe's Queer History
HIS 234 The Italian Renaissance
HIS 269 First Nations/Settler Relations
LIB 212 In Search of Justice
LIB 214 Environmental Justice and Ecological Crisis
LIB 222 Citizenship and Democratic Practice I
LIB 223 Citizenship and Democratic Practice II
RSC 232 Philosophy of Religion
ECO 322 Real Estate Economics
SOC 208 Criminology
SOC 230 Deviance 1
SOC 233 Carceral Studies and Justice Clinic
SOC 298 Social Problems
SOC 304 Experiential Learning in Sociology II (Note: SOC 233 may be a pre-requisite and this course could be substituted for the capstone course)
SOC 309 Advanced Seminar in Global Colonization and Decolonization
SOC 331 Deviance 2: Selected Topics
SOC 340 Women: Theory and Ideology
ESG 266 Environmental Policy
ESG 350 Environmental Justice
POL 334 Public Policy Analysis
POL 338 International Law and Human Rights

## 3. Logical Reasoning (problem solving)

BHR 316 Organizational Conflict and Negotiation
LAT 101F Beginners' Latin I
LAT 200 Intensive Intermediate Latin (or LAT 201a. 202b)
PHI1xx Any Philosophy Introductory Course
MAT 100 Excursions in Modern Mathematics
MAT 200 Introduction to Discrete Mathematics
SOC 315 Political Sociology in the Digital Era
SOC 311 Quantitative Tools for Social Research
PSY $330 \quad$ Psychology and Ethics

## 4. Reading Comprehension and Writing Proficiency

Any 200 or 300 level courses in Classical Studies, English, History and Global Studies, Liberal Arts, Philosophy or Religion, Society and Culture.*
*There are some exceptions, so consultation with the pre-law chair is strongly recommended.

# Religion, Society and Culture 

Faculty

Daniel Miller,

B.A., M.A. (Toronto), M.A., Ph.D. (Michigan); Associate Professor Chair of the Department

Michele Murray, B.A. (Trinity Western), M.A. (Hebrew University of Jerusalem), Ph.D. (Toronto); Professor

## Program Overview

The study of religion has been a foundational part of Bishop's University's mission since the institution's establishment in the mid-19th century. At that time, the focus was primarily on Christianity. Today, as a department in the Humanities division, we offer a broad range of courses covering the major world religions and examining religion from a number of perspectives.

For many years, we operated under the name "Department of Religion". In 2021, it was decided to shift that to "Department of Religion, Society and Culture". These three phenomena-"religion", "society", "culture"-have always been overlapping and interpenetrating. Our name change is intended to reflect that fact, and to clarify the academic approach of the Department. Our objective is to further the understanding of religion in an overall sense; we do not aim to make value judgments about its legitimacy, but to examine how it has informed human existence.

The Department offers courses in three major categories. "Biblical Studies" invites students to become familiar with the sacred texts of the Jewish and Christian traditions, to investigate the historical and cultural contexts of their origins and development, and to acquaint themselves with the critical, analytical, theoretical and historical tools for inquiry into these texts. "World Religions" courses offer a knowledge of the sacred texts, traditions, rituals, beliefs and practices of the major religions, which have elicited devotion from persons in every time and place for millennia. Finally, the courses in "Approaches, Perspectives and Expressions"-the third, and largest, category-give most explicit articulation to the reality that religion does not exist in a vacuum. As emphasized above, it is linked to myriad aspects of society and culture, including philosophical thought, psychological, social, political and economic dimensions, the issue of human mortality, fine arts, literature and sports.

Because religions have significantly influenced, and been influenced by, the political, artistic, intellectual, social and economic life of cultures throughout history, the academic study of religion is an interdisciplinary pursuit. Students taking an Honours or Major in Religion, Society and Culture are encouraged to take courses in other, related fields and, conversely, students in other disciplines are welcomed in Religion, Society and Culture courses in order to round out their understanding of their areas of concentration.

Students planning on entering professions such as education, social work, law, theatre, music, business, etc. may pursue courses in Religion, Society and Culture in order to enhance their vocational and personal lives. (The study of religion may also, of course, be in preparation for some form of ministry.)

## Programs

## Honours in Religion, Society and Culture ( 60 credits)

HONRSC
Students must keep an average of at least $70 \%$ as calculated from the best 60 credits in the program (including cognates). Students have the option of writing an Honours thesis in their final year. Students usually take the Honours program if they plan to pursue graduate work. See the Major in Religion, Society and Culture below.

## Major in Religion, Society and Culture (42 credits) <br> MAJRSC

Honours and Majors are also required to fulfill the following minimum distribution requirements ( 30 credits; see the course lists for course descriptions):
Biblical Studies: 6 credits from: RSC 112, RSC 114, RSC 115, RSC 135, RSC 214, RSC 215, RSC 328
World Religions: 12 credits, including RSC 100 and RSC 101, plus 6 credits from: RSC 124, RSC 125 , RSC 126, RSC 127
Approaches, Perspectives and Expressions: Any 12 credits

## Minor in Religion, Society and Culture ( 24 credits)

Any 24 credits in Religion, Society and Culture

## List of Courses

## Biblical Studies

RSC 112 From Mythology to History: Biblical Israel and its World 3-3-0
An exploration of the world of the ancient Israelites, the forerunners of the Jewish people. Material from selected books of the Hebrew Bible (also called the Old Testament) will be combined with archaeological data and evidence from inscriptions to situate Israelite civilization within the socio-cultural context of the wider ancient Middle Eastern and Mediterranean worlds.
RSC 114 Biblical Hebrew I $\quad$ 3-3-0
Introduction to biblical Hebrew grammar, and reading of simple texts.
RSC 115 Biblical Hebrew II 3-3-0
More advanced biblical Hebrew grammatical concepts, and study of more challenging texts.
RSC 135 Jesus and His World 3-3-0 How did Jesus the Jew come to be known as Jesus Christ? What was the GraecoRoman world that birthed the first-century Jewish sect that became Christianity like? Through an analysis of various New Testament documents and other early Christian writings, this course will focus on the social, historical and political context of the Graeco-Roman world that gave rise to Christianity.

RSC 214 Israelite Mythology and Cultic Practice 3-3-0
An examination of mythology and cultic practices within Israelite society, as reflected in the Hebrew Bible (Old Testament). Extra-biblical texts and archaeological evidence will be used to contextualize the biblical material. Topics include: the origins of the Israelite deity Yahweh; monotheism and polytheism; goddess worship; child sacrifice.

RSC 215 Fake News? History vs. Legend in the Narrative of Early Biblical Israel

3-3-0
An examination of historical accounts concerning the Israelites in the Hebrew Bible (Old Testament), with a view to assessing their historical authenticity. Extrabiblical texts and archaeological evidence will be used to contextualize the biblical material and to evaluate its claims. Topics include: the Patriarchs (Abraham, Isaac and Jacob); Joseph in Egypt; the Exodus; the Israelite settlement in Canaan; the supposed "United Monarchy" under David and Solomon; David and Goliath.

## RSC 247 Study Tour of Biblical Israel

6-3-0
This six-credit course explores the historical, archaeological and cultural contexts of the origin and development of the Jewish and Christian traditions. After preliminary lectures on campus, students will spend 10-12 days travelling in Israel and visiting the major archaeological sites pertinent to Judaism (and its precursor ancient Israelite religion) and Christianity.

RSC 311 Advanced Study in Biblical Texts
3-3-0
This course closely examines selected biblical texts with special reference to context and (re)interpretation.
RSC 328 Christian Origins 3-3-0
This course explores a variety of early Christian and Jewish texts to understand the existence of different Christianities in the first four centuries of the Common Era and the complex relationship between Jews and Christians within the broader historical context of the Roman Empire. Possible topics to be discussed include: How did Christianity become its own religion, separate from Judaism? What did Christians believe about Jesus and about their own identity in the formative period of Christianity? What social and cultural forces forged the earliest images of Jesus? Prerequisite: RSC 135 or permission of the instructor

## World Religions

RSC 100 Middle Eastern Matrix: Religions of the West
An introduction to the "Western" religious traditions (Zoroastrianism, Judaism, Christianity and Islam), which all began in the Middle East. In addition to addressing the historical evolution, religious practices, writings, fundamental concepts, beliefs and cultural expressions of each of these traditions, the course will also consider methodological issues pertaining to the study of religion as an academic discipline.
RSC 101 Asian Origins: Religions of the East
3-3-0
An introduction to Asian religious traditions, historically called "Eastern" (Hinduism, Buddhism, Jainism, Sikhism and Shinto). In addition to concepts, beliefs and cultural expressions of each of these traditions, the course will also consider methodological issues pertaining to the study of religion as an academic discipline.
RSC 120 /
CLA 112 Ancient Greek Mythology
3-3-0
The origin and development of Greek mythology, and the importance of myths in understanding ancient literature and religion: theories of myth, cult and ritual, mystery religions, the epic tradition. Greek sources are read in translation.
RSC 124 Hinduism: The Many Faces of the Divine 3-3-0
A study of Hinduism in its infinite variety from earliest times to the present. Topics include: the Indus Valley Civilization; early Vedic religion, its myths and gods; the Upanishads; Brahmanism; the Ramayana and the Mahabharata; the caste system; Vaishnavism, Saivism and goddess worship.
RSC 125 Buddhism: The Middle Way 3-3-0 The origins of Buddhism in its native India and its spread throughout many countries of the East. Topics include: the relationship of Buddhism to Hinduism and Jainism; the development of the monastic order, principal teachings and practices; meditation; ritual; study of major writings and modern developments.
RSC 126 Judaism: A Covenant with God 3-3-0
An introduction to the history, literature, ideas and practices of Judaism from its biblical origins to the present. Topics include: the major festivals and High Holidays; Torah and Talmud, mitzvah and midrash; philosophers of Judaism; Kabbalah and the mystical tradition; temples and synagogues; Rabbinic Judaism; Orthodox, Conservative and Reform; dietary and religious practices; women and the rabbinate; rites of passage; the Holocaust; the modern state of Israel and messianism.

RSC 127
Islam: Submission to Allah
3-3-0
The history, literature, ideas and practices of Islam from its origins to the present. Topics include: pre-Islamic Arabia; the life, example and practices of the Prophet Muhammad; the Qur'an; the caliphate and the ummah; sunnah and Hadith; the Five Pillars and worship; Shari 'ah; Sufism and the mystical tradition; Sunni and Shiite; women in Islam; art and architecture in Islam; Islam and modernity.
RSC 205
Indigenous Religious Traditions
3-3-0
This course will examine the kinds of religious experiences found among the indigenous peoples of the Americas, with a particular emphasis on the traditions of Canada's First Nations (for example, Cree, Iroquois, Mohawk) and Inuit. Beyond the Canadian landscape, possible topics will include the religious traditions of the Inca, Aztec, Maya and Lakota.
RSC 238 /
CLA 238 Greece: Land of the Gods $\mathbf{6 - 3 - 0}$
This six-credit course examines the sacred art and architecture of ancient Greece from Mycenae to Byzantium on site in Greece. Offered in the Spring semester. After preliminary lectures on campus students will spend two weeks traveling to the major sacred sites of mainland Greece. Travel plans must be finalized by the middle of January prior to departure in May. Contact the Classics department for information.
American students on U.S. Federal aid cannot enrol in this course for credit. Open to first-year students. Instructor's permission required.
RSC 280 /
CLA 280 Roman Religion
3-3-0
This course examines the religion of the ancient Roman people, following the traditions and changes from the 8th century BCE to the Imperial period. Roman religion was very different from the monotheistic religions with which many of us are familiar today, but it was also significantly different from the mythology of the ancient Greeks, despite the Romans' willingness to absorb and adapt the Greek myths. Topics to be studied in this course will include the Roman concept of divinity, beliefs about the dead, religious and cult ritual, senatorial and imperial control of religion, emperor worship, divination and prophesy, festivals, and Roman responses to the introduction of foreign religions.

## Approaches, Perspectives and Expressions

RSC $148 \quad$ Psychology of Religion
3-3-0
An introduction to major theoretical approaches to the psychological understanding of religion: pragmatism (William James), Psychoanalysis (Sigmund Freud, Carl Jung, Erik Erikson) and Humanism (Gordon Allport, Abraham Maslow).
RSC 149 Sociology of Religion
3-3-0
An introduction to the understanding of religion as a social phenomenon: a discussion of the views of Ludwig Feuerbach, Karl Marx, Emile Durkheim, Max Weber, Peter Berger and Robert Bellah.
RSC $200 \quad$ Politics and Religion 3-3-0
This course examines the intersection between extremist religious beliefs and political power, predominantly but not exclusively those cases in which violence and serious conflict have arisen. Topics include: radical Zionist settlers in the West Bank; Islamic theocracy in Iran; Christian nationalism in the United States; radical Islamist groups (e.g., the Taliban, the Islamic State [ISIS] and Al Qaeda).
RSC 203 /
CLA 206
Early Christian Art and Architecture
3-3-0
This course examines the ways in which the Christians adapted elements from Greek, Roman and Near Eastern art and architecture to their religious beliefs and requirements and also studies the development of this new Christian art in the Byzantine Empire. Major topics include: Catacomb art, early Christian and Byzantine architecture, mosaic and painting, manuscript illuminations, textiles and the minor arts.
RSC 204 /
CLA 204 Women in Religion
3-3-0
An investigation of the religious lives of early pagan, Jewish and Christian women in the context of the Graeco-Roman world. Literary and epigraphical sources from the fourth century BCE to the third century CE are analyzed in order to determine women's roles, rites and practices, with special attention to constructions of gender in the Graeco-Roman world.
RSC 206 Apocalypse
3-3-0
It's the End of the World as We Know It... Whereas cosmic time in Eastern religious traditions is generally seen as cyclical, with recurring phases of creation and destruction, in Western-based religions such as Judaism, Christianity and Islam it is viewed as linear, with a single creation and a final destruction of this
present world - the apocalypse. This course will look at the sacred texts that underpin apocalyptic concepts in established Western religions (e.g., the biblical books of Daniel and Revelation), and examine how apocalyptic beliefs have been given expression in these traditions. Consideration will also be given to End Time beliefs in more recent "apocalyptic" movements (e.g., Heaven's Gate and the Branch Davidians).
RSC 207 Sex and Religion
3-3-0
This course provides an overview of topics in which issues of sex and sexuality intersect with particular Eastern and Western religious traditions. The course is selective rather than comprehensive. Topics that could be covered include: menstruation and early sexuality; heterosexuality; contraception; LGBTQ+; same-sex marriage; celibacy; asexuality; sex and the sacred. Attitudes, traditions and regulations pertaining to these topics will be explored from various religious perspectives through readings and films/movies.

## RSC 208 /

LIB 216 The Divine and Ultimate Concern 3-3-0
The divine is that about which we are "ultimately concerned"-so said theologian Paul Tillich of Union Seminary in New York. Is this just a last-ditch attempt to salvage faith and spirituality in the midst of charges that religion is, at best, an "opiate of the masses" (Marx) and, at worst, "patently infantile" (Freud)? Or again, is the role of religion being taken over by its longtime sister in spirit-art? This course will explore the troubled and passionate place of religious experience and the aesthetic in Western civilization.
RSC 209 Sports and Religion
3-3-0
This course examines the intersection between sports and religious mentality and expression. Topics will include the rituals associated with athletics, supposed sports curses, prayer in sports, the possible transcendent experience of the athlete ("flow") and the euphoria of fandom ("collective effervescence").

## RSC $232 \quad$ Philosophy of Religion

3-3-0
Does the intelligibility of the universe require a notion of the divine? Does philosophy point in the direction of mysticism? Is there a close link between the metaphysics of religious experience and moral commitments such as love, faith and courage? In this course, we will explore the ongoing and lively debate about these issues by drawing on authors from the ancient, medieval and contemporary contexts.
RSC 234 /
POL 236
Introduction to Middle Eastern Politics
3-3-0
The course will focus on the forces that have shaped current Middle Eastern politics: particularly the growing influence of Islam and Islamic fundamentalism on political life and thought; the enduring legacies of westernization, colonialism and secular nationalism; and the Arab-Israeli conflict. Arriving at an understanding of Middle Eastern politics in this course will also entail study of the challenges modernizing states, parties and leaders are confronting today, and the profound impact of Western interests and policies on the region.
RSC 236 /
CLA 236 Death and Dying in the Ancient World
3-3-0
This course explores the myths, rituals and beliefs associated with death and dying in antiquity. Topics include: myths associated with the afterlife; books of the dead; magic and death rituals; understandings of heaven and hell; final judgment.
RSC 237 Religion at the Movies 3-3-0
This course employs movies to study religion, and religion to study movies. Different movie genres will be used to explore various issues, dimensions and expressions of religion, while images, metaphors and teachings found in religion will be employed to illuminate the religious material portrayed in movies.
RSC 248 Death and Dying in the Modern World
3-3-0
This course explores the myths, rituals and beliefs associated with death and dying in the modern world. Topics include how death and dying are dealt with by contemporary cultures and societies, in particular within the contexts of various religious traditions.

## RSC 302 Of Latter-day Saints and Modern-day Prophets: New Religious Movements

3-3-0
In the past two centuries, a number of new religious groups claiming a significant number of adherents have emerged, joining long-established religions such as Judaism, Christianity, Islam, Hinduism and Buddhism in the global religious tapestry. Some of these groups are recognizably offshoots of much older religious traditions while others are entirely new entities, with only a tangential connection to what has gone before. This course will examine the roots and development of some of these groups, which scholars have generally called "New Religious Movements" (NRMs). Possible movements studied will include: The Church of Jesus Christ of Latter-day Saints (i.e., Mormonism), Rastafari, Scientology, Bahá'í, Jehovah's Witnesses, Christian Science and QAnon.

RSC 303 /
LIB 303
On the Road Again: Pilgrimage in Theory and Practice

3-3-0
This course will examine pilgrimage as embodied experience, with a special focus on contemporary pilgrimage. Cross-cultural approaches and historical context will be key to understanding the current fascination with walking as transformative practice. Theories of identity, community, and belonging will also be discussed. Students will have an opportunity to participate in a short pilgrimage.
RSC 310
Christian Nationalism in America
3-3-0
In the early 20th century, in response to the Enlightenment and growing challenges to literalist biblical claims, a conservative movement emerged among American Protestants. For the next several decades, this movement waxed and waned until it found a standard-bearer, the Rev. Jerry Falwell, in the late 1970s. Falwell fronted an organization called "The Moral Majority" and those supporting it became known as the Religious Right. Today, the Religious Right continues to be a significant part of the American cultural and political landscape, with its viewpoint disseminated by FOX NEWS, among other media. This course will examine the theological underpinnings of the Religious Right; the social, political and religious context in which it emerged and has developed; the effect it has exerted on politics in the United States; and its prospects for the future in a country divided by the "culture wars" that began there in the 1990s.
RSC 332 /
CLA 332
Magic and Divination in the Ancient Near East 3-3-0 Since the 19th century, magic and divination have been subjects of great scholarly interest. This course will examine how these phenomena were manifested in the region of what is today called the Middle East. We will also look at the supposed polemic against magic and divination in the Hebrew Bible (Old Testament), where calling someone a magician or diviner was a strategy for social control and definition, serving as an element in the construction of views about legitimate and illegitimate religious authority.
RSC 335 /
CLA 335 Sacred Space in the Ancient World 3-3-0 How did the ancients experience their surroundings? How did their conceptions of space and place affect their relationships with their deities, their ancestors, and each other? From lofty temples to humble shrines, scared mountains to grottoes, we will explore the intimate connection between sacred places and the development of ancient identity. Archaeological and literary data, as well as modern theories of space and place, will be examined.
Prerequisites: at least two Classics courses or permission of the instructor
RSC 350 /
CLA 350 The Goddess: History, Cult and Myth
3-3-0
From Diana's bow to Athena's shield, from the fearsome wail of the Erinyes to the dulcet tones of the Muses, the sacred feminine in all its manifestations has fueled the imagination. How we in the modern world perceive the female divine, however, also reflects our own changing attitudes towards women. In this seminar course, we will examine the sacred feminine in art, archaeology, and literature, from Paleolithic Europe to contemporary America, with a view to understanding the construction of tropes of femininity both in ancient cultures and our own. Topics may include Near Eastern and Graeco-Roman goddesses, Hindu goddesses, gendered archaeology, the virgin Mary, modern goddess movements, and more! Prerequisite: at least two Classics courses or permission of the instructor

## Independent Studies

RSC 300 Independent Studies I $\quad \mathbf{3 - 3 - 0}$
RSC 301 Independent Studies II $\quad \mathbf{3 - 3 - 0}$
RSC 402F Honours Thesis 6-3-0
A full-year (two-semester) course in which the student does guided research into a subject, produces a written thesis and, ultimately, gives an oral defence of the thesis.
Prerequisite: departmental acceptance of the thesis proposal

## Cognate Courses

The following courses in other departments are recognized as
Religion, Society and Culture cognates:
CLA 110 The Art and Archaeology of Ancient Egypt
CLA 113 Classical Mythology: The Greek Influence on Rome
DRA 211 Ritual and Theatre
EDU 313 Teaching Ethics and Religious Culture (Elementary \& Secondary)
HIS 253 A History of Medieval Europe
HIS 279 The Middle East in the Twentieth Century
HIS 291 Women in the Islamic World
HIS 393 Inquisitions, Law and Society
LIB 384 Dante's Divine Comedy
Some courses offered in the College of Liberal Arts
Some courses offered in the Philosophy Department
PSY 298 Zen and the Brain
This is not an exhaustive list. Religion, Society and Culture students should consult the chair of the Department regarding any other courses offered by other departments or programs that they wish to take for Religion, Society and Culture credit.

## Division of Natural Sciences and Mathematics

## Overview

The Division of Natural Sciences and Mathematics offers a diverse range of courses, programs and degrees (B.Sc., B.A., M.Sc.) in Biochemistry, Biology, Chemistry, Computer Science, Mathematics, Pre Medicine and Physics and Astronomy.

Students enrolled in the experimental science classes receive extensive laboratory experience. Laboratories are well equipped and laboratory courses are instructed by the regular faculty. Laboratories and classes tend to be small (often fewer than 20 students) and students are able to obtain essential feedback from Professors. The Division also offers students free help in learning mathematics/statistics, physics and computer science through Help Centres staffed with upper year students and/or professional tutors, under the supervision of Faculty members. The Bishop's University Astronomical Observatory is also available for graduate and undergraduate research as well as for public viewing.

Graduates from the Division pursue careers in many diverse fields. In recent years these careers have included, but are not limited to: medicine, veterinary medicine, dentistry, biomedical research, engineering, actuarial science, statistics, software engineering, pharmacology, physiotherapy, secondary and primary school science teaching and the chemical industry.

## Degrees and Programs

Detailed descriptions of the degrees and programs offered are found under the respective Departmental sections of this calendar. The Division of Natural Sciences and Mathematics offers selected Masters of Science (M.Sc.) degrees and a wide range of programs leading to the Bachelor of Science (B.Sc.) or Bachelor of Arts (B.A) degrees with Honours or Majors specialization. In addition, several departments offer Minor programs that can be added to one's Honours/Major program, and Computer Science offers a certificate program. Please see the complete list of programs in Table I below.

## Divisional Major

The Division offers an entry level program for a limited number of students, allowing them to register as Divisional Majors (rather than into a specific program) for a maximum of two semesters. After two semesters of full-time study are completed, students must enrol into a specific program (Major). Students who are not accepted into one of the regular programs must consult with the Dean of Science to determine an academic plan.

## Length of Degrees and Collegial Equivalent Science Courses

All students admitted into their first Bachelor's degree come into a 4 -year, 120 -credit program. Students having a Québec collegial diploma (DEC), as well as Mature students (please consult the Admission section of the calendar for the definition of Mature status), will be granted up to one year of advanced credits (30 credits) if they have completed all the collegial courses that are equivalent to the introductory science courses which must be taken as part of the various science programs. CEGEP/Bishop's course equivalencies are listed below; Bishop's collegialequivalent science courses that must be completed in each of our science programs are listed in Table II. Note that the labs that are associated with many of these courses (e.g. the course BIO 196 has an associated lab named BIL 196), must be taken concurrently.

| Cellular/Molecular Biology | BIO 196 |
| :--- | :--- |
| General Chemistry | CHM 191 |
| Solutions Chemistry | CHM 192 |
| Differential Calculus | MAT 191 |
| Integral Calculus | MAT 192 |
| Mechanics | PHY 191 or PHY 193 |
| Electricity and Magnetism | PHY 192 or PHY 194 |

## Arts and Science Requirement

In addition to the courses listed in Table II, in order to encourage students enrolled in the Division of Natural Sciences \& Mathematics to broaden the scope of their education, all majors and honours are required to complete at least three credits in either the Division of Humanities or the Division of Social Sciences. While this requirement will not in itself ensure against excessive specialization, it is hoped that it will lead students to find and pursue various areas of interest. Students with program combinations which require more than 72 credits are exempt from this requirement.

## Advanced Placement

The Division of Natural Sciences and Mathematics grants credit for successful completion of AP examinations in the Sciences as follows. Note that a minimum score of 4 is required. When applicable, credit will also be granted for the lab that is associated with the course (e.g. the course BIO 196 and associated lab BIL 196).

Biology
Chemistry
Computer Science AB
Mathematics BC
Physics C-Mechanics
Physics C-Electricity

BIO 196
CHM 191 and CHM 192
CS 311
MAT 191 and MAT 192
PHY 191 (or PHY 193)
PHY 192 (or PHY 194)

| Table I: Programs Offered |  |  |  |
| :---: | :---: | :---: | :---: |
| Department/Program | Concentration | Degree type | Specialization Level |
| Biology and Biochemistry/ Biochemistry |  | B.Sc. | Honours, Major, Minor |
| Biology and Biochemistry/ Biology | Biology: Health Science | B.Sc., B.A | Honours, Major |
|  | Biology: Biodiversity and Ecology | B.Sc., B.A | Honours, Major |
|  | Biology |  | Minor |
| Chemistry |  | B.Sc. | Honours, Major, Minor |
| Computer Science |  | M.Sc. |  |
|  |  | B.Sc. | Honours, Major, Minor |
|  |  | Certificate |  |
|  | Information Technology | B.A. | Major |
| Environment, Agriculture and Geography (Social Sciences Division) | Environmental Science | B.Sc. | Honours, Major, Minor |
| Mathematics |  | B.Sc., B.A | Honours, Major, Minor |
|  | Matematicas en Español | B.Sc., B.A | Honours, Major |
|  | Mathematical Contexts |  | Minor |
| Physics |  | M.Sc. |  |
|  |  | B.Sc. | Honours, Major, Minor |
| Psychology (Social Sciences Division) | Neuroscience | B.Sc. | Honours, Major |


| Table II: Collegial-equivalent courses |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Department/Program | Biology | Chemistry | Mathematics | Physics | Humanities* |
| Biology and Biochemistry / Biochemistry B.Sc. | BIO 196 | CHM 191 | MAT 191 | PHY 191 or PHY 193 | Humanities courses ** |
|  |  | CHM 192 | MAT 192 | PHY 192 or PHY 194 |  |
| Biology and Biochemistry/ <br> Biology B.Sc | BIO 196 | CHM 191 | MAT 191 | PHY 191 or PHY 193 | Humanities courses ** |
|  |  | CHM 192 | MAT 192 | PHY 192 or PHY 194 |  |
| Biology and Biochemistry/ Biology B.A. | BIO 196 |  |  |  | Humanities courses ** |
| Chemistry |  | CHM 191 | MAT 191 | PHY 191 | Humanities courses ** |
|  |  | CHM 192 | MAT 192 | PHY 192 |  |
| Computer Science / B.Sc. |  |  | MAT 191 | PHY 191 | Humanities courses ** |
|  |  |  | MAT 192 | PHY 192 |  |
| Computer Science / <br> Information Technology B.A. |  |  | MAT 196 |  | Humanities courses ** |
|  |  |  | MAT 191 |  |  |
| Environment, Agriculture and Geography (Environmental Science) | BIO 196 | CHM 191 | MAT 191 | PHY 193 |  |
|  |  | CHM 192 | MAT 192 | PHY 194 |  |
|  |  |  |  |  |  |
| Mathematics B.Sc. |  |  | MAT 191 | PHY 191 | Humanities courses ** |
|  |  |  | MAT 192 | PHY 192 |  |
| Mathematics B.A. |  |  | MAT 191 |  | Humanities courses ** |
|  |  |  | MAT 192 |  |  |
| Physics |  | CHM 191 | MAT 191 | PHY 191 | Humanities courses ** |
|  |  | CHM 192 | MAT 192 | PHY 192 |  |
| Psychology*** <br> ***(Neuroscience) | BIO 196 | CHM 191 | MAT 191 | PHY 191 or PHY 193 |  |
|  |  | CHM 192 | MAT 192 | PHY 192 or PHY 194 |  |
| * Any CEGEP DEC fulfils the Humanities requirement |  |  |  |  |  |
| ** The Humanities courses can be selected from the writing-intensive courses (course codes ending by $W$ ) or they can be selected in the following disciplines: Classical Studies (CLA), English (ENG), History and Global Studies (HIS), Liberal Arts (LIB), Philosophy (PHI) and Religion, Society and Culture (RSC) |  |  |  |  |  |
| *** The Environment, Agriculture and Geography Department and the Psychology department are part of the Social Science Division. |  |  |  |  |  |

## Transfers from other Universities and Colleges

Students entering a program in the Division of Natural Sciences and Mathematics from another Canadian University or College, or from accredited international post-secondary institutions, will have their transcripts of grades examined individually for possible transfer credit against a Bishop's program's requirements. Please consult the Admission section of this Calendar or the Admissions Office, admissions@ubishops.ca for details.

## Transfers from other programs at Bishop's University

Bishop's students wishing to transfer into a program offered by the Division of Natural Sciences and Mathematics normally require a cumulative average of $65 \%$ on all courses attempted at Bishop's. Students whose average is below $65 \%$ may still register in courses offered in the Division, subject to the normal regulations regarding course registration in the University. Program transfers are not normally permitted in a student's first semester of studies at Bishop's University.

## Graduation "with Distinction"

The notation "with Distinction" will appear on the transcript of students who graduate with a cumulative average of $80 \%$ or more. It is only available for first degree students.

# Department of Biology and Biochemistry 

## Faculty

## Patrick Bergeron

B.Sc. (McGill University), Ph.D. (Université de Sherbrooke) Associate Professor
Research and Honours Project Coordinator
Marylène Boulet
B.Sc. (Université Laval), M.Sc. (Université Laval), Ph.D. (McMaster University)
Senior Instructor

## Estelle Chamoux

Ph.D. (Université de Sherbrooke) Professor

## Kerry Hull

B.Sc. (University of Alberta), Ph.D. (University of Alberta) Professor

## Elizabeth Prusak

M.Sc. Eng. (Tech. Univ., Poland),

Ph.D. (Polish Academy of Science)
Professor

## Michael Richardson

B.Sc. (McGill University), M.Sc. (McGill University), Ph.D. (McGill University)
Associate Professor

## Jade Savage

B.Sc. (McGill University), Ph.D. (McGill University) Professor

## Ginny (Virginia) Stroeher

B.Sc. (Montana State University), Ph.D. (University of Washington) Professor
Chair of Department
Sarathi Weraduwage
B.Sc. (University of Colombo), Ph.D. (University of Guelph)

Assistant Professor

## Departmental Overview

Our programs cover a wide range of subjects, all with a focus on the components and processes that make up life. Whether it is studying biologically important molecules or entire ecosystems, our programs are designed to help students gain an understanding of one of the many fields within the life sciences and develop their own abilities to further explore subjects in these fields. Many of our graduates go on to professional and graduate studies in medicine, dentistry, veterinary science, forestry, wildlife biology, physiology, microbiology, and biotechnology; while others go into direct employment in the biotechnology sector, conservation, agriculture, education, or the allied health fields. The best attribute of our department is its teachers. Our faculty members are dedicated to undergraduate education and thrive on helping students develop their knowledge and skills both inside and outside the classroom. This dedication, coupled with a strong faculty culture of inquiry and research, encourages students to develop an analytical approach to investigating the world around them. This is further facilitated by a focus on hands-on learning in our modern and well-equipped laboratory facilities. For those students interested in biochemistry or health sciences, our proximity and continued collaboration with the

Université de Sherbrooke provides our students, both Francophone and Anglophone, access to some of the leading researchers in Canada in biochemistry, physiology, cellular and molecular biology, medicine, and microbiology. For those interested in ecology, the rural setting of Bishop's coupled with its proximity to many different natural habitats such as bogs, lakes, rivers, mountains, marshes, forests and meadows, provides exceptional opportunities for field study and research in biodiversity, ecology and conservation. Our varied facilities and opportunities allow a student to work in a modern biochemistry lab one afternoon and canoe a river the next.

## Program Overviews

The Department of Biology and Biochemistry offers several degrees; a Bachelor of Science (B.Sc.) in Biochemistry, a Bachelor of Science (B.Sc.) in Biology, a Bachelor of Arts (B.A.) in Biology, and Minors in both Biochemistry and Biology. The B.Sc. and B.A. degrees in Biology offer two concentrations, a health science concentration and a biodiversity and ecology concentration. Below is a brief overview of the different degree programs offered, and details about the courses and requirements for each program follow. For information regarding the entrance requirements to any of these programs, please refer to the Natural Sciences Division page for information on Divisional Requirements.

## B.Sc. Biochemistry Honours HONBCH

Students in the B.Sc. Biochemistry honours program may not enter this program until the start of their final year and after consultation with the Biology and Biochemistry honours project coordinator. To qualify for entrance a student must: (1) have a minimum cumulative average of $75 \%$ at the end of their Y3 year, and (2) have a mark of $75 \%$ or better in each 300- and 400-level Biology or Biochemistry course, with a maximum permitted exemption of four credits (one lecture and one laboratory course) that can be below $75 \%$. Once in the program, students must: (1) maintain a minimum cumulative average of $75 \%$, (2) achieve at least $75 \%$ in each 300 - and $400-$ level Biology or Biochemistry course, including the maximum permitted exemption as noted above, and (3) achieve at least $75 \%$ in each of the honours research courses (BCH491 and BCH492). Honours Biochemistry students must complete an additional four courses: Scientific Writing (BIO386), the two honours research courses (BCH491 and BCH492), and a fourth course pertinent to the students' honours research project to be determined by the internal supervisor. For more information, contact the research and honours project coordinator.

## B.Sc. Biochemistry Major

MAJBCH
The B.Sc. Biochemistry major program provides students with a strong grounding in the core sciences (math and physics) as well as a broad foundation in chemistry, biochemistry and biology. Students graduating with a B.Sc. in Biochemistry will be ready to enter graduate studies (M.Sc. or Ph.D.) or professional schools (e.g. medicine, dentistry, physiotherapy, or veterinary medicine).

## Biochemistry Minor

MINBCH
The Biochemistry Minor program consists of eight courses. Five of these courses are required, and three are optional. The minor allows students majoring in a different field to obtain a solid overview of modern biochemistry.

## B.Sc. Biology Honours

Students in the B.Sc. Biology honours program have the choice between one of two concentrations, Health Science or Biodiversity and Ecology. Students should declare their concentration no later than the end of the Y2 year. Students may not enter the honours program until the start of their final year and after consultation with the Biology and Biochemistry honours project coordinator. To qualify for entrance a student must: (1) have a minimum cumulative average of $75 \%$ at the end of their Y3 year, and (2) have a mark of $75 \%$ or better in each 300- and 400 -level Biology or Biochemistry course, with a maximum permitted exemption of four credits (one lecture and one laboratory course) that can be below $75 \%$. Once in the program, students must: (1) maintain a minimum cumulative average of $75 \%$, (2) achieve at least $75 \%$ in each $300-$ and $400-$ level Biology or Biochemistry course, including the maximum permitted exemption as noted above, and (3) achieve at least $75 \%$ in each of the honours research courses (BIO492 and BIO493). Honours Biology students must complete an additional four courses: Scientific Writing (BIO386), the two honours research courses (BIO492 and BIO493), and a fourth course pertinent to the students' honours research project to be determined by the internal supervisor. For more information, contact the research and honours project coordinator.

## B.Sc. Biology Major

MAJBIO
The B.Sc. Biology major programs provide students with a strong grounding in the core sciences (math, physics, and chemistry) and a broad foundation in biology. Students graduating with a B.Sc. in Biology will be ready to enter graduate studies (M.Sc. or Ph.D) or professional schools (e.g. medicine, dentistry, physiotherapy, or veterinary medicine). As with the Biology honours program, students must choose between one of two concentrations, Health Science or Biodiversity and Ecology. Students should declare their concentration no later than the end of the Y2 year.

## B.A. Biology Major

MAJBIO
The B.A. Biology major programs are designed with fewer required courses than the B.Sc. programs, allowing students to complete a second major in their 120 -credit degree. This is ideal for students interested in pursuing a double major (such as Biology with a second degree in Psychology, Political Science, Business, or Environmental Studies.), while providing a solid foundation in the biological sciences. The B.A. Biology degree provides adequate preparation for some, but not all, professional and graduate programs. Students are advised to consult with officials at the specific post-graduate institution of interest. As with the Biology B.Sc. programs, students must choose between one of two concentrations, Health Science or Biodiversity and Ecology. Students should declare their concentration no later than the end of the Y2 year.

## Biology Minor

MINBIO
The Biology Minor program consists of eight courses in different areas of Biology. Six of these courses are required, and two are optional. The minor allows students majoring in a different field to obtain a solid overview of modern biology.

## B.Sc. Pre-Medicine Double Major

MAJMED
Many students enrolled in the biology and biochemistry programs are interested in continuing their studies into medicine, and the B.Sc. Biochemistry and B.Sc. Biology (Health Sciences) programs include common prerequisite courses for application to medical schools in many areas of the world. However, students should be aware that specific entrance requirements can vary between medical schools, and can change from year to year. Therefore, it is recommended that students decide which schools they will apply to and research the particular requirements for that school. For those students unsure of where they will apply and who would like to cover as wide a set of potential prerequisite courses as possible, Bishop's offers an inter-disciplinary B.Sc. Pre-Medicine double major, which specifically addresses these concerns. See the Pre-Medicine Double Major (B.Sc.) section for more details. Students should note that graduating with a B.Sc. Pre-medicine major does not guarantee admission to medical school, but it does provide students with the courses necessary to apply to most of the major medical schools in Canada and the US, as well as many other countries.

## Program Details

Please note that many courses have associated labs featuring the same course number but a CHL/BCL/BIL code. Lab credits do not count towards the total credit requirements of the program, and the co-requisite lab must be passed to receive credit for the course.

## B.Sc. Biochemistry Honours

The Biochemistry B.Sc. Honours program requires 120 lecture credits ( 40 lecture courses) plus associated labs. The 120 -credits are divided as follows: 78 required course credits ( 26 lecture courses), 21 required option course credits ( 7 lecture courses), 15 free option course credits ( 5 lecture courses, including 1 in the Y1 year), and 6 humanities credits ( 2 lecture courses). Please note that lab credits do not count towards the final 120 credits to complete a program, and no course can be counted in more than one category in a program (ex. required course, required option, or free option). As well, if a corequisite lab course is not offered in the semester that the lecture course is completed, the corequisite is waived.

## 1. Y1 year (10 courses)

BIO 196/BIL 196 Introduction to Cellular and Molecular Biology
CHM 191/CHL 191 General Chemistry I
CHM 192/CHL 192 General Chemistry II
MAT $191 \quad$ Calculus I
MAT $192 \quad$ Calculus II
PHY 193/PHL 193 Physics for the Life Science I
PHY 194/PHL 194 Physics for the Life Science II
2 Humanities Option Courses (one writing intensive course recommended)
1 Free Option Course
2. Required Courses ( $\mathbf{1 5}$ courses)

BCH $210 \quad$ General Biochemistry
BCH $311 \quad$ Proteins
BCH 312 Lipids and Biomembranes
BCH 313/BCL 313 Metabolism
BCH $411 \quad$ Molecular Biology
BIO $201 \quad$ Cellular and Molecular Biology
BIO 208/BIL 208 Genetics
BIO 336 Animal Physiology I
CHM 111/CHL111 Organic Chemistry I: Introductory
CHM 131/CHL131 Physical Chemistry I
CHM 141/CHL 141 Analytical Chemistry
CHM 211/CHL 211 Organic Chemistry II: Introductory
*CHM 245/CHL 245 Instrumental Analysis
*CHM 341/CHL 341 Principles and Practices of Chemical Spectroscopy and Mass Spectrometry
PHY 101 Statistical Methods in Experimental Science

* These courses are offered in alternate years


## 3. Required Honours Courses (4 courses)

BIO 386 Scientific Writing
BCH $491 \quad$ Honours Research Project I
BCH $492 \quad$ Honours Research Project II
One (1) course required by internal supervisor that is pertinent to student's honours project

## 4. Required Option Courses (7 courses)

BCH 317 Plant Biochemistry for Human Health \& Nutrition
BCH 342 Bioinformatics
BCH 380 Steroids and their essential roles in humans
BCH 381 Immunology
BCH 382 Principles of Toxicology
BCH 421 Enzymes in Health and Disease
BCH 422/BCL 422 Biotechnology
BCH 460 Plant Biotechnology for Crop Improvement
BIO 310 Cell Biology
BIO 311 Quantitative Methods
BIO 320 Programmed Cell Death
BIO 334 Epidemiology
BIO 337/BIL 337 Animal Physiology II

BIO 345 Plant Physiology
BIO 352/BIL 352 Microbiology
BIO 359 Human Genetics
BIO 365 Developmental Biology
BIO 391 Experiential Learning in Health Science \& Biochemistry
BIO 394 Biology of Cancer
CHM 231/CHL 231 Physical Chemistry
CHM 311/CHL 311 Organic Chemistry III
CHM 411/CHL 411 Organic Chemistry IV
PBI 380 Psychopharmacology

## 5. Free Options (4 courses)

## BSc Biochemistry Major

The Biochemistry B.Sc. Major program requires 120 lecture credits ( 40 lecture courses) plus associated labs. The 120 -credits are divided as follows: 66 required course credits ( 22 lecture courses), 21 required option course credits ( 7 lecture courses), 27 free option course credits ( 9 lecture courses, including 1 in the Y1 year), and 6 humanities credits (2 lecture courses). Please note that lab credits do not count towards the final 120 credits to complete a program, and no course can be counted in more than one category in a program (ex. required course, required option, or free option). As well, if a corequisite lab course is not offered in the semester that the lecture course is completed, the corequisite is waived.

## 1. Y1 year (10 courses)

| BIO 196/BIL 196 | Introduction to Cellular and Molecular Biology |
| :--- | :--- |
| CHM 191/CHL 191 | General Chemistry I |
| CHM 192/CHL 192 | General Chemistry II |
| MAT 191 | Calculus I |
| MAT 192 | Calculus II |
| PHY 193/PHL 193 | Physics for the Life Science I |
| PHY 194/PHL 194 | Physics for the Life Science II |
| 2 Humanities Option Courses (one writing intensive course recommended) |  |
| 1 Free Option Course |  |
| 2. Required Courses (15 courses) |  |
| BCH 210 | General Biochemistry |
| BCH 311 | Proteins |
| BCH 312 | Lipids and Biomembranes |
| BCH 313/BCL 313 | Metabolism |
| BCH 411 | Molecular Biology |
| BIO 201 | Cellular and Molecular Biology |
| BIO 208/BIL 208 | Genetics |
| BIO 336 | Animal Physiology I |
| CHM 111/CHL 111 | Organic Chemistry I: Introductory |
| CHM 131/CHL 131 | Physical Chemistry I |
| CHM 141/CHL 141 | Analytical Chemistry |
| CHM 211/CHL 211 | Organic Chemistry II: Introductory |
| *CHM 245/CHL 245 | Instrumental Analysis |
| *CHM 341/CHL 341 | Principles and Practices of Chemical Spectroscopy and Mass Spectrometry |
| PHY101 | Statistical Methods in Experimental Science |
| * These courses are | offered in alternate years. |
| 3. Required Option | Courses (7 courses) |


| BCH 317 Plant Biochemistry for Human Health \& Nutrition | BIO 345 Plant Physiology |
| :--- | :--- |
| BCH 342 Bioinformatics | BIO 352/BIL 352 Microbiology |
| BCH 380 Steroids and their essential roles in humans | BIO 359 Human Genetics |
| BCH 381 Immunology | BIO 365 Developmental Biology |
| BCH 382 Principles of Toxicology | BIO 386 Scientific Writing |
| BCH 421 Enzymes in Health and Disease | BIO 391 Experiential Learning in Health Science \& Biochemistry |
| BCH 422/BCL 422 Biotechnology | BIO 394 Biology of Cancer |
| BCH 460 Plant Biotechnology for Crop Improvement | CHM 231/CHL 231 Physical Chemistry II |
| BIO 310 Cell Biology | CHM 311/CHL 311 Organic Chemistry III |
| BIO 311 Quantitative Methods | CHM 411/CHL 411 Organic Chemistry IV |
| BIO 320 Programmed Cell Death | PBI 380 Psychopharmacology |

BIO 334 Epidemiology
BIO 337/BIL 337 Animal Physiology II

## 4. Free Option Courses (8 courses)

## Biochemistry Minor

The Biochemistry Minor program requires 24 lecture credits ( 8 lecture courses) plus associated labs. The 24 -credits are divided as follows: 15 required course credits ( 5 lecture courses) and 9 required option course credits ( 3 lecture courses). Please note that lab credits do not count towards the final 24 credits to complete the minor, and no course can be counted in more than one category in the program (ex. required course and required option course). As well, if a co-requisite lab course is not offered in the semester that the lecture course is completed, the co-requisite is waived.

## 1. Required Courses: (5 courses)

| BCH 311 | Proteins |
| :--- | :--- |
| BCH 312 | Lipids and Biomembranes |
| BIO 208/BIL 208 | Genetics |
| BIO 336 | Animal Physiology I |
| CHM 141/CHL 141 | Analytical Chemistry |
| 2. Required Option | Courses (3 courses) |
| BCH 313/BCL 313 | Metabolism |
| BCH 317 | Plant Biochemistry for Human Health and Nutrition |
| BCH 381 | Immunology |
| BCH 411 | Molecular Biology |
| BCH 421 | Enzymes in Health and Disease |
| BIO 310 | Advanced Cell Biology |
| BIO 320 | Programed Cell Death |
| BIO 337/BIL 337 | Animal Physiology II |
| BIO 352/BIL 352 | Microbiology |
| BIO 394 | Biology of Cancer |
| CHM 131/CHL 131 | Physical Chemistry I |
| CHM 211/CHL 211 | Organic Chemistry II |

## B.Sc. Biology Honours: Health Sciences Concentration

The Biology B.Sc. Honours program (Health Sciences) requires 120 lecture credits ( 40 lecture courses) plus associated labs. The 120 -credits are divided as follows: 75 required course credits ( 25 lecture courses), 21 required concentration option course credits ( 7 lecture courses), 18 free option course credits ( 6 lecture courses, including 1 in the Y1 year), and 6 humanities credits ( 2 lecture courses). Please note that lab credits do not count towards the final 120 credits to complete a program, and no course can be counted in more than one category in a program (ex. required course, required option, or free option). As well, if a corequisite lab course is not offered in the semester that the lecture course is completed, the corequisite is waived.

## 1. Y1 year (10 courses)

| BIO 196/BIL 196 | Introduction to Cellular and Molecular Biology |
| :--- | :--- |
| CHM 191/CHL 191 | General Chemistry I |
| CHM 192/CHL 192 | General Chemistry II |
| MAT 191 | Calculus I |
| MAT 192 | Calculus II |
| PHY 193/PHL 193 | Physics for the Life Science I |
| PHY 194/PHL 194 | Physics for the Life Science II |
| 2 Humanities Option Courses (one writing intensive course recommended) |  |
| 1 Free Option Course |  |

2. Required core courses (7 courses)

BIO $201 \quad$ Cellular and Molecular Biology
BIO 205/BIL 205 Animal Diversity
BIO 206 Plant Diversity
BIO 208/BIL 208 Genetics
BIO 336
CHM 111/CHL 111 Organic Chemistry I: Introductory
PHY101 Statistical Methods in Experimental Science
3. Required Concentration Courses ( 7 courses)

BCH 210 General Biochemistry
BCH 313/BCL 313 Metabolism
BIO 233 Human Anatomy
BIO 311 Quantitative Methods in Biology or
BCH 342 Bioinformatics (Principles and Practical Approaches)
BIO 337/BIL 337 Animal Physiology II
BIO 352/BIL 352 Microbiology or
BIO 334 Epidemiology
PSY 101 Introduction to Psychology I: Basic Processes
4. Required Honours Courses (4 courses)

| BIO 386 | Scientific Writing |
| :--- | :--- |
| BIO 492 | Honours Research Project I |
| BIO 493 | Honours Research Project II |

BIO 493 Honours Research Project II
One (1) course required by internal supervisor that is pertinent to student's honours project

## 5. Concentration Option Courses (7 courses, at least 5 BIO or BCH)

BIO 310 Advanced Cell Biology
BIO 311 Quantitative Methods in Biology
BIO 315 Frontiers of Biology, Past to Present
BIO 320 Programmed Cell Death
BIO 334 Epidemiology
BIO 340 Comparative Vertebrate Anatomy
BIO 341 Population Genetics and Evolution
BIO 349 Medical and Forensic Entomology
BIO 352/BIL 352 Microbiology
BIO 359 Human Genetics
BIO 365 Developmental Biology
BIO 391 Experiential Learning in Health Sciences \& Biochemistry
BIO 394 Biology of Cancer
BIO 411 Seminars in Health Sciences
BIO 428 Advanced Physiology

## 6. Free Options ( 5 courses)

Note: Students considering application to medical school may want to consider taking either CS 201/CSL 201 Foundations of Computer Science or CS 211/CSL 211 Introduction to Programming as one of their free option courses

BCH 311 Proteins
BCH 312 Lipids and Biomembranes
BCH 317 Plant Biochemistry for Human Health \& Nutrition
BCH 342 Bioinformatics
BCH 380 Steroids and their essential roles in humans
BCH 381 Immunology
BCH 382 Principles of Toxicology
BCH 411 Molecular Biology
BCH 421 Enzymes in Health and Disease
BCH 422/BCL 422 Biotechnology
CHM 211/CHL 211 Organic Chemistry II
EXS 317 Biomechanics of Human Movement
PBI 379 Neuropsychology
PBI380 Psychopharmacology

## BSc Biology Major: Health Sciences Concentration

The Biology B.Sc. Major program (Health Sciences) requires 120 lecture credits ( 40 lecture courses) plus associated labs. The 120 -credits are divided as follows: 63 required course credits ( 21 lecture courses), 21 required concentration option course credits ( 7 lecture courses), 30 free option course credits ( 10 lecture courses, including 1 in the Y 1 year), and 6 humanities credits (2 lecture courses). Please note that lab credits do not count towards the final 120 credits to complete a program, and no course can be counted in more than one category in a program (ex. required course, required option, or free option). As well, if a corequisite lab course is not offered in the semester that the lecture course is completed, the corequisite is waived.

## 1. Y1 year (10 courses)

| BIO 196/BIL 196 | Introduction to Cellular and Molecular Biology |
| :--- | :--- |
| CHM 191/CHL 191 | General Chemistry I |
| CHM 192/CHL 192 | General Chemistry II |
| MAT 191 | Calculus I |
| MAT 192 | Calculus II |
| PHY 193/PHL 193 | Physics for the Life Science I |
| PHY 194/PHL 194 | Physics for the Life Science II |
| 2 Humanities Option Courses (one writing intensive course recommended) |  |
| 1 Free Option Course  <br> 2. Required core courses (7 courses)  <br> BIO 201 Cellular and Molecular Biology <br> BIO 205/BIL 205 Animal Diversity <br> BIO 206 Plant Diversity <br> BIO 208/BIL 208 Genetics <br> BIO 336 Animal Physiology I <br> CHM 111/CHL 111 Organic Chemistry I: Introductory <br> PHY 101 Statistical Methods in Experimental Science |  |

## 3. Required Concentration Courses (7 courses)

BCH 210 General Biochemistry
BCH 313/BCL 313 Metabolism
BIO 233 Human Anatomy
BIO $311 \quad$ Quantitative Methods in Biology or
BCH 342 Bioinformatics (Principles and Practical Approaches)
BIO 337/BIL 337 Animal Physiology II
BIO 352/BIL 352 Microbiology or
BIO 334 Epidemiology
PSY 101 Introduction to Psychology I: Basic Processes

## 4. Concentration Option Courses (7 courses, at least 5 BIO or BCH)

BIO 310 Advanced Cell Biology
BIO 311 Quantitative Methods in Biology
BIO 315 Frontiers of Biology, Past to Present
BIO 320 Programmed Cell Death
BIO 334 Epidemiology
BIO 340 Comparative Vertebrate Anatomy
BIO 341 Population Genetics and Evolution
BIO 349 Medical and Forensic Entomology
BIO 352/BIL 352 Microbiology
BIO 359 Human Genetics
BIO 365 Developmental Biology
BIO 386 Scientific Writing
BIO 391 Experiential Learning in Health Sciences \& Biochemistry
BIO 394 Biology of Cancer
BIO 411 Seminars in Health Sciences
BIO 428 Advanced Physiology
5. Free Options (9 courses)

Note: Students considering application to medical school may want to consider taking either CS 201/CSL 201 Foundations of Computer Science or CS 211/CSL 211 Introduction to Programming as one of their free option courses.

BCH 311 Proteins
BCH 312 Lipids and Biomembranes
BCH 317 Plant Biochemistry for Human Health \& Nutrition
BCH 342 Bioinformatics
BCH 380 Steroids and their essential roles in humans
BCH 381 Immunology
BCH 382 Principles of Toxicology
BCH 411 Molecular Biology
BCH 421 Enzymes in Health and Disease
BCH 422/BCL 422 Biotechnology
CHM 211/CHL 211 Organic Chemistry II
EXS 317 Biomechanics of Human Movement
PBI 379 Neuropsychology
PBI 380 Psychopharmacology

Science CS 211/CSL 2ll Introduction to Programming as one of their free option courses.

## BA Biology Major: Health Studies Concentration

The Biology B.A. Major program (Health Sciences) requires 120 lecture credits ( 40 lecture courses) plus associated labs. The 120 -credits are divided as follows: 33 required course credits ( 11 lecture courses), 18 required concentration option course credits ( 6 lecture courses), 63 free option course credits ( 21 lecture courses, including 7 in the Y1 year), and 6 humanities credits (2 lecture courses). Please note that lab credits do not count towards the final 120 credits to complete a program, and no course can be counted in more than one category in a program (ex. required course, required option, or free option). As well, if a corequisite lab course is not offered in the semester that the lecture course is completed, the corequisite is waived.

## 1. Y1 year (10 courses)

| BIO 196/BIL 196 | Introduction to Cellular and Molecular Biology |
| :--- | :--- |
| 2 Humanities Option Courses (one writing intensive course recommended) |  |
| Free Options (7 courses) |  |
| 2. Required core courses (6 courses) |  |
| BIO 201 | Cellular and Molecular Biology |
| BIO 205/BIL 205 | Animal Diversity |
| BIO 206 | Plant Diversity |
| BIO 208/BIL 208 | Genetics |
| BIO 336 | Animal Physiology I |
| PHY 101 | Statistical Methods in Experimental Science |
| 3. Required Concentration Courses (4 courses) |  |
| BIO 233 | Human Anatomy |
| BIO 315 | Frontiers of Biology, From Past to Present |
| BIO 337/BIL 337 | Animal Physiology II |
| PSY 101 | Introduction to Psychology I: Basic Processes |

## 4. Concentration Option Courses (6 courses, at least 5 BIO or BCH)

BIO 310 Advanced Cell Biology
BIO 311 Quantitative Methods in Biology
BIO 320 Programmed Cell Death
BIO 334 Epidemiology
BIO 340 Comparative Vertebrate Anatomy
BIO 341 Population Genetics and Evolution
BIO 349 Medical and Forensic Entomology
BIO 352/BIL 352 Microbiology
BIO 359 Human Genetics
BIO 365 Developmental Biology
BIO 386 Scientific Writing
BIO 391 Experiential Learning in Health Sciences \& Biochemistry
BIO 394 Biology of Cancer
BIO 411 Seminars in Health Sciences
BIO 428 Advanced Physiology

## 5. Free Options (14 courses)

Note: Students considering application to medical school may want to consider taking either CS 201/CSL 201 Foundations of Computer Science or CS 211/CSL 211 Introduction to Programming as one of their free option courses.

## B.Sc. Biology Honours: Biodiversity and Ecology Concentration

The Biology B.Sc. Honours program (Biodiversity and Ecology) requires 120 lecture credits ( 40 lecture courses) plus associated labs. The 120 -credits are divided as follows: 75 required course credits ( 25 lecture courses), 21 required concentration option course credits ( 7 lecture courses), 18 free option course credits ( 6 lecture courses, including 1 in the Y1 year), and 6 humanities credits ( 2 lecture courses). Please note that lab credits do not count towards the final 120 credits to complete a program, and no course can be counted in more than one category in a program (ex. required course, required option, or free option). As well, if a corequisite lab course is not offered in the semester that the lecture course is completed, the corequisite is waived.

## 1. Y1 year ( 10 courses)

| BIO 196/BIL 196 | Introduction to Cellular and Molecular Biology |
| :--- | :--- |
| CHM 191/CHL 191 | General Chemistry I |
| CHM 192/CHL 192 | General Chemistry II |
| MAT 191 | Calculus I |
| MAT 192 | Calculus II |
| PHY 193/PHL 193 | Physics for the Life Science I |
| PHY 194/PHL 194 | Physics for the Life Science II |
| Humanities Option Courses (one writing intensive course recommended)  <br> 1 Free Option Course  <br> Note: Students who attained $>75 \%$ in BIO 196 may consider taking BIO 207 Introduction to Evolution and Ecology in their Y1 year  |  |

## 2. Required core courses (7 courses)

BIO 201 Cellular and Molecular Biology

BIO 205/BIL 205 Animal Diversity
BIO 206 Plant Diversity
BIO 208/BIL 208 Genetics
BIO 336 Animal Physiology I
CHM 111/CHL 111 Organic Chemistry I: Introductory
PHY 101 Statistical Methods in Experimental Science

## 3. Required Concentration Courses (7 courses)

| BIO 207 | Introduction to Evolution and Ecology |
| :--- | :--- |
| BIO 311 | Quantitative Methods in Biology |
| BIO 327 329/BIL 329 | Advanced Ecology |
| BIO | Invertebrate Biology |
| BIO 338 | Vertebrate Life I: An Introduction to Ichthyology and Herpetology or |
| BIO 339/BIL 339 | Vertebrate Life II: An Introduction to Ornithology and Mammalogy |
| BIO 345 | Plant Physiology |
| ESG 127 | Living in the Environment |

4. Required Honours Courses (4 courses)

BIO 386 Scientific Writing
BIO $492 \quad$ Honours Research Project I
BIO 493 Honours Research Project II
One (1) course required by internal supervisor that is pertinent to student's honours project

## 5. Concentration Option Courses ( 7 courses, at least 5 BIO or BCH)

BIO 315 Frontiers of Biology, Past to Present
BIO 331/BIL 331 Freshwater Biology
BIO 334 Epidemiology
BIO 337/BIL 337 Animal Physiology II
BIO 338 Vertebrate Life I
BIO 339/BIL 339 Vertebrate Life II
BIO 341 Population Genetics and Evolution
BIO 352/BIL 352 Microbiology
BIO 354 Insect Biodiversity
BIO 358/BIL 358 Animal Behaviour
BIO 392 Experiential Learning in Biodiversity \& Ecology
BIO 412 Seminars in Biodiversity and Ecology

BCH 313/BCH 313 Metabolism
BCH 342 Bioinformatics
BCH 382 Principles of Toxicology
BCH 460 Plant Biotechnology in Crop Improvement
ESG 262 Introduction to GIS
BIO 340 Comparative Vertebrate Anatomy
BIO 349 Medical and Forensic Entomology

6 .Free Option Courses (5 courses)

## BSc Biology Major: Biodiversity and Ecology Concentration

The Biology B.Sc. Major program (Biodiversity and Ecology) requires 120 lecture credits ( 40 lecture courses) plus associated labs. The 120 -credits are divided as follows: 63 required course credits ( 21 lecture courses), 21 required concentration option course credits ( 7 lecture courses), 30 free option course credits ( 10 lecture courses, including 1 in the Y1 year), and 6 humanities credits ( 2 lecture courses). Please note that lab credits do not count towards the final 120 credits to complete a program, and no course can be counted in more than one category in a program (ex. required course, required option, or free option). As well, if a corequisite lab course is not offered in the semester that the lecture course is completed, the corequisite is waived.

## 1. Y1 year (10 courses)

| BIO 196/BIL 196 | Introduction to Cellular and Molecular Biology |
| :--- | :--- |
| CHM 191/CHL 191 | General Chemistry I |
| CHM 192/CHL 192 | General Chemistry II |
| MAT 191 | Calculus I |
| MAT 192 | Calculus II |
| PHY 193/PHL 193 | Physics for the Life Science I |
| PHY 194/PHL 194 | Physics for the Life Science II |
| 2 Humanities Option Courses (one writing intensive course recommended) |  |
| 1 Free Option Course |  |

Note: Students who attained $>75 \%$ in BIO 196 may consider taking BIO 207 Introduction to Evolution and Ecology in their Y1 year.
2. Required core courses (7 courses)

| BIO 201 | Cellular and Molecular Biology |
| :--- | :--- |
| BIO 205/BIL 205 | Animal Diversity |
| BIO 206 | Plant Diversity |
| BIO 208/BIL 208 | Genetics |
| BIO 336 | Animal Physiology I |
| CHM 111/CHL 111 | Organic Chemistry I: Introductory |
| PHY 101 | Statistical Methods in Experimental Science |

## 3. Required Concentration Courses (7 courses)

| BIO 207 | Introduction to Evolution and Ecology |
| :--- | :--- |
| BIO 311 | Quantitative Methods in Biology |
| BIO 327 | Advanced Ecology |
| BIO 329/ BIL 329 | Invertebrate Biology |
| BIO 338 | Vertebrate Life I: An Introduction to Ichthyology and Herpetology or |
| BIO339/BIL339 | Vertebrate Life II: An Introduction to Ornithology and Mammalogy |
| BIO 345 | Plant Physiology |
| ESG 127 | Living in the Environment |
| 4. Concentration Option Courses (7 courses, at least 5 BIO or BCH) |  |
| BIO 315 Frontiers of Biology, Past to Present | BCH 313/BCH 313 Metabolism |
| BIO 331/BIL 331 Freshwater Biology | BCH 342 Bioinformatics |
| BIO 334 Epidemiology | BCH 382 Principles of Toxicology |
| BIO 337/BIL 337 Animal Physiology II | BCH 460 Plant Biotechnology in Crop Improvement |
| BIO 338 Vertebrate Life I | ESG 262 Introduction to GIS |
| BIO 339/BIL 339 Vertebrate Life II | BIO 340 Comparative Vertebrate Anatomy |

BIO 341 Population Genetics and Evolution
BIO 349 Medical and Forensic Entomology
BIO 352/BIL 352 Microbiology
BIO 354 Insect Biodiversity
BIO 358/BIL 358 Animal Behaviour
BIO 386 Scientific Writing
BIO 392 Experiential Learning in Biodiversity \& Ecology
BIO 412 Seminars in Biodiversity and Ecology

## 5. Free Options (9 courses)

## BA Biology Major: Biodiversity and Ecology Concentration

The Biology B.A. Major program (Biodiversity and Ecology) requires 120 lecture credits ( 40 lecture courses) plus associated labs. The 120 -credits are divided as follows: 33 required course credits (11 lecture courses), 18 required concentration option course credits ( 6 lecture courses), 63 free option course credits (21 lecture courses, including 7 in the Y 1 year), and 6 humanities credits (2 lecture courses). Please note that lab credits do not count towards the final 120 credits to complete a program, and no course can be counted in more than one category in a program (ex. required course, required option, or free option). As well, if a corequisite lab course is not offered in the semester that the lecture course is completed, the corequisite is waived.

## 1. Y1 year (10 courses)

BIO 196/BIL 196 Introduction to Cellular and Molecular Biology
2 Humanities Option Courses (one writing intensive course recommended)
Free Options (7 courses)

## 2. Required core courses (6 courses)

BIO $201 \quad$ Cellular and Molecular Biology
BIO 205/BIL 205 Animal Diversity
BIO 206 Plant Diversity
BIO 208/BIL 208 Genetics
BIO 336 Animal Physiology I
PHY 101 Statistical Methods in Experimental Science

## 3. Required Concentration Courses (4 courses)

| BIO 207 | Introduction to Evolution and Ecology |
| :--- | :--- |
| BIO 329/ BIL 329 | Invertebrate Biology or |
| BIO 354 | Insect Biodiversity |
| BIO 338 | Vertebrate Life I: An Introduction to Ichthyology and Herpetology or |
| BIO 339/BIL 339 | Vertebrate Life II: An Introduction to Ornithology and Mammalogy |
| ESG 127 | Living in the Environment |

## 4. Concentration Option Courses ( 6 courses, at least 5 BIO or BCH)

| BIO 311 Quantitative Methods in Biology | BCH 342 Bioinformatics |
| :--- | :--- |
| BIO 315 Frontiers of Biology, Past to Present | BCH 382 Principles of Toxicology |
| BIO 327 Advanced Ecology | ESG 262 Introduction to GIS |
| BIO 331/BIL 331 Freshwater Biology |  |
| BIO 334 Epidemiology |  |
| BIO 337/BIL 337 Animal Physiology II |  |
| BIO 338 Vertebrate Life I |  |
| BIO 339/BIL 339 Vertebrate Life II |  |
| BIO 340 Comparative Vertebrate Anatomy |  |
| BIO 341 Population Genetics and Evolution |  |
| BIO 345 Plant Physiology |  |
| BIO 349 Medical and Forensic Entomology |  |
| BIO 352/BIL 352 Microbiology |  |
| BIO 354 Insect Biodiversity |  |
| BIO 358/BIL 358 Animal Behaviour |  |
| BIO 386 Scientific Writing |  |
| BIO 392 Experiential Learning in Biodiversity \& Ecology |  |
| BIO 412 Seminars in Biodiversity and Ecology |  |

## 5. Free Options (14 courses)

## Biology Minor Requirements

The Biology Minor program requires 24 lecture credits ( 8 lecture courses) plus associated labs. The 24-credits are divided as follows: 15 required course credits ( 5 lecture courses) and 9 optional BIO credits (3 lecture courses).

## 1. Required Courses: (5 courses)

BIO 196/BIL 196 Introduction to Cellular and Molecular Biology
BIO 205/BIL 205 Animal Diversity
BIO 206
Plant Diversity
BIO 207 Introduction to Evolution and Ecology
BIO 208/BIL 208 Genetics

## 2. Any Three (3) additional BIO courses

## List of Courses in Biology and Biochemistry

PLEASE NOTE: The following list of courses represents those courses which are normally offered by the Department of Biology and Biochemistry. However, some courses alternate and thus are only available every second year. Courses offered on an occasional basis are indicated with an asterisk (*). Students should plan their schedules in advance, in consultation with their Academic advisor or Departmental Chair, to ensure that they complete all courses required for graduation. Co-requisite labs (BCL and BIL) must be completed by all students taking the corresponding lecture courses, regardless of major.

## Biochemistry courses carry the code BCH (lecture) or BCL (lab)

BCH 210 General Biochemistry
3-1-0
An introduction to the structure and function of biomolecules with the emphasis on the central phenomena behind the behavior of biomolecules in the cellular environment
Prerequisites: CHM 111 and BIO 201
BCH 311 Proteins 3-3-0
Protein structure and function, including protein purification, structure analysis, protein synthesis, distribution and degradation, as well as molecular visualization of protein structure.
Prerequisite: CHM 111 and BCH 210
BCH 312 Lipids and Biomembranes 3-3-0
Biomembranes structure and function, including study of cell membrane structure, and transport, trans-membrane signaling, hormones and secondary messengers.
Prerequisite: BCH 311
BCH 313 Metabolism
3-3-0
Introduction to the basic metabolic pathways of living cells. These include the central metabolic pathways associated with cellular energy generation, carbohydrate degradation and synthesis, fatty acid degradation and synthesis, lipid metabolism and nitrogen metabolism. Emphasis will be placed on the role and regulation of enzymes associated with these pathways.
Prerequisite: CHE 111, BCH 210 and BIO 336
Co-requisite: BCL 313
BCL 313 Metabolism Laboratory 1-0-3
This course introduces the student to research approaches in metabolic enzymology and the study of enzyme kinetics. Environmental factors influencing enzyme activity as well as the effects of different inhibitory molecules will be examined. As well, protein isolation and analysis will be covered.
Co-requisite: BCH 313
BCH 317 Plant Biochemistry for Human Health and Nutrition 3-3-0 This course covers the biochemistry of carbon assimilation and metabolism, and the major secondary metabolic pathways in plants. The significance of carbon assimilation for human nutrition, and the physiological function of secondary metabolites in plants and their impact on human health as vitamins, antioxidants, phytomedicines and nutraceuticals will be discussed in detail. The biochemistry of popular herbs as well as high value medicinal plants such as ginseng and artemisia will be reviewed. Students taking this course will gain a sound knowledge on Plant Biochemistry and the benefits of plant-based foods and other phytochemicals for humans.
Prerequisites: BCH 210, BIO 201, BIO 208 and BCH 313

BCH 342 Bioinformatics
This course will introduce students to Bioinformatics, which uses computer databases to store, retrieve and assist in understanding biological information.
Prerequisites: CHM 111, BCH 210 and BIO 336
BCH 371 Independent Studies in Biochemistry I $\mathbf{3 - 1 - 3}$
This course is not regularly offered and is only meant for final-year students who wish to pursue in-depth study of a particular area of biochemistry or who have a special need for a biochemistry course that would otherwise not be available during their final year of course work. This course can only be done in close collaboration with a faculty advisor from within the Biochemistry program, and may not be used as a supplement to a student's honours project. Requirements for this course will be agreed upon by a committee of professors from within the Biochemistry Program.
Prerequisite: Permission of the Biology and Biochemistry Department Research and Honours Project Coordinator
BCH 372 Independent Studies in Biochemistry II $\mathbf{3 - 1 - 3}$ This course represents an additional semester of independent work, either a continuation of or a separate course from BCH 371, meant for final-year students who wish to pursue in-depth study of a particular area of biochemistry or who have a special need for a biochemistry course that would otherwise not be available during their final semester of course work. This course can only be done in close collaboration with a faculty advisor from within the Biochemistry Program and may not be used as a supplement to a student's honours project. Requirements for this course will be agreed upon by a committee of professors from within the Biochemistry Program.
Prerequisite: Permission of the Biology and Biochemistry Department Research and Honours Project Coordinator
BCH 380 Independent Studies in Biochemistry II $\quad \mathbf{3 - 3 - 0}$ This course will provide in-depth knowledge on the different types of steroids present in the human body including cholesterol, oxysteroids, bile acids, and steroid hormones (adrenal hormones such as cortisol, sex hormones), and vitamin D. The course will cover the synthesis and essential roles of these terpene-based lipids in human physiology ranging from cell signaling, modulation of growth, reproduction and aging. The use of anabolic steroids as performance-enhancing drugs and their effects on human health will be discussed
Prerequisites: CHM 111, BCH 210 and BIO 201
BCH 381 Immunology
3-3-0
A comprehensive study of the fundamental principles of immunobiology. Intercellular recognition and self/non-self-discrimination. Clonal selection theory and genetic basis of antibody diversity. Biochemistry of immunoglobulins. Regulation of immune response and tolerance.
Prerequisites: BIO 201 and BIO 208
BCH 382 Principles of Toxicology
3-3-0
This course will examine the biochemical effects of environmental stresses on organisms, and adaptations that allow organisms to face these stresses. Emphasis is placed on biochemical responses to toxic compounds such as aromatics, halogenated aliphatics, drugs, and heavy metals. Other topics will include adaptations to stresses such as temperature extremes, pathogens, and ionizing radiation. Applications to related biotechnological processes may also be considered.
Prerequisite: BIO 201, BIO 208 and CHM 111

## BCH 411 Molecular Biology

3-3-0
The molecular biology of nucleic acids and proteins, including DNA replication, mutation, and recombination; RNA transcription; and protein synthesis. Also covered will be protein/nucleic acid interactions and regulation of gene expression. Prerequisite: BIO 201 and BIO 208

## BCH 421 Enzymes in Health and Disease <br> 3-3-0

The course will focus on the theories of enzyme kinetics, the mechanisms of enzyme catalysis, and the mechanisms of enzyme regulation in the cell with the particular emphasis on the role of enzymes in human health and disease.
Prerequisites: $B C H 313$
BCH 422 Biotechnology
3-3-0
This course will explore the technical approaches used in current research and biotechnology, emphasizing the applications of molecular strategies and processes studied in BCH 383. Both the theoretical and practical aspects of these molecular approaches will be discussed, as well as how these techniques are utilized and how they have changed modern research and medicine.
Prerequisite or corequisite: BCH 411
Corequisite: BCL 422
BCL 422 Biotechnology Laboratory
Practical application of several of the techniques introduced in BCH 422.
Corequisite: BCH 422

## BCH 460 Plant Biotechnology for Crop Improvement

3-3-0
This course will cover in detail the principles, techniques and applications of Plant Biotechnology for crop improvement. Topics such as: the use of Plant Biotechnology tools in plant breeding, genetic engineering and plant transformation techniques, principles and techniques of micropropagation, practical applications of Plant Biotechnology and its significance for agriculture in terms of addressing climate change-mediated challenges on plant productivity, will be reviewed. The health and environmental concerns around genetically modified crops will also be discussed.
Prerequisite: BIO 201, BIO 208, and BCH 411

## BCH 491 Honours Research Project I

3-1-6
An introduction to the planning, execution and reporting of biological research offered to students matching eligibility criteria. Each student is required to choose a research problem and, in consultation with a departmentally approved supervisor, draw up a formal research proposal of work to be undertaken. The final mark in this course will be based on the research proposal, preliminary research completed on the stated project, and presentation of a poster during the final week of classes. Satisfactory completion of BCH 491 with a minimum overall mark of $75 \%$ with a minimal score of $70 \%$ in each graded component, is required for enrolment in BCH 492.
Prerequisite: Permission of the Biology and Biochemistry Department Research and Honours Project Coordinator

## BCH 492 Honours Research Project II

3-1-12
A continuation of BCH 491 offered to students matching eligibility criteria. The student will complete all research as outlined in the research proposal. The final mark in this course will be based on the quality and amount of research completed, presentation of a departmental seminar during the final week of classes, open to the public, based on research findings, and submission of a final written honours thesis. Enrolment in BCH 492 is conditional upon completing BCH 491 with a minimum mark of $75 \%$. Satisfactory completion of BIO 492 with a minimum overall mark of $75 \%$, with a minimal score of $70 \%$ in each graded component, is required to complete the Honours program
Prerequisite: BCH 491

## Biology courses carry the code BIO (lecture) or BIL (lab)

## BIO 111 Organic Gardening

3-3-0
This course is an introduction to organic and environment-friendly gardening, combining lectures and a hands-on-practicum. Principles of companionship, growth, water and mineral balance will be discussed. Students will learn how to recognize and treat diseases, pests or common physiological disorders with environmentally natural techniques. At the end of this course, students should be able to set-up and run a garden using environment-friendly techniques and know how to harvest, handle and store crops. Depending on the interests of the group, the course will either cover transformation strategies for year-long storage of vegetables grown in the summer (canning, freezing, fermentation, drying...), or make an introduction to entrepreneurship in organic farming (based on the instructor's own experience). In addition, several visits will be organized to locally run organic farms to present various models of environment-friendly productions of veggies, fruits and herbs.
Note: This course is open to the general public and may be taken by non-DNS students for science credit. However, students in any of the science majors may only take this course as a free elective and may not count this course for science credit. It is offered in the spring semester.
Note: This course cannot be taken for credit by anyone who already has credit for BIO 211.
BIO 131 The Human Body in Health and Disease
3-3-0
An introduction to human anatomy and physiology. This course will employ problem-based learning, virtual experiments, and traditional lectures to explain the relationship between the structure of the human body and its functions. These concepts will then be applied to the study of representative human diseases. This course is designed for students with minimal biology backgrounds, including arts students, teachers, coaches, and home-care workers. Students will acquire a working knowledge of human biology and the ability to communicate this knowledge to others.
Prerequisites: Secondary school Biology and/or Chemistry recommended Note: This course cannot be taken for credit by students in Biology and Biochemistry or by students with credit for BIO 233
BIO 189 The Science of Covid-19
3-3-0
In 2020 the world experienced unprecedented times with the rapid spread of the first worldwide pandemic. In this course we will look at the Covid-19 pandemic from the very first discover of a new virus to the most recent developments. Using the Sars-Cov-2 as our focus, we will explore concepts in genetics, cell biology, immunology, and human physiology. This will provide a gateway to understanding the scientific method, clinical studies and science publications. Taught at an introductory level for non-science majors, this course should leave students with a good background knowledge of biology and clinical research. This course should also help students to develop the type of critical thinking skills necessary to evaluate the credibility of information concerning medical research and public health.
Note: This course cannot be taken for credit by students in Biology or

## Biochemistry or by students with credit for BIO 289

BIO 194 Introduction to the Biological Sciences 3-3-0
This course provides an introduction to biology, the study of life, and is designed for students with no previous science background. This course starts with an introduction to the scientific method and a comparison of science and pseudoscience. It then explores biology by starting with the small and moving to the large. Starting with biologically important macro-molecules, the course then moves to cell structure and metabolism, photosynthesis and respiration, the origin of life, a comparison of sexual vs asexual reproduction, genetics, the development of evolutionary theory and natural selection, and finally ecology and ecosystems. Throughout the course we explore these different aspects of biology from an applied human impact approach.
Note: This course cannot be taken for credit by science students without prior consent by the Chair of Biology and Biochemistry. This course may be used as a replacement for BIO196 only if a final mark of $75 \%$ or better is achieved. This course cannot be taken for credit by anyone who already has credit for collegial General Biology 2/00XU, BIO 193 or BIO 196.

BIO 196 Introduction to Cell \& Molecular Biology
3-3-0
Topics covered include chemistry of life; structure and function of biomolecules; structure and organization of cells; structure and function of organelles, genetic replication and expression; gene mutation; cell signaling; regulation of the cell cycle. This course is intended for B.Sc. students and B.A. (Biology) students; other students are encouraged to take BIO 194.
Prerequisite: High School Biology and Chemistry
Corequisite: BIL 196
Note: This course cannot be taken for credit by anyone who already has credit for collegial General Biology 2/00XU, BIO 193 or BIO 194.
BIL 196 Introduction to Cellular and Molecular Biology Lab 1-0-3 Practical exercises in microscopy, molecular and cellular biology, and histology. Co-requisite: BIO 196
BIO 201 Cellular and Molecular Biology 3-3-0
Topics in modern cell biology. Examines aspects of eukaryotic cell structure and function. Includes, but not restricted to, areas such as intracellular signaling, cell cycling and cancer, cell-matrix interactions, endo/exocytosis, protein targeting and organelle biogenesis.
Prerequisites: BIO 196
Note: Students who have completed BIO 194 with a mark of $75 \%$ or better may take this course with prior consent by the Chair of Biology and Biochemistry.

## BIO 205 Animal Diversity

This course complements Plant Diversity, a winter-term course with a focus on prokaryotic and non-animal eukaryotic life. The material in both courses is organized according to a modern phylogenetic framework. In this course students will learn how hypotheses of relationships and classifications are created, tested, and, when necessary, rejected. Focusing on major animal phyla, we will explore the forms, functions, and implications of key adaptations that have arisen throughout the evolutionary history of the group and the timeline for the appearance of major animal taxa will be presented. Selected topics such as high rates of contemporary extinction in certain groups and the relevance of zoology for other fields of study such as medicine, agriculture and engineering will also be discussed.
Prerequisite: BIO 196
Co-requisite: BIL 205
Note: Students who have completed BIO 194 with a mark of $75 \%$ or better may take this course with prior consent by the Chair of Biology and Biochemistry.

BIL 205 Animal Diversity Laboratory
1-0-3
The classification, identification, morphology and biology of the animals considered in BIO 205, with emphasis on nine important phyla (Porifera, Cnidaria, Platyhelminthes, Nematoda, Mollusca, Annelida, Arthropoda, Echinodermata, and Chordata). Science skills and competencies: observation; identification; fine manipulation; basic microscopy; basic dissection; introduction to phylogenetic analysis; relationships between form, function and habitat; comparison between taxa; lab safety; time-management; team-work.
Co-requisite: BIO 205

## BIO 206 Plant Diversity 3-3-0

Broad evolutionary survey of green plant diversity, from green algae to land plants (bryophytes, ferns, gymnosperms, angiosperms) with emphasis on specific adaptations. Classes include a mixture of lecture and practical activities in lab or greenhouse. Science skills and competencies: observation; identification; basic microscopy; basic spectrophotometry; growing plants from seeds; relationships between form, function and habitat; comparison and trade-off; phylogenetic analysis (by computer); scientific curiosity.
Prerequisite: BIO 205
BIO 207 Introduction to Evolution and Ecology 3-3-0
This course will start by looking at the development of modern evolutionary theory before exploring natural selection and speciation. This course will then explore some of the basic principles of ecology, including species interactions such as predation and competition, and how these interactions help structure the complex web of life that helps form ecological communities and ecosystems. Although intended for Biology majors, students from other programs may also take this course with the instructor's permission.
Prerequisite: BIO 205
This course cannot be taken for credit by anyone who already has credit for BIO 197.

BIO 208 Genetics
3-3-0
An introduction to the study of biologically inherited traits from three perspectives.
(i) Mendelian Genetics: the rules of genetic transmission and heredity. (ii) Molecular Genetics: the biochemical and chromosomal basis of heredity. (iii) Population \& Evolutionary Genetics: the variation in genes amongst individuals and populations, heritability, and changes in genes over time.
Prerequisite: BIO 201
Co-requisite: BIL 208
Note: Students who have completed BIO 194 with a mark of $75 \%$ or better may take this course with prior consent by the Chair of Biology and Biochemistry.
BIL 208 Genetics Laboratory 1-0-3
Experiments in genetics designed to complement topics discussed in BIO 208. Co-requisite: BIO 208
BIO 211 Sustainable Organic Agriculture
3-3-0
The objective of this course is to introduce students to the concepts and techniques of organic gardening through an integrated and sustainable approach. Subjects covered will include, applied botany, basic soil chemistry, weed control, crop rotation, tillage, ecologically responsible use of fertilizers, and drainage and irrigation practices. The course includes lecture classes as well as practical handson activities in biology laboratory JOH 320 , JOH greenhouse and the biology outdoor garden, where students will be expected to apply some of the techniques discussed in class to real life situations.
Prerequisites: BIO205 and BIO206 or with permission of the instructor if the student can demonstrate a suitable background knowledge of the necessary material.
Co-requisite BIL 211.
Note: This course cannot be taken for credit by anyone who already has credit for BIL 111.
Note: BIO 211 is a science course based on biological principles and concepts. It is not equivalent to any AGR course.
BIL 211 Sustainable Organic Agriculture Lab
1-0-3
This lab course requires students to work in small teams on a variety of projects around campus. Central to each project will be the integration of principles learned in the organic agriculture lecture. Examples of such projects might include the development of an ecologically friendly butterfly garden; integrated plantings to minimize crop damage; design and installation of a bioswale system; or monitoring and control of entomological pests on campus. Students should be aware that most of these projects will involve outdoor field work which includes working in all weather conditions, getting bitten or stung by insects, and in general getting dirty. Co-requisite: BIO 211
BIO 233 Human Anatomy
3-3-0
The anatomy of all of the major body systems will be discussed in the context of human health and disease. This course is designed for students interested in the biomedical sciences or health education. Students will develop their understanding of human anatomy and will acquire the ability to communicate scientific concepts to their patients or students.
Prerequisite or Corequisite: BIO 196 or EXS 127
Note: This course cannot be taken for credit by anyone who already has credit for BIO131
BIO 289 Biological Spotlight on Covid-19
3-3-0
In 2020 the world experienced unprecedented times with the rapid spread of the first worldwide pandemic. In this course we will look at the Covid-19 pandemic from the very first discovery of a new virus to the most recent developments. Using the Sars-Cov-2 as our focus, we will build on knowledge acquired from previous courses in cell biology and human physiology to understand the genetics, cell biology, immunology, and human physiology behind Covid-19. These topics will provide a gateway to understanding the scientific method, clinical studies and science publications. This course should help students synthesize information and create links between concepts taught in different courses. Students will also develop critical thinking skills necessary to evaluate the credibility of information concerning medical research and public health. Throughout this course, emphasis will be put on interactions between science and non-science students. This course cannot be taken for credit by anyone who already has credit for BIO 189 Prerequisite: BIO 201 and BIO 233
Note: This course cannot be taken for credit by anyone who already has credit for BIO 189

BIO 310 Advanced Cell Biology
3-3-0
Advanced topics in modern cell biology. Examines aspects of eukaryotic cell structure and function. Using a hands-on approach and modern research methods, students will develop a deep understanding of intracellular protein trafficking, cell-cycle and cancer, cytoskeleton and extracellular matrix, gene expression, stem cells differentiation and organelle biogenesis.

## Prerequisite: BIO 201 and BIO 208

BIO 311 Quantitative Methods in Biology
3-3-0
The main objective of this course is to teach how to use quantitative methods as a tool to answer practical problems in biological sciences. This course focuses on real life situations often encountered by scientists such as how to critically review studies, study design, and statistical output. This course will also cover the statistical and data management methods most often used in biological sciences. Prerequisite: BIO208 and PHY 101
BIO 315 Frontiers of Biology, From Past to Present 3-3-0
This course is for upper year biology students who already have a good understanding of complex concepts like human DNA sequencing, genomics, cell biology, and human anatomy and physiology. Topics covered include the history of genetics and human evolution, cell theory, chromosomes, mitosis and meiosis, human fertilization and heredity, recent advances in pharmacogenomics, genetic selection, and the CRISPR technology for DNA editing. The goal of this course is to broaden student's understanding on the development and acceptance of such discoveries and to ultimately understand that what they learnt in their first 2 or 3 years in biology is knowledge built from several non-linear steps that will likely go on evolving and developing in future years.
Prerequisites: BIO 205 and BIO 208
Note: This course cannot be taken for credit by anyone who already has credit for BIO 319.

## BIO 320

Programmed Cell Death
3-3-0
Programmed cell death, also called apoptosis, is a normal physiological process that takes place in every type of cell in the animal kingdom. It plays a critical role in embryo development, in selective processes (immune system), in degenerative diseases and in cancer. Since the early 90 's, programed cell death is one of the fastest growing subject of research, with almost 15000 scientific publications in 2004. In this course, we will explore normal and impaired mechanisms involved in cell death, through examples taken in human medicine or in invertebrates' development.
Prerequisite: BIO 201
BIO 327 Advanced Ecology 3-3-0
Ecology is about finding the best data/modelling to test your theories and hypotheses. Great ideas, hiking boots and computers are all that are needed. This ecology course focuses on understanding the relationships between organisms and the strategies they use to survive, reproduce, and interact with their environment. This course will expand on the fundamental theories of ecology seen in BIO 207 with the application to real life data and analysis.
Prerequisite: BIO 207
Note: This course cannot be taken for credit by anyone who already has credit for BIO 217.
BIO 329 Invertebrate Biology
3-3-0
Morphology, physiology, embryology, evolution and classification of invertebrate animals.
Prerequisite: BIO 205
Co-requisite: BIL 329
Note: This course cannot be taken for credit by anyone who already has credit for BIO 248.
BIL 329 Invertebrate Biology Laboratory $\quad \mathbf{1 - 0 - 3}$
The classification, identification, morphology and biology of the animals considered in BIO 329.
Co-requisite: BIO 329
BIO 331* Freshwater Biology
3-3-0
This course will expose students to the biological importance and diversity of freshwater systems. Class material will look at both the biotic and abiotic components of aquatic systems as well as their interactions.
Prerequisite or Co-requisite: BIO 205 and BIO 207
Co-requisite: BIL 331

BIL 331* Freshwater Biology Lab
1-3-0
The lab section will focus on the different techniques necessary for sampling both lentic and lotic systems. Emphasis will be placed on practical first-hand experience using the appropriate equipment in the field. The process of data collection will culminate in the students performing a mini-research project on a local aquatic system of their choice and presenting these data to their peers.
Co-requisite: BIO 331
BIO 334* Epidemiology 3-3-0
Epidemiology is the study of the distribution and determinants of diseases and health conditions among populations and the application of that study to control health problems. Concepts learned in this course will be applied to current health issues from different perspectives, such as pharma-economy, health care management, disease avoidance and food production.
Prerequisite: BIO 201 and BIO 208
BIO 336 Animal Physiology I
3-3-0
Basic mechanisms of homeostatic regulation. Topics include: Cell physiology, Nervous system, Muscular system, and the Cardiovascular system.
Prerequisite: BIO 201
BIO 337 Animal Physiology II 3-3-0
Mechanisms of functional operation of animal organisms. Topics include: renal, respiratory, gastrointestinal, and reproductive function.
Prerequisite: BIO 208 and BIO 336
Co-requisite: BIL 337
BIL 337 Animal Physiology II Laboratory $\quad \mathbf{1 - 0 - 3}$
Experiments dealing with different aspects of animal physiology. Some experiments will be performed using computer simulations.
Co-requisite: BIO 337
BIO 338 Vertebrate Life I:
An Introduction to Ichthyology and Herpetology 3-3-0
This course is the first of two exploring those animals with a cartilaginous or bony backbone, the vertebrates. Given their great diversity, two courses have been devoted to this group, Vertebrate Life $1 \& 2$; this is the first of those courses. Vertebrate Life 1 will focus on the fishes, amphibians, and reptiles and is divided into two sections. The first section will explore the evolution of the earliest vertebrates and the myriad of types that we generally refer to as fishes. Part two of the course will look at the colonization of land by the first tetrapods and the rise of the amniotes and will explore the extant groups of amphibians and reptiles.
Prerequisites: BIO 205, BIO 207 and PHY 101
Note: This course cannot be taken for credit by anyone who already has credit for BIO 332 and BIO 367.
BIO 339 Vertebrate Life II:
An Introduction to Ornithology and Mammalogy
3-3-0
This course is the second of the series focusing on the evolutionary history and diversity of the vertebrates and will focus on the mammals and birds. From the tiniest hummingbird to the mightiest whale, these two vertebrate groups represent separate evolutionary branches from within the amniote family tree. The course will start by looking at the ancestors of each group, before exploring their evolutionary diversification, and how these distantly related groups have solved similar evolutionary problems. Vertebrate Zoology II may be taken without previously taking Vertebrate Zoology I.
Prerequisites: BIO 205 and BIO 207
Co-requisite: BIL 339
Note: This course cannot be taken for credit by anyone who already has credit for BIO 332.
BIL 339 Vertebrate Life II Lab
1-0-3
This is the co-requisite lab to the BIO 339 Vertebrate Life II. This course will help students develop basic skills in the identification of most of the common vertebrates in the region. Although focusing primarily on the subject matter of the co-requisite lecture, BIO 339 birds and mammals, all vertebrate groups will be explored including fishes, amphibians, and reptiles.
Co-requisite: BIO 339
BIO 340* Comparative Vertebrate Anatomy
3-3-0
This course will use a comparative approach to help students understand vertebrate anatomy. Students will explore the evolution of major organ systems within the vertebrates, using both dissection and preserved material. Students should be prepared to both take lecture notes and dissect specimens every class.
Prerequisites: BIO 338 or BIO339

BIO 341 Population Genetics and Evolution 3-3-0
Understanding the processes by which selection and genetic variation allows species to adapt and evolve is an important aspect of biology. This course uses a wide spectrum of examples from animal and plant populations to outline the general principles in population and quantitative genetics that will then be applied to important issues in health sciences.
Prerequisites: BIO 208 and PHY 101

## BIO 345 Plant Physiology

3-3-0
Nutrition, transport, growth and development in plants; the water relations of plants; mineral nutrition; growth regulators; tropisms; photoperiodism; vernalization and dormancy.
Prerequisite: BIO 206
BIO 349 Medical and Forensic Entomology 3-3-0 As one of the most important group of disease vectors, insects and other arthropods are involved in the transmission of numerous pathogens causing diseases such as the plague, malaria, West Nile fever, scabies, and Lyme disease. This course will introduce students to some of the basic concepts of medical entomology with a focus on selected diseases. Information on the life cycles of insect vectors and the pathogens they carry is presented, as well as symptoms, treatment and geographical distribution of selected arthropod-borne diseases. The relevance of entomological evidence in criminal investigations (such as the use of insects to determine post-mortem interval is also discussed.
Prerequisite BIO 205
BIO 352 Microbiology
1-0-3
An introduction to prokaryotic microorganisms, eukaryotic microorganisms, and viruses; their ecology, growth characteristics, and host interactions. Examination of the environmental roles of microbes as well as their impact on the human world. Prerequisite: BIO 201 and BIO 208
Co-requisite: BIL 352

## BIL 352 Microbiology Laboratory

1-0-3
An introduction to common microbiological techniques used in medical, biological and biochemical research, including techniques in growth, staining and identification of bacteria and viruses. As well, the diversity of physiological and metabolic requirements of bacteria will be examined.
Co-requisite: BIO 352
BIO 354 Insect Biodiversity $\quad$ 3-3-0
The main goal of this course is to teach the students how to collect, preserve and identify insects, especially those found in eastern North America. In addition to using material housed in the Bishop's insect collection, material collected in the field by each student will be prepared in a fashion that will make the specimens museum worthy. Through the collecting and identification process, students will learn about insect taxonomy but they will also learn about where different taxa can be found and what their general ecological requirements are. Once they have completed the course, students should be able to identify most commonly encountered insects at least to the family level and recognize those that are beneficial or potentially harmful.
Prerequisite: BIO 205
BIO 358 Animal Behaviour 3-3-0
The study of animal behaviour represents the oldest known form of biological study. Even from our earliest beginnings, humans had an intense interest in understanding how animals behave. This interest is still evident from our almost instinctive need to share our homes with various pets. This course will build on this most basic need to watch and understand animal behaviour, but will do so from a more scientific approach.
Prerequisite: BIO 205, BIO 207, and PHY 101
Co-requisite: BIL 358
BIL 358 Animal Behaviour Lab
1-0-3
This course is the co-requisite lab for BIO 358: Animal Behaviour. During the semester students will be expected to design and implement a series of animal behaviour experiments, culminating in a final project that they will then present to their peers in the form of a final scientific paper and oral presentation.
Co-requisite: BIO 358

## BIO 359 Human Genetics

3-3-0
Cytogenetics, biochemical genetics, Mendelian genetics, molecular genetics and quantitative genetics of humans; chromosome mapping; genetics and medicine. Prerequisite: BIO 208

BIO 365 Developmental Biology
3-3-0
Examination of the molecular events involved in the development of vertebrates, invertebrates and plants, emphasizing common strategies used in these three systems. Topics will include establishment of body axes, origin of germ layers, and segmental pattern formation. The role of developmental genes, regulatory gene families, and maternal effect genes will be emphasized. Morphogenesis and early cell differentiation will also be studied.
Prerequisite: BIO 201 and BIO 208
BIO 386 Scientific Writing
3-3-0
The course is intended for students taking upper-level, research-based courses "Honours Biological Problems - BIO492", "Independent Studies in Biology 1 - BIO421", or "BCH 491 - Honours Research Project 1". The primary goal of this course is to instruct students in the writing process of research proposals, undergraduate theses, commentaries (critiques), and scientific manuscripts. In addition to writen assignments and exercises, class activities will include oral presentations, self-editing, and peer-reviews. Biology or Biochemistry students in their 3rd or 4th year interested in pursuing a research path, but not registered in BIO 492, BIO 422, BCH 491, can take the course with permission from the course instructor. Research experience is an asset.
.BIO 391 Experiential Learning in
Health Sciences and Biochemistry
3-3-0
Students in the Health Science or Biochemistry program may receive credit for working under the tutelage of a mentor in a field directly related to their area of study. Students must secure both an internal supervisor (a fulltime faculty member) and a suitable mentor (i.e. external supervisor who will supervise the day to day activities of the student). Students must be actively involved in the daily work and should not be acting as menial labor.
Assessment of the student will be based largely on a mark assigned by the mentor directly responsible for the student and the submission of a journal outlining the daily objectives and actual work itself. Projects may be intensive in nature (i.e. 3 weeks during the summer), or may be more drawn out (i.e. 6-8 hours every week during the semester).
Prerequisite: Permission of the Biology and Biochemistry Department Research and Honours Project Coordinator
Note: This course is only eligible to students in good standing and if available positions are available. Students may not work for salary and may not work concurrently in an area directly related to their honors project. Students may only take one experiential learning course for credit (BIO391 or BIO 392 or ELP 300).

BIO 392
Experiential Learning in Biodiversity \& Ecology
3-3-0
Students in the Biodiversity \& Ecology program may receive credit for working under the tutelage of a mentor in a field directly related to their area of study. Students must secure both an internal supervisor (a fulltime faculty member) and a suitable mentor (i.e. external supervisor who will supervise the day to day activities of the student). / Students must be actively involved in the daily work and should not be acting as menial labor.
Assessment of the student will be based largely on a mark assigned by the mentor directly responsible for the student and the submission of a journal outlining the daily objectives and actual work itself. Projects may be intensive in nature (i.e. 3 weeks during the summer), or may be more drawn out (i.e. 6-8 hours every week during the semester).
Prerequisite: Permission of the Biology and Biochemistry Department Research and Honours Project Coordinator
Note: This course is only eligible to students in good standing and if available positions are available. Students may not work for salary and may not work concurrently in an area directly related to their honors project. Students may only take one experiential learning course for credit (BIO391 or BIO 392 or ELP 300).
BIO 394 Biology of Cancer 3-3-0
This course will review the broad subject of cancer development and treatment. In particular it will focus on taking concepts seen in cell biology and applying them to cancer cells. Among the topics reviewed will be: cancer types and staging, mutation rates and environmental contributions to genetic changes, oncogenes and tumor suppressors, cell proliferation/death balance, modification of cancer cells phenotypes and metastases formation, role of the immune system in the prevention of cancer spreading, strategies of cure, and a review of the body's physiological responses to several forms of cancer.
Prerequisites: BIO 201
Note: This course cannot be taken for credit by anyone who already has credit for BIO 224.

BIO 411 Seminars in Health Sciences 3-3-0
An advanced course discussing current topics in the Health Sciences. Students will be expected to critically evaluate recent scientific literature, prepare and deliver oral and written presentations, participate in discussions, and analyze research questions.
Pre-requisites: BIO 208 and BIO 336
Note: This course is restricted to students in year 3 or 4 (i.e. with less than 60 credits remaining of a B.Sc. Biology degree)

## BIO 412* Seminars in Biodiversity \& Ecology

3-3-0
This course will discuss recent developments in specific areas of ecology, conservation, and/or zoology. The course content will vary from year to year, depending on the instructor's area of expertise and the students' interests.
Prerequisite: BIO 205 and BIO 207
Note: This course cannot be taken for credit by anyone who already has credit for BIO 362.
BIO 421 Independent Studies in Biology I
3-1-3
This course is intended for final-year students who wish to pursue in-depth study of a particular area of biology or who have a special need for a biology course that would otherwise not be available during their final semester of course work. This course can only be done in close collaboration with a faculty advisor from within the Department of Biological Sciences and may not be used as a supplement to a student's honours project. Requirements for this course will be agreed upon by a committee of professors from within the Department of Biological Sciences.
Pre-requisite: Permission of the Biology and Biochemistry Department Research and Honours Project Coordinator
Note: This course cannot be taken for credit by anyone who already has credit for BIO 371.
BIO 422 Independent Studies in Biology II $\quad \mathbf{3 - 1 - 3}$
This course represents an additional semester of independent work, either a continuation of or a separate course from BIO 421, meant for final-year students who wish to pursue in-depth study of a particular area of biology or who have a special need for a biology course that would otherwise not be available during their final semester of course work. This course can only be done in close collaboration with a faculty advisor from within the Department of Biological Sciences, and may not be used as a supplement to a student's honours project. Requirements for this course will be agreed upon by a committee of professors from within the Department of Biological Sciences.
Pre-requisite: Permission of the Biology and Biochemistry Department Research and Honours Project Coordinator
Note: This course cannot be taken for credit by anyone who already has credit for BIO 372.
BIO 428 Advanced Physiology 3-3-0
This course will examine how animals adapt to environmental stresses such as extremes of temperature of altitude, hypoxia, water limitation and dietary changes. Short-term (acute), medium-term (acclimatory) and chronic (evolutionary) adaptations will be discussed.
Prerequisites or Co-requisites: BIO 336 and BIO 337
Note: This course cannot be taken for credit by anyone who already has credit for BIO 328.
BIO 433 Advanced Exercise Science 3-3-0
This course examines selected topics in Exercise Physiology. Through traditional lectures, directed readings, seminars, and case studies, students will study short-term and long-term adaptations to exercise. We will also examine the scientific principles underlying sports-related topics such as optimizing exercise performance, injuries, and injury repair.
Prerequisite: BIO 336 or EXS 327
Note: See EXS 433. This course cannot be taken for credit by anyone who already has credit for EXS 433.

BIO 434 Teaching Assistant Internship in Biology and Biochemistry
Students enrolled in BIO 434 will work closely with a faculty member to work as a teaching assistant in a specific biology course they have already completed. Students will be expected to devote an average of 6-9 hours a week divided between deepening their knowledge of a specific field in biology, interacting with the students enrolled in the course, attending lectures on best practices in teaching biology, and maintaining a detailed journal of their work. This course should not be viewed as simply an unpaid TA for credit but rather as an opportunity to expand their knowledge of a specific biological discipline in their field of interest, and to learn about how best to help other undergraduates learn this material. Because this course requires a close working relationship with a teacher, students may only register by permission of the faculty teaching the course.

## BIO 492 Honours Research Project I

3-1-6
An introduction to the planning, execution and reporting of biological research offered to students matching eligibility criteria. Each student is required to choose a research problem and, in consultation with a departmentally approved supervisor, draw up a formal research proposal of work to be undertaken. The final mark in this course will be based on the research proposal, preliminary research completed on the stated project, and presentation of a poster during the final week of classes. Satisfactory completion of BIO 492 with a minimum mark of $75 \%$, with a minimal score of $70 \%$ in each graded component, is required for enrolment in BIO 493.
Prerequisite: Permission of the Biology and Biochemistry Department Research and Honours Project Coordinator

## BIO 493 Honours Research Project II

3-1-6
A continuation of BIO 492 offered to students matching eligibility criteria. The student will complete all research as outlined in the research proposal. The final mark in this course will be based on the quality and amount of research completed, presentation of a departmental seminar during the final week of classes, open to the public, based on research findings, and submission of a final written honours thesis. Enrolment in BIO 493 is conditional upon completing BIO 493 with a minimum mark of $75 \%$. Satisfactory component is required to complete the Honours program.
Prerequisite: BIO 492

# Chemistry and Brewing Science 

Faculty<br>Alexandre Drouin,<br>B.Sc., M.Sc., Ph.D. (Sherbrooke);<br>Associate Professor<br>Chair of the Department<br>Dale Wood,<br>B.Sc., Ph.D. (UNB);<br>Associate Professor

## Program Overview

The Chemistry Department offers four distinct programs Chemistry Honours, Chemistry Major, Chemistry Minor and Brewing Science Minor. Our three chemistry programs provide students with a balanced, rich, and practical education in all subdisciplines of Chemistry (Analytical, Biochemical, Inorganic, Organic, and Physical) and students graduating with a Chemistry degree from Bishop's University have had an excellent record of being admitted to graduate schools and professional programs (Medicine, Dentistry, Pharmacy, Education, etc.) or in finding employment in their field. The Minor in Brewing Science gives the opportunity to our student community to learn about the brewing process and science behind beer brewing.

Class sizes in chemistry and brewing science courses are small, which promotes close personal interaction between members of the faculty and students. The faculty are also directly involved in all undergraduate laboratories, which enhances personal contact and results in a friendly and very productive learning in experimental chemistry.

The Chemistry Department has an excellent set of modern instruments, such as a Benchtop NMR, a GC/MS, a MP-AES and a HPLC/MS which are used by undergraduates in their laboratory courses and in research projects. This is in contrast to most universities where many instruments are reserved for graduate students. Hands-on, extensive training on this modern instrumentation and equipment greatly benefits our students and ensures that they are very well prepared for graduate studies or future employment.

## Undergraduate Programs

It is strongly recommended that students enrolled in Department of Chemistry programs follow the order of courses outlined in the tables below. Some Chemistry courses are offered on two-year rotations, so failure to follow the suggested course sequence may result in students not being able to fulfill their degree requirements in the normal time frame.
Table 1. First year of study in the
4-year Chemistry Honours and Major programs

Fall Semester
CHM 191 and CHL 191
BIO 196 and BIL 196
PHY 191 and PHL 191
MAT 191
Humanities Option ${ }^{1} \quad$ Arts and Science Option ${ }^{2}$
${ }^{1}$ The Humanities optional courses can be selected from the writing-intensive courses (course codes ending by $W$ ) or they can be selected in the following disciplines: Classical Studies (CLA), English (ENG), History (HIS), Liberal Arts (LIB), Philosophy (PHI) and Religion, Society and Culture (RSC).
2 The Arts and Science requirement consist in taking at least three credits in either the Division of Humanities or the Division of Social Sciences.

## Chemistry Honours <br> (81 credits)

The Chemistry Honours program fulfills the academic requirements for membership in the Chemical Institute of Canada and for accreditation by l'Ordre des chimistes du Québec. (For membership in the latter, it is necessary to possess a working knowledge of the French language.) The Chemistry Honours program is a four-year program that prepares a student for graduate studies in chemistry, as well as for direct professional employment. The program requires 37 three-credit one-semester courses, one 3 -credit full year course, and a full year, 6 -credit research project in the final year for a total of 120 course credits. In addition, students must also complete the 14 co-requisite lab courses. The Chemistry Honours degree program is shown in Table 2.

## Entrance Requirements for Honours

To be eligible to enter the third year of the Honours Chemistry program, a student must achieve a minimum average of $70 \%$ in the required second year Chemistry courses (CHM 111, CHM 211, CHM 121, CHM 131, CHM 141, CHM 341 and all corequisite labs). To be eligible to enter the final year of the Honours Chemistry program, a student must achieve a minimum average of $70 \%$ in the third year required Chemistry courses (CHM 311, CHM 225 or CHM 245, CHM 231 or CHM 331 and all corequisite labs).

Table 2. Honours Chemistry Program ${ }^{1}$

|  | Fall Semester | Winter Semester |
| :---: | :---: | :---: |
| Year 2 | CHM 111 and CHL 111 | CHM 211 and CHL 211 |
|  | CHM 121 | CHM 131 |
|  | CHM 141 and CHL 141 | CHM 341 and CHL 341 |
|  | BIO 201 | BCH 210 |
|  | Option ${ }^{2}$ | Option ${ }^{2}$ |
| Year 3 | CHM 311 | Chem. Option ${ }^{5}$ |
|  | CHM 231 and CHL $231{ }^{3}$ | CHM 225 and CHL $225^{6}$ |
|  | Science option ${ }^{4}$ | BCH 313 and BCL 313 |
|  | Option ${ }^{2}$ | Option ${ }^{2}$ |
|  | Option ${ }^{2}$ | Option ${ }^{2}$ |
| Year 4 | CHM 331 / CHL 331 ${ }^{3}$ | CHM 245 and CHL $245^{6}$ |
|  | CHM $471{ }^{7}$ | CHM $471{ }^{7}$ |
|  | CHM 499 ${ }^{\text {8 }}$ | CHM 499 ${ }^{\text {8 }}$ |
|  | BIO $386{ }^{9}$ | Option ${ }^{2}$ |
|  | Option ${ }^{2}$ | Option ${ }^{2}$ |

1 All Chemistry students must take any two Humanities lecture courses in the first year. For details, please refer to the Divisional section of the Academic Calendar. Students with a D.E.C. may be credited with these options.

2 Chemistry Honours students must also take one lecture course from the Humanities or the Social Sciences and one science option and two lecture courses from any of the Sciences. All other options are free electives. If a course has a co-requisite lab then the lab must be taken as well.
3 CHM231 / CHM331 and their co-requisite labs are offered on a rotating basis, so the order in which they are taken may flip depending on the year the student entered the program.
${ }^{4}$ Students doing honours are encouraged to take a science option based on the field of their specialization:
Physical chemistry: MAT 108 or PHY 206 or MAT 206
Analytical chemistry: MAT 103 or MAT 310
Organic chemistry: BCH 311 or BIO 208
Environment: MAT 103
5 Students registered in the honours program will have to complete a CHM 400 level course in the field of their honours research project as an independent study.
${ }^{6}$ CHM 225 and CHM 245, and their co-requisite labs are offered on a rotating basis, so the order in which they are taken may flip depending on the year the student entered the program.
7 CHM 471 is a full-year, 3-credit course.
${ }^{8}$ CHM 499 is a full-year, 6 -credit research project.
9 Honours students should register in BIO 386 - Scientific writing. Permission from the instructor is required. If denied, this course can be replaced by a free elective.

## Chemistry Major ( 69 credits)

MAJCHE
The Chemistry Major program prepares students for industrial or other employment that requires an extensive knowledge of chemistry. The program has sufficient flexibility to allow students to obtain a second major or a minor in another academic discipline. The program fulfills the academic requirements for membership in the Chemical Institute of Canada and for accreditation by l'Ordre des Chimistes du Québec. (For membership in the latter, it is necessary to possess a working knowledge of the French language.) The four-year Chemistry Major program requires 39 three-credit one-semester courses and one 3 -credit full year course for a total of 120 course credits. In addition, students must complete the 14 co-requisite lab courses. The Chemistry Major degree program is shown in Table 3. Students in a minor program in another division may, with permission of the Department, reduce science options to a minimum of 9 credits.
Table 3. Chemistry Major Program ${ }^{1}$

## Fall Semester

Year 2 CHM 111 and CHL 111 CHM 121
CHM 141 and CHL 141 BIO 201
Option ${ }^{2}$
Year 3 CHM 231 and CHL $231^{3}$ CHM 311
Option ${ }^{2}$
Option ${ }^{2}$ Option ${ }^{2}$
Year 4 CHM 331 and CHL $331^{3}$ CHM $371^{5}$
Option ${ }^{2}$
Option ${ }^{2}$
Option ${ }^{2}$
All Chemistry students must take any two Humanities lecture courses in their first year of study. For details, please refer to the Divisional section of the Academic Calendar. Students with a D.E.C. may be credited with these options.
2 Students must also take one course from either the Humanities or the Social Sciences and six lecture courses from any of the Sciences. All other options are free electives. If a course has a co-requisite lab then the lab must be taken as well.
3 CHM 231 and CHM 331, and their co-requisite labs are offered on a rotating basis, so the order in which they are taken may flip depending on the year the student entered the program.
4 CHM 225 and CHM 245, and their co-requisite labs are offered on a rotating basis, so the order in which they are taken may flip depending on the year the student entered the program.
${ }^{5}$ CHM 371 is a full-year, 3-credit course.

## Chemistry Minor ( 24 credits) MINCHE <br> A Chemistry Minor will be awarded for the completion of CHM 111, CHM 211, CHM 121, CHM 131, CHM 141, and their corequisite labs, together with 3 one-semester 3 -credit courses (and their co-requisite labs) chosen from CHM 311, CHM 411, CHM 231, CHM 331, CHM 341, BCH 210 or BCH 313.

## Recommended Electives

MAT 108, MAT 206 and PHY 206 are recommended electives for students pursuing a career in Physical Chemistry.

MAT 103, MAT 310 and PHY 206 are recommended electives for students pursuing a career in Analytical Chemistry.

BCH 311 and BIO 208 are recommended electives for students pursuing a career in Organic Chemistry.

MAT 103 is a recommended elective for students pursuing a career in Environmental Chemistry.

## Minor In Brewing Science ( 24 credits)

## MINBRW

The Minor in Brewing Science gives the opportunity to our student community to learn about the brewing process and science behind beer brewing while completing a major/honors in another field.

Required Courses (18 course credits):
BRS 401 Brewhouse Chemistry
BRS 402 Malt and Malting
BRS 403 Hops
BRS 404 Microorganisms in the Brewery
BRS 405 Chemical Analysis of Beer and its Ingredients
BRS 498 Brewing Practicum I
Required optional courses* (6 course credits from list):
BRS 406 Business of Brewing
BRS 499 Brewing Practicum II
CHM 111 Organic Chemistry
CHM 141 Analytical Chemistry
AGR 210 Food Science
BCH 311 Proteins
BCH 312 Lipids and Bio-membranes
BCH 313 Metabolism
BIO 352 Microbiology
PHY 101 Statistical Methods in Experimental Science

* Note that students cannot select a course that is part of his/ her major/honours from the list of required optional courses. They must select courses outside of their program in order to avoid double counting.


## Accreditation by l'Ordre des Chimistes du Quebec and the Canadian Institute for Chemistry

The OCQ and CIC are professional orders that oversee and accredit Chemistry, Biochemistry, and related disciplines in Quebec and Canada respectively. In order to meet the accreditation standards of these orders, a student must meet the following criteria.

## L'Ordre des Chimistes du Québec

A student must earn a minimum of 55 credits in Chemistry, of which 18 credits must be for laboratory work and 30 credits must be for lecture courses. The OCQ considers 3 credits of course or lab work to be the equivalent of 45 hours of class time and personal work ( 3 course credits in Chemistry at Bishop's is 36 hours of class time) and 1 credit of laboratory work to be the equivalent of 45 hours of lab time ( 1 lab-credit in Chemistry at Bishop's is $40-50$ hours and thus is equivalent to 3 credits for the OCQ). The chemistry credits offered at Bishop's are divided in the following manner.
1.9 course credits and 2 lab credits of physical chemistry.
2.9 course credits and 3 lab credits of analytical chemistry.
3. 9 course credits and 2 lab credits of organic chemistry.
4. 6 course credits and 1 lab credit of inorganic chemistry.
5. 6 course credits and 1 lab credit of biochemistry.
6.3 course credits on scientific writing.
7.3 course credits as advanced option in any field of chemistry.

## Canadian Institute for Chemistry

The CIC expects a program to involve a total of about 1000 hours of laboratory and classroom work in chemistry, with the minimum hours of each being about 400. The laboratory hours should be distributed in such a way that every student is exposed to meaningful laboratory experience in at least four (and preferably five) of the five sub-disciplines (analytical chemistry, biochemistry, inorganic, organic and physical chemistry).

The core program beyond the first-year level shall include the equivalent of 12 chemistry courses including at least one in each of the five sub-disciplines of chemistry. In addition, there should be a selection of advanced offerings in the core disciplines and in other subjects such as for instance theoretical chemistry, solid state chemistry, natural products, polymers, advanced instrumentation, research thesis, etc. to bring the total number of hours of instruction to that described above. The program must also include at least 15 course credits in two or more of mathematics (algebra, calculus, statistics), physics, computer science and biology. In the case of pure chemistry programs, at least 6 credits in each of calculus and physics will be required. The inclusion of other cognate subjects as well as some liberal arts requirements is to be encouraged.

# List of Chemistry Courses General Chemistry 

CHM 191 General Chemistry I<br>3-3-0

A course for students lacking Collegial Chemistry NYA or its equivalent.
Atoms, molecules, and ions. Chemical formulae and equations. Thermochemistry. Electronic structure of atoms. Periodic Table and properties of elements. Chemical bonds. Physical properties and structure. Chemical kinetics
Co-requisite: CHL 191
CHL 191 Introductory Chemistry Laboratory I 1-0-4
A series of experiments in Introductory Chemistry to complement Chemistry 191 which must be taken concurrently.
Co-requisite: CHM 191
CHM 192 General Chemistry II
3-3-0
A course for students lacking Collegial Chemistry NYB or its equivalent.
Solutions. Chemical equilibrium. Acids and Bases. Gases, Solids, and Liquids. Ionic equilibria.
Prerequisites: CHM 191 (or permission of instructor) or Collegial Chemistry Co-requisite: CHL 192

CHL 192 Introductory Chemistry Laboratory II 1-0-4
A series of experiments in Introductory Chemistry to complement CHM 192 which must be taken concurrently.
Co-requisite: CHM 192

## Organic Chemistry

CHM 111 Organic Chemistry I: Introductory 3-3-0
An introductory structural survey of the most commonly encountered organic functional groups that are present in carbon compounds, emphasizing their significance in biologically important molecules (lipids, carbohydrates, amino acids, proteins, steroids, and other types of natural products). Stereochemistry and the fundamental principles behind essential organic reaction mechanisms will be stressed throughout. Some basic definitions and nomenclature will be introduced. Prerequisites: CHM 191 and CHM 192 or Collegial Chemistry NYA and NYB Co-requisite: CHL 111
CHL 111 Organic Chemistry Laboratory I $\mathbf{1 - 0 - 4}$
Experiments in the separation and purification of organic compounds including the use of chromatography. Introduction to functional group analysis and organic synthesis.
Co-requisite: CHM 111
CHM 211 Organic Chemistry II: Introductory 3-3-0
This course is a continuation of Chemistry 111 and will elaborate upon the chemistry of the organic functional groups and their involvement in organic synthesis, emphasizing the importance of electronic factors (resonance, induction, acidity, electrophiles, nucleophiles, leaving groups, and carbenium ions) in influencing organic reaction mechanisms. Spectroscopic analysis (NMR,IR) and the importance of molecular obritals are introduced briefly.
Prerequisite: CHM 111 or Collegial Chemistry BFB
Co-requisite: CHL 211
CHL 211 Organic Chemistry Laboratory II $\mathbf{1 - 0 - 4}$
Further experiments in organic synthesis and in chromatographic separations. An introduction to multi-step synthesis.
Co-requisite: CHM 211.
CHM 311 Organic Chemistry III 3-3-0
A more advanced discussion of organic reaction mechanisms; stereochemistry and conformational analysis; molecular rearrangements; pericyclic reactions; oxidations; tautomerism.
Pre-requisite: CHM 111 and CHM 211
CHL 311 Organic Chemistry Laboratory III 1-0-4
Laboratory and spectroscopic techniques used in the synthesis, separation, and purification of simple organic compounds.
CHM 411 Organic Chemistry IV 3-3-0
The importance of electrophiles, nucleophiles, leaving groups, eliminations and dehydrations in the chemistry and reaction mechanisms of organosilicon, carbonyl, and biologically important compounds.
Pre-requisite: CHM 311.

CHL 300 Advanced Methods in Organic Chemistry
1-0-4
Advanced laboratory techniques as applied to multistep syntheses and natural product isolation.
Pre-requisite: CHL 211 and CHL 111

## Inorganic Chemistry

CHM 121 Inorganic Chemistry I 3-3-0
The principles of nuclear, atomic, metallic, ionic, molecular structure. Valence bond and molecular orbital theory. Molecular and orbital symmetry.
Prerequisites: CHM 191 and CHM 192 or Collegial Chemistry NYA and NYB
CHM 225 Inorganic Chemistry II
3-3-0
This course provides students with a survey of inorganic chemistry. The course begins with the general chemistry of the inorganic elements (properties, oxidation states, introduction to their chemistry). This is followed up with two distinct sections. 1) Transition Metal Chemistry will look at crystal and ligand field theory, Werner complexes, and introduce organometallic complexes. 2) Main Group Chemistry will look at the structure and bonding of a selection of compounds from each group of the p-block.
Pre-requisites: CHM 121, CHM 111 / CHL 111
Co-requisites: CHL 225
CHL 225 Inorganic Chemistry II Lab
1-0-4
This lab is comprised of experiments that provide an illustration of many of the topics covered in CHM 225. It combines experimental methods typical of inorganic chemistry (e.g. inert atmosphere) with the use of the instrumentation necessary to probed the properties of interest (e.g. FT-IR, UV-Vis, Magnetochemistry
Co-requisites: CHM 225
CHM 421 Advanced Inorganic Chemistry $\quad \mathbf{3 - 3 - 0}$
Selected topics in inorganic chemistry covering all aspects of inorganic chemistry from the alkali metals to the noble gases.
Pre-requisite: CHM 225

## Physical Chemistry

CHM 131 Physical Chemistry I 3-3-0
Ideal and real gases; chemical kinetics and mechanism; an introduction to thermodynamics and chemical equilibrium; ionic equilibria and electrochemistry. This course may be taken online by students who are not registered in a Bishop's Chemistry Program, subject to approval by the instructor.
Prerequisites: CHM 191, CHM 192, MAT 191, MAT 192, PHY 191, and PHY 192 or Collegial Chemistry NYA and NYB, Math NYA and NYB, and Physics NYA and NYB.
CHL 131 Physical Chemistry Laboratory I $\quad \mathbf{1 - 0 - 4}$
A series of experiments in Physical Chemistry to complement CHM 131.
Co-requisite: CHM 131
CHM 231 Physical Chemistry II 3-3-0
Chemical thermodynamics; Zeroth Law and equations of state; First Law and thermochemistry; the Second Law and chemical equilibrium; the Third Law and introduction to statistical thermodynamics; thermodynamic databases; phase equilibrium; calculation of chemical equilibrium in complex systems. Mapleassisted calculus and computations in physical chemistry. This course may be taken online, subject to instructor approval.
This course is currently only offered in odd-numbered years.
Pre-requisite: CHM 131
Co-requisite: CHL 231
CHL 231 Physical Chemistry Laboratory II 1-0-4
Experiments related to the topics of Chemistry 223 which must be taken concurrently by full-time Bishop's students.
This course is currently only offered in odd-numbered years.
Co-requisites: CHM 231

CHM 331 Physical Chemistry III 3-3-0
Maple-assisted computational statistical mechanics and kinetic theory of gases; gas reactions, chemical dynamics. Quantum chemistry, and spectroscopy; atomic structure, atomic orbitals, and atomic spectra (AAS, XPS, ESCA, EDX,...); introduction to molecular orbitals: LCAO, hybridization. Molecular electronic structure and molecular spectroscopy (physical principles of IR/Raman, rotovibrational spectra, ESCA, EPR and NMR spectroscopies).
This course is currently only offered in even-numbered years.
Pre-requisites: CHM 131
Co-requisite: CHL 331 for all Chemistry students and for all biochemistry students planning to do honours research projects in the area of physical chemistry
CHL 331 Physical Chemistry Laboratory III 1-0-4 Experiments related to topics of CHM 331, which must be taken concurrently by chemistry students and by biochemistry students who are planning to do honours research projects in the area of physical chemistry.
This course is currently only offered in even-numbered years.
Co-requisite: CHM 331
CHM 431 Computational Chemistry and Molecular Modelling 3-3-0 Maple-assisted calculations of molecular orbitals and molecular modelling subroutines; from $\mathrm{H} 2+$ molecular ion, via $[\mathrm{Ni}(\mathrm{En}) 3] 2+$ and cis-platin (cancer chemotherapy), to cholesterol and cyclosporin; symmetry and point group analysis of molecular vibration; hybridization and Simple-Huckel Molecular Orbital calculations. Semi-empirical and ab initio methods; calculation of reaction and activation energies via modern alternatives to the Hartree-Fock self-consistent field method; density functional. Combinatorial processing parent-compound libraries and Spartan-assisted CSDB.
This course may be taken online (conditions apply, including instructor's
permission and level of enrolment)
Pre-requisites: CHM 231 and CHM 331

## Analytical Chemistry

## CHM 141 Analytical Chemistry

3-3-0
Data handling, stoichiometric calculations, gravimetric analysis, acid-base equilibria and titrations, redox equilibria and titrations, complexometric titrations, precipitation reactions and titrations, electrochemical cells and electrode potentials. Prerequisites: CHM 191 and CHM 192 or Collegial Chemistry NYA and NYB Co-requisite: CHL 141
CHL 141 Analytical Chemistry Laboratory 1-0-4 Quantitative analysis of unknown samples by volumetric, gravimetric, and spectrometric methods will be carried out.
Co-requisite: CHM 141
CHM 245 Instrumental Analysis
3-3-0
This course provides students within depth coverage of the theory of instrumental methods of analysis. The topics covered will be chromatography theory and chromatographic methods, atomic absorption and emission spectrometry, and electrochemical methods.
Prerequisites: CHM 121, CHM 141 and CHL 141
CHL 245 Instrumental Analysis Laboratory
1-0-4
This lab focuses mainly on learning to use the Department's extensive suite of chromatographic instrumentation (GC, GC-MS, HPLC, LC-MS) by performing numerous analyses on each instrument. The analyses will illustrate the importance of chromatography as an analytical method by using examples from forensic, environmental, and food and beverage science.
Co-requisite: CHM 245

## CHM 341 Principles and Practices of Chemical Spectroscopy and Mass Spectrometry 3-3-0

Theory and applications of multinuclear magnetic resonance, UV/VIS, EPR, and electron spectroscopies for chemical analysis. Mass spectrometry and hyphenated methods. Use of chemical spectroscopy and mass spectrometry for the identification of organic compounds. 2D- and imaging techniques, including MRI. This course may be taken online.
Pre-requisites: CHM 111 and CHM 141
Co-requisite: CHL 341
CHL341 Principles and Practices of Chemical Spectroscopy and Mass Spectrometry Laboratory $\mathbf{1 - 0 - 4}$
Experiments related to topics of CHM 341, which must be taken concurrently by chemistry and biochemistry students.
Co-requisite: CHM 341

## CHM 441 Quality Control and Product Analysis <br> as Exemplified by Beer and Brewing <br> 3-0-9

This course will familiarize interested students with the concepts of Quality Control and Product Analysis using beer and the brewing process as an industrial model. Students will gain hands-on experience brewing their own beer with the goal of producing a consistent, high-quality product by tracking the parameters that affect the critical steps in the brewing process. In particular, students will study the effects of temperature, pH , nutrient concentration, and yeast type and how they affect the mash-in, boil (hopping), and fermentation processes, using GC-MS, NMR, HPLC, and other applicable instrumentation. Due to space considerations, this course will be limited to two students per semester, with preference given to students in their final year of study.
Pre or Corequisites: BCH 210, CHM 131, CHM 141, CHM 111, CHM 211, CHM 341 and corequisite labs
CHM 442 Surface and Interface Analysis
3-0-9
This course will provide students with an overview of routine and state-of-the-art analytical methods for the characterisation of surfaces and interfaces. Students will understand how radiation is used to determine properties of surfaces and interfaces. Current applications using peer-reviewed scientific literature will be discussed. Students will understand the underlying principles of the methods discussed and will know how they are applied to real-world problems. Students will be able to critically analyse measurement challenges and propose analytical methodology for the characterisation of surface properties.
Prerequistes: CHM 141, CHL 141, CHM 191, CHL 191, CHM 192, CHL 192,
CHM 341, CHL 341

## Chemical Literature and Research Projects

## CHM 371F Scientific Writing and Chemical Literature for Major Students 3-0-0

This course introduces the Chemistry Major student to chemical information retrieval and requires two major term papers - one in the Fall semester, one in the Winter semester - each presented also in two short oral presentations. Students will use SciFinder/Chemical Abstracts to perform searching in structure/ substructure, reaction, and bibliographic databases. The literature searching will be used in preparing the two term papers, chosen from a list of topics approved by the Chemistry Department, under the direction of a different member of faculty for each.
Chemistry Major students must enrol in CHM 371 as part of their degree program and may only take this course in their final year. Students receiving credit for CHM 371 cannot also receive credit for CHM 471

## CHM 471F Scientific Writing and Chemical Literature for Honours

 Students 3-0-0This course introduces the Chemistry Honours student to chemical information retrieval and requires two major term papers - one in the Fall semester, one in the Winter semester - each presented also in two short oral presentations. Students will use SciFinder/Chemical Abstracts to perform searching in structure/ substructure, reaction, and bibliographic databases. The literature searching will be used in preparing the two term papers, chosen from a list of topics approved by the Chemistry Department, under the direction of a different member of faculty for each.
Honours Chemistry students must enrol in CHM 471 as part of their degree program and may only take this course in their final year. Students receiving credit for CHM 471 cannot also receive credit for CHM 371.

| CHM 491 | Independent Study | $\mathbf{3 - 0 - 0}$ |
| :--- | :--- | ---: |
| CHM 492 | Independent Study | $\mathbf{3 - 0 - 0}$ |
| CHM 499 | Honours Chemistry Research Project | $\mathbf{6 - 0 - 1 2}$ |

Under the guidance of a faculty member, the student does an experimental research project requiring approximately 12 hours per week in both the Fall and Winter semesters and presents the results of the project in a seminar and a written dissertation. The project chosen must be approved in advance by the Department and may be in any field of chemistry plus material science.
Prerequisites: Third Year Honours Chemistry registration or permission of the Department.

## General Interest Courses

## CHM 181 The Chemistry of Everyday Life

3-3-0
This course will discuss the chemistry underlying some everyday, or easily recognizable, products, processes, and policies. These may include: the chemistry of pollution, warfare, polymers and plastics, household products, and food.
This course cannot be taken for credit by students who have received credit for CHM 191 or the collegial equivalent course, Chemistry NYA, or equivalent credit elsewhere.
Course registration requires the instructor's permission.
CHM 182 The History and Science of Beer and Brewing 3-3-0
Beer is among the world's most popular beverages and the industry continues to grow at both the megabrewery and microbrewery levels. This course is a general interest course on the nature of beer from a historical, sociological, and scientific perspective. The diverse nature of beer will be explored, as well as how the beverage has developed from its origins many thousands of years ago to what it has become today. Of particular emphasis will be the development of a general understanding of the brewing process, and the science and engineering involved. Various examples of beer's impact on society and culture will also be discussed. For science students, this course cannot be taken for science credit, but only for free elective credits. For non-science students, this course can count as a science elective course.
CHM 183 Experiential Learning Project in Brewing
3-0-9
This course is designed specifically for non-science students interested in gaining experience in brewing beer from scratch. Specifically, students will engage in recipe development by starting with a known formula and make changes, subtle or otherwise, to create a beer that is distinctly their own. The goal is to gain an understanding and appreciation of brewing process as well as the roles that the ingredients of beer (water, malt, hops, yeast, adjuncts) play in the taste, aroma, and mouth-feel of the final product. Due to limited space and the anticipated popularity of this course, interested students must submit a brief proposal outlining the beer they would like to produce and their reason for wanting to take the course. Two students per semester will be selected by the course instructor (Dr. Dale Wood) to participate.
Pre or Corequisites: CHM 182 - The History and Science of Brewing
CHM 185 The Science of Cooking
3-3-0
Food processing is one of the most common activities worldwide, but do we really know what is happening at the molecular level? This course is a general interest course on the chemistry of cooking and is designed to answer questions such as: Why does plunging food in ice water not stop the cooking process? What is happening when baking? And why does deep-fried food taste best and brown better when the oil is older? A particular emphasis will be placed on understanding what chemical transformations are involved during food processing.
For science students, this course cannot be taken for science credit, but only for free elective credits. For non-science students, this course can count as a science elective course.

## Advanced Courses

CHM 435 Advanced Topics in Organic Chemistry
3-3-0
Advances topics in organic chemistry like stereoselective chemistry, radical chemistry and organometallic chemistry will be introduced through discussions and analysis of representative chemical transformations.
CHM 436 Total Synthesis in Organic Chemistry 3-3-0
In this course we will look at important total synthesis of natural products, analyze the chemical steps and propose alternative routes.

## Brewing Science Courses

## BRS 401 Brewhouse Chemistry

3-3-0
Water, referred to as Hot Liquor in brewing jargon, provides the medium in which all of the chemical and biochemical reactions that are involved in producing beer take place. Additionally, the mineral content of the Hot Liquor is a critical factor in determining many of the final characteristics of the beer, provides many of the essential elements for healthy yeast growth, and contributes enormously to mash pH . This course provides an in depth, comprehensive look at water, its properties, and how its mineral contents affect all aspects of beer and the brewing process. Students cannot receive credit for both BRS 401 and BRS 501. If the student intends to enroll in the Graduate Certificate in Brewing Science, they should not take any of the BRS 40x courses because they cannot be counted for credit toward both a B.Sc. and a Graduate Certificate.

BRS 402 Malt and Malting
3-3-0
Malt is produced by the germination of grain (barley, wheat, rye, etc.) followed by application of heat (kilning). It is the heat regimen, together with the type of grain that determines the characteristics of the malt. The malt is the source of the starch that is converted to sugars which the yeast ferments to produce alcohol and it is also primarily responsible for the colour of the beer. Malt is also an important contributor to flavour, aroma, characteristics of the foam (head), mouth feel, and other characteristics of the beer. This course will cover malt from farming and harvesting of the grain, through the transformations of the malting process, to its chemical and biochemical transformations in the brew house. Students cannot receive credit for both BRS 402 and BRS 502. If the student intends to enroll in the Graduate Certificate in Brewing Science, they should not take any of the BRS 40x courses because they cannot be counted for credit toward both a B.Sc. and a Graduate Certificate.

## BRS 403 Hops

3-3-0
Hops is the ingredient that contributes the characteristic bitterness of beer. It is also responsible for much of the flavours and aromas of beer, particularly those observed in heavily hopped beers such as India Pale Ale, American Pale Ale, and even hoppier double IPAs. The first section of this course will cover the farming, harvesting and processing of hops. The second section will cover hop chemistry, focusing on the resins (bittering agents) and essential oils (flavour and aroma contributors) of the hop cone and their transformations during the brewing process. Students cannot receive credit for both BRS 403 and BRS 503. If the student intends to enroll in the Graduate Certificate in Brewing Science, they should not take any of the BRS 40x courses because they cannot be counted for credit toward both a B.Sc. and a Graduate Certificate.
BRS 404 Microorganisms in the Brewery 3-3-0
The role of brewer's yeast in the brewing process, particularly its fermentation of sugars to produce alcohol, is fairly well known. However, yeast is also responsible for producing dozens, if not hundreds, of chemical compounds as it metabolizes the sugars, amino acids, and other components during fermentation. Many of these compounds contribute significantly to the flavour and aroma of beer. Other microorganisms, such as wild yeast and bacteria, are also potential contributors to the complex chemistry and biochemistry that occurs in the fermenter; sometimes to the benefit of the beer but more often to its detriment. This course will look at all of the microorganisms that are commonly found in the brewery and provide a detailed description of their chemistry and thus their impact on beer flavour and aroma.
Prerequisites: CHM 211 and BIO 201
BRS 405 Chemical Analysis of Beer and its Ingredients 3-3-0 As a food product, beer is rigorously controlled at both the federal and provincial levels of government. Part of this process is ensuring that a number of analytical parameters are accurately reported (e.g. alcohol by volume). Many other properties of beer are indicators of the efficacy of the brewing process and whether the brewer is producing a quality product. Analysis of the ingredients of beer (water, malt, hops, yeast) is essential to ensure that standards of quality necessary to produce good beer are met. This course will provide students with an in depth look at the chemical analyses commonly used to analyse beer and its precursors, using the methods database of the American Society of Brewing Chemists. Students will use what they learn to analyse the ingredients and the beer that they use / produce in the co-requisite practicum in brewing.
Prerequisites: CHM 141 and CHL 141

BRS 406 The Business of Brewing
There is a great deal of time and hard work that goes into planning, building, equipping, and running even a small microbrewery. When a microbrewery fails, it is generally because the ownership doesn't have a particular skill set, whether it be on the brewing side or on the business side. This course will take students through all of the steps necessary to get a microbrewery from the planning to the operation stage, and also introduce them to the business knowledge necessary for running a successful microbrewery.

## BRS 498 Practicum in Brewing I

3-3-0
Ultimately, brewing is a hands-on activity. The brewer must pay careful attention at every step of the brewing process in order to ensure that they have the best chance of producing the desired final product. Even then, the beer, although well crafted, may not exhibit the characteristics of flavour, aroma, colour, bitterness, etc. that the brewer was attempting to produce. Recipe development is a wonderful example of the scientific method and this approach to brewing will be the main focus of this course. Upon completion of BRS 498, students will receive more than 90 hours of brewing experience, constantly comparing what they observe in the brewery with what they are learning in their BRS lecture courses. The aim is to produce a brewer who is proficient in the brewery but also understands the complex chemistry and biochemistry that is involved in producing the highest quality beers.
Prerequisites: BRS 401
BRS 499 Practicum in Brewing II
3-3-0
Ultimately, brewing is a hands-on activity. The brewer must pay careful attention at every step of the brewing process in order to ensure that they have the best chance of producing the desired final product. Even then, the beer, although well crafted, may not exhibit the characteristics of flavour, aroma, colour, bitterness, etc. that the brewer was attempting to produce. Recipe development is a wonderful example of the scientific method and this approach to brewing will be the main focus of this course. Upon completion of BRS 498 and BRS499, students will receive more than 180 hours of brewing experience, constantly comparing what they observe in the brewery with what they are learning in their BRS lecture courses. The aim is to produce a brewer who is proficient in the brewery but also understands the complex chemistry and biochemistry that is involved in producing the highest quality beers.
Prerequisites: BRS 401 and BRS 498

## Computer Science

## Faculty

## Madjid Allili,

 B.Sc.(Algiers), M.Sc., Ph.D.(Sherbrooke); Professor
## Layachi Bentabet,

B.Sc.(Eng.National Polytechnic, Algeria),
M.Sc.(Elec.Eng. Institut national des sciences appliquées, Lyon), Ph.D.(Sherbrooke); Professor
Chair of the Department

## Stefan D. Bruda,

B.Sc.Eng., M.Sc., Ph.D. (Queen's);

Professor

## Russell Butler

B.Sc. (Bishop's), M.Sc., Ph.D. (Sherbrooke); Professor
Lin C. Jensen, B.Sc. (Stanford), M. Sc. (Concordia); Senior Instructor
Yasir Malik,
M.Sc. (Ajou University, S. Korea), Ph.D. (Sherbrooke); Professor

## Program Overview

Computer science is a subject related to almost every contemporary intellectual discipline, the arts (computer-generated art, verification of historical documents, syntax study of languages including translation, etc.), social sciences (correlating experimental data, simulation, artificial intelligence studies), natural sciences (has always had application in this area), business and government (the largest single groups of users), education (computer-aided instruction, artificial intelligence), medicine, etc.

The department offers a wide selection of programs, ranging from broad to specialized:

1) Undergraduate B.Sc. Degree Programs
I. B.Sc, Honours in Computer Science
II. B.Sc, Major in Computer Science

## 2) A multidisciplinary B.A. with a Major in Information Technology (BAIT)

## 3) Minor in Computer Science

4) Certificate Program in Computer Science

Note: A Co-op program is offered for all students in programs 2) and 3) above. Please refer to the Co-op section.
5) Master's Degree Program (see Graduate Programs section)
I. Thesis Option
II. Project Option

## Undergraduate B.Sc. Degree Programs

## Honours in Computer Science (120 credits)

HONCSC

## A. Dissertation-based Honours

18 credits: Program prerequisites (please refer to Table II in the Divisional section of the Calendar)
57 CS credits: 39 required: CS 201, CS 211, CS 216, CS 304, CS 310, CS 311, CS 317, CS 321, CS 403, CS 409, CS 455, CS 499
18 electives: must include 12 credits from 400-level courses and above
12 MAT credits: 12 required: MAT 108, MAT 200, MAT 206, MAT 207
3 PHY credits: PHY 101
3 credits: Arts and Science requirement (please refer to the Divisional section of the Calendar)
27 credits of free electives

## B. Course-based Honours

The course-based stream does not require a dissertation (i.e. CS 499) but requires 3 more CS courses. It is primarily designed for students wishing a specialization in Computer Science but are not interested in research and do not intend to pursue graduate studies:
18 credits: Program prerequisites (please refer to Table II in the Divisional section of the Calendar)
60 CS credits: 33 required: CS 201, CS 211, CS 216, CS 304, CS 310, CS 311, CS 317, CS 321, CS 403, CS 409, CS 455
27 electives: must include 15 credits from 400-level courses
12 MAT credits: 12 required: MAT 108, MAT 200, MAT 206, MAT 207
3 PHY credits: PHY 101
3 credits: Arts and Science requirement (please refer to the Divisional section of the Calendar)
27 credits of free electives

## General Notes for Honours

- after a minimum of 1 semester, a student with a grade of at least $80 \%$ in required courses may request entry to the Honours program
- the dissertation stream requires, in addition, departmental permission.
- students must maintain an average of $80 \%$ in required courses to stay in the program


## Major in Computer Science

(120 credits)
MAJCSC
18 credits: Program prerequisites (please refer to Table II in the Divisional section of the Calendar)
45 CS credits: 30 required: CS 201, CS 211, CS 216, CS 304, CS 310, CS 311, CS 317, CS 321, CS 403, CS409 15 electives
9 MAT credits: 6 required: MAT 108, MAT 200
3 elective (MAT 19X cannot count as MAT elective)
3 PHY credits: PHY 101
3 credits: Arts and Science requirement (please refer to the Divisional section of the Calendar)
42 credits of free electives

## B.A. PROGRAM, MAJOR IN INFORMATION TECHNOLOGY

## Information Technology

MAJITC
Information Technology (IT) is defined by the Information Technology Association of America (ITAA), as the study, design, development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware. IT deals with the use of electronic computers and computer software to convert, store, protect, manage, transmit and retrieve data, securely.

This program provides the necessary skills and knowledge to work/design/participate within organizations that manage large amount of data and provide services to a large number of users. Students will develop skills and knowledge in Information Technologies, Management practices and Organizations, with the required fundamentals of Computer Science
Note: Students following this degree program are not eligible to add a Business program
Program prerequisites: ( $\mathbf{1 2}$ credits)
Please refer to Table II in the Divisional section of the Calendar.
Core curriculum ( $\mathbf{3 6}$ credits):
CS 201, CS 211, CS214, CS 325, CS 304, CS 307
BCS 220, BCS 320, BCS 313, BCS 422, BMA 140, BMG 100

## Secondary Core [1] (30 credits)

A minimum of 3 courses in Computer Science.
A minimum of 3 courses in Business, normally chosen from the following list:
BCS 317, BCS 416, BCS 340, BCS 420,
BCS 430, BCS 450, BMG 214, BMG 323, BMK 211, BMK 214, BMK 321, BMK 323, BMK 333
[1] Students are advised to consult the Calendar for prerequisites
Arts and Science requirements ( 3 credits)
Please refer to the Divisional section of the Calendar
Free electives (39 credits)

## Co-operative Education Program

B.Sc. Coop

The co-operative Education Program combines a student's academic program with integrated work experiences through fulltime work terms and regular academic sessions. The work terms are designed to present the students with the opportunity to blend theory and practice and to gain relevant work experience.

Each co-operative work term is between 12 and 16 weeks in length, and the student will be registered in a 3-credit Cooperative Placement course (CS 391, CS 392 or CS 393). These course credits count as free electives. Each is graded on a pass/ fail basis and this grade is not included in the student's cumulative average. The evaluation is the responsibility of the Departmental Chair and will be based upon the submission of a work term report and a job performance report submitted by the employer. Normal academic regulations apply to the conduct and evaluation of the courses.

The number of work terms needed depends on the number of credits the students need to complete upon admission at Bishop's. Student who have been granted 30 advance credits (or more) will be required to complete two work terms ( 6 credits). Other students who have been admitted into a regular 120-credit degree program will be required to complete three work terms ( 9 credits). These credits will be added to the student's program and do not count as computer science courses, computer science electives, or free electives. All work terms must be completed before the student's final academic semester and a student's last semester before graduation cannot be a work term. While every effort will be made to find a suitable placement for all students in the program, no guarantee of placement can be made since the employment process is competitive and subject to market conditions.

## Admission to the Co-operative Education Program

Students must submit an application to be admitted to the program. Full-time students in any Honours or Major program offered in the Computer Science Department who have completed the online application package, who have successfully completed BMG191 and who have a minimum cumulative average of $70 \%$ upon application are admissible into the Co-op Program. Students in the Co-op must maintain their $70 \%$ average and be full-time in order to stay in the program.

## Work Term Registration

Once a student has signed the Co-operative Education Agreement, the student may not drop the course associated with the work placement, except for exceptional circumstances. A student who decides to do so will not be able to stay in the Co-operative Education program.

## Tuition and Fees

Each work term placement is a 3-credit course and students will pay tuition based upon their fee paying status (Quebec resident, Canadian out-of-province, International).

## Work Term Evaluation

Successful completion of the work term is based upon the following:

- The receipt of a satisfactory job performance report from the employer
- The submission of a satisfactory work term report by the student.
The job performance report will be completed by the employer, using guidelines supplied by the Computer Science Department. It is the student's responsibility to ensure that the employer sends the completed evaluation to the Co-op Coordinator on or before the established deadline. Employer evaluations are confidential and are not reported on the student's transcript.


## MINOR IN COMPUTER SCIENCE ( 24 credits)

9 required: CS 201, CS 211, CS 304
15 electives from any CS course

## CERTIFICATE PROGRAM (30 credits)

## Description and objectives:

The Certificate Program in Computer Science is designed for individuals who need to acquire a basic understanding of computers and programming and knowledge of the field in order to expand their area of interest and professional expertise. Topics include: Programming, Software Engineering, Web Design, Networks, Graphics, Artificial Intelligence and others. This program will help students to take full advantage of the computer technology available in the workplace.

## Prerequisites to programs:

Applicants with insufficient Math background might be required to take an additional 3-credit Math course in their first semester (Math 190 or equivalent).

## Program Overview

## Certificate in Computer Science

12 required credits: CS 201, CS 211, CS 304, CS 321
18 credits of CS electives

## General Notes/Restrictions:

1. Only one of CS 404 , CS 408 or CS 499 may be taken for credit, unless with a special departmental authorization
2. Computer Science courses that are double-listed in Math cannot be counted toward fulfilling the Math electives required for the Computer Science Honours/Major.
3. Students must fulfill their Arts and Science requirements and Humanities requirements outlined in the "Divisional" section of the Calendar.

## List of Courses

CS 201 Foundations of Computer Science
An introduction to Computer Science and selected applications suitable for both majors and science non-majors who want a broad overview of the field. The course provides a layered introduction covering hardware, system software and applications packages. The course includes elementary programming. Topics include Algorithmic foundations of Computer Science; The hardware world: number systems, boolean logic, computer circuits, Von-Newmann architecture; System software: assembly language, operating systems, high level languages, language translation; Models of Computation; Applications and Social Issues Note: Registration priority is given to Science and IT students. CS students must take this course in their first year.
CSL 201 Foundations of Computer Science Laboratory
1-0-3
This is the practical laboratory for CS 201
CS 203 Interactive Web Page Design
3-3-0
In this course, students will learn the basics of HTML, the language describing web pages, and CSS, another web page language. By constructing fill-in forms and employing short sections of script, students will learn how to enable users of the Internet to interact with their web pages: sending data to be stored, and receiving customized responses. The course will include simple database operations. Extensive laboratory work will result in students creating their own set of personal web pages on a publicly accessible server. The course is open to anyone interested in the subject.

## CSL 203 Interactive Web Page Design Laboratory

This is the practical laboratory for CS 203
CS 207 Databases and Dynamic Web Design
3-3-0
In this course, students will build dynamic websites using SQL and PHP, learn the wen technology that powers e-commerce sites, and enables dynamic, interactive tools and applications. Many real-world websites and especially e-commerce sites are complex and need flexibility. As a result, the use of databases as a back-end for websites is increasingly popular. Queries in SQL language allow a high degree of selectivity as well as storage and retrieval of large image and media content objects. This course expands upon the techniques of web programming introduced in CS 203 to teach the use of databases and web design. Applications are primarily drawn from the e-commerce area but are not limited to this domain. Students will learn how to design and administer a database, setup mailing lists, build discussion forums, create a store front and even build a working shopping cart. This course emphasizes practical skills with hands-on-projects. The course is offered with a lab (CSL 207)
Prerequisite: CS 203 or permission of the instructor
CSL 207 Databases and Dynamic Web Design
This is the practical laboratory for CS 207
Corequisite: CS 207
CS 211 Introduction to Programming
3-3-0
This course introduces algorithms, data structures and software engineering principles. The use of a high level language is the tool to develop these components. By the end of the course, a successful student should be 'fluent' in programming, and have a good base for simple data structures. The course provides the necessary programming skills needed for further studies in Computer Science.
CSL 211 Introduction to Programming Laboratory
1-0-3
This is the practical laboratory for CS 211
CS 214 Introduction to Networks
3-3-0
This course introduces and discusses the components and architectures of computer networks. Topics to be covered include: Resources Sharing (Network Interface Circuitry, Files Servers, Workstations, etc.), Network Protocols (TCP/ IP, Apple Talk, Novel, etc.) and Network Infrastructure (Hubs, Routers, Gateways, Bridges, etc.).
CS 216 System Programming Languages 3-3-0
System programmers need to understand how a computer works at a low level. They program primarily in C, with some assembly language. This course covers number systems, the C programming language, and an assembly language for a representative processor architecture. Topics covered include addressing modes, the stack, function calls and argument passing.
CSL 216 System Programming Languages Laboratory $\mathbf{1 - 0 - 3}$ Practical work for CS 216 will consist of programming in C and MIPS assembly language.

CS 219
General Topics in Computer Applications
3-3-0
The course will present general Computer Science-related topics, of interest to both Computer Science as well as non-Computer Science students. The course content is expected to vary to reflect the interest of students and Faculty, as well as market innovations.
CSL $284 \quad$ Unix System Administration Laboratory $\quad \mathbf{1 - 0 - 0}$
This lab familiarizes students with the Linux and Unix environments covering system administration and user management. Students will start with isolated machines then learn how to interface a Unix system with a network. Advanced topics include the configuration and administration of email and Web servers, as well as techniques for the automation of system administrator tasks via scripting languages. All students will have root and console access to real machines, thus they will gain real networking experience.
Prerequisite: CS 211
CS 301 Computer Ethics
3-3-0
Ethics is a branch of philosophy. Computers introduce arguably unique ethical issues in the way their use affects society. Technically minded professionals often give little attention to ethical issues. This course explores the basis for ethical reasoning, and examines ethical issues such as invasion of privacy, mischief including viruses, piracy and liability of software. It also considers broader issues of impacts on the individual and society, control of the technology, and the question of the difference between human understanding and rule-base processing of data. Students will be expected to participate in class discussions and roleplaying scenarios, and to write a term paper.
CS 304 Data Structures 3-3-0 An advanced course designed to expose the student to the latest programming theory and software engineering principles. Topics covered include modularization, data encapsulation, information hiding, data abstraction, and other object oriented software construction techniques will be discussed. Parallel design of algorithms and data structures, analysis of algorithms (including "big O" notation and software verification methods.) Standard data structures such as stacks, queues, trees and graphs will be examined. Programming examples are done in Java.
Prerequisite: CS 211
CS 306
Functional and Logic Programming
3-3-0
There is much more than imperative programming. This course introduces two other programming paradigms, functional and logic. Topics normally include: functional programming languages, such as Lisp and Haskell; higher order functions, lazy evaluation, abstract and recursive types, structural induction, symbolic expressions; logic programming languages, such as Prolog; operational interpretation of predicates and terms, proof search, unification, backtracking; typical applications.
Prerequisite: CS 304 Allow concurrent
CS 307 Using and Designing Data Bases 3-3-0
This course presents data modeling (Entity-Relationship model, UML, etc..), relational algebra, normalization, SQL language. Implementation of databases using the relational model is discussed. Object-oriented modeling and implementation is also introduced. Other topics include: Concurrency control, transaction processing, client-server systems, distributed databases, and webbased delivery of data.
Prerequisite: CS 304
Note: Students may not take this course for credit if they received credit for either BCS 214 (Jan 98 and onward) or CSC 274 (prior to 2003).
CSL 307 Using and Designing Data Bases Laboratory 1-0-3
This is the practical laboratory for CS 307
CS 308 Scientific Programming
3-3-0
Scientific Programming is a course for students who want to learn more about the computing that goes on behind computational science. Students will learn the basic mathematical tools and computational techniques including the design and analysis of algorithms for solving mathematical problems that arise in many fields, especially science and engineering. Emphasis is placed on both the actual implementation and on the numerical and algebraic methods. The programming projects assigned in this course will make substantial use of C and $\mathrm{C}++$ for numerical computations and Maple for symbolic computations.
Prerequisite: CS 304, Math 191, Math 192
Note: See PHY 378. Students may not take this course for credit if they have received credit for Mat 279 or Phy 378.

CS 310 Introduction to Software Specifications 3-3-0
This course provides to all the students in CS degrees essential material on formal languages and automata, and also on program specification using logical predicates. The following topics will be addressed: introduction to techniques for specifying the behaviour of software, with applications of these techniques to design, verification, and construction of software; logic-based techniques such as loop invariants and class invariants; automata and grammar-based techniques, with applications to scanners, parsers, user-interface dialogs and embedded systems; computability issues in software specifications. These topics have been chosen because they are both theoretical and practical, and will be presented as such.
Prerequisite: CS 211
Prerequisite or Corequisite: MAT 200
CS 311 Computer Organization and Logic Design 3-3-0
This is a theoretical course on computer organization and architecture. Different computer components and how they function are studied in detail. By the end of the course, students should be able to build (in theory) a small computer without interface. Topics covered are: boolean algebra and gates, combinational circuits (decoders, multiplexers, PLAs), logic design (flip-flops, shirts registers, counters, sequential circuits), the ALU, memory (RAM,ROM, secondary storage), I/O Devices and the control unit (hardwired, microprogramed). For those interested students, a follow-up course, largely consisting of lab experiments, is CS 312
Prerequisite: CS 201, CS 211

## CSL 311 Computer Organization and Logic Design Laboratory 1-0-3 This is the practical laboratory for CS 311

CS 312 Microcomputer Interfacing 3-3-0
This course and integrated laboratory introduces the techniques used to interface a microcomputer to the real world with a robot as the main interface. Students will complete projects of increasing difficulty as they build and program a robot to accomplish a given task and brief the class on their design and findings. Topics will include: interactive programming, analog and digital inputs, use of the bus and registers to control output signals, simple electronic sensors, multiplexing and decoding and practical problem solving.
Prerequisite: CS 311 or equivalent programming and electronic knowledge.
CSL 312 Microcomputer Interfacing Laboratory
This is the practical laboratory for CS 312
CS 315 Data Communications 3-3-0
This is a theoretical course on Data Communications. It covers the basic and physical aspects involved when data is transmitted from one point to another, such as analog vs. digital transmission, various forms of encoding analog and digital data into appropriate signals, error detection techniques, multiplexing, etc... As well as an introduction is given on networking techniques, differences between circuit and packet switching, routing techniques, and Local Area Networks. The course is of mathematical and physical nature.
Prerequisites: CS 211 or CS 216
Note: See PHY 365. Students may not take this course for credit if they have received credit for PHY 365.
CS 316 Artificial Intelligence 3-3-0
A course aiming to introduce students to the basic concepts and techniques of Artificial Intelligence. Topics will include: Search strategies; knowledge representation; AI languages; Rule-based inference systems, expert systems; computer vision; planning and problem solving; natural language understanding. Prerequisite: CS 304, CS 306 or CS 403
CS 317 Design and Analysis of Algorithms
3-3-0
This course is intended to make students familiar with most of the existing techniques for problem solving. It starts with an introduction to algorithms efficiency, solving recurrence relations and basic data structures. Then different techniques for algorithms design are discussed; the divide-and-conquer technique, the greedy technique and its applications to graph algorithms, dynamic programming, backtracking and branch and bound algorithms. With every technique presented, examples from different domains are studied and their algorithms analyzed. At the end, students are briefly introduced to the vast area of "difficult" problems, or NP-complete.
Prerequisite: CS 304 and MAT 200

CS 318
Advanced C++ Programming
3-3-0
The C++ language has become an industry standard as an implementation language. The course aims at introducing the student to intermediate and advanced programming using $\mathrm{C}++$, with particular emphasis on systems software and the use of the $\mathrm{C}++$ object-oriented extensions in software engineering
C++ Programming basics (loops and decisions, arrays, structures, functions, pointers) Objects and Classes, Inheritance, Virtual functions, files and stream, I/O Structure and design of Class libraries, Standard Template Library, OOP Design basics.
Although no prior experience in C is required, it is assumed that the student is already fluent in some other programming language and in the programming of data structures.
Prerequisite: CS 304
CS 321 Advanced Programming Techniques 3-3-0
The course is intended to be a sequel to introductory programming with emphasis placed on the architecture of software. It will go in depth into object-oriented techniques, reusability, data abstraction, class design, and implementation, design and structure of class libraries. Topics to be covered include: polymorphism, encapsulation, overloading, inheritance and delegation, types of inheritance (Inheritance for Extension, Specialization and Specification), composition, aggregation and design of collections. Static and dynamic types, downcasting, exception handling. The second half of the course will be devoted to software design patterns, with particular emphasis on the observer, iterator, visitor and selected creational patterns. Course work will involve significant programming projects. The teaching language will be Java.
Prerequisite: CS 304 Allow concurrent
CSL 321 Advanced Programming Techniques Laboratory
1-0-3
This is the practical laboratory for CS 321
CS 325 Computer \& Network Security
3-3-0
This course provides an introduction to security and privacy issues in various aspects of computing, including cryptography, software, operating systems, networks, databases, and Internet applications. It examines causes of security and privacy breaches, and gives methods to help prevent them.
Prerequisite: CS 214
CS $330 \quad$ Programming Mobile Apps 3-3-0
This course will cover mobile application development for the Android operating system using Android Studio. The programming language is Java. Setting up and using Android Studio IDE will be covered in the introduction. Students will learn how to design and develop Android applications using best practices to account for the limited screen size and memory of mobile devices. Topics to be covered include layout design/management, communication between apps, Google Maps, 2D graphics, and mobile app specific software engineering patterns. The course concludes with monetization (ads, in-app purchases, etc) and app store optimization strategies. The goal is for each student to develop and release an app by the end of the course.
Prerequisite: CS 211
CSL 330 Advanced Programming for Mobile Apps Laboratory 1-0-3
This is a practical laboratory for CS 330
Co-requisite: CS 330
CS 375 Numerical Methods 3-3-0
Numerical techniques for problem solving in mathematics, computer Science and Physics. Error analysis, roots of equations, QR-algorithm, interpolation, Numerical approaches to differentiation, integration and solutions of differential equations. Prerequisite: CS 211, Mathematics 108 and 207.
Note: See Mat 325 and Phy 375. Students may not take this course for credit if they have received credit for MAT 325 or for PHY 375
CS 379 Electric Circuits and Electronics
3-3-3
Review of D.C. circuits, Kirchoff's laws, network theorems. Network analysis for A.C. circuits, phasors. Diode circuits and filters. The physical basis of semiconductor devices including semiconductor diodes, junction transistors, and field-effect transistors. The operation of transistor amplifiers, digital electronics and integrated circuits will also be covered.
Note: See PHY 319. Students may not take this course for credit if they have received credit for PHY 319
CS 391 Co-operative Placement I
Students will integrate theory and practice through a related work placement Prerequisite: admission to the Co-op Education Program
CS 392 Co-operative Placement II
Students will integrate theory and practice through related work placement Prerequisite: CS 391

## CS 393 Co-operative Placement III

Students will integrate theory and practice through related work placement Prerequisite: CS 392
CS $394 \quad$ Stage in Bioinformatics
Students will integrate theory and practice through a related stage.
Prerequisite: $C S 372 / B C H 342$
CS $400 \quad$ Independent Studies $\quad \mathbf{3 - 0 - 0}$
Individual study and research under the guidance of an advisor and Department staff.
Prerequisite: Permission of the department
CS 401 Simulation Techniques
3-3-0
Computer simulation is defined and put into the context of other simulation methods. Two main techniques are studied, one involving automated spreadsheets (financial modelling) and the other queuing theory. A term project involving the simulation of an actual system is part of the course.
Prerequisite: CS 304, PHY 101 (or equivalent)
Note: Students may not take this course for credit if they received credit for BMS 343. This course will be offered in alternate years.

## CS 402 Computer Graphics <br> 3-3-0

This is an introductory course to the principles of interactive raster graphics. Topics include an introduction to basic graphics concepts, scan conversion techniques, 2-D and 3-D modeling and transformations, viewing transformations, projections, rendering techniques, graphical software packages and graphics systems. Students will use OpenGL graphics API to reinforce concepts and study fundamental computer graphics techniques.
Prerequisites: CS 304, MAT 108
CSL 402 Computer Graphics Laboratory
1-0-3
This is the practical laboratory for CS 402
CS 403 Principles of Programming Languages
3-3-0
The objective of this course is to introduce, analyze and evaluate, on a comparative basis, the concepts on which programming languages and their implementations are based. Topics to be covered: definition of languages, syntax and semantics; Compilation techniques, top-down parsing, creating a parser; variables and binding, expressions, statements; data types; procedures scope, and run-time considerations; coroutines; implementation of block-structured languages; modularity and abstractions; concurrency exception handling and program correctness; functional programming object-oriented programming languages; logic programming and constraint languages.
The languages ML, Eiffel, Lisp, Scheme, Prolog, Haskell, 02, Java and Smalltalk will be used to illustrate the above concepts.
Prerequisites: CS 304 and CS 310

## CS 404

Project
3-0-3
This course is normally taken by CS students in their final year. The project must be approved in advance by the department. Students will be expected to submit a written report and to make a presentation.
Prerequisite: approval of the dept., $80 \%$ in CS courses
CS 405 Data Mining 3-3-0
Data is now created faster than humans are able to understand it and use it. There may be patterns hiding within this data with potentially useful information. This course will teach students, how to discover these patterns for the purpose of solving problems, gaining knowledge, and making predictions. Topics covered in this course include data preparation, clustering, classification, association rules for mining and models combination. This course includes assignments and a final project where the students are required to perform mining on real datasets.
Prerequisites: PHY 101 (or equivalent)
See PHY 374
Students may not take this course for credit if they have received credit for PHY 374.

CS 406 Compilers and Interpreters
3-3-0
This course is intended as an introduction to the fundamentals of language translation and compiler construction. Topics will include language theory and syntax; grammars, finite state machines, non-deterministic push-down automata; a thorough treatment of parsing methods covering top-down, bottomup and precedence parsers; Syntax directed translation; Run-time environments; optimization and error recovery; code generation. Students will be required to construct a working interpreter of a Pascal-like language.
Prerequisite: CS 310
This course will be offered on alternate years.

CS 408
Project II
3-0-3
This course is normally taken in the final year of studies and may involve work on a theoretical topic or a practical implementation of a sizable software project. The topic must be approved in advance by the department. Students are expected to attend bi-weekly project meetings where they present and discuss their work. In addition, they will make a final presentation at the end of term and submit a report. Prerequisite: approval of the dept. $80 \%$ in CS courses.
CS $409 \quad$ Principles of Operating Systems
3-3-0
Basic concepts of computer hardware; program translation linking and loading; cooperating sequential processes; critical section problem, process synchronization primitives, parallel programming; introduction to multiprogramming; operating system nucleus; file systems; reliability and protection; system performance, measurement and evaluation. Memory Management. Paging and Virtual memory. Unix. Using and programming the Unix Shell, Unix implementation. Examination of the implementation of Unix clones Minix, Linux, Survey of state-of the-art operating systems. Distributed Systems, Communication and synchronization in distributed systems. Theoretical issues and implementation.
Prerequisites: CS 304
CS 410 Software Engineering 3-3-0 Software is an engineered product that requires planning, analysis, design, implementation, testing and maintenance. This course is a presentation of the techniques used in each step of the software product process. Topics: software requirements analysis and specifications; software design process, object oriented design; testing, reliability and maintenance. Students will be expected to work jointly on several large software projects.
Prerequisites: CS 304, CS 310, CS 321, CS 403 (allow concurrent)

## CS 411 Advanced Computer Architecture

3-3-0
The focus in this course is on basic principles, current practice, and issues in computer architecture and organization. At the end of the course students will have gained an understanding of how a computing system is organized, as well as why it is organized this way. The relation between hardware and the software that runs on it is emphasized, leading to an intuitive understanding of how the behavior of applications influences computer organization and design. Topics covered typically include (but are not limited to): instruction set design, micro-programed versus hardwired processors, pipelining and superscalar processors, memory organization (cache, primary, virtual), I/O and interrupts, multiprocessors. Comparative critical and quantitative analyses of various systems that currently exist are presented.
Prerequisites: CS 311 or instructor's permission.
CS $412 \quad$ Computer Games Design
3-3-0
This course will explore the theory and practice of video game design and programming. Students will learn the basic concepts and techniques for the design and development of digital games. The topics covered in this course will include the history and taxonomy of video games, the basic building blocks of a game, computer graphics and programming, use interface and interaction design, and the software architecture for video games. It is assumed that students have taken courses in programming (best if it includes C or $\mathrm{C}++$ ) and data structures. A good background in algorithms and basic mathematics (matrix algebra, trigonometry, linear algebra, vector calculus) is an asset for this course.
Prerequisite: CS 304
CS 415 Special Topics in Communications
3-3-0
The course will present topics of current interest or research directions in Computer Communications Networking and network programming. The course content is expected to vary to reflect the current interests of students and faculty. It will be offered by arrangement with the department.
Prerequisite: CS 304
CS 416 Special Topics in Software
3-3-0
The course will present topics of current interest or research directions in Software Science. The course content is expected to vary to reflect the current interests of students and faculty. It will be offered by arrangement with the department.
Prerequisite: CS 304
CS 417 Special Topics in Computer Applications 3-3-0
The course will present topics of current interest or research directions in Computer Applications. The course content is expected to vary to reflect the current interests of students and faculty. It will be offered by arrangement with the department.
Prerequisite: CS 304
CS 418 Topics in Computer Science 3-3-0
The course will present topics of current interest or research directions in Computer Science. The course content is expected to vary reflecting the interests of the students and the faculty. It will be offered by arrangement with the department. Prerequisite: CS 304

CS 426 Computer-Assisted Interventions
3-3-0
This course introduces students to the fundamentals of computer-aided intervention (CAI) in medicine. The use of computing technology before, during, and after interventions will be examined. Specifically, this course will teach students about tracking devices, coordinate systems, spatial transformations, rigid and nonrigid registrations (feature-based \& intensity-based), calibration, digitization and imaging. Clinical applications will also be discussed. Basic knowledge of either $\mathrm{C}++$, python or matlab is an asset.
Prerequisites: Instructor's permission
Students cannot receive credits for both CS426 and CS526.

## CS 426 Computer-Assisted Interventions

3-3-0
This course introduces students to the fundamentals of computer-aided intervention (CAI) in medicine. The use of computing technology before, during, and after interventions will be examined. Specifically, this course will teach students about tracking devices, coordinate systems, spatial transformations, rigid and nonrigid registrations (feature-based \& intensity-based), calibration, digitization and imaging. Clinical applications will also be discussed. Basic knowledge of either C++, python or matlab is an asset.
CS $450 \quad$ Elements of Big Data 3-3-0
In this course, students will learn the fundamental theory and techniques of Big Data management and analytics, and to apply them to resolve problems in real-world applications. The principle is to learn strategic extraction and usage of relevant information in large datasets. In fact, the students will exploit recent concepts and trends to manage and analyze Big Data. For that purpose, recently designed algorithmic approaches and technologies will be covered to help the students to manage and analyze large datasets. For that aim, the covered topics will include, but will not be limited to streaming algorithms, distributed file-system architecture, resilient distributed datasets, similarity search, recommendation systems, and distributed machine learning. The students will work on large projects to practice the concepts presented in this course
Prerequisites: PHY 101 and CS 321
Cross-listed: CS 550
CS 454 Complements in Data Structures and Algorithms
3-3-0
The aim of this course is to cover many concepts in Data Structures, Algorithms, and Programming to make up deficiencies in Computer Science background for entering graduate students.
This course cannot be taken for credits by undergraduate students

## CS 455 Theoretical Aspects of Computer Science <br> 3-3-0

The course will include several of the following topics: Computational models, Computational complexity; Finite-state machines; Context-free languages; Pushdown automata; Turing machines; Undecidable problems.
Prerequisite: CS 211, MAT 200

## CS 457 Database Software Design 3-3-0

This course covers how one can implement a Database Management system. Major topics are storage management, Query processing, and Transaction management. As a basic assumption, data will not all fit in main memory, so algorithms and data structures appropriate for effective disk storage and quick access must be used. For example, one may use index structures such as B-trees or hash tables. We cover parsing of queries and optimizing of query plans. Finally, we cover durability of transactions using logging, and concurrency control for isolation of transactions. Additional topics in distributed databases are also presented.
Prerequisite: CS 307
CS 462 Image Processing
3-3-0
This course will introduce the area of Image Processing and present classical tools and algorithms in the field including: image perception, image acquisition and display, histogram techniques, image restoration, image enhancement, primitive operations for image analysis, segmentation, image transforms, and pattern and object recognition.
Some examples of industrial applications of image processing and some important developments in image processing research will be also addressed.
Prerequisites: CS 304, MAT 192, PHY 101 (or equivalent)

CS 463 Computer Vision
3-3-0
This course is concerned with the computer acquisition and analysis of image data. Computer vision is the construction of explicit, meaningful descriptions of a physical object from images. Emphasis will be placed on: camera models and calibration, image representation, pattern recognition concepts, filtering and enhancing, segmentation, texture, motion from image sequences, deformable models, matching, stereovision, perceiving 3D from 2D images and tracking with dynamic models. The programming projects assigned in this course will make substantial use of the C and $\mathrm{C}++$ programming languages
Prerequisites: CS 304, CS 318, MAT 192, PHY 101 (or equivalent)
CS 464 Network Programming $\quad$ 3-3-0
This course presents computer networks at a functional level, with strong emphasis on programming distributed applications over a network. Discussion will be based on open networking and application standards such as the TCP/IP protocol suite and the Portable Operating System Interface (POSIX). Topics normally covered are TCP/ IP architecture and programming, the client-server model, network file systems, streaming, tunnelling. Programming distributed applications (in C or $\mathrm{C}++$ ) is an integral part of the course.
Prerequisite: CS 216
CS 467 Special Topics in Algorithms
3-3-0
The course builds on the techniques covered in CS 317 to present some specialized algorithms in several areas, including Bioinformatics, Computational Geometry, and Network Flow.
Prerequisite: CS 317 or permission of the instructor
CS 469 Special Topics in Computer Science 3-3-0
The course will present topics of current interest or research directions in Computer Science. The course content is expected to vary from year to year to reflect the current interests of students and faculty. It will be offered by arrangement with the department.
Prerequisite: CS 304
CS 471 Graph Theory 3-3-0
An introduction to the combinatorial, algorithmic and algebraic aspects of graph theory.
Prerequisite: CS 304, MAT 200
Note: See MAT 421. Students may not take this course for credit if they have received credit for MAT 421.
CS 499F Honours Dissertation 6-0-0
The student is required to complete a theoretical or applied project. The subject is arranged with the student's supervisor during the first four weeks of term. A written dissertation is required as well as two seminar presentation.
Note: This course is open only to final year Computer Science Honour Students in the dissertation stream, and only by permission of the department

## Mathematics

## Faculty

Madjid Allili, B.Sc.(Algiers), M.Sc., Ph.D.(Sherbrooke); Professor<br>\section*{Thomas Brüstle,}<br>B.Sc., (Ludwig-Maximilians), M.Sc., Ph.D. (Zurich), Professor, Maurice-Auslander Research Chair<br>\section*{François Huard,}<br>B.Sc., M.Sc., Ph.D. (Sherbrooke); Professor, Chair of the Department

## Trevor H. Jones,

B.Sc.H. (Acadia), M.Sc. (Dalhousie), Ph.D. (University of New Brunswick); Senior Instructor

## Scosha Merovitz,

B.Sc.(Bishop's), M.Sc.(Dalhousie); Coordinator, Math/Stats Help Centre

## David Smith,

B.Sc., M.Sc., Ph.D. (Sherbrooke); Adjunct Professor
N. Brad Willms,
B.Math. M.M., Ph.D. (Waterloo); Associate Professor

## Program Overview

Mathematics is the language of the sciences, a language which allows scientists to quantify, model, understand and predict behaviour in an enormously diverse range of phenomena of interest. Simultaneously, Mathematics is often regarded as an art, as it is the creative study of patterns and of problem solving. Mathematics covers a wide range of disciplines including algebra, analysis, combinatorics and discrete mathematics, and differential equations. In first-year courses, mathematics students are joined by other science students, particularly from Physics and Computer Science. In the advanced courses, classes are very small, and some are given on an individual or tutorial basis.

The highest level of specialization is Honours, and Honours programs prepare students for direct entry into graduate work leading to a Master's or Ph.D. degree. All honours mathematics students have an opportunity to study independently and thus develop their reading and problem solving skills, and there is some chance to pursue special interests. The Majors programs provide students with an excellent general preparation for the career world, while not preventing entrance into graduate school (sometimes after a qualifying year). The Majors programs have sufficient electives to allow students to combine their major with a second major or at least a minor (the least specialized type of program) in another discipline. Students are encouraged to add a minor or major and many do so. Popular choices include computer science, physics, music, English, French, Spanish, drama, and philosophy. The Department of Mathematics offers several specialized, interdisciplinary programs, jointly with other departments, including Hispanic Studies and the School of Education.

## First-year Calculus requirement

All Mathematics students require six course credits of Calculus studies, normally in their first year. Students with a Québec collegial diploma (DEC) shall be granted advance credit for these courses if they have completed a course in Differential Calculus and a course in Integral Calculus at CEGEP. If one or both of these courses were not completed at CEGEP, they must be completed at Bishop's and advanced credits shall be reduced accordingly. Students entering four-year programs in Mathematics with a grade 12 diploma (or equivalent) must register in MAT 191 and MAT 192 in their first year. These courses are included in the 120 total credit requirement. Students transferring into Mathematics programs may use credit for MAT 198 to replace MAT 191, and MAT 199 to replace MAT 192. Credit for MAT 197 with a grade of $80 \%$ or higher will also be accepted to replace MAT 191 .

## First-year Physics requirement

Mathematics students pursuing the Bachelor of Science (B.Sc.) degree require six course credits of introductory physics studies in their first year. Students in the Bachelor of Arts (B.A.) degree program are exempt from this requirement. Students with any DEC are exempt from this requirement if they have completed two introductory Physics courses, Mechanics, and Electricity and Magnetism, at CEGEP. If one or both of these courses were not completed, they must be completed at Bishop's and advanced credits shall be reduced accordingly. Students entering four-year B.Sc. programs in Mathematics with a grade 12 diploma (or equivalent) must register in PHY 191 and PHY 192 in their first year.

## Humanities requirement

Students must complete six course credits of humanities studies, normally in their first year at Bishop's. Students who have a Québec Collegial Diploma (DEC), students admitted as "Mature Students", and 2nd Bachelor's degree students are all exempt from this requirement. To meet the Humanities requirement courses can be selected from the writing-intensive courses (course codes ending by W ) or they can be selected in the following disciplines: Classical Studies (CLA), English (ENG), History (HIS), Liberal Arts (LIB), Philosophy (PHI) and Religion, Society and Culture (RSC).

## Arts and Science requirement

In addition to the Humanities requirement above, all students are required to complete at least three credits in either the Division of Humanities or the Division of Social Sciences. Students with program combinations which require more than 72 credits are exempt from this requirement.

Please refer to the Natural Sciences Division page for information on Divisional Requirements.

## Computer Science requirement

All Mathematics majors and honours students (except those in the Mathematics Education double major program) are required to complete the course CS 211 Programming Methodology.

## Science Elective requirement

Mathematics students pursuing a Bachelor of Science degree must complete three courses (at least nine course credits) of science electives in their degree program. Students in any B.A. degree program are exempt from this requirement.

## Mathematics Electives

Mathematics students (in any program) may not include courses from the list: MAT 190, MAT 191, MAT 192, MAT 196, , as mathematics elective credits. Courses at the 460 level are only open to Honours students.

The courses MAT 190, MAT 196are not accepted as credits for any Science or Mathematics degree. Mathematics courses MAT 190, MAT 191, MAT 192, MAT 196, may not be taken for credit by students who have already passed equivalent course(s) elsewhere. The course MAT 190 may not be taken for credit by any student without permission from their department chair. Students in Science programs, including Mathematics B.A., may receive a maximum of three credits in elementary statistics courses.

## Matemáticas en Español

This is a unique program combining a Major in Mathematics, a Minor in Hispanic Studies as well as one year of Spanish immersion at the Universidad San Francisco de Quito in Ecuador. Contact the Chair of the department for more details.

## Mathematics Honours <br> (99 credits for B.Sc., 84 credits for B.A.)

HONMAT
Normally a student is admitted to an Honours program after completing a minimum of 12 credits in Mathematics courses with an average of at least $70 \%$ and having achieved an average of $65 \%$ in all courses taken at Bishop's.

To continue in an Honours program the student must obtain an average of at least $70 \%$ in Mathematics courses in each academic year.

In order to graduate with a Mathematics Honours degree, the student must have an overall average of $70 \%$ in all Mathematics courses.

## Requirements:

U1 (normally): MAT 191, MAT 192, Humanities options (6 credits)*, PHY 191 \& PHY 192 (for B.Sc. only).
MAT 108, MAT 200, MAT 206, MAT 207, MAT 209, MAT 220, CS 211, MAT 310, MAT 313, MAT 314, MAT 315, MAT 317, MAT 322, MAT 323
6 optional credits of Mathematics courses at the 100 level or higher,
9 optional credits of Mathematics courses at the 300 level or higher,
6 optional credits of Mathematics courses at the 400 level or higher,

6 optional credits of Mathematics courses at the 460 level,
3 credits to satisfy the Arts and Science requirement.
B.Sc. students must include at least 9 additional Science credits among their options.
*Students with a CEGEP DEC or mature students will be granted exemption credits for these courses.

## Total credits:

B.Sc.: $\quad 72$ Mathematics, 6 Physics, 3 Computer Science, 9 Science options, 6 Humanities, 3 Arts and Science options, 21 credits of free electives
B.A.: $\quad 72$ Mathematics, 3 Computer Science, 6 Humanities, 3 Arts and Science options, 36 credits of free electives

## Recommended schedule:

Fall Winter

## Year 1

(for students in a four-year program or lacking some CEGEP requirements)

MAT 191
PHY 191 (B.Sc. students)
Humanities elective
elective (B.A. students) elective (B.A. students)
Humanities elective elective
Arts and Science elective

| Year 2 | MAT 200 | MAT 220 |
| :--- | :--- | :--- |
|  | MAT 206 | MAT 207 |
|  | MAT 108 | MAT 209 |
|  | CS 211 | elective |
| elective | elective |  |
| Year 3 | MAT 1xx | MAT 1xx |
|  | MAT 313 | MAT 314 |
|  | MAT 322 | MAT 323 |
|  | MAT 3xx | MAT 3xx |
|  | elective | elective |
| Year 4 | MAT 315 | MAT 317 |
|  | MAT 310 | MAT 3xx |
|  | MAT 4xx | MAT 4xx |
|  | MAT 46x | MAT 46x |
|  | Elective | Elective |

This schedule is provided as a recommendation only. The order in which the courses are taken is subject to change. Students are encouraged to consult the Chair of the department before registering for their courses. The code MAT nxx refers to any 3-credit MAT course at the n-hundred level or higher.

## Mathematics Major (81 credits for B.Sc., 66 credits for B.A.)

## Requirements:

U1 (normally) : MAT 191, MAT 192, Humanities options (6 credits)*, PHY 191 \& PHY 192 (for B.Sc. only)
MAT 108, MAT 200, MAT 206, MAT 207, MAT 209, CS 211, MAT 310, MAT 313, MAT 314, MAT 315, MAT 322
3 credits from the list \{MAT 202, MAT 203 OR MAT 220\}
6 optional credits of Mathematics courses at the 100 level or higher,
9 optional credits of Mathematics courses at the 300 level or higher.

3 credits to satisfy the Arts and Science requirement.
B.Sc. students must include at least 9 additional Science credits among their options.
*Students with a CEGEP DEC and mature students will be granted exemption for these courses.

## Total credits:

B.Sc.: 54 Mathematics, 3 Computer Science, 6 Physics, 6 Humanities,
9 Science options, 3 Arts and Science options, 39 credits of free electives.
B.A.: $\quad 54$ Mathematics, 3 Computer Science, 6 Humanities, 3 Arts and Science options, 54 credits of free electives.
Recommended schedule:
Fall Winter

Year 1
(for students in a four-year program or lacking some CEGEP requirements)

| MAT 191 | MAT 192 |
| :--- | :--- |
| PHY 191 (B.Sc. students) | PHY 192 (B.Sc. students) |

Humanities elective elective
elective (B.A. students) elective (B.A. students)
Humanities elective elective
Arts and Science elective elective

| Year 2 | MAT 200 | MAT \{202 or 203 or 220\} |
| :--- | :--- | :--- |
|  | MAT 206 |  |
|  | MAT 108 | MAT 207 |
|  | CS 211 <br> elective | MAT 209 |
| Year 3 | MAT 1xx | elective |
|  | MAT 313 | elective |
|  | MAT 322 | MAT 1xx |
|  | elective | MAT 314 |
| elective | MAT 3xx |  |
| Year 4 | MAT 315 | elective |
|  | MAT 310 |  |
|  | elective | elective |
|  | elective | MAT 3xx |
| elective | MAT 3xx |  |
|  | elective |  |
| elective |  |  |
| elective |  |  |

This schedule is provided as a recommendation only. The order in which the courses are taken is subject to change. Students are encouraged to consult the Chair of the department before registering for their course. The code MAT nxx refers to any 3-credit MAT course at the n-hundred level or higher.

Mathematics Minor; B.Sc., B.A. ( 30 credits)

U1 (normally): MAT 191, MAT 192.
MAT 206, MAT 207, MAT 108, MAT 209 or MAT 200 plus 12 additional mathematics credits, including at least 6 credits at the 300 level or higher.

## Minor in Mathematical Contexts; B.A. (30 credits) <br> MINMAC

The ancient, rich, and universal endeavor which is mathematics underlies all of science and engineering. Increasingly however, mathematical contexts are entwined in the fabric of modern humanistic studies.

The mathematics of social choice is enlightening the study of politics, sociology, and anthropology. The modern mathematics of management science is essential not only in the world of Business and Economics, but also to the work of human geographers who rely on mathematical modeling. Mathematical contexts reach even to the creative arts. Here new geometries, elliptic, hyperbolic, and most recently, fractal, are providing fresh and exciting sources of pattern and inspiration, the raw materials of the visual artist.

Statistics are encountered daily in every media, while statistical analyses have invaded every facet of modern life. Indeed, if for no other reason, educated persons today must understand mathematical concepts for the critical evaluation of data. Such is required in order to avoid deception and bogus claims based on false or misleading representations of statistics. Finally, the information age has given new context to an ancient mathematics: coding theory. From data encryption to internet security, mathematics is the context of modern human communication.

Many students of the Liberal Arts and Humanities, Education, and the Social Sciences, come to the discipline of Mathematics relatively late. Recently convinced of the necessity of broadening the mathematical context of their education, they nevertheless now face a language barrier. Not having pursued mastery of the high-school "advanced math" curriculum, or having gone "rusty" from lack of recent use, they now find the language of mathematics, that of quantitative reasoning, unfamiliar, foreign, and even intimidating.

It is for such students that the Minor in Mathematical Contexts is intended. Here mathematical concepts are developed and analytical thinking is employed to systematically study patterns (the raw materials of mathematics) discovered in diverse fields of study. The emphasis will be on mathematical context and thinking; not on techniques, computations, and prerequisite skills. An adult willingness to think deeply, and academic admission to Bishop's University, are the only prerequisites. In no way should these courses be confused with the "remediation" courses of other institutions: rectifying shortcomings in algebraic skills is not the goal. Rather, developing analytical problem solving skills in mathematical contexts is the objective. Successful students will find, incidentally, that their Bishop's B.A. degree has been significantly enhanced by this innovative program of study for citizens of the 21 st century.

The minor in Mathematical Contexts can be added to any degree program and consists of the following courses:
MAT 200 Discrete Mathematics
MAT 108 Matrix Algebra
PHY 101 Statistical Methods
MAT 191 Calculus I, prerequisite: MAT 190 recommended
MAT 192 Calculus II, prerequisite: MAT 191

* (Remedial Precalculus and Algebra courses are available)

An additional 15 course lecture credits in Mathematics must be chosen from among:
MAT 100 Excursions in Modern Mathematics*
MAT 101 Further Excursions in Modern Mathematics**
MAT 103 Environmental Modeling
MAT 104 History of Mathematics
MAT 126 Problems, Puzzles and Games
MAT 209 Linear Algebra, prerequisite: MAT 108
MAT 202 Modern Geometry: Euclidean to Fractal, prerequisite: MAT 200
MAT 220 Further Discrete Mathematics, prerequisite: MAT 200
MAT 203
Number Theory
MAT 322 Introduction to Modern Algebra I, prerequisite: MAT 200, MAT 209
MAT 323 Introduction to Modern Algebra II, prerequisite: MAT 322

Notes: The two courses, PMA 260 and PMA 360 may replace PHY 101 in the required list of courses. A student may not graduate with a double minor in mathematics.

* The science version of this course, MAT 110 is also accepted.
** The science version of this course, MAT 111 is also accepted.


## Mathematics Electives

Mathematics students (in any program) may not include courses from the list: MAT 190, MAT 191, MAT 192, MAT 196, as mathematics elective credits. Courses at the 460 level are only open to Honours students.

The courses MAT 190, MAT 196 are not accepted as credits for any Science or Mathematics degree. Mathematics courses MAT 190, MAT 191, MAT 192, MAT 196 may not be taken for credit by students who have already passed equivalent course(s) elsewhere. The course MAT 190 may not be taken for credit by any student without permission from their department chair. Students in Science programs, including Mathematics B.A., may receive a maximum of three credits in elementary statistics courses.

## List of Courses

Note: See also the list of cognate courses at the end of this section. MAT 100 Excursions in Modern Mathematics 3-3-0 An introduction to modern applied mathematics: social choice, management science, growth, symmetry, and descriptive statistics. Not intended as a numeracy course, nor for the remediation of algebraic shortcomings: computational complexity is minimal, and math prerequisites are absent. Instead, the methodology of mathematics is addressed: the use of unambiguous language and simplification to model practical problems, the types of answers the discipline can provide, and the notions of generalization and "open" problems. The course will allow the student to develop a sense of the nature of mathematics as a discipline, and an appreciation of its role in the modern world.
Note: Science students must enrol in MAT 110 instead of this course. Students may only receive credit for one of MAT 100 or MAT 110.

MAT 101 Further Excursions in Mathematics 3-3-0
Further topics in modern applied mathematics. A continuation of the style and subjects in MAT 100, this course is also not intended to redress deficiencies in numeracy, nor does it have any mathematical prerequisites. Topics may include growth models, game theory, linear programming, fractal geometry, coding theory, non-Euclidean geometry and selected current readings.
Note: Science students must enrol in MAT 111 instead of this course. Students may only receive credit for one of MAT 101 and MAT 111.
MAT 103 Environmental Modeling
3-3-0
The course employs a problem solving approach to teach students modeling principles which apply to issues arising in the environmental sciences. Students will practice important skills: transforming realistic, qualitatively described problems into forms suitable for producing approximate, quantitative solutions, and interpreting the results obtained from their calculations. A variety of environmental problems are presented, on topics such as: units and conversions, geometric scaling, power-law scaling, steady-state box models, solar spectrum, npp and solar energy flow, black-body radiation, the greenhouse effect and the global climate (equilibrium) model, wind power and Betz's law, models for growth (e.g. population, peak oil, pandemics), transport of pollutants, diffusion, Darcy's law. The mathematics involved will be elementary, at a level suitable for a high-school graduate with credit for a university-preparatory mathematics course.

MAT 104 History of Mathematics
3-3-0
This course is designed to help history, philosophy, and education students come to a deeper understanding of the mathematical side of culture by means of writing short essays. Mathematics majors acquire a philosophical and cultural understanding of their subject by means of doing actual mathematics problems from different eras. Topics may include perfect numbers, Diophantine equations, Euclidean construction and proofs, the circle area formula, the Pell equation, cubic equations, the four square theorem, quaternions, and Cantor's set theory. The philosophical themes of infinity and Platonism recur repeatedly throughout the course.

## MAT 108 Matrix Algebra

3-3-0
Operations on matrices, transpose and inverse. Systems of linear equations. Determinants. Linear transformations. Eigenvalue and eigenvectors. Vector spaces. Bases and dimension. Rank and nullity. Applications (some of which may require basic Calculus knowledge)
MAT 110 Excursions in Modern Mathematics
3-3-0
This is the same course as MAT 100 but it is intended that science students would enrol in this course and complete assignments that are more appropriate to their needs.
NOTE: Students may only receive credit for one of MAT 100 or MAT 110.
MAT 111 Further Excursions in Mathematics 3-3-0
This is the same course as MAT 101 but it is intended that science students would enrol in this course and complete assignments that are more appropriate to their needs.
Note: See MAT 101. Students may only receive credit for one of MAT 101 and MAT111.
MAT 126 Problems, Puzzles and Games
This course teaches creative problem solving, logic, and analytical thinking in the context of recreational mathematics. Various logic puzzles and geometry problems will be solved. Games such as Kenken and Calcrostic will be practiced. A variety of mathematical paradoxes will be examined. Other problems and puzzles will be selected from the publications of Martin Gardner (e.g. "The Monkey and the Coconuts"), John Conway (e.g. "The Angel Problem"), Ian Stewart, and others, including from the many on-line math problems and puzzles sites.

## MAT $190 \quad$ Precalculus Mathematics

3-3-1.5
Review of algebra (fractions, exponents, radicals, etc.). Sets, linear functions, quadratic functions, polynomial functions, rational functions and their graphs. Factorization and simplification. Exponential and logarithm functions with applications. Introduction to trigonometry. Students who have received credit for an equivalent course may not receive credit for this course.Students who have received credit for any math class numbered MAT 19X or higher may not receive credit for this course. Students may only receive credit for this course with consent of their Departmental Chair.
MAT 191
Calculus I
3-3-1.5
Elementary functions, limits, continuity. The derivative, differentiability, mean value theorem. Maxima and minima, Fermat's theorem, extreme value theorem, related rates, L'Hospital's rule. Applications. Riemann sums, definite integral. Emphasis is on an analytical understanding.
This course is for students who lack collegial MAT 103 or the equivalent.
This course is required for all students in B.Sc. programs (Biochemistry, Biology, Chemistry, Computer Science, Environmental Science, Mathematics, Physics and Neuroscience) as well as the B.B.A. Finance program, some B.Ed. (CONEMT and CONSCT) and B.A (Information Technology, Mathematics and Economics) programs.
Students who have received credit for an equivalent course taken elsewhere may not register for this course.
Credit will be given for only one of MAT 191, MAT 197,
MAT 192 Calculus II 3-3-1.5
Area. The definite integral. The Fundamental Theorem of Calculus. Techniques of integration. Volumes, centres of mass, moments of inertia, arclength and other applications of integration. Mean value theorem for integrals.
Emphasis is on analytical understanding.
Prerequisite: MAT 191 or 80\% in MAT 197
This course is for students who lack Collegial Mathematics NYB or the equivalent.
This course is required for all students in Biochemistry, Chemistry, Mathematics, Physics, other B.Sc. programs (Biology, Computer Science, Environmental Science and Neuroscience) and B.Ed. Education (CONEMT and CONSCT).
Students who have received credit for an equivalent course taken elsewhere may not register for this course.
Credit will be given for only one of MAT 192 and MAT 199

MAT 196 Finite Mathematics for Business Students
3-3-0
This course aims to familiarize business students with the fundamentals of linear algebra required by disciplines such as Statistics, Finance, Management, Economics, and others. Topics covered in this course include: review of high school algebra, arithmetic and geometric sequences, sums of sequences, inequalities in one and two variables, linear equations, introduction to matrices, matrix algebra: addition, multiplication, inverses, and Gaussian elimination.
Prerequisite: MAT 190 or equivalent or permission of instructor.
MAT 200 Introduction to Discrete Mathematics
3-3-0
This course is an introduction to logic and proofs. Logic will be introduced through propositional logic and quantifiers. Concrete applications using topics drawn from the study of discrete mathematics, such as set, combinatorics, and recursion relations. These applications will form the basis for the introduction of proof techniques such as induction and proof by contradiction.
MAT 202 Modern Geometry: Euclidean to Fractal
3-3-0
Particularly recommended for elementary and high-school teachers. Euclidean, elliptic and hyperbolic geometries, and applications: modern graphics, fractal images and the work of analytical artists like M.C. Escher.
This course must be taken concurrently with Mathematics laboratory 202
(MAL 202)
Prerequisite: MAT 200
Corequisite: MAL 202

## MAL 202 Mathematics Lab:

## Modern Geometry by Laboratory Explorations

1-0-3
Geometry explorations using Geometer's Sketchpad software. Projects will enhance the learning of the curriculum of the course MAT 202 which must be taken concurrently.
Corequisite: MAT 202
MAT 203 Number Theory
3-3-0
A classical discipline, number theory has become the spectacularly successful language of modern cryptography and coding theory. This course is a gentle introduction to the classical theory and modern applications. Topics may include: unique factorization and congruences, group of integers modulo n and its units, Fermat's little theorem, Fermat's last theorem, Euler's function, Wilson's theorem, Chinese remainder theorem, quadratic reciprocity, Gaussian integers.
Prerequisite: MAT 200
MAT 206 Advanced Calculus I
3-3-0
Vector-valued functions,parametric curves, arc-length, curvature. .Functions of 2 and 3 variables. Partial Derivatives, directional derivatives, differentials. Lagrange multipliers. Multiple integrals and applications. Change of variables and Jacobians.
Prerequisite: MAT 192 or a grade of at least $80 \%$ in MAT 199
Corequisite: MAT 108
MAT 207 Advanced Calculus II
3-3-0
Line integrals. Surface integrals. Green's theorem. Divergence theorem. Stoke's theorem. Differential operator. Sequences and series. Taylor series and polynomials. Power series.
Prerequisite: MAT 206
MAT 209 Linear Algebra
3-3-0
Diagonalization. Inner product spaces. Gram-Schmidt process. Change of basis. Complex vector spaces. Systems of differential equations. Applications.
Prerequisite: MAT 108
MAT $220 \quad$ Further Discrete Mathematics
3-3-0
Relations: functions, equivalence relations, partially ordered sets. Zorn's lemma. The axiom of choice. Cardinality and counting. Graph theory. Solving recurrence relations.
Prerequisite: MAT 200
MAT $310 \quad$ Ordinary Differential Equations $\quad$ 3-3-0
Techniques for solving first and second order linear differential equations. Systems of first order equations. Power series solutions for second order equations including the method of Frobenius. Various applications of differential equations.
Prerequisite: MAT 192 or a grade of at least 80\% in MAT 199
See PHY 270
Students may not take this course for credit if they have received credit for PHY 270

MAT 311 Mathematical Methods of Physics
3-3-0
Discussion of series solutions in connection with the gamma function and Bessel, Legendre and hypergeometric functions. Laplace transform with applications. Elementary trigonometric Fourier series and boundary value problems. Certain partial differential equations of physics.
Prerequisites: MAT 207 and MAT 310
See PHY 371
Students may not take this course for credit if they have received credit for PHY 371

## MAT 313 Introduction to Probability

3-3-0
Discrete and continuous distributions. Moments, mean and variance. Moment generating functions. Multivariate distributions. Laws of large numbers. Sampling distributions. Central Limit Theorem.

## Prerequisite: MAT 206

MAT 314 Introduction to Mathematical Statistics
3-3-0
Further sampling distributions: Chi-square, $t$ and F. Estimation, confidence intervals. Hypothesis testing, theory and practice. Regression and correlation. Analysis of Variance. Nonparametric methods.
Prerequisite: MAT 313

## MAT 315 Real Analysis I 3-3-0

Real number system. Completeness theorem. Sequences of real numbers. Bolzano-Weierstrass Theorem. Cauchy sequences. Series of real numbers. Limits. Continuous functions. Differentiation. Mean-Value Theorem. L'Hospital's rule. Riemann integration. Fundamental Theorem of Calculus.

## Prerequisite: MAT 207

## MAT 316 Real Analysis II

3-3-0
The generalized Riemann integral (improper integrals). Sequences and series of functions. Pointwise and uniform convergence. Power series. Taylor series. Classical theorems (integration, differentiation, Weierstrass M-test. CauchyHadamard theorem). Equicontinuity. Ascoli-Arzela theorem. Stone-Weierstrass approximation theorem).
Prerequisite: MAT 315
MAT 317 Complex Analysis
3-3-0
Sequences and series of complex numbers. Functions. Limits. Continuous functions. Analytic functions. Cauchy-Riemann equations. Contour integration. Cauchy's theorem. Cauchy integral formula. Taylor and Laurent series. Singularities and residues.
Prerequisite: MAT 207

## MAT 322 Introduction to Modern Algebra I

3-3-0
Introduction to the theory of groups. Symmetries of a square. The dihedral groups. Cyclic groups, permutation groups. Isomorphisms, external and internal direct sums. Cosets and Lagrange's theorem. Factor groups.
Prerequisite: MAT 200 and MAT 209
MAT 323 Introduction to Modern Algebra II $\quad$ 3-3-0
Additional topics from group theory. Introduction to Ring Theory. Integral Domains and Fields. Factorization of Polynomials. Finite Fields. Introduction to Algebraic Coding Theory.
Prerequisite: MAT 322
MAT 324 Cryptography
3-3-0
Cryptography is a key technology in electronic security systems. The aim of this course is to explain the basic techniques of modern cryptography and to provide the necessary mathematical background. Topics may include: the classical encryption schemes, perfect secrecy, DES, prime number generation, public-key encryption, factoring, digital signatures, quantum computing.
Prerequisites: MAT 200, MAT 108

## MAT 325 Numerical Methods

3-3-0
Numerical techniques for problem solving in Mathematics, Computer Science and Physics. Error analysis, roots of equations, QR-algorithm, interpolation, Numerical approaches to differentiation, integration and solutions of differential equations.
Prerequisites: CS 211, MAT 207, MAT 108.
Note: See CS 375 and PHY 375
Students may not take this course for credit if they have received credit for CS 375 or PHY 375.
MAT 326 Mathematical Problem Solving 3-3-0
A course designed to foster problem solving abilities in mathematics. New mathematical concepts will be introduced to the student through solving specific problems. Problems will be taken from Putnam and Mathematics Olympiad competitions.
Prerequisites: MAT 200, MAT 207, MAT 108

MAT 401 Vector Analysis
3-3-0
Algebra of vectors. Vector-valued functions. Vector differential and integral calculus. Theorems of Gauss, Green and Stokes. Differential forms. Differentiability in Rn. Inverse function theorem.
Prerequisite: MAT 207
MAT 402 Tensor Analysis
3-3-0
General curvilinear coordinates. Differential forms. Bilinear forms and tensors of rank two. Tensor algebra and tensor calculus.
Prerequisite: MAT 401
MAT 405 Calculus of Variations
3-3-0
Euler-Lagrange equations for constrained and unconstrained single and double integral variational problems. Parameter-invariant single integrals. General variational formula. The canonical formalism. Hilbert's independent integral. Hamilton-Jacobi equation and the Caratheodory complete figure. Fields and the
Legendre and Weierstrass sufficient conditions.
Prerequisites: MAT 207, MAT 310
See PHY 376
Students may not take this course for credit if they have received credit for PHY 376
MAT 406 Differential Geometry
3-3-0
Curves in 3-space. Euclidean motions, surface theory. Introduction to differential manifold, Gaussian and mean curvature, imbedding conditions. Geodesics, parallel transport and the Gauss-Bonnet Theorem.
Prerequisite: MAT 207, MAT 310
MAT 414 Regression and Analysis of Variance 3-3-0
Topics in this course will include simple, multiple, polynomial and other nonlinear regression; Analysis of variance and covariance. The course may include data sets from case studies. Students will gain some facility with certain mathematics software packages.
Prerequisite: MAT 314
MAT 421 Graph Theory
3-3-0
This course provides an introduction to the combinatorial, algoritmic and algebraic aspect of graph theory. There will be a brief refresher of mathematical proof techniques. Topics will include paths and circuits, graph trees, planar graphs, graph colourings, and the Max Floss-Min Cut Theorem. Programming Assignments to implement graph algorithms (in Maple or Octave for example) will be required. An introduction to the combinatorial, algorithmic and algebraic aspects of graph theory.
Prerequisite: MAT 200
See CS 571. Credit will be given for only one of MAT 421 and CS 571.
MAT $431 \quad$ Metric Spaces and Topology
3-3-0
Sets, functions, images and preimages. Topological spaces, metric spaces. Open and closed sets, accumulation points, continuous functions, homeomorphisms. Some topological properties, particularly connectedness and compactness.
Pre-requisite: MAT 315, or consent of the instructor.
MAT 446 Independent Study
3-3-0
This course aims to familiarize mathematics students with fundamental knowledge, skills and techniques in a chosen field of mathematics. A presentation will constitute a portion of the final grade.
Offered by arrangement
46x level courses are for Honours students only
MAT $460 \quad$ Topics in Algebra I
3-3-0
A selection is made to suit the interests of students from such topics as: ring theory, introduction to homological algebra, introduction to group representations or commutative algebra.
Prerequisite: MAT 209, MAT 323 or consent of instructor.
Offered by arrangement.
MAT 461 Topics in Algebra II
3-3-0
A selection is made to suit the interests of students from such topics as: ring theory, introduction to homological algebra, introduction to group representations or commutative algebra.
Prerequisite: MAT 209, MAT 323 or consent of instructor.
Offered by arrangement.
MAT 462 Topics in Analysis I
Normed spaces, Banach and Hilbert spaces, Hilbert space operators, Normed algebras, Stone-Weierstrass theorem. Special function spaces.
Prerequisite: MAT 316

## MAT 463 Topics in Analysis II

3-3-0
Theory of integration. Measurable functions, measures and integrable functions. Lebesque spaces. Models of convergence. Decomposition and generation of measures. Product measures.
Prerequisite: MAT 316
Offered by arrangement.
MAT 464 Topology
Offered by arrangement.
MAT 465 Topology
Offered by arrangement.
MAT 466 Independent Studies I
3-0-0
Open to final-year honours students by arrangement with the department. A presentation will constitute a portion of the final grade.
MAT 467 Independent Studies II
3-0-0
Open to final-year honours students by arrangement with the department. A presentation will constitute a portion of the final grade.
See MAT 466
MAT $480 \quad$ Honours Research Dissertation 6-0-0 Each student is required to carry out an original research project under the supervision of a faculty member. A plan outlining the proposed research must be submitted for approval during the first four weeks of the course. Each student will present his/her results in the form of a seminar and a written dissertation.
MAT 521 Graph Theory 3-3-0
This course provides an introduction to the combinatorial, algoritmic and algebraic aspect of graph theory. There will be a brief refresher of mathematical proof techniques. Topics will include paths and circuits, graph trees, planar graphs, graph colourings, and the Max Floss-Min Cut Theorem. Programming Assignments to implement graph algorithms (in Maple or Octave for example) will be required. An introduction to the combinatorial, algorithmic and algebraic aspects of graph theory.
See CS 571. Credit will be given for only one of MAT421, MAT 521 and CS 571.

## MAT 524 Cryptography <br> 3-3-0

Cryptography is a key technology in electronic security systems. The aim of this course is to explain the basic techniques of modern cryptography and to provide the necessary mathematical background. Topics may include: the classical encryption schemes, perfect secrecy, DES, prime number generation, public-key encryption, factoring, digital signatures, and quantum computing. Programming Assignments to implement certain encryption algorithms (in Maple or Octave, for example) may be required. Credit will be given for only one of MAT424 and MAT 524..
MAT 529 Discrete Structures and Computational Statistics 3-3-0 Sets and functions, Propositional logic, predicates and quantifiers, logical inference, mathematical induction, sequences, summations, recurrence relations, algorithms design and complexity analysis. In depth review of the basic concepts of probability and statistics, simple and multiple linear regressions and applications, analysis of variance. Classification Models: Overview of classification, linear methods, nearest neighbor classification, Bayes classification, logistic regression, linear discriminant analysis. Clustering
Students cannot receive credit for both CS 561 and MAT 529

## Cognate Courses:

The following courses may count as 200-level Mathematics options:
EMA 262 Mathematical Economics I
PHY 208 Introduction to Mechanics
The following courses may count as 300-level Mathematics options:
CS 308
Scientific Programming
CS 317 Design and Analysis of Algorithms
CS 455 Theoretical Aspects of Computer Science
EMA 361 Econometrics II
EMA 362 Mathematical Economic II
PHY 318 Advanced Mechanics

## Physics \& Astronomy

## Faculty

Ariel Edery,

B.Sc. (McGill), M.Sc. (Queen's), Ph.D. (Montréal); Professor

Valerio Faraoni,
B.Sc. (University of Pavia, Italy), M.Sc., Ph.D. (International School for Advanced Studies, Italy); Professor
Faycal Hammad,
B.Sc., M.Sc., Ph.D. (A. Mira-Bejaia);

Adjunct Professor

## Kelsey Hoffman

B.Sc. (Alberta), M.Sc. (McGill), Ph.D. (UBC); Adjunct Professor
Anca Nedelcescu,
B.Sc. (West University of Timisoara), M.Sc., Ph.D. (Sherbrooke); Adjunct Professor

## Lorne Nelson,

B.Sc. (McGill), M.Sc., Ph.D. (Queen's); Professor

Jason Rowe,
B.Sc. (Toronto), M.Sc., Ph.D. (UBC); Professor

Canada Research Chair (Tier II)
Chair of the Department
John Ruan,
B.Sc.(Columbia), M.Sc., Ph.D.(University of Washington) Associate Professor, Canada Research Chair (Tier II)
Sylvain Turcotte,
B.Sc., M.Sc., Ph.D. (Montreal); Adjunct Professor

## Program Overview

Physics is often regarded as the cornerstone of the Natural Sciences. It encompasses a diverse range of disciplines including astronomy and astrophysics, photonics, electronics, classical and quantum mechanics, statistical mechanics, particle physics, and solid state physics. The BSc Major program provides students with a fundamental understanding of physics. The highest level of specialization at the undergraduate level is the BSc Honours program. It prepares students for direct entry into graduate work in physics (leading to an MSc or PhD degree). Students may be admitted into the Honours program after one year is completed in the Physics Major program.

The Master of Science (MSc) program is designed to give students a much deeper appreciation of physics while at the same time training them to become independent researchers and scientists. Graduate supervision is available in a wide variety of disciplines including astronomy, astrophysics, exoplanetary science, theoretical cosmology and gravitational theory, and particle physics.

## First-year Science Core requirements

All Physics students are required to take six course credits of Introductory Physics (PHY 191, PHY 192), six course credits of Introductory Calculus (MAT 191, MAT 192), and six course credits of Introductory Chemistry (CHM 191, CHM 192), normally in their first year. Students with a Québec collegial diploma (DEC) shall be granted advanced credit for these courses if they have
completed the Pure Science program. If any of these equivalent courses were not completed at CEGEP, they must be completed at Bishop's and advanced credits shall be reduced accordingly. Students with a Québec collegial diploma (DEC) may be exempted from MAT 108 (Matrix Algebra) if they obtained high standing in an equivalent course at CEGEP. Students would have to replace this course if they received an exemption.

## Humanities requirement

## (BSc students only)

Students must complete six course credits of humanities studies, normally in their first year at Bishop's. Students who have a Québec Collegial Diploma (DEC), students admitted as "Mature Students", and 2nd Bachelor's degree students are all exempt from this requirement. The Humanities requirement must include ENG 116 Effective Writing, or another English course (code ENG) and one additional course selected from Humanities courses in Classical Studies, English, History, Liberal Arts, Philosophy or Religion, Society and Culture (courses coded CLA, ENG, HIS, LIB, PHI, or RSC respectively).

## Arts and Science requirement

## (BSc students only)

In addition to the Humanities requirement above, all students are required to complete at least three credits in either the Division of Humanities or the Division of Social Sciences. Students with program combinations which require more than 72 credits are exempt from this requirement.

Please refer to the Natural Sciences Division page for information on Divisional Requirements.

## Laboratory Courses (BSc students only)

When any lecture course (e.g., PHY 206) also has an associated laboratory course (e.g. PHL 206), both the lecture and laboratory courses should be taken concurrently. Laboratory credits thus obtained are in addition to the total required lecture credits specified below for the program.

## Undergraduate Programs

 Physics Honours ( 120 credits) HONPHY
## Entrance Requirements for Honours Program:

A student will normally be admitted to the Honours program after obtaining at least a $70 \%$ average on all required second-year (200-level) physics and mathematics courses. In order to complete an Honours degree, a student must normally obtain an average of at least $65 \%$ in required physics courses in each academic year.

## Requirements:

First year Science core requirements as listed above*. The following courses are also required for the Physics Honours:
PHY 101, PHY 206, PHY 207, PHY 208, PHY 270, PHY 315, PHY 316, PHY 317, PHY 318, PHY 319, PHY 320, PHY 321, PHY325, PHY 361, PHY 371, PHY 462, additional 400-level course, PHY 480; MAT 108, MAT 206, MAT 207, MAT 209, MAT 317; CS 211.

Total: $\mathbf{5 7}$ lecture-course credits physics, $\mathbf{1 5}$ credits math, 3 credits computer science, 15 elective credits $=90$ lecture course credits.

> Physics labs: PHL 206, PHL 385, PHL 386,
> Computer Science lab : CSL 211
> Total of $\mathbf{6}$ lab-course credits.
N.B.: When any lecture course (e.g., PHY 206) also has an associated laboratory course (e.g. PHL 206), both the lecture and laboratory courses must be taken concurrently. Laboratory credits thus obtained are in addition to the total required lecture credits specified above for the program.
*Students with a CEGEP DEC or mature students will be granted advanced credits for these courses as appropriate.

## Physics Major (120 credits) <br> MAJPHY

A Physics Major is less intensive than the Honours program and does not require any 400 -level physics courses or MAT 317.

## Requirements:

First year Science core requirements as listed above*. The following courses are also required for the Physics Major:
PHY 101, PHY 206, PHY 207, PHY 208, PHY 270, PHY 315, PHY 316, PHY 317, PHY 318, PHY 319, PHY 320, PHY 321, PHY 325, PHY 361, PHY 371; MAT 108, MAT 206, MAT 207, MAT 209; CS 211.
Total: $\mathbf{4 5}$ lecture-course credits physics, $\mathbf{1 2}$ credits math, $\mathbf{3}$ credits computer science, $\mathbf{3 0}$ elective credits $=$ 90 lecture course credits.
Physics labs: PHL 206, PHL 385, PHL 386, Computer Science lab : CSL 211

## Total of $\mathbf{6}$ lab-course credits.

N.B.: When any lecture course (e.g., PHY 206) also has an associated laboratory course (e.g., PHL 206), both the lecture and laboratory courses must be taken concurrently. Laboratory credits thus obtained are in addition to the total required lecture credits specified above for the program.
*Students with a CEGEP DEC or mature students will be granted advanced credits for these courses as appropriate.

## Physics Minor (24 credits)

MINPHY
A minor in Physics allows students to gain a solid introduction to the subject.

## Requirements:

The following courses are required:
PHY 191, PHY 192, MAT 108, PHY 101, PHY 206, PHY 207, PHY 208 and one other lecture course in Physics selected from 200 and 300 level courses. The total course credit requirement for the minor is $\mathbf{2 4}$ lecture-course credits.
N.B.: When any lecture course (e.g., PHY 206) also has an associated laboratory course (e.g. PHL 206), both the lecture and laboratory courses must be taken concurrently. Laboratory credits thus obtained are in addition to the total required lecture credits specified above for the program.

## PHYSICS HONOURS DEGREE

Two possible sequences are suggested below

|  | SEQUENCE \#1 |  | SEQUENCE \#2 |  |
| :---: | :---: | :---: | :---: | :---: |
| Year/Semester | FALL | WINTER | FALL | WINTER |
| U1 | First-year science core credits OR DEC in Pure or Appliled Science |  |  |  |
| U2 | PHY 101 <br> PHY 206 / PHL 206 <br> PHY 270 <br> MAT 108 <br> MAT 206 | PHY 208 <br> PHY 207 <br> MAT 207 <br> MAT 209 <br> Option 1* | PHY 101 <br> PHY 206 / PHL 206 <br> PHY 270 <br> MAT 108 <br> MAT 206 | PHY 208 <br> PHY 207 <br> MAT 207 <br> MAT 209 <br> Option 1* |
| U3 | PHY 318 <br> PHY 361 <br> CS 211 / CSL 211 <br> Option 2* <br> Option 4* | PHY 317 <br> PHY 315 <br> PHY 462 <br> PHY 325 <br> Option 3* <br> Option 5* $\qquad$ | MAT 317 <br> PHY 320 <br> PHY 316 <br> CS 211 / CSL 211 <br> PHL 385* <br> Option 2* | PHY 321 <br> PHY 319 <br> PHY 371 <br> PHY $466 \dagger$ <br> PHL 386 <br> Option 4* |
| U4 | MAT 317 <br> PHY 320 <br> PHY 316 <br> PHY 480 <br> PHL 385* <br> ... | PHY 321 <br> PHY 319 <br> PHY 371 <br> PHY 466† <br> PHY 480 <br> PHL 386* | PHY 318 <br> PHY 361 <br> PHY 480 <br> Option 3* <br> .......... | PHY 317 <br> PHY 315 <br> PHY 462 <br> PHY 480 <br> PHY 325 <br> Option 5* |

* Or one other 400-level course.
$\pm$ One-semester lab course ( 6 hours per week) worth 2 credits.
* At least 3 credits must be taken in either the Division of Humanities or Social Sciences if a student's program combinations require less than 75 lecture credits.

PHYSICS MAJOR DEGREE
Two possible sequences are suggested below

|  | SEQUENCE \#1 |  | SEQUENCE \#2 |  |
| :---: | :---: | :---: | :---: | :---: |
| Year/Semester | FALL | WINTER | FALL | WINTER |
| U1 | First-year science core credits OR DEC in Pure or Applied Science |  |  |  |
| U2 | PHY 101 <br> PHY 206 / PHL 206 <br> PHY 270 <br> MAT 108 <br> MAT 206 | PHY 208 <br> PHY 207 <br> MAT 207 <br> MAT 209 <br> Option 1* | PHY 101 <br> PHY 206 / PHL 206 <br> PHY 270 <br> MAT 108 <br> MAT 206 | PHY 208 <br> PHY 207 <br> MAT 207 <br> MAT 209 <br> Option 1* |
| U3 | PHY 318 <br> PHY 361 <br> CS 211 / CSL 211 <br> Option 2* <br> Option 3* | PHY 317 <br> PHY 315 <br> PHY 325 <br> Option 4* <br> Option 5* <br> Option 6* | PHY 320 <br> PHY 316 <br> CS 211 / CSL 211 <br> PHL 385* <br> Option 2* <br> Option 3* | PHY 321 <br> PHY 319 <br> PHY 371 <br> PHL 386: <br> Option 4* <br> Option 5* |
| U4 | PHY 320 <br> PHY 316 <br> PHL 385* <br> Option 7* <br> Option 8* <br> ............ | PHY 321 <br> PHY 319 <br> PHY 371 <br> PHL 386* <br> Option 9* <br> Option 10* | PHY 318 <br> PHY 361 <br> Option 6* <br> Option 7* <br> ........... | PHY 317 <br> PHY 315 <br> PHY 325 <br> Option 8* <br> Option 9* <br> Option 10* |

$\ddagger$ One-semester lab course ( 6 hours per week) worth 2 credits.

* At least 3 credits must be taken in either the Division of Humanities or Social Sciences if a student's program combinations require less than 75 lecture credits.


## Elective Courses (Liberal Science Options)

These courses are open to any students with little or no scientific background.
PHY 111
Physics of Everyday Phenomena
PHY 112 Introduction to Holography
PHY 113
Introduction to Astronomy

## Physics Major and Honours Courses

These courses typically numbers that start at 100 and extend to 399.

Note that 3rd and 4th year physics students may take 400-level courses if they have the prerequisites.

## Physics Honours Courses

Final-year Honours physics courses have numbers that start with 462 and end at 480.

## Graduate Courses

All graduate MSc courses have numbers that start with 500 or above.

## List of Courses

PHY 101 Statistical Methods in Experimental Science 3-3-0 This course is specifically designed to meet the needs of students of physics, chemistry, biology, mathematics, and computer science. Topics include: errors of observation, graphical visualization of data; descriptive analysis, elementary probability, permutations and combinations; the binomial, normal and Poisson distributions; random sampling; testing hypotheses, significance levels, confidence limits, large and small sampling methods; regression and correlation; chi-square test; analysis of variance (ANOVA).
Note: In order for students to obtain credit for both PHY 101 and MAT 314, PHY 101 must be taken first or concurrently. Students who are enrolled in, or who have credit for, PMA 260, BMA 141, or EMA 141 may not enrol in this course.
PHY 111 The Physics of Everyday Phenomena 3-3-1
This course is designed to meet the needs of non-science students by providing them with a practical introduction to physics and science as it is applies to everyday life. Students are assumed to have no background in math or science. By allowing students to practice science through practical demonstrations of physical phenomena and engaging in small-group inquiry and discussion, they will learn to think logically when solving problems, enhance their scientific literacy, and develop their physical intuition. Typical questions that will be addressed include: Why is the sky blue? Why purchase a car with an anti-locking brake system (ABS)? Where is lightning most likely to strike and how can you best protect yourself? How do medical scanning procedures such as MRI work? Does a curve ball really curve or is it an optical illusion?
Note: Students enrolled in a program in the Division of Natural Sciences and Mathematics cannot use this course for science credits.

## PHY 112 /

FIN 209 Introduction to Holography
3-3-0
This course is designed to give students an introduction to the principles of laser holography (3-D photography) while at the same time providing them with the opportunity to create holograms in the laboratory. Students are assumed to have no background in mathematics or science. Students will make holograms using single and multiple beam reflection and transmission techniques. Special topics related to the making of rainbow, colour, and other types of holograms will be discussed and attention will be given to the application of this medium as a form of visual expression. In addition students will be able to apply their knowledge to create holograms at home (sandbox holography).
Prerequisite: permission of the instructor.
See FIN 209
Students may not take this course for credit if they have received credit for FIN 209
Students enrolled in a program in the Division of Natural Sciences and Mathematics cannot use this course for science credits.

PHY 113
Introduction to Astronomy
3-3-1
An outline of our knowledge of the size, structure, and possible origin of the Universe. Starting with the primitive speculations of the Greeks, the course ends with the theory of the expanding universe and its origin in the -"Big Bang"-. Prerequisite: Students should have a background in high school mathematics.

## PHY 191 Introductory Physics I (Mechanics) 3-3-0

This course is designed to give students an introduction to classical mechanics. Topics that will be covered include statics, particle kinematics in one and two dimensions, particle dynamics and Newton's Laws, conservation of energy and momentum, and rotational kinematics and dynamics.
Prerequisites: MAT 191 and PHL 191 or, PHL 193, or PHY 081, or PHY 083. This course should be taken concurrently with Physics Lab 191 (PHL 191).
This course is for students who lack collegial Physics NYA. Students who have received credit for an equivalent course taken elsewhere may not register for this course. Credit will be given for only one of PHY 191, PHY 193 or PHY 199F.
PHL 191
Introductory Physics Laboratory I
1-0-3
A series of experiments in General Physics to complement the material covered in PHY 191.
This course must be taken concurrently with PHY 191. May not be taken for credit if credit has been granted for PHL 193.

PHY 192
Introductory Physics II
(Electricity and Magnetism)
3-3-0
This course is designed to give students an introduction to electromagnetism and its applications. Topics that will be covered include Coulomb's Law, electric fields, electric potential, capacitance, direct current circuits, magnetism, electromagnetic induction, alternating current circuits, and electromagnetic waves.
Prerequisite: PHY 191, PHY 193, or the permission of the instructor.
Corequisite: MAT 192 or MAT 199
This course should be taken concurrently with PHL 192. This course is for students who lack collegial Physics NYB. Students who have received credit for an equivalent course taken elsewhere may not register for this course. Credit will be given for only one of PHY 192, PHY 194 or PHY 199F.
PHL $192 \quad$ Introductory Physics Laboratory II $\quad \mathbf{1 - 0 - 3}$
A series of experiments in general physics to complement the material covered in PHY 192.
This course must be taken concurrently with PHY 192. May not be taken for credit if credit has been granted for PHL 194.
PHY $193 \quad$ Physics for the Life Sciences I 3-3-0
This course is designed to emphasize topics of particular relevance to the life sciences. Topics that will be covered include: mechanics (statics, kinematics, dynamics, conservation of energy and momentum, rotational motion); fluid dynamics (pressure, elasticity, viscosity, diffusion); and thermodynamics (temperature, heat transport, kinetic theory of gases). Concepts and problemsolving skills are emphasized.
Prerequisites: MAT 191 and PHL 191 or, PHL 193, or PHY 081, or PHY 083. This course should be taken concurrently with PHL 193. This course is for students who lack collegial Physics NYA.
Students who have received credit for an equivalent course taken elsewhere may not register for this course.
Credit will be given for only one of PHY 191, PHY 193, and PHY $199 F$.
PHL $193 \quad$ Physics for the Life Sciences Laboratory I $\quad \mathbf{1 - 0 - 3}$
A series of experiments in college physics to complement the material covered in PHY 193.
This course must be taken concurrently with PHY 193. May not be taken for credit if credit has been granted for PHL 191.
PHY $194 \quad$ Physics for the Life Sciences II 3-3-0
This course is designed to emphasize topics of particular relevance to the life sciences. Topics that will be covered include: vibrations and waves; sound; electrostatics (charges, electric fields and potential); circuits; magnetism (forces, induction, electromagnetic waves); optics (interference, diffraction, instruments); and modern physics (atoms, radioactivity, MRI, CAT).
Prerequisite: PHY 191 or PHY 193 or the permission of the instructor.
Corequisite: MAT 192 or MAT 199.
This course should be taken concurrently with PHL 194. This course is for students who lack collegial Physics NYB.
Students who have received credit for an equivalent course taken elsewhere may not register for this course.
Credit will be given for only one of PHY 192, PHY 194, and PHY 199F.

## PHL 194 Physics for the Life Sciences Laboratory II <br> 1-0-3

A series of experiments in college physics to complement the material covered in PHY 194.
This course must be taken concurrently with PHY 194. May not be taken for credit if credit has been granted for PHL 192.

## PHY 199F Introduction to University Physics 6-6-0

An introduction to the fundamentals of classical physics. Concepts and problemsolving skills are emphasized. Topics in the area of mechanics include: translational, rotational, and oscillatory motion; Newtonian dynamics; conservation of energy, linear momentum, and angular momentum; heat and the kinetic theory of gases. Topics in the area of electricity and magnetism include: electric fields and potentials; AC and DC circuit theory; magnetism and the properties of magnetic materials; electromagnetic waves and optics.
Prerequisites: Students must normally have completed upper-level high school physics and mathematics courses, or must satisfy admission requirements into the B.Sc. degree at Bishop's University. Students taking this course require a knowledge of basic calculus which may be gained concurrently.
Corequisite: PHL 199.
Students may not have credit for both PHY 199 and other introductory physics courses (i.e., PHY 191 and PHY 192 or their equivalents).
PHL 199 Introduction to University Physics Laboratory 2-0-6
A series of experiments that complements the lecture material in PHY199. This laboratory course includes experiments in measurement and uncertainty, statics, dynamics, collisions, AC and DC circuit analysis, electrostatics, magnetism optics, and thermodynamics.
Corequisite: PHY 199
Students may not have credit for both PHL 199 and other introductory physics laboratory courses (i.e., PHL 191 and 192 or their equivalents).
PHY 206 Waves, Optics, and Modern Physics
3-3-0
Wave phenomena. Wave and photon theories of light. Huygens' principle and its applications. Geometrical optics.Interference, diffraction and polarization of light. Modern physics, including elementary atomic physics, nuclear physics, and radioactivity.
Prerequisite: PHY 191 or PHY 193.
Corequisite: PHL 206.
PHL 206 Waves, Optics, and Modern Physics Laboratory 1-0-3
Experiments in geometrical and physical optics, wave motion, and modern physics. This course must be taken concurrently with PHY 206.

## PHY 207 Thermal and Fluid Physics

3-3-0
Pressure, hydrostatics, and hydrodynamics. Properties of materials and Young's Modulus. Temperature and heat. Kinetic theory of gases. Energy, work, heat. First, second, and third laws of thermodynamics. Entropy and disorder. Specific heat of solids, black body radiation, statistical thermodynamics involving different distributions and their applications.
Prerequisite: PHY 191 (or equivalent).

## PHY 208 Introduction to Mechanics

3-3-0
Statics: equilibrium of bodies subject to many forces. Kinematics; rectilinear, plane, circular, and simple harmonic motion. Dynamics: conservation of mechanical energy and momentum; plane and circular motions of particles; rotation of macroscopic bodies. Non-inertial frames.
Prerequisite: PHY 191 or equivalent and PHY 270 (or equivalent), or permission of the instructor.
PHY 214 Astronomy and Astrophysics
3-3-0
A survey of our understanding of the physical properties of the universe. Topics to be studied include: observational astronomy, stellar evolution, binary stars, white dwarfs, neutron stars, black holes, galaxies, quasars, large scale structure of the universe, and cosmology.
Prerequisite: PHY 191 (or equivalent), MAT 191 (or equivalent), or permission of the instructor.

## PHY 270 Ordinary Differential Equations

3-3-0
Techniques for solving first and second order linear differential equations. Systems of first order equations. Power series solutions for second order equations including the method of Frobenius. Various applications of differential equations.
Corequisite: MAT 206.
Note: See MAT 310. Students may not take this course for credit if they have received credit for MAT 310.

PHY 273 Observational Astronomy I
3-3-0
Students will become familiar with modern astronomical techniques through a combination of theoretical and hands-on experience. Techniques covered include CCD observations of stars, planets and galaxies, photometry, and spectroscopy. Students will use the Bishop's 0.45 m telescope to take observations of various targets. Student projects may include: determination of the distances and ages of star clusters; measurements of the variability of stars and quasars; determination of the orbital periods of binary systems; measurements of the mass of Jupiter and galaxies; and determination of the Hubble constant.
Prerequisite: Permission of the Instructor.
PHY 315 Special Relativity
3-3-0
Special Relativity. Lorentz Transformations. The geometry of space-time. Relativistic mechanics of massive and massless particles. Elementary particles.
Corequisite: PHY 208.
Offered alternate years.
PHY 316 Physical and Contemporary Optics
3-3-0
Wave theory, polarization, interference, diffraction. Basics of coherence theory, lasers, holography. Quantum nature of light.
Prerequisite: PHY 206.
Offered alternate years.
PHY $317 \quad$ Statistical Mechanics
3-3-0
The statistical definition of entropy and temperature. Statistical Ensembles. The Planck and Maxwell-Boltzmann distributions. The Fermi and Bose distributions. Thermodynamic state functions. Applications of Fermi-Dirac and Bose-Einstein statistics.
Pre or Co-requisites: PHY 207.
Offered alternate years.
PHY 318 Advanced Mechanics 3-3-0
Central forces. Newtonian gravitation: planetary orbits and tides. The Lagrangian and Hamilton's Principle. Liouville's Theorem. Poisson brackets. Hamilton-Jacobi theory. Theory of vibrations and small oscillations (normal modes). Dynamics of macroscopic bodies.
Pre or Co-requisites: PHY 208, PHY 270, or permission of the instructor.
Offered alternate years
PHY 319 Electric Circuits and Electronics
3-3-0
Review of D.C. circuits, Kirchoff's laws, network theorems. Network analysis for A.C. circuits, phasors. Diode circuits and filters. The physical basis of semiconductor devices including semiconductor diodes, junction transistors, and field-effect transistors. The operation of transistor amplifiers, digital electronics, and integrated circuits will also be covered.
Prerequisite: PHY 192 or NYB or permission of instructor.
Note: See CS 379.
Students may not take this course for credit if they have received credit for CS 379.

PHY 320 Electromagnetism I
3-3-0
Review of vector calculus. Electrostatics: fields and potentials of point charges, dipoles, and distributed charges; Gauss's theorem; Poisson's and Laplace's equations; dielectrics; capacitance. Current electricity.
Prerequisite: PHY 192, PHY 208, MAT 207.
Offered alternate years.

## PHY 321 Electromagnetism II

3-3-0
Magnetic phenomena, magnetic induction, Ampere's Law, and solenoids. Faraday's Law and the displacement current. Magnetic and dielectric materials. Magnetic and electric fields: Maxwell's equations of the electro-magnetic field; plane electromagnetic radiation in dielectrics and conducting media. Radiation and antennae.
Prerequisite: PHY 320.
Offered alternate years.
PHY 325 Computational Physics 3-3-0
A broad range of numerical methods that are commonly used to solve problems in physics will be employed. Examples include ordinary and partial differential equations, linear systems, numerical integration and stochastic methods. We will discuss each algorithm within a physical context that includes classical mechanics, chaotic dynamics, electromagnetism, statistical physics, astrophysics, and quantum systems. Students will use the Python programming language to solve the problems.
Co-requisites: CS 211 and CSL 211
Prerequisites: PHY 208 and PHY 270 (or MAT 310).
Offered alternate years

PHY 335 Environmental Physics 3-3-0
This quantitative, calculus-based, course discusses fundamental environmental problems within a physical context. Topics covered include: the greenhouse effect, blackbody radiation, the ozone problem, mathematical techniques, heat transfer, electricity, the transport of pollutants, plumes, and basic groundwater hydrology. Prerequisites: PHY 207.
PHY $361 \quad$ Quantum Mechanics I
3-3-0
Topics to be studied include: foundations of quantum mechanics, angular momentum quantization, the Schroedinger equation, central potentials, onedimensional systems, and the hydrogen atom.
Corequisite: PHY 318, or permission of the instructor.
Offered alternate years.
PHY 365 Data Communications
3-3-0
This course will cover how data flows in communications networks. Topics: hardware, software and basic components of data communications; frequency domain representation, modulation, multiplexing; network configurations.
Prerequisite: CS 211, or permission of the instructor.
Note: See CS 315. Students may not take this course for credit if they have received credit for CS 315.

## PHY 371 Mathematical Methods of Physics

3-3-0
Discussion of series solutions in connection with the gamma function and Bessel, Legendre, and hypergeometric functions. Laplace transform with applications. Elementary trigonometric Fourier series and boundary value problems. Certain partial differential equations of physics.
Prerequisites: MAT 207 and MAT 310 or PHY 270.
Note: See MAT 311. Students may not take this course for credit if they have received credit for MAT 311.

## PHY 374 Data Mining for Scientists

4-3-3
Data is now created faster than humans are able to understand it and use it. There may be patterns hiding within this data with potentially useful information. This course will teach students, including Biology and Biochemistry students as well as those from Computer Science, how to discover these patterns for the purpose of solving problems, gaining knowledge, and making predictions. Topics covered in this course include data preparation, clustering, classification, association rules for mining and linear regression. This course includes assignments and a final project where the students are required to perform mining on real datasets drawn from the biological and physical sciences.
Prerequisites: PHY 101 (or equivalent).
See CS 305.
Students may not take this course for credit if they have received credit for CS 305.

PHY 375 Numerical Methods
3-3-0
A course introducing those numerical methods best suited to a computer. Error analysis, roots of equations, QR-algorithm, interpolation, numerical approaches to differentiation, integration and solutions of differential equations.
Prerequisites: CS 211, MAT 108, MAT 207.
Note: See MAT 325 and CS 375. Students may not take this course for credit if they have received credit for MAT 325 or CS 375 .
PHY $376 \quad$ Calculus of Variations 3-3-0
Euler-Lagrange equations for constrained and unconstrained single and multiple integral variational problems. Parameter-invariant single integrals. General variational formula. The canonical formalism. Hilbert's independent integral. Hamilton-Jacobi equation and the Caratheodory complete figure. Fields and the Legendre and Weierstrass sufficient conditions.
Prerequisite: Permission of the Instructor.
Note: See MAT 405. Students may not take this course for credit if they have received credit for MAT 405.
PHY 378 Scientific Programming 3-3-3
This course is designed as an introduction to programming languages and environments suitable for the numerically intensive applications in the natural sciences and mathematics. Examples will be given to illustrate the use of Fortran in numerical calculations. Other examples will be tackled using the Maple language initially developed to handle problems in symbolic computation.
Prerequisite: CS 404, or permission of the Instructor.
Note: See CS 308. Students may not take this course for credit if they have received credit for CS 308.

PHY 380 Experiential Learning in Astronomy 3-3-0
Students will be expected to work in the Observatory as a telescope operator, guide, and/or public speaker. These activities will help fulfill the Observatory's role as a resource for public outreach in the field of science. Students will be expected to become conversant with the essentials of observational astronomy and to develop their ability to articulate the importance of astronomy and science to the general public through oral and/or written communication. Students must seek out an internal supervisor (a full-time faculty member) who will supervise their activities. Assessment of the student will be based on a mark assigned by the supervisor and will reflect the quality of the work carried out by the student. Students must also submit a journal detailing the actual daily work that was accomplished. Projects may be intensive in nature (i.e., 3 weeks during the summer), or may extend over longer durations (i.e., $6-8$ hours per week during the semester).
Students may only take one experiential learning course for credit. Permission of the instructor.

PHL 385 Intermediate Physics Lab I
2-0-6
Introduction to data acquisition and analysis of experiments which serve to measure the fundamental constants or properties of nature (e.g., Planck's constant, Boltzmann's constant, speed of light, charge of the electron, Landé g-factor). Data will be collected by using a variety of instruments including oscilloscopes, computer interfaces using $\mathrm{A} / \mathrm{D}$ converters, and other data sensors.
Offered alternate years.
PHL 386 Intermediate Physics Lab II $\quad$ 2-0-6
Experiments in quantum physics, non-linear dynamics (chaos), thermodynamics, and low-temperature physics will be carried out. Computer interfaces and nuclear counters will be used to collect and analyze data.
Offered alternate years.
PHY 462 Quantum Mechanics II
3-3-0
Theory of angular momentum, matrix mechanics and applications of quantum mechanics to various branches of physics. Perturbation theory, scattering, molecular applications, and Hartree-Fock theory.
Prerequisite: PHY 361.
PHY 463 Nuclear Physics
3-3-0
Nuclear structure and systematics; alpha emission, beta decay, gamma emission, two-body systems and nuclear reactions; neutron physics; sub-nuclear particles. Prerequisite: PHY 361.
PHY 464 Condensed Matter Physics 3-3-0
Topics to be studied include the one-electron theory of solids, energy bands, lattice vibrations, transport theory, and thermodynamic properties.
Prerequisite: PHY 317, or permission of the department.
PHY 465 Electromagnetic Theory $\quad$ 3-3-0
Static and dynamic electric and magnetic fields; Maxwell's equations and solutions involving plane waves. Covariant formulation of electromagnetic field theory.
Prerequisite: PHY 321.
PHY 466 Theoretical Topics
3-3-0
Topics to be studied will be selected from the areas of special and general relativity, classical and quantum mechanics, particle physics, astrophysics, and cosmology. In particular, the covariant nature of physics and various physical symmetries will be investigated.
Prerequisites: PHY 317, PHY 318; or permission of the instructor.
PHY 467 Advanced Statistical Mechanics
3-3-0
Derivation of the laws of thermodynamics from statistical principles. Quantum statistics, arbitrarily degenerate and relativistic perfect gases, transport theory, thermodynamic fluctuations, and low-temperature physics will also be studied. Prerequisite: PHY 317.
PHY 469 Independent Studies I
Topics to be determined by the instructor based on student's needs.
PHY 470 Independent Studies II
3-0-0
Topics to be determined by the instructor based on student's needs.
PHY 471 Independent Studies III
Topics to be determined by the instructor based on student's needs.
PHY 474 Cosmology
3-0-0
Topics to be studied include: cosmology, inflation, dark energy, compact objects, relativistic fluid dynamics, gravitational lensing, and gravitational waves. See PHY 574.
Students who take this course for credit may not receive credit for PHY 574.

PHY 475 Numerical Methods and Simulations 3-3-0
This course will cover selected topics in High Performance Computing including cellular automata, finite element methods, molecular dynamics, Monte Carlo methods, and multigrid methods. Applications of the algorithms to the study of classical fields, fluid dynamics, materials properties, nanostructures, and biomolecules will be addressed depending on the interests of the students.
See PHY 575. Students may not take this course for credit if they have received credit for PHY 575.
PHY 476 Stellar Astrophysics 3-3-0
An introduction to the properties of stellar atmospheres and interiors. The equations of stellar evolution, nuclear energy generation, radiative transport and stellar model building will be studied. Further topics include the formation of stars, and the physics associated with supernovae, white dwarfs, neutron stars, pulsars and black holes.
PHY 480 Honours Research Dissertation 6-1-6
Each student is required to carry out either an experimental or theoretical project under the supervision of a faculty member. A plan outlining the proposed research must be submitted for approval during the first four weeks of the course. Each student will present his/her results in the form of a seminar, an oral thesis defense, and a written dissertation.
Prerequisite: U3 Honours Physics registration or permission of the department.

# Pre-Medicine Double Major (B.Sc) 

Faculty

Administered by the<br>Chair of Biology

## Program Overview

(75 credits)

MAJMED
The Pre-Medicine double major allows students to complete the necessary pre-requisites to apply to medical schools while at the same time pursuing a liberal arts education. The required and optional courses listed below correspond to the entrance requirements of many Canadian and American medical schools, as well as address the requirements of most related professional schools (such as dentistry or physiotherapy).

It is important to note that every medical (and professional) school has its own specific set of prerequisite courses, and these occasionally change. Up-to-date prerequisites are usually listed on the admissions site for an MD program. A student in the PreMedicine major should consult the websites of any schools in which they are interested as they plan their optional courses.

To enter the Pre-Medicine major, a student must register in a separate primary major as well. A student can select their primary major from any discipline offered at Bishop's, including Biology, Biochemistry, Chemistry, Business, Liberal Arts, or Psychology. Courses can be double-counted towards both the primary major and the Pre-Medicine major.

## Entrance Requirements

The following criteria apply to entry into the B.Sc. Pre-medicine double major:

- a student must be admitted to a primary major at Bishop's;
- a student can be admitted directly into the Pre-medicine major from high school or CEGEP if entering with an overall average of $85 \%$ or greater;
- if not admitted directly, a student can add the Pre-medicine double major once they have completed 60 course credits (not including lab credits), including advanced credits, and have an overall average of $75 \%$ or greater;
- a student must maintain an overall average of $75 \%$ or greater at the end of each academic year to remain in the program.
Quebec students with a completed D.E.C. will be granted credit for Y1 Year courses (30 credits) if they successfully completed collegial courses in Chemistry (General Chemistry, Solutions Chemistry), Physics (Mechanics, Electricity and Magnetism), Mathematics (Differential Calculus, Integral Calculus) and Biology (General Biology, Cell and Molecular Biology). Students lacking any of these courses can take their equivalents at Bishop's, and their advanced credits will be reduced accordingly.


## Program Requirements

1. B.Sc. Y1 Year (27 credits; non-Quebec students)

BIO 196 / BIL 196 Introductory Biology I:
Introduction to Cellular and Molecular Biology
CHM 191 / CHL 191 General Chemistry I
CHM 192 / CHL 192 General Chemistry II
MAT $191 \quad$ Calculus I
MAT 192 Calculus II
PHY 193 / PHL 193 Physics for the Life Sciences I
PHY 194 / PHL $194 \quad$ Physics for the Life Sciences II
ENG 116 Effective Writing (or other ENG)
HUM (CLA, ENG, HIS, RSC, PHI or LIB)
Note: Some Quebec medical schools require PHY 206 Waves and Optics in addition to PHY 193 and PHY 194. Students should research their preferred medical school to confirm whether or not they should take PHY 206.
2. Pre-Medicine Required Courses: (36 Credits)

The following courses must be taken in order to meet the requirements of the major.

| BCH 210 | General Biochemistry |
| :--- | :--- |
| BCH 313 / BCL 313 | Metabolism |
| BIO 201 | Cell and Molecular Biology |
| BIO208 / BIL 208 | Genetics |
| BIO 233 | Human Anatomy |
| BIO 336 | Animal Physiology I |
| BIO 337 / BIL 337 | Animal Physiology II |
| CHM 111 / CHL 111 | Organic Chemistry I |
| CHM 211 / CHL 211 | Organic Chemistry II |
| PHY 101 | Statistical Methods in |
|  | Experimental Science |
| PSY 101 | Introduction to Psychology |
| SOC 101 | Introduction to Sociology |

3. Pre-Medicine Required Options: (12 Credits)

Note: These courses must be taken in addition to the Y1 Humanities and English requirements.
At least 2 Second Language Courses.
At least 2 Courses in English Literature. This includes courses in literature and comprehension, not writing or composition.
4. Free Electives: (48 Credits)

These credits can be used to fulfill the requirements of the primary major.

## Useful Electives

These courses are not required for the Pre-Medicine Major, but will deepen your background in biomedical topics and may enhance your success in writing the MCAT, preparing your application essay, and/or performing well in the interview.

| BCH 381 | Immunology |
| :--- | :--- |
| BCH 411 | Molecular Biology |
| BIO 311 | Quantitative Methods in Health Sciences |
| BIO 320 | Programmed Cell Death |
| BIO 352 / BIL 352 | Microbiology |
| BIO 359 | Human Genetics |
| BIO 411 | Seminar in Health Sciences |
| CHM 121 | Inorganic Chemistry I |
| CHM 131 / CHL 131 | Physical Chemistry I |
| CHM 141 / CHL 141 | Analytical Chemistry |
| CHM 341 / CHL 341 | Principles and Practices of Chemical |
|  | Spectroscopy and Mass Spectrometry |
| CLA 170 | Greek and Latin Terminology for |
|  | Medicine and the Life Sciences |
| PBI 275 | Health Psychology 1 |
| PBI 276 | Health Psychology 2 |
| PHY 206 | Wave and Optics |
| PSY 102 | Introduction to Psychology II |

## Division of Social Sciences

The Division of Social Sciences offers a wide array of courses and programs in the areas of Economics, Environment, Agriculture and Geography, Politics and International Studies, Psychology, Sociology and Sports Studies.

## Degrees and Programs

Detailed descriptions of the degrees and programs offered are found under the respective Departmental sections of this calendar. The Division of Social Sciences offers a wide range of Major programs leading to a Bachelor of Arts (B.A) degree. The Division also offers Bachelor of Science (B.Sc.) degrees in Psychology (Neuroscience) and in Environment, Agriculture and Geography (Environmental Science). In addition, the Departments offer Honours programs directed towards students that wish to attain higher levels of specialization in their discipline and that intend to pursue graduate studies. In addition, several departments offer Minor programs that can be added to one's Honours/Major program and some departments offer certificate programs.

## Divisional Major

The Division offers an entry level program for a limited number of students, allowing them to register as Divisional Majors (rather than into a specific program) for a maximum of two semesters. After two semesters of full-time study are completed, students must enrol into a specific program (Major). Students who are not accepted into one of the regular programs must consult with the Dean of Arts and Science to determine an academic plan.

## Arts \& Science Requirement

In order to encourage students enrolled in the Division of Social Sciences to broaden the scope of their education, all majors and honours are required to complete at least three credits in the Division of Natural Sciences \& Mathematics. While this requirement will not in itself ensure against excessive specialization, it is hoped that it will lead students to find and pursue various areas of interest. Students with program combinations which require more than 72 credits are exempt from this requirement.

## Transfers from Other Programs

Students may normally transfer into a program in the Division of Social Sciences or between programs within the Division provided they have a minimum cumulative average of $65 \%$ on at least 24 course credits completed at Bishop's, or, provided they have demonstrated an aptitude for the program by achieving an average of $65 \%$ in all program courses attempted (minimum of 12 credits). For the purpose of these regulations, the cumulative average and course averages used will be those existing at the time the program change request is made.

## Graduation "with Distinction"

The notation "with Distinction" will appear on the transcript of students who graduate with a cumulative average of $80 \%$ or more. It is only available for first degree students.

## Divisional Courses

ILT 104 / 141 Information Retrieval and Evaluation Skills for the Social Sciences (Lab)
(Not mandatory unless indicated)
The objective of this laboratory course is to introduce students to the skills necessary to effectively complete their research assignments, including the correct use of library resources, such as the online catalogue, periodical indexes, and other relevant databases. Other areas of study include the identification of key terms for effective searching, productive use of the internet, and the critical evaluation of retrieved resources. Academic integrity, plagiarism, and the correct citation of print and online sources are also covered. Taught in conjunction with a researchbased course, the specific resources relevant to research in the Social Sciences are introduced, and the students retrieve the material necessary to complete the essays for their particular course. The course is taught in the library's electronic classroom, and each week the students are given the opportunity for practical experience.
INT 300 International Development Assistance Internship 3-0-0 Students must secure the approval of a Department and of a faculty member in that Department to supervise an AUCC/Canada Corps Internship, a Champlain Regional College-Bishop's University Mai-Sot Internship, a Champlain Regional College Peru Internship or any other international internship sponsored by an NGO or accredited institution that is recognized by a Selection Committee chaired by the Vice-Principal. Application for selection and funding must be addressed to the Vice-Principal's Office normally by December 1. The number of internships is subject to acceptance by sponsoring agencies and availability of funding.
Prerequisite: Final-year students only or permission of the Selection Committee.

## Economics

## Faculty

Terry Eyland,<br>B.B.A. (Bishop's), M.A. (Ottawa), PhD. (HEC Montréal); Associate Professor<br>Robert A. Sproule,<br>B.E.S. (Waterloo), M.A. (Alberta), Ph.D. (Manitoba); Professor<br>Marianne Vigneault,<br>B.A. (Bishop's), M.A. (Queen's), Ph.D. (Queen's); Professor<br>Chair of the Department

## Program Overview

Studying Economics provides students with valuable skills that will serve them well in many careers. A BA degree in Economics allows graduates to pursue varied careers in areas such as economic forecasting, economic policy analysis, financial markets and institutions, and public policy. The undergraduate degree in economics also provides a basis for entry into graduate work in Economics, Finance, Business Administration, Law, Political Science, Political Economy, and Public Administration.

Economics is concerned with the fundamental principle upon which human activity revolves - our wants are unlimited while the resources available for their satisfaction are not. Any economic system must determine what is to be produced from these limited resources, and how the resulting output is to be distributed amongst its population. The human organization and economic machinery necessary for the resolution of this problem is a very complex matter, especially in a highly decentralized deci-sion-making society such as our own private enterprise economy. The objectives of the discipline of economics are to explain how an economy works, how well it is performing, and how it may perform better. It may be noted here that economics is the only discipline within the Social Sciences where a Nobel Prize is awarded.

In addressing these concerns economics uses its own approach or manner of thinking. The goal of the Department of Economics is to develop in the student the capacity to "think like an economist". To achieve this objective requires that our students become familiar with disciplined economic reasoning and therefore familiar with the analytical tools of economic science. The process involves the development of both problem-solving and creative skills. These attributes, in turn, increase the understanding of present-day economic phenomena as well as promoting effective predictions of the consequences of changes in our evolving world. The student is prepared for the present and forearmed for the future.

The breadth of programs available allows students to tailor their studies in line with their objectives. Choices may be made from the outline below in honours, major, minor, and joint programs such as International Political Economy.

## Entrance Requirements

## 1. Admission

Rules and regulations for admission into degree programs in Economics are detailed in the section of this Calendar entitled "Admission and Registration" with the following additional specification:

## a) Mathematics

(i) MAT 196 is a required course for all Economics programs except the Minor and B.A. Honours or Major in International Political Economy. * MAT 196 and MAT 191 are required courses for the B.A Honours Economics, B.A Honours Mathematical Economics, and B.A. Major Economics. MAT 108, MAT 192 and MAT 206 are required courses for the B.A Honours Mathematical Economics and MAT 192 Calculus II or EMA 262 Mathematical Economics I are required courses for the B.A. Honours Economics.
(ii) A student having a Québec Collegial Diploma (D.E.C.) including Linear Algebra, Differential Calculus, and Integral Calculus may be exempted from MAT 191, MAT 192, and MAT 196. Students granted exemption must substitute these courses with free elective courses. Students lacking the appropriate preparation for MAT 191 or MAT 196 will be required to successfully complete an additional mathematics course (MAT 190) outside of their degree requirements.

## b) Statistics

Students are also required to have completed a course in Introductory Statistics, equivalent to BMA 140 as a prerequisite for all Economics programs. Students who are required to take BMA 140 will use this course as a free elective.

## 2. Transfers from Other Bishop's Programs

To be eligible to transfer into any Major or Honours program in Economics, including joint programs with Political Studies, from a non-Economics program, a student normally must have successfully completed at least 30 credits at Bishop's, and have achieved a minimum cumulative average of $65 \%$ based on all courses attempted, or an average of $65 \%$ in all Economics courses attempted (minimum of 12 credits).

## 3. Double Failure Rule

Any student who twice receives a failing grade in a course offered by the Department of Economics will not be permitted to repeat the course again. If this is an economics course that is required in order to graduate from a degree program offered by the Department of Economics (Economics Honours, Economics Major, Economics Minor), the student will not be eligible to graduate with that degree. This regulation applies to students in non-economics programs where an economics course is required to complete their degree. This implies that having twice received a failing grade in the same economics course at Bishop's precludes a student from receiving transfer credits for the same course.

## Programs in Economics

## B.A. Economics - Mathematical Economics (Honours) HONECM

The B.A. Economics - Mathematical Economics (Honours) is a 120 -credit degree program plus ILT 104 ( 1 lab credit). It is designed to provide students with a solid preparation for graduate studies in Economics.
Requirements of the B.A. program are:
Required courses in Economics .......................... 24 credits
Elective courses in Economics*...................... 15 credits
Required courses in Mathematics....................... 12 credits
Mathematics elective courses......................... credits
Required course in Statistics.......................... credits
Required course in Computer Science .................. credits
Free Electives**....................................... 57 credits
Total $\quad \mathbf{1 2 0}$ credits + ILT104 (1 lab credit)

* Up to 6 of the total required credits in this category can be met,
with departmental approval, by a selection of courses in cognate
areas.
** At least 12 credits in this category must be earned outside of
the Department of Economics.


## Information Retrieval

ILT 104 Information Retrieval and Evaluation Skills for the Social Sciences

Required courses in Economics (Total of $\mathbf{2 4}$ credits)
ECO 102 Principles of Economics: Microeconomics
ECO 103 Principles of Economics: Macroeconomics
ECO 208 Intermediate Microeconomics I
ECO 209 Intermediate Microeconomics II
ECO 212 Intermediate Macroeconomics
EMA261 Econometrics I
EMA 262* Mathematical Economics I
ECO 361 Applied Economic Analysis
*EMA 262 is offered in alternate years.
Required courses in Mathematics (Total of 12 credits)
MAT 108 Matrix Algebra
MAT 191 Calculus I ${ }^{\dagger}$.
MAT 192 Calculus II ${ }^{\dagger}$
MAT 206 Advanced Calculus I
${ }^{\dagger}$ These courses have a 1.5-hour laboratory work component.

## Required course in Statistics (Total of $\mathbf{3}$ credits) <br> BMA 141 Statistical Analysis for Business Decisions II or <br> PHY 101 Statistical Methods in Experimental Science or <br> PMA 260 Psychological Statistics

## Required course in Computer Science (Total of 3 credits)

CSC 211/ CSL 211 Introduction to Programming ${ }^{\dagger}$
$\dagger$ This course currently has a corequisite, 1-credit tutorial session course, CSL 211

## Recommended Course Sequence

Recommended Course Sequences for the HONECM program is provided below for students in a four-year program. For Cegep students, credit for required courses and free elective credits reduce the overall sequence to three years. Some courses are prerequisites for other courses. Please consult the course descriptions.

|  | Fall | Winter |
| :--- | :--- | :--- |
| Year 1 | ECO 102 | ECO 103 |
|  | MAT 191 | MAT 192 |
|  | ILT 104 | BMA 141, PHY 101, |
|  | ECO elective | or PMA 260 |
|  | 2 free electives*** | FCO elective |
| Year 2 | ECO 208* | ECO 209 or ECO elective |
|  | ECO 212* | MAT elective |
|  | EMA 261* or ECO elective | EMA 262** or free elective |
|  | Free or MAT elective | Free or MAT elective |
|  | Free Elective | Free or MAT elective |
| Year 3 | MAT108 | ECO209 or ECO elective |
|  | EMA 261* or ECO elective EMA 262** or free elective |  |
|  | MAT 206 | ECO 361 or ECO elective |
|  | CSC 211 | Free or MAT elective |
|  | Free Elective | Free or MAT elective |
| Year 4 | Free or MAT elective | ECO elective |
|  | Free or MAT elective | ECO 361 or ECO elective |
|  | 3 free electives | 3 free electives |

*Offered annually in the Fall Semester only. EMA 261 must be taken before ECO 361.
**Offered bi-annually
*** Students that have not completed the equivalent of BMA 140 should do so as a free elective.

## B.A. Economics (Honours)

The Honours B.A. program in Economics consists of 120 credits + ILT 104 (1 lab credit). In order to register in the Honours program students must have completed at least 12 credits in ECO, BMA or EMA (Quantitative Methods) courses. In order to graduate with an Honours B.A. degree in Economics, students must maintain an average of at least $75 \%$ in all ECO and EMA courses. Requirements of the program are:

Quantitative Methods .......................................... 6 credits
Mathematics ....................................................... 9 credits
Required courses in Economics .......................... 24 credits
Elective courses in Economics** ........................ 24 credits
Free Electives* .................................................. 57 credits
Total
120 credits + ILT104 (1 lab credit)

* At least 12 credits in this category must be earned outside of the Department of Economics
** Up to 9 of the total required credits in this category can be met, with departmental approval, by a selection of courses in cognate areas.


## Information Retrieval

ILT 104 Information Retrieval and Evaluation Skills for the Social Sciences

## Quantitative Methods

BMA141 Statistical Analysis for Business Decisions II
EMA 261 Econometrics I

## Mathematics

MAT 196 Finite Mathematics for Business Students
MAT 191 Calculus I ${ }^{\dagger}$
Plus
MAT 192 Calculus II ${ }^{\dagger}$
OR
EMA 262 Mathematical Economics
$\dagger$ These courses have a 1.5 hour laboratory work component.

## Required courses in Economics

ECO 102 Principles of Economics: Microeconomics
ECO 103 Principles of Economics: Macroeconomics
ECO 208 Intermediate Microeconomics I
ECO 209 Intermediate Microeconomics II
ECO 212 Intermediate Macroeconomics
ECO 342 Advanced Macroeconomics*
ECO 343 Advanced Microeconomics*
ECO 361 Applied Economic Analysis
*ECO 342 and ECO 343 are to be taken at Université de Sherbrooke, at an exchange university, or online at another university. Students must make the necessary arrangements for completing ECO 342 and ECO 343.

For those Economics Honours students who intend to proceed to graduate school, additional courses in Mathematics and Computer Science are strongly recommended. A Minor in Mathematics should also be considered.

## Recommended Course Sequence

Recommended course sequences for the HONECO program is provided below for students in a four year program. For Cegep students, credit for required courses and free elective credits reduce the overall sequence to three years. Some courses are prerequisites for other courses. Please consult the course descriptions.

|  | Fall | Winter |
| :--- | :--- | :--- |
| Year 1 | ECO 102 | ECO 103 |
|  | MAT 191 | MAT 192 or EMA 262* |
|  | ILT 104 | BMA 141 |
|  | ECO elective | ECO elective |
|  | 2 free electives $\dagger$ | Free elective |
| Year 2 | ECO 208* | ECO 209 |
|  | ECO 212* | MAT 292 or EMA 262** |
|  | EMA261* | ECO elective |
|  | 2 free electives | 2 free electives |
| Year 3 | ECO342 and/or ECO343*** | ECO342 and/or ECO343*** |
|  | ECO elective | ECO 31 or ECO elective |
|  | ECO elective | ECO elective |
|  | 2 free electives | 2 free electives |

Year 4 ECO 342 and/or ECO 343***
ECO 342 and/or ECO 343***
ECO or free elective ECO 361 or ECO elective 3 free electives ECO or free elective
2 free electives
*Offered annually in the Fall Semester only. EMA 261 must be taken before ECO 361.
**Offered bi-annually
***ECO 342 and ECO 343 are to be taken at Université de Sherbrooke, at an exchange university, or online at another university. Students must make the necessary arrangements for completing ECO 342 and ECO 343.
$\dagger$ Students that have not completed the equivalent of BMA 140 should do so as a free elective.

## B.A. Economics Major

MAJECO
The Major B.A. program in Economics consists of 120 credits + ILT 104 (1 lab credit).

Requirements of the program are:
Mathematics ....................................................... 6 credits
Quantitative Methods ............................................. 6 credits
Required courses in Economics .......................... 18 credits
Elective courses in Economics* .......................... 18 credits
Free Electives** 72 credits

Total
120 credits + ILT 104 (1 lab credit)
*Up to 6 of the total required credits in this category can be met, with departmental approval, by a selection of courses in cognate areas.
**At least 15 credits in this category must be earned outside of the Department of Economics.

## Information Retrieval

ILT 104 Information Retrieval and Evaluation Skills
for the Social Sciences

Quantitative Methods (6 credits)
BMA 141 Statistical Analysis for Business Decisions II
EMA 261 Econometrics I
Mathematics ( 6 credits)
MAT 191 Calculus I $\dagger$
MAT 196 Finite Mathematics for Business Students
$\dagger$ This course has a 1.5 hour laboratory work component.

## Required Courses in Economics (18 credits)

ECO 102 Principles of Economics: Microeconomics
ECO 103 Principles of Economics: Macroeconomics
ECO 208 Intermediate Microeconomics I
ECO 209 Intermediate Microeconomics II
ECO 212 Intermediate Macroeconomics
ECO 361 Applied Economic Analysis

## Recommended Course Sequence

Recommended Course Sequences for the MAJECO program is provided below for students in a four year program. For Cegep students, credit for required courses and free elective credits reduce the overall sequence to three years. Some courses are prerequisites for other courses. Please consult the course descriptions.

|  | Fall | Winter |
| :--- | :--- | :--- |
| Year 1 | ECO 102 and/or ECO 103 | ECO 102 and/or ECO 103 |
|  | MAT 196 | BMA 141 |
|  | ILT 104 | ECO elective |
|  | ECO elective | 2 free electives |
|  | 2 free electives** |  |
| Year 2 | ECO 208* | ECO 209 or ECO elective |
|  | ECO 212* | ECO elective |
|  | EMA 261* or ECO elective 3 free electives |  |
|  | MAT 191 or free elective |  |
|  | Free Elective |  |


| Year 3 | EMA 261* or ECO elective | ECO 209 or ECO elective |
| :--- | :--- | :--- |
|  | MAT191 or free elective | ECO361 or ECO elective |
|  | ECO elective | ECO elective |
|  | 2 free electives | 2 free electives |

Year $4 \quad$ ECO or free elective $\quad$ ECO 361 or ECO elective
4 free electives ECO or free elective 3 free electives
*Offered annually in the Fall Semester only. EMA 261 must be taken before ECO 361.
** Students that have not completed the equivalent of BMA 140 should do so as a free elective.

## B.A. Economics Major with Concentration in Business Economics

MAJECB
Students wishing to develop expertise in specific areas of Economics and Business can elect to follow the Concentration in Business Economics (MAJECB).

The Major B.A. program in Economics with Concentration in Business Economics consists of 120 credits + ILT 104 (1 lab credit).


## Information Retrieval

ILT 104 Information Retrieval and Evaluation Skills for the Social Sciences

## Quantitative Methods

BMA 141 Statistical Analysis for Business Students
EMA 261 Econometrics I
Mathematics
MAT 196 Finite Mathematics for Business Students

## Required courses in Economics

ECO 102 Principles of Economics: Microeconomics
ECO 103 Principles of Economics: Macroeconomics
ECO 208 Intermediate Microeconomics I
ECO 212 Intermediate Macroeconomics
ECO 361 Applied Economic Analysis
Required Courses in Concentration in
Business Economics (MAJECB): Any six of the following:
ECO 105 Behavioural Economics
ECO 200 Money and Banking
ECO 204 Labour Economics
ECO 217 International Economics
ECO 218 Managerial Economics
ECO 270 Public Economics
ECO 305 Game Theory
ECO 322 Real Estate Economics
With departmental approval, students can satisfy up to 6 of the 18-credit requirement from courses in Business.

## Recommended Course Sequence

Recommended Course Sequences for the MAJECB program is provided below for students in a four year program. For Cegep students, credit for required courses and free elective credits reduce the overall sequence to three years. Some courses are prerequisites for other courses. Please consult the course descriptions.

|  | Fall | Winter |
| :--- | :--- | :--- |
| Year 1 | ECO 102 | ECO 103 |
|  | MAT 196 | BMA 141 |
|  | ILT 104 | Concentration elective |
|  | 3 free electives*** | 2 free electives |
| Year 2 | ECO 208* | 2 concentration electives |
|  | ECO $212^{*}$ | 3 free electives |
|  | EMA 261* or |  |
|  | concentration elective | 2 free electives |

## Minor in Economics ( 24 credits)

MINECO
A minor in Economics consists of any 24 credits* in Economics including ECO 102 and ECO 103, plus ILT 104 or its equivalent. Students considering a minor in Economics should consult the Chair of the Department. If Economics is required as a Cognate in another program, economics courses so taken will also be counted towards the minor. The course BMA 141: Statistical Analysis for Business Decisions II can be included within the required 24 credits.
*Up to 3 of the total required credits in this category can be met, with departmental approval, by a selection of courses in cognate areas such as Business Administration, Mathematics, Computer Science, and Political Studies.

## B.A. Honours in International Political Economy

HONIPE
The Honours and Major in International Political Economy programs are offered jointly by the Departments of Economics and Politics and International Studies. As an area of academic inquiry, International Political Economy examines the relations between modes of production and distribution in the private and public spheres. Note that, in light of the impacts of globalization pressures on the political economies of the state, these programs have a decidedly international focus.

The Honours program in International Political Economy consists of at least 60 credits, with 30 credits drawn from Politics and International Studies and 30 from Economics.

To enter or continue in an Honours program, students must normally obtain and sustain a cumulative average of $75 \%$ in the Politics and International Studies and Economics courses. Honours students who do not fulfill the above requirements will automatically revert to the Major program. To be awarded Honours at graduation, students must be registered in the Honours program at Bishop's during their last thirty (30) credits of study. Honours standing at graduation will be determined by the students overall record in the Honours program.

## Economics Requirements ( $\mathbf{3 0}$ credits)

## Required Courses in Economics ( $\mathbf{1 5}$ credits):

ECO 102 Principles of Economics: Microeconomics
ECO 103 Principles of Economics: Macroeconomics
ECO 212 Intermediate Macroeconomics
ECO 270 Public Economics
One of the following courses:
ECO 125 Economic Development I: Human Development Problems and Policies
ECO 175 Economic Geography
ECO 180 Contemporary Perspectives in Political Economy
ECO 217 International Economics
ECO 251 History of Economic Thought I

## Elective Courses in Economics ( $\mathbf{1 5}$ credits):

The remaining 15 credits to be taken from any area of Economics

## Politics and International Studies Requirements ( 30 credits)

## Required Courses:

POL 101 Introduction to Comparative Politics
POL 140 Introduction to International Relations
POL 240 International Political Economy
POL 361 Techniques of Quantitative Research
Plus two of:
POL 229 History of Political Philosophy - Modern
POL 235 American Political Economy
POL 241 International Affairs
POL 242 International Organizations
POL 317 Globalization and the Canadian State
POL 344 Politics of International Trade and Investment
POL 346 Politics of Global Finance
Plus:
One POL 400 level course
Plus Free Elective Courses in Politics and International Studies:
9 credits (3 POL courses)
Note that some of these courses may have prerequisites or, alternatively, require permission from the instructor.
To enter and remain in the Honours program, students must normally attain a cumulative average of $75 \%$ in program courses. Honours students who do not meet this average requirement at graduation will automatically revert to the Major program.

## B.A.Major in International Political Economy

MAJIPE
The B.A. Major Program in International Political Economy consists of at least 48 credits, with 24 credits drawn from Politics and International Studies and 24 from Economics.

## Economics Requirements ( 24 credits)

## Required Courses in Economics ( 9 credits):

ECO 102 Principles of Economics: Microeconomics
ECO 103 Principles of Economics: Macroeconomics
One of the following courses:
ECO 125 Economic Development I: Human Development Problems and Policies
ECO 175 Economic Geography
ECO 180 Contemporary Perspectives in Political Economy
ECO 217 International Economics
ECO 251 History of Economic Thought I
ECO 270 Public Economics
Elective Courses in Economics ( 15 credits):
The remaining 15 credits to be taken from any area of Economics

## Politics and International Studies Requirements ( 24 credits) <br> Required Courses:

POL 101 Introduction to Comparative Politics
POL 140 Introduction to International Relations
POL 240 International Political Economy
Plus two of:
POL 229 History of Political Philosophy - Modern
POL 235 American Political Economy
POL 241 International Affairs
POL 242 International Organizations
POL 317 Globalization and the Canadian State
POL 344 Politics of International Trade and Investment
POL 346 Politics of Global Finance
Plus Free Elective Courses in Politics and International Studies:

## 9 credits (3 POL courses)

Note that some of these courses may have pre-requisites or, alternatively, require permission from the instructor

## List of Courses

ECO 100 Economic Life/ Economic Society 3-3-0
An historical and descriptive approach to understanding how economic activity and the modern economy can be understood from the broader social context in which human beings interact. The course provides an introduction to the study of economic relationships and economic society.
ECO 102 Principles of Economics: Microeconomics 3-3-0
A general introduction to the study of Economics and the nature of economic problems. Of primary concern is the behaviour of individual consumers and firms in particular markets, and the results of their actions as they appear in production, sales, costs, prices, wages, interest and profits.
ECO 103 Principles of Economics: Macroeconomics 3-3-0 A general introduction to the study of Economics and the nature of economic problems. The course is largely concerned with the determinants of the level of national income, employment and the accompanying stabilization problems - all in a Canadian context.

## ECO 105 Behavioural Economics

3-3-0
This course introduces students to the relatively new field of behavioural economics. It goes beyond the rational behaviour seen in typical economics courses and studies models that are combined with psychologically plausible assumptions of behaviour. Topics will include choice under risk and uncertainty, bounded rationality, intertemporal choice, behavioural choice, behavioural game theory, procrastination, altruism, and reciprocity.
ECO 109 Economic Policy
3-3-0
Economics is studied for its policy implications. This course will examine problems, policies, institutions, and controversies in public policy regarding the economy in Canada from both an analytical and a historical perspective.
ECO 115 The Making of Economic Society
3-3-0
A non-technical introduction to the history of the development of the modern market economy, from its beginnings in Medieval Europe up to the Twenty-first Century. An exploration of the economic events, resources, institutions, ideas and technologies that have shaped the evolution of Western civilization and led to the westernization of the global economy.

## ECO 118 Canadian Economic Development I

3-3-0
A study of historical factors which have determined Canada's present economic structure, from the first penetration of European civilization into what is now the territory of Canada, to the dawn of the 20th century. Topics include the staple export industries (e.g. fur, fish, lumber, wheat, minerals, newsprint, energy), agriculture, changes in technology, state administration and policy, foreign investment.

ECO 119 Canadian Economic Development II
3-3-0
A study of historical factors of the 20th century which have shaped the development of the modern Canadian economy including staple industries, agriculture, energy, crown corporations and other financial and political institutions, federalprovincial relations, regionalism, industrial organization, technical change, foreign investment and transnational firms, international trade, and globalization.
Prerequisites: ECO 102
ECO 125 Economic Development I:
Human Development Problems and Policies
3-3-0
The course provides an introduction to the concept of economic development and an analysis of domestic problems facing developing countries, including poverty and inequality, population growth, education, rural development, unemployment, and the environment.
ECO 126 Economics of Crime and Criminal Justice
3-3-0
This course discusses the economic elements underlying the behaviour of criminals, victims, and law enforcement agencies. Major topics covered include the supply of crime by criminals, the demand for crime prevention by victims, and public policy issues like crime control, and the allocation of criminal justice resources.

## ECO 131 A History of Major Economic Events:

1750 to the present
3-3-0
This course is a non-technical introduction to some of the basic concepts of economics through an historical review of the most important economic events of the last two hundred years. A variety of topics are discussed from the Industrial Revolution in Great Britain, the Great Depression, the construction of Europe, to the most recent Financial Crises that led to the Great Recession. Special attention is given to the parallels that can be drawn from past economic events with current ones.
ECO 175 Economic Geography 3-3-0
The production of, and trade in, goods and services vary by city, region, and country. In recent years, these spatial variations have widened in some cases, and narrowed in others. But common to all are the drivers-of-change. These include major geo-political events, the adoption of innovative cost-saving practices, and the creation and evolution of entrepreneurial networks and industrial clusters. This course will explore the key elements of these dynamics, and explore the ongoing debate about the appropriate role of government in an increasingly-globalized world.
This course is cross-listed with ESG 175.
ECO 180 Contemporary Perspectives in Political Economy 3-3-0
This course develops core contemporary perspectives in political economy within an international context. This course is neither a course in political science nor a course in economics, but rather a course that stresses the interaction of the two disciplines.
Students who received credit for ECO280 cannot receive credit for ECO180
ECO 200 Money and Banking
Nature and functions of money and credit, financial institutions, commercial and central banking in the Canadian economy. Aims, instruments, and effectiveness of monetary policy.
Prerequisite: ECO 103
ECO 204 Labour Economics
3-3-0
An analysis of the demand for and the supply of labor, wage differentials, and wage structures, as well as an analysis of the effects of unions, and the rationale for current supply-side or passive employment policies in Canada and other OECD countries.
Prerequisites: ECO 102
ECO 206 Economics of the Agri-Food System
3-3-0
This course introduces students to the major aspects of economics, business and resource use in the Canadian agri-food sector. Topics include agricultural supply and demand, markets, prices, agribusiness financing, farm risk management, government policies, international trade in agricultural products, and the circular economy.
This course is cross-listed with AGR 206.
Credits will only be given for one of ECO 206 or AGR 206
ECO 208 Intermediate Microeconomics I
3-3-0
Consumer theory, production and cost theory, output and price determination by market structures, introduction to game theory, general equilibrium analysis, choice under uncertainty and imperfect information.
Prerequisites: ECO 102 and MAT 196

ECO 209 Intermediate Microeconomics II
3-3-0
Consumer Theory, Decision Theory under Risk and Uncertainty, Information, and Microeconomic applications.
Prerequisites ECO 208 and MAT 191
ECO 210 Economics and the Law 3-3-0
An introduction to the application of economic principles and methodology to a variety of legal problems with particular emphasis on the theory of property rights and the allocation of resources. Problems under imperfect information, such as the principal-agent problem, the "market for lemons," job market signaling and screening, are also discussed.
Prerequisite: ECO 102
ECO 212 Intermediate Macroeconomics
3-3-0
This course examines business cycles, monetary and fiscal stabilization policies, unemployment and labour market frictions, inflation, exchange rate determination, exchange rate systems, and introduction to economic growth.
Prerequisites: ECO 103
ECO 217 International Economics
3-3-0
The course provides an introduction to international economics. The first half of the course examines trade theory and policy, including the Classical and modern theories of international trade, policies restricting trade, and international trade liberalization. The second half of the course examines international monetary economics, including foreign exchange markets, exchange rate determination, and open-economy macroeconomic policy.
Prerequisites: ECO 102 and ECO 103
ECO 218 Managerial Economics
3-3-0
An introduction to the principal topics in managerial economics. These include decision-making under uncertainty, demand analysis and estimation, cost analysis and estimation, and pricing theory and practices.
Prerequisites: ECO 102

## ECO 224 Sports Economics 3-3-0

The course applies microeconomic principles to analyze sports. Among the topics covered are the market for sports, the market for talent, pricing decisions, labour relations, and the role of public policy. The field draws from several important subfields of microeconomics, including game theory, industrial organization, public economics, labour economics, and the economics of information.
Prerequisites: ECO 102

## ECO 225 Economic Development II:

Macroeconomic and Policy Issues
3-3-0
An introduction to models of economic growth. An analysis of international issues facing developing countries: international trade and trade policy, foreign investment and foreign aid, the balance of payments, and third world debt. An introduction to the techniques of evaluating development projects.
Prerequisites: ECO 102 and ECO 103
ECO 236 Contemporary Economic Issues 3-3-0
Application of tools of economic analysis to selected issues and problems in Canada.
Prerequisites: ECO 103
ECO 237 Economics of the Environment 3-3-0
Application of concepts and methods of economic analysis to environmental problems. Pros and cons of selected policies for environmental protection. Economic growth and environmental decay. Private vs social costs of environmental decay.

## ECO 251 History of Economic Thought I

3-3-0
An introductory analysis of the methodological foundations of the more prominent schools of thought within mainstream Economics. This is a seminar course, and students are required to prepare one or more essays.
Prerequisites: ECO 102 and ECO 103
Offered in rotation with ECO 180
ECO 260 Topics of Applied Economics
3-3-0
Content of this course varies year by year. The topics are determined by the instructor of the course. A writing component is emphasized in this course.
Prerequisite: ECO 102, ECO 103
ECO $270 \quad$ Public Economics
3-3-0
This course examines key policy issues related to government expenditure and taxation. Topics covered include the rationale for government provision of goods in a market economy, public choice, fiscal federalism, cost-benefit analysis, and an analysis of tax incidence and efficiency.
Prerequisites: ECO 102

ECO 305 Game Theory with Applications to Economics
3-3-0
Game Theory studies the causes and consequences of the actions of decisionmakers who are aware that their choices affect each other. The theory includes: non-cooperative games, cooperation and reputation, and dynamic games. Applications include: bargaining, auctions, industrial organization, asymmetric information, and social choice theory (the economics of democratic institutions). Prerequisites ECO 208
ECO 310 Economics Internship
3-0-0
The Economics Internship provides an opportunity for a continuing student to gain valuable experience working alongside professional economists. The internship is subject to acceptance and supervision by the Department of Economics and by the participating institution. The participating institution can be located outside of the Lennoxville/Sherbrooke community, and thus may require the student to reside in another city. The internship takes place over some or all of the summer months.

ECO 322 Real Estate Economics
3-3-0
This course provides students with an understanding of the elements to consider when purchasing Real Estate. First, students will learn to build a model using excel to evaluate the optimal financial decision between buying a house versus renting and generating interest/gains with the money saved. Topics include, taxation, compounding, discounting, mortgage fees. Second, it looks at Real Estate valuation techniques and the economics behind price fluctuations.
Prerequisite: ECO 103
ECO 337 Ecological Economics
3-3-0
This course explores the principles underlying a truly sustainable ecological economy in a "full world". Topics such as sustainability, the nature of work, quality in production and consumption, ecological cost, peak oil, inequality, the scale and distribution of economic activity, and the purpose of economic activity and economic development are entertained. Seminar course in which student presentations feature prominently. Intended for students who have completed at least 45 credits at the university, including at least 12 in economics.
Prerequisites: ECO 102 and ECO 103
ECO 342 Advanced Macroeconomics
3-3-0
With departmental approval, to be taken at Université de Sherbrooke, at an exchange university, or online at another university. Students must make the necessary arrangements for completing ECO 342 and ECO 343.
Prerequisites: ECO 212, EMA 261 and EMA 262 or equivalent
ECO 343 Advanced Microeconomics
3-3-0
With departmental approval, to be taken at Université de Sherbrooke, at an exchange university, or online at another university. Students must make the necessary arrangements for completing ECO 342 and ECO 343.
Prerequisite: ECO 209, EMA 261 and EMA 262 or equivalent

## ECO 344 Independent Study

Individual study and research under the guidance of an advisor.
Prerequisites: Permission of the Department and instructor. ECO 208, ECO 212
ECO 345 Independent Study
Individual study and research under the guidance of an advisor.
Prerequisites: Permission of the Department and instructor. ECO 208, ECO 212
ECO 351 History of Economic Thought II 3-3-0
An advanced analysis of the methodological foundations of the more prominent schools of thought within mainstream Economics. This is a seminar course, and students are required to prepare one or more essays.
Prerequisite: ECO 102 and ECO 103, and ECO 251
ECO 361 Applied Economic Analysis
3-3-0
The purpose of this course is to provide students with a basic understanding of conducting applied economic analysis. It builds upon the student's knowledge of basic econometrics and allows him/her to use this knowledge to analyze real-world data and undertake original empirical analyses. Written and oral dissemination of results is also emphasized as important skills.
Prerequisite: EMA261, ECO 208, ECO 212

## ECO 365 Honours Seminar

3-3-0
The purpose of this course is to prepare the student for advanced economic research leading up to original empirical and/or theoretical research undertaken by the student for his/her honours thesis and for research undertaken at the graduate level and beyond. Areas covered include: selection of a research topic, literature survey, theoretical and empirical analyses including model building, formulation of a research question and hypothesis, and testing hypotheses.
Prerequisite: ECO 209, EMA 261

ECO 370 Honours Thesis 3-0-0
Continuation of ECO 360. Under the supervision of a faculty member of the Department of Economics, the student in the final year of his Honours program will complete the research agenda developed in ECO 360 . The student will present the research results in a seminar to be scheduled in the last two weeks of class.
Prerequisite: ECO 365

## Courses for Mathematics

BMA $140 \quad$ Statistical Analysis for Business Decisions I $\quad$ 3-3-0 This course provides an overview of fundamental statistical and mathematical concepts needed to perform statistical data analysis to support business decisionmaking such as probability, random variables, descriptive statistics, and common probability distributions
Prerequisite: MAT 190
BMA 141 Statistical Analysis for Business Decisions II 3-3-0
This course provides an overview of advanced statistical and mathematical concepts needed to perform statistical data analysis to support business decisionmaking and projections such as sampling methods and sampling distributions; statistical inference; estimation and hypothesis testing; simple linear regression and correlation; multiple linear regression; chi-square tests for independence and goodness-of-fit; introduction to analysis of variance.
Prerequisite: BMA 140
Note: this course may not be taken for credit by Science students.
EMA 261 Econometrics I 3-3-0
An introduction to econometrics. Topics include the classical assumptions, ordinary and generalized least squares estimation, hypothesis testing, the statistical implications of violating of the classical assumptions, common remedial measures, and the distributed lag and autoregressive models.
Prerequisite: ECO 102, ECO 103, and BMA 141
EMA 262 Mathematical Economics I 3-3-0
The application of matrix algebra and multivariate calculus to model-building and problem-solving in Economics.
Prerequisites: ECO 102, ECO 103, MAT 196 and MAT 192 or MAT 197
Cross-listed with MAT 172
EMA 265 Applied Time Series Analysis 3-3-0
This course provides an introduction to applied time series analysis. Students learn skills required for empirical analysis with time series data, with particular emphasis on macroeconomic and financial economic analysis and forecasting. Topics include autocorrelation, stationary and non-stationary time series models, autoregressive
models, ARMA and ARIMA models, VAR models, VECM models, ARCH models. Econometric software is used.
Prerequisites: BMA 141 or equivalent
EMA 361 Econometrics II 3-3-0
Ordinary and generalized least squares estimation, and hypothesis testing, using matrix algebra. Additional topics include simultaneous-equation estimation, the identification problem, two-stage least squares estimation, a stationary series, the unit-root test, spurious regression, the Granger causality test, cointegration, and the error-correction model.
Prerequisites: EMA 261, ECO 208, ECO 212
EMA 362 Mathematical Economics II 3-3-0
The application of differential and difference equations, and mathematical programming, to model-building and problem-solving in Economics.
Prerequisites: EMA 262, ECO 208, ECO 212

## Cognate Courses

A number of cognate courses may be taken in such areas as Business
Administration, Mathematics, Computer Science, Environment, Agriculture and Geography, and Political Studies. Consult the Chair of the Department for the full range of possibilities.

## Environment, Agriculture and Geography

## Faculty

## Mirella Aoun,

B. Agricultural Eng. (St-Joseph, Lebanon),
M.Sc. (Lyon), Ph.D. (Laval)

Assistant Professor

## Darren Bardati,

B.A.(Bishop's), M.A., Ph.D. (McGill)

Professor, Co-Chair the Department, Director of Sustainable Agriculture and Food Systems (SAFS) program

## Bryan Dale,

B.A. (Toronto Metropolitan University); M.A., Ph.D. (Toronto)

Assistant Professor
Elisabeth Levac,
B.Sc., M.Sc. (UQAM), Ph.D. (Dalhousie);

Professor
Jane Morrison,
B.Civ.Eng. M.Sc. (McGill), Ph.D. (Barcelona Tech)

Assistant Professor

## Juan Francisco Nunez

B.A. International trade (Instituto Politenico National, Mexico), M. Sc. Administration (Escuela Superior de Comercio y Administración, Mexico), D.B.A. (Sherbrooke)

## Matthew Peros,

B.Sc. (Toronto), M.Sc. (York), Ph.D. (Toronto); Professor
Co-Chair of the Department, Director of Environmental Studies, Environmental Science and Geography programs, and the graduate microprogram in Climate Change
Vivian Valencia,
B.A. (Florida), M.H.S.(Johns Hopkins), Ph.D. (Columbia)

Assistant Professor, Research Chair in Sustainable Agriculture and Climate Action

## Program Overview

The Department of Environment, Agriculture and Geography offers both B.A. and B.Sc. majors and a wide variety of courses focusing on the intersection of humans and natural environment. In order for a complete understanding of human-environment interactions, students need to understand the science of the natural world, and the impacts humans are having on their environment, at all scales, from local to global. We must understand how and why the environment is changing. Climate change, acid precipitation, ozone depletion, waste management, food systems, and water conservation are issues which require thorough examination so that proper decision-making processes can be implemented by leaders in government, industry and non-governmental organizations. We carefully and systematically examine all aspects of the
environment so that our graduates can play an important role in the future of our environment.

Bishop's location in the midst of an area of great social, economic, environmental and agricultural diversity provides many opportunities for students to take part in practical fieldwork and applied projects. Such studies are integral parts of several courses, especially those relating to elements of physical geography, agriculture, and human impact on the environment. Students enrolling in ESG and AGR courses should be prepared to devote time to fieldwork outside of normal class time. Details of field studies will be discussed within individual courses.

## Environment, Agriculture and Geography Programs

## Environmental Studies (EST)

B.A. Honours in Environmental Studies, 60 credits
B.A. Major in Environmental Studies, 48 credits

Minor in Environmental Studies, 24 credits

## Environmental Science (ENV)

B.Sc. Honours in Environmental Science, 81 credits
B.Sc. Major in Environmental Science, 75 credits

Minor in Environmental Science, 24 credits

## Geography (GEO)

B.A. Honours in Geography, 60 credits
B.A. Major in Geography, 45 credits

Minor in Geography, 24 credits

## Sustainable Agriculture and Food Systems (SAFS)

B.A. Honours in SAFS, 60 credits
B.A. Major in SAFS, 48 credits

Minor in sustainable Agriculture and Food Systems, 24 credits

## Certificate Programs

Certificate in Environmental Studies and Geography, 30 credits
Certificate in Sustainable Agriculture and Food Systems, 30 credits
Graduate-level Micro-Program in Climate Change, 9 credits (See graduate programs section of the Academic Calendar)

## NOTES:

1. All AGR coded courses may count as ESG electives for the EST, GEO or ENV majors, honours and minors, subject to the Chair's approval.
2. You cannot major in either EST, GEO or ENV and minor in any of EST, GEO or ENV at the same time, due to the abundant overlap in courses. However, you can major in either EST, GEO or ENV and minor in AGR. Likewise, you can major in SAFS and minor in EST, ENV or GEO.
3. For B.A. programs, you must take a 3-credit course from the Division of Natural Sciences and Mathematics to fulfill your divisional requirement.

| mmental Studies | 127 | $\text { ESG } 262$ |
| :---: | :---: | :---: |
| Environmental Studies Honours (60 credits) <br> HONEST | A statistics course: ESG 261, BMA 140, PMA 260, or PHY 101 | A statistics course: ESG 261, BMA 140, PMA 2 or PHY 101 |
| Same as Environmental Studies Major, plus: | ESG $262 \begin{aligned} & \text { Introduction to Geographic } \\ & \text { Systems }\end{aligned}$ | ional required DNS and other es: Any 5 courses ( 15 credits) from |
| rs | credits) from the EAG department | ECO 237 Economics of the Environment |
| ESG 461 Honours Proposal |  |  |
| ESG 462 Honours Thesis | Geography Minor (24 credits) | MAT 103 Environmental Modeling |
| Additional required: Any 2 courses (6 credits) from the ESG department | GEO | PHY 206 Waves and Optics \& Lab PHL 206 |
|  | Core (2 courses or 6 credits) | ysics |
| Environmental Studies Major (48 credits) MAJEST | $\text { ESG } 126 \quad \begin{aligned} & \text { Introduction to Human } \\ & \text { Geography } \end{aligned}$ | CHM 111 Organic Chemistry I: <br> Introductory \& Lab CHL 111 |
|  | in the Environment | $\begin{aligned} & \text { CHM } 141 \quad \text { Anal } \\ & 141 \end{aligned}$ |
| Core (7 courses or 21 credits) ENG 116 Effective Writing (or any University-level English literature 3-credit course) | Additional required: Any 6 courses (18 credits) from the EAG department | stainable Organic Agriculture Lab BIL 211 |
|  |  | L |
| University-level English literature 3-credit course)  <br> ESG $126 \quad$ Introduction to Human  <br> Geography  | Certificate in Environmental | ity |
|  | Studies and Geography (30 | BIO 327 Advanced Ecolog |
| Geography | credits) CON | BIO 331 Freshwater Biology \& L |
| ESG 260 Research Methods <br> A statistics course: ESG 261, BMA 140, PMA 260, or PHY 101 | phy |  |
|  | ESG 127 Leography $\begin{aligned} & \text { Living in the Environment }\end{aligned}$ | Additional required ESG/AGR courses: Any 8 courses ( 24 credits) from this list: |
| ESG 262 Introduction to Geographic Information Systems | Additional required: Any 8 ESG-coded courses ( 24 credits) | AGR $130 \quad \begin{aligned} & \text { Environmental Implications of } \\ & \text { Agriculture }\end{aligned}$ |
| ESG 300 Advanced Environmental S |  | culture Desig |
| Additional required: Any 9 ESG-coded courses ( 27 credits) | B.Sc. Environmental Science | AGR 172 Permaculture Design II |
|  |  | AGR 210 Food Scienc |
| Environmental Studies Minor (24 credits) <br> MINEST | Environmental Science Honours | AGR 220 Soil Science |
|  | (81 credits) HONEN | $\begin{array}{ll}\text { AGR 231 } & \text { Organic Fruit Production } \\ \text { AGR 232 } & \text { Organic Vegetable Production }\end{array}$ |
|  | Same as Environmental Science Major, plus | Organic Vegetable Production Water Conservation in |
| Core (2 courses or 6 credits) |  | ater Conservation in riculture |
| ESG $126 \quad \begin{aligned} & \text { Introduction to Human } \\ & \text { Geography }\end{aligned}$ | Core (2 courses or 6 credits) | gricultural Pests and Integrated est Management |
| ESG 127 Living in the Environment | ESG 461 Honours Proposal | hy |
| Additional required: Any 6 courses (18 credits) from the EAG department | Environmental Scien | ogeochemical \& Environmental ceanography |
| B.A. Geography | (75 credits) MAJENV | orpholo |
|  |  | ESG 251 Biogeography |
| Geography Honours |  | ction to |
|  | M | mosphere \& W |
| Same as Geography Major, plus: | nce | ysical perspectiv he Earth's Crust |
| ( 2 courses or 6 credits) | ics for Life Sciences II \& | ESG 349 Water Resource Management |
| ESG 461 Honours Proposal |  | tal Impact Assessme |
| ESG 462 Honours Thesis | CHM 191 General Chemistry I | laciers and Climate Chans |
| Additional required: Any 3 courses (9 credits) from the EAG department | CHM 192 General Chemist | ESG 362 Advanced Geographic |
|  |  | ar |
| Geography Major (45 credits) MAJGEO | BIO $196 \begin{aligned} & \text { Introduction to Cellular and } \\ & \text { Molecular Biology } \\ & \text { \& Lab BIL 196 }\end{aligned}$ | ESG $364 \quad \begin{aligned} & \text { Field Course in Environment and } \\ & \text { Geography }\end{aligned}$ |
| Core (5 courses or 15 credits) | Introduction to Evolution and Ecology | $\begin{array}{ll}\text { ESG } 365 & \text { Mid-Latitude Weather Systems } \\ \text { ESG } 367 & \text { Climate Change }\end{array}$ |
| ESG $126 \quad \begin{aligned} & \text { Introduction to Human } \\ & \text { Geography }\end{aligned}$ | ESG 127 Living in the Environment <br> ESG 260 Research Methods |  |

## Environmental Science Minor (24 credits) MINENV

Core (2 courses or 6 credits)
ESG 127 Living in the Environment
A statistics course: ESG 261, BMA 140, PMA 260, or PHY 101

Additional required DNS and other courses:
Any 3 courses (9 credits) from the list of additional required DNS and other courses for the Environmental Science Major
Additional required ESG courses:
Any 3 courses ( 9 credits) from the list of additional required ESG courses for the Environmental Science Major

## B.A. Sustainable Agriculture and Food Systems (SAFS)

| Honours in SAFS |
| :--- |
| ( 60 credits) $\quad$ HONSA |
| Same as B.A. Major in SAFS (48 cre |
| plus: |
| Any 6 AGR credits  <br> AGR 461 $\quad$ Honours Proposal in SAFS  <br> AGR 462 Honours Thesis in SAFS |



Additional required courses - Choose 3 courses (9 credits) from each category:

Sustainable Agriculture courses:
BIO 111 Organic Gardening
AGR 201 Market Gardening
AGR 204 Urban Agriculture
AGR 220 Soil Science
AGR 231 Organic Fruit Production
AGR 232 Organic Vegetable Production
AGR 240 Water Conservation in Agriculture
AGR 300 Agri-Food Business Management
AGR 311 Agricultural Pests and Integrated Pest Management
AGR 312 Sustainable Agroforestry

## Sustainable Food Systems courses:

ESG 248 Geography of Food
AGR 104 An Edible History of Humanity
AGR 200 Methods for Studying Sustainable Foodscapes

AGR 202 Culture and Food
AGR 203 Healthy Nutrition
AGR 205 Sustainable Food Value Chains
AGR 206 Economics of the Agri-Food
System
AGR 208 Agri-Food Entrepreneurship
AGR 210 Food Science
AGR 211 Lighthouse Farms for a Sustainable Future

AGR 300 Agri-Food Business Management
AGR 303 Food Preparation and Preservation

AGR 304 Agritourism
AGR 341 Sustainable Food Systems
AGR 343 Agroecology
AGR 344 Indigenous Food Systems
Minor in SAFS
( 24 credits)
MINSAF
AGR 100 Intro to Sustainable Agriculture and Food Systems
AGR 130 Environmental Implications of Agriculture
AGR 333 Climate Change, Agriculture and Food Security
Additional required: Any 5 courses (15 credits) from the list of AGR coded courses

## Certificate in SAFS

(30 credits)
CONSAF
AGR 100 Intro to Sustainable Agriculture and Food Systems
AGR 130 Environmental Implications of Agriculture
AGR 333 Climate Change, Agriculture and Food Security
Additional required: Any 7 courses (21 credits) from the list of $A G R$ coded courses

## List of Courses

## ESG 126 Introduction to Human Geography

3-3-0
An introduction to the field of human geography; its scope and methods. The aim is to focus on the relationship between people and their environment, including population trends, resource use, political and economic forces and urban planning.

ESG 127 Living in the Environment
3-3-0
An introduction to physical geography with an emphasis on human existence within Earth's systems, including climatology and geomorphology. Topics discussed include Earth's radiation balance, atmospheric wind systems, major climate types, and the work of geomorphic agents, such as water and wind, on the development of physical landscapes.

## ESG 175 Economic Geography

3-0-0
The production of, and trade in, goods and services vary by city, region, and country. In recent years, these spatial variations have widened in some cases, and narrowed in others. But common to all are the drivers-of-change. These include major geo-political events, the adoption of innovative cost-saving practices, and the creation and evolution of entrepreneurial networks and industrial clusters. This course will explore the key elements of these dynamics, and explore the ongoing debate about the appropriate role of government in an increasingly-globalized world.
This course is cross-listed with ECO 175.
ESG 224 Human Impact on the Environment 3-3-0
Changing environmental relationships in the modern context of population growth and technological advance. The human impact on the world's atmosphere and climate, water, land and soils, vegetation, and animal life.
Prerequisite: ESG 126 or ESG 127
ESG 226 Physical Oceanography 3-3-0
An introduction to physical and geological oceanography. Topics to be covered include: the history of oceanography, plate tectonics and the origin of the oceans basins, marine sediments, seawater properties, ocean climates, geostrophic currents, deep ocean circulation, waves and tides.
Prerequisite: ESG 127
ESG 227 Biogeochemical and Environmental Oceanography 3-3-0 An introduction to marine life and the interaction between the oceans and society at large. Topics will include: biological productivity (phytoplankton, zooplankton), biogeochemical, cycles in the oceans, life in various marine habitats, marine resources, fisheries, mariculture, pollution, coastal development and other environmental issues affecting the oceans.
Prerequisite: ESG 226 or ESG 127
ESG 248 Geography of Food 3-3-0
This course examines the growing harvesting, processing, packaging, transporting, marketing, consumption, and disposal of food and food-related items. By employing spatial concepts and analysis the impacts of food systems on the natural environment, this course examines conventional/industrial food systems, as well as alternatives such as organic food, local food, community-supported agriculture, farmers' markets, slow food movements and others.
Prerequisite: ESG 126 or ESG 127
ESG 249 Resource Management 3-3-0
This course examines the interactions between natural and social processes in the development, use and conservation of natural resources. Theories and concepts explored are: integrated resource management, ecosystem management, adaptive management and the role of public participation. Case studies explore trends in forestry, fisheries, agriculture, mining, wildlife and water management.
Prerequisite: ESG 126 or ESG 127

## ESG 250 Geomorphology <br> 3-3-0

Selected topics in geomorphology with particular emphasis on fluvial processes and land forms of southern Quebec. Aspects of applied physical geography may be covered. Fieldwork is an integral part of this course.
Prerequisite: ESG 127

## ESG 251 Biogeography

3-3-0
Biogeography is the study of the distribution of species and ecosystems in geographical space and through geological time. Have you even wondered why the tropics are more diverse than the poles? Why certain plant and animal groups are located where they are? How both ecosystems, and individual species, respond to climate change? And what part humans play in all these questions? This course will explore these and other topics, and assess to what extent this information can be useful for ongoing conservation practices.
Prerequisite: ESG 127

ESG 260 Research Methods
3-3-0
An introduction to research methodology and its application to environment and geography. Course modules include research design, hypothesis testing, sampling techniques, interview techniques, archival techniques and other approaches to primary and secondary data gathering.
Prerequisites: any two of ESG 126, ESG 127 or AGR 100
ESG 261 Quantitative Methods
3-3-0
Quantitative methods in environment and geography; the nature of explanation; problems of observation and data collection; descriptive statistical analysis; inferential statistical analysis.
Prerequisites: any two of ESG 126, ESG 127 or AGR 100
ESG 262 Introduction to Geographic Information Systems 3-3-0 An introduction to geographic information systems including cartographic concepts, basic remote sensing (aerial photography and digital imagery), vector and raster digital spatial data models, data input and editing, database management, structured query language, and elementary spatial analysis.
Prerequisite: ESG 127 or permission of the instructor
ESG 263 Introduction to Remote Sensing
3-3-0
An introduction to remote sensing including concepts and techniques, including air photo interpretation, satellite imagery and others, and their application in earth observation and analysis. Experiential learning is a part of this course, allowing student to do measurements and analysis using remote sensing instruments to apply and improve the theoretical knowledge acquired during class.
Prerequisite: ESG 127 or permission of the instructor
ESG 264 Outdoor Recreation
3-3-0
This course examines: (i) theories and concepts concerning the recreational use of natural settings (the human dimensions), (ii) the nature, capabilities and limitations of natural settings (the natural dimensions) and, (iii) the institutional arrangements which exist to manage outdoor recreation settings (the management dimensions), including national parks and protected areas. This course involves multiple field trips.
Prerequisite: ESG 126 or ESG 127
ESG 265 The Atmosphere and Weather
3-3-0
A comprehensive description of the principal characteristics of Earth's atmosphere including air temperature, density, pressure and moisture; the development of clouds, wind and precipitation, and physical explanations of weather events such as mid-latitude cyclones, thunderstorms and hurricanes.
Prerequisite: ESG 127
ESG 266 Environmental Policy
3-3-0
An introduction to the field of environmental policy, with an emphasis on the regulation of technological hazards.
Consideration will also be given to different approaches to environmental policy, including "command-and- control" regulation and enforcement as well as the emergence of market incentives and voluntary initiatives. Topics will include: air quality, water quality, solid and hazardous waste, toxic substances, pollutionprevention and environmental assessment.
Prerequisite: ESG 126
ESG 267 Global Environmental Change: a physical perspective 3-3-0 An examination of the general trends and concepts associated with global environmental change using a physical geographic approach. This includes analysis of the complex interlinkages of the atmosphere-ocean- terrestrial biosphere systems, of environmental changes during the Quaternary Period, and of the environmental issues associated with these changes. The human response to global environmental change will be covered in less detail.
Prerequisite: ESG 127
ESG 269 The Earth's Crust
3-3-0
The course is a general study of the materials and dynamics of Earth's crust. Students will learn about igneous, metamorphic sedimentary rocks, rock weathering and transport of material at the surface. They will also learn the basic principles of physical geology and how the Earth works: volcanic activity, earthquakes, rock deformation, mountain building, and plate tectonics. We will also explore the vastness of geologic time.
Prerequisite: ESG 127

ESG 288 Underwater Environmental Assessment 3-3-0
This course examines human impact on the underwater environment, including limnology, and the monitoring and restoration of ecosystems affected by invasive species. The course also introduces students to the different tasks performed by a scientific diver: from the collection of samples, environmental monitoring and aquatic inventory, to the restoration operations. Specific scientific diving training including PADI Open Water certification, can lead to Diver-in-Training certification from the Canadian Association for Underwater Sciences (CAUS). Additional course fees (300\$) will be charged for the diving expenses.
Prerequisite: Permission of the instructor
Outside academic Co-requisites: It is required that students also obtain First-Aid training with CPR and oxygen administration. This certification will be offered separately.

ESG 300 Advanced Environmental Seminar
3-3-0
As an advanced seminar course, this course allows detailed study of particular areas of environmental research through faculty presentations, student-led seminars and general class discussion.
Prerequisite: Open only to U3 and U4 Honours and Majors students in Environmental Studies, Environmental Science or Geography programs
ESG 346 Independent Study I / Internship I
3-0-0
The student is required to select an independent research project or internship, and, under the supervision of a faculty member, complete a formal report. Open to majors and honours students at the discretion of the Department.

ESG 347 Independent Study II / Internship II
3-0-0
The student is required to select an independent research project or internship, and, under the supervision of a faculty member, complete a formal report. Open to majors and honours students at the discretion of the Department.

## ESG 348 Urban Planning

3-3-0
Consideration of several aspects of the city planning process: the legal basis of planning, the official plan, zoning, transportation, planning procedure and implementation, the goals of planning.
Prerequisite: ESG 126.
ESG 349 Water Resource Management
3-3-0
This course examines integrated water management, the implications of natural resource development and land use on water quality and quantity, climate change impacts, water and food security, dams and diversions, as well as the role of stakeholder collaboration in watershed-scale assessment, planning and decisionmaking.
Prerequisite: ESG 126, ESG 127 or ESG 249-
Credits will only be given for one of ESG 349 or AGR 240
ESG 350 Environmental Justice
3-3-0
An introduction to the field of environmental justice, with an emphasis on fairness and equity in struggles related to ecological resources, hazardous wastes, and climate change. The course will examine the history of activism and the development of theoretical work and empirical evidence regarding the connections between the environment and forms of oppression based on factors such as race and class.
Prerequisite: ESG 126
ESG 354 Environmental Impact Assessment
3-3-0
Environmental impact assessment (EIA) is intended to provide a basis for deciding whether and how to proceed with a proposed resource development project so as to prevent or minimize environmental degradation. This course will examine the theory, methods, regulatory frameworks and social implications of EIA with emphasis on recent Canadian case studies.
Prerequisite: ESG 126, ESG 127 or ESG 249
ESG 358 International Environmental Issues
3-3-0
Environmental factors and their impact on global agricultural production, population growth and distribution. Fresh water and its effect on socio-economic development and political stability. Issues in trans-boundary pollution are discussed. Case studies from developed and developing countries.
Prerequisite: ESG 126
ESG 361 Glaciers and Climate Change
3-3-0
The study of glaciers as monitors and indicators of climate change. Particular emphasis will be placed on the effects of present and past glaciations on climate and the key roles played by glaciers on climate change. Topics will include glacial influence on sea level rise, water resources and landscape creation, among others. Arctic and alpine environments provide many excellent examples of how glaciers influence climate change.
Prerequisite: ESG 127, ESG 250 or ESG 267

ESG 362 Advanced Geographic Information Systems
3-3-0
Project-based applications stress the utility of advanced GIS analysis in environment and geography.
Prerequisite: ESG 262 or permission of the instructor
ESG 363 Natural Hazards
3-3-0
The course is an examination of the occurrence, nature and explanation of hazardous natural processes. Attention will be given to defining natural hazards, describing their physical characteristics and discussing the human response to these events. Geological hazards, such as earthquakes, floods and volcanoes, and climatological hazards, such as hurricanes, tornadoes and blizzards, will be studied.
Prerequisite: Any one of ESG 250, ESG 269 or ESG 265
ESG 364 Field Course in Environment and Geography
3-0-0
The course will introduce students to field techniques and data collection and analysis in human, environmental and physical geography. Sometimes offered during Spring semester, depending on faculty resources and student enrollments. A field camp fee will be assessed.
Prerequisite: Open to majors and honours students at the discretion of the Department.
ESG 365 Mid-Latitude Weather Systems
3-3-0
Examination of several of the major factors in mid-latitude cyclones including: air masses, upper and middle atmospheric structure, baroclinic instability, vorticity, divergence and geostrophic flow. Discussion of normal and extreme weather events such as blizzards, thunderstorms, extra-tropical cyclones, tornadoes and Nor'easters. An introduction to weather forecasting and weather on the internet. Prerequisite: ESG 265
ESG 366 Ethical Perspectives on Environmental Problems 3-3-0 An introduction to the major philosophical traditions in the field of environmental ethics: natural law, utilitarianism, virtue theory and deontology. The use of case studies in environmental problems, e.g. ocean dumping, nuclear wastes, air pollution, greenhouse gases, etc., as a way of exploring several contemporary positions such as biocentrism, ecocentrism, the land ethic and deep ecology. Prerequisite: ESG 126 and ESG 127
ESG 367 Climate Change
3-3-0
The course examines the debate surrounding global climate change with climatic and paleo-climatic perspectives. The climate system's natural variability, and predicted impacts and environmental implications are examined. The course will include a short review of the present climate system, and a section on the Holocene climate. We will also examine how predictive climate models are developed and tested against recent and Holocene paleo-climatic data.
Prerequisite: ESG 127
ESG $370 \quad$ Special Topics in Environment and Geography 3-3-0 A lecture/seminar course offered by regular and visiting faculty on environmental/ geographical topics related to their research interests. Topics are determined by the instructor therefore content of the course varies year by year. The course will be offered on an occasional basis.
ESG 461a Honours Research Proposal
3-0-0
An introduction to the planning, execution and reporting of Environment and Geography research. The student is required to select an appropriate research project and, under the supervision of a faculty member, complete a formal research proposal. The proposal must include a detailed Introduction, including the purpose, objectives and research hypothesis, a detailed Conceptual Background, with associated Literature Review and Bibliography, and a description of the Research Methods and Data Collection Techniques to be used in the project. Preliminary data collection should also take place. The Proposal will be presented at a Departmental seminar to be scheduled during the last two weeks of classes. Prerequisite: Permission of Department. A minimum cumulative grade average of $70 \%$ is required to be admitted into ESG461.
ESG 462b Honours Thesis
3-0-0
The continuation of ESG 461. Information and data collected for the Honours Research Proposal, plus additional data collected will be analysed, discussed and presented in an Honours thesis. Research findings will be presented at a Departmental seminar to be scheduled during the last two weeks of classes; the final submission of the thesis must occur before the last day of the formal examination period. The completion of both ESG 461 and ESG 462 is necessary to satisfy the requirements for Honours in Environment and Geography.
Prerequisite: ESG 461 and permission of the Department. A minimum of $75 \%$ in AGR 461 is required to be admitted into $A G R 462$.

## AGR courses:

AGR-coded courses are associated with the Sustainable Agriculture and Food Systems (SAFS) programs.

## AGR 100 Introduction to Sustainable Agriculture and Food Systems

3-3-0
Conventional, industrial agriculture and fisheries are the source of most of our food, but are increasingly linked to economic injustice, loss of food security, and poor health, while also being criticized for being unsustainable, causing environmental degradation. Alternative food systems are emerging, providing innovative, sustainable, local, and organic solutions. This course provides an interdisciplinary survey of the environmental, social, economic and cultural aspects of agriculture and food, and outlines some of the emerging sustainable food systems. This course will help students develop an informed critique of conventional agricultural systems. This course will introduce the topics and skills to be learned during the rest of the program in sustainable agriculture and food systems.
AGR 104 An Edible History of Humanity
3-3-0
This course traces food through human history. Topics include: how the Neolithic period transformed hunter-gatherers to agriculturalists; how sedentary societies that store food create inequalities in wealth and power; how specialty products such as beaver-pelts and spices motivated exploration and colonization; how crops and fossil fuels expanded agricultural productivity, allowing many people to pursue non-farming occupations; how political leaders use power over food supply to mobilize armies and to crush dissent, and currently; how the 20th century Green Revolution solved some problems but now creates new ones.
AGR 130 Environmental Implications of Agriculture
3-3-0
When agricultural operations are sustainably managed, they preserve and even restore critical habitats, protect watersheds, and maintain soil health and water quality. On the other hand, some of the negative environmental impacts from unsustainable farming practices include: land conversion, deforestation and habitat loss, wasteful water consumption, soil erosion and degradation, pollution and contaminated runoff, climate change, genetic erosion and loss of resilience, toxicity to pollinators and other critical eco-system damage This course will expose students to the effects of these impacts, positive and negative, and introduce various indicators of environmental impact based on farmer's production methods, and the impact these methods have on emissions to the environment. The goal is an introductory ability to assess environmental impact at the farm level.

## AGR 171 Permaculture Design I

3-0-3
This course introduces students to permaculture design principles. Derived from "permanent agriculture", permaculture is the design and maintenance of agriculturally productive ecosystems which have the diversity, stability, and resilience of natural ecosystems. Permaculture is a multidisciplinary approach that utilizes systems thinking, as well as landscape design techniques, to create plans for food production, water use, energy use and habitat that mimic patterns observed in nature. Permaculture is applicable to a wide range of places, such as urban lots, schoolyards, municipal parks, and rural farms all over the planet, so students will be well-equipped to apply these principles in a variety of socioeconomic and environmental contexts. This course follows a standard worldwide format. Students who successfully complete AGR 171 and AGR 172 will obtain the internationally recognized "Permaculture Design Certificate (PDC)".
AGR 172 Permaculture Design II 3-3-3
AGR 172 is a follow-up course to AGR 171. Permaculture is an integrated design system for human food production, water and energy use, modeled on nature. AGR 172 is a continuation and deepening of the design principles and applications covered in AGR 171. Students in AGR 172 will perform various permaculture design practices in a variety of settings, for various needs. The course involves lab and field work and requires completion of a significant design project. Students who complete both AGR 171 and AGR 172 will obtain an internationally recognized "Permaculture Design Certificate (PDC)", enabling them to work as a certified permaculturalist. An extra fee is required for the certificate.
Prerequisite: A grade of $75 \%$ in AGR 171
AGR 174 Sustainable Agriculture Practicum I
3-0-6
This YEAR 1 Field Course occurs during the Spring Session, May to mid-June at the Campus Educational Farm. It involves planning the growing season, preparing the agricultural gardens, and planting, pruning and other early season activities. Prerequisite: AGR 130 and Permission of the Department

## AGR 175 Sustainable Agriculture Internship I

This course can replace AGR 174 Sustainable Agriculture Practicum I for qualified students who have arranged a practical agricultural experience or placement equivalent to that provided in AGR 174, to occur off-campus.
Prerequisites: AGR 130 and Permission of the Department

AGR 200 Methods for Studying Sustainable Foodscape 3-3-0
Foodscapes are diverse and unique social-ecological systems that reflect local biophysical, cultural and socioeconomic conditions. This is the scale and interdisciplinary level at which sustainability can be effectively assessed and managed. This course will introduce students to a diversity of methods and approaches to study foodscapes, rooted in both the natural and the social sciences. Prerequisite: AGR 100
AGR 201 Market Gardening 3-2-1
This course explores the principles and practices associated with a Market Garden enterprise: a small-scale, intensive production of fruits, berries, vegetables, flowers, herbs, perennials, shrubs, seeds, bulbs and tubers, mushrooms and fungi, and more, as cash crops. Market Garden businesses frequently sell directly to consumers via local farmers' markets and community supported agriculture (CSA) and to local restaurants and inns. Market Garden enterprises are commonly characterized by their diversity of crops, grown on a small area of land, typically less than a hectare, and often in greenhouses. Principles and practices include: CSA initiatives, web and social media presence, product diversity, marketing, business plans, financing and capital, accounting and logistics, the regulatory environment, problem-solving and more. This course includes case studies, field trips to Bishop's Campus Educational Farm, the Bishop's Greenhouse, and local Market Garden enterprises.
AGR 202
Culture and Food
3-3-0
This course presents a social perspective on food and culture. It explores the distinctiveness of foods and food preparation within different cultures and their roles in the building of social identity. In a complementary way, the course also explores the universality of human experiences with food. Significant attention is paid to the role of food and societal food practices in the contemporary global era. Topics include food practices, food's role in socialization, identity, health and social change, as well as food marketing and the changing global food system.
AGR 203 Healthy Nutrition 3-3-0
This course surveys the basic principles of human nutrition, and is intended for students with limited science background. The primary aim of the course is to clarify the profound relationship between nutrition and human health, both current health and future health. Topics include health and disease effects due to overnutrition (focusing on macronutrients), malnutrition (focusing on micronutrients), weight management strategies, nutritional needs through the life cycle, public nutrition and the relationships between nutrition and chronic diseases.
AGR 204 Urban Agriculture
3-3-0
This course examines various urban gardens (e.g. community gardens, war-time victory gardens, school, senior's residence, hospital, rooftop and other urban gardens) and addresses opportunities and impediments to starting and maintaining such a garden, as well as the social and environmental benefits to community gardening. Emphasis is placed on acquiring and communicating knowledge about the natural science processes that take place in a garden (e.g. nitrogen fixation, carbon dioxide sequestration, soil biodiversity and health), and the interactions that individuals and community groups have with the garden environment (e.g. environmental literacy, nutritional knowledge, life skills, problem solving). Field experience will take place at Bishop's Campus Educational Farm, as well as at local community gardens.
AGR 205
Sustainable Food Value Chains
3-3-0
This course aims to equip students with the concepts, principles, and tools they need to leverage value chain approaches that improve human nutrition through agriculture and food systems. The course will cover key concepts related to food value chains and their sustainability; the different stages of food value chains and how these are created; the process of developing an added value from production to processing to distribution. This course introduces issues influencing the sustainability of food values. It provides the tools and methods to analyze the sustainability of value-adding activities from 'farm to fork".

## AGR 206

Economics of the Agri-Food System
3-3-0
This course introduces students to the major aspects of economics, business and resource use in the Canadian agri-food sector. Topics include agricultural supply and demand, markets, prices, agribusiness financing, farm risk management, government policies, international trade in agricultural products, and the circular economy.
This course is cross-listed with ECO 206.
Credit will only be given for one of AGR 206 or ECO 206

AGR 208 Agricultural Entrepreneurship 3-3-0
Agri-Food Entrepreneurship is designed to provide students with an understanding of the key concepts and processes involved in starting and managing new ventures in an agricultural, agritourism or food business. These concepts include: opportunity recognition, business model canvass, feasibility analysis, understanding market structure and niche markets, customer values, new product development, raising start-up capital, and development and management of successful new ventures. The course is appropriate for students interested in a variety of new ventures, from for-profit private companies to social enterprises and cooperatives.
Prerequisite: AGR 206
AGR $210 \quad$ Food Science
3-3-0
This course provides an overview of the science of food preparation and transformation, focusing on the principles of sustainability: waste reduction, nutrient retention, minimization of packaging. Topics include food chemistry, analysis, microbiology, food safety assessment, product development, packaging, and the effects of processing on physico-chemical, rheological, and sensory characteristics.
Prerequisites: BIO 194 or BIO 196 and CHM 191 and CHM 192
AGR 211 Lighthouse Farms for a Sustainable Future
3-3-0
While climate and global environmental change models project a grim future, there are lighthouse farms that shed light on more sustainable and hopeful futures. This course will investigate the transformation of food and farming systems towards sustainability by studying "lighthouse farms"-extraordinary food and farming systems. Students will explore concepts and theories to study food systems transformation, while also gaining knowledge of the sustainability challenges that food and farming systems face.
Prerequisite: AGR 100
AGR 220 Soil Science
3-3-0
This course provides an introductory survey of soils and their management: properties of soils, soil formation, description, and use. The course focuses on the role of soils in sustainable agriculture, causes and processes of degradation (including erosion, pollution, and nutrient depletion), and the maintenance of healthy soils.
Prerequisites: BIO 194 or BIO 196 and AGR 130
AGR 231 Organic Fruit Production 3-3-0
This is an interdisciplinary course that covers the principles and practices of fruit cultivation in temperate regions. It will start with providing important notions in horticultural sciences related to the botany, physiology, growth, and development of perennial plants. It will then survey the main characteristics of important fruit crops cultivated in temperate regions; and move to cover sustainable practices in fruit production from propagation to postharvest handling.
Prerequisite: AGR 130
AGR 232 Organic Vegetable Production
3-3-0
This is an interdisciplinary course that covers the principles and practices of olericulture. The course will familiarize the student with crops grown as vegetables, their characteristics, and organic management practices for their production. The course focuses on practices that minimize the use of off-farm inputs and maximize the stewardship of resources while also considering the profitability and sustainability of the vegetable production system.
Prerequisite: AGR 130
AGR 240 Water Conservation in Agriculture
3-3-0
The agricultural sector is the largest consumer of freshwater worldwide and there is an urgent need for improved agricultural water management. This course examines applied, environmental, and socio-economic aspects of water use and management in agriculture. It explores comprehensive perspectives of agriculture-related water resource management issues, including water resource scarcity and other climate change impacts. Topics include water demand for crop production, irrigation management and water-saving technologies, environmental implications, drought resilience, soil water retention strategies, water recycling opportunities, irrigation ponds, agroecological water perspectives and global water issues.
Prerequisite: AGR 130
Antirequisite: ESG349

## AGR 270 Special Topics/Field Course in

## Sustainable Agriculture and Food Systems I

3-1-5 A special topics seminar/field course offered by regular and visiting faculty on topics related to their research interests in sustainable agriculture and food systems. Topics are determined by the instructor and may include case-studies, projects and farm and agri-business visits, with the result that content of the course varies from one offering to the next. The course will be offered on an occasional basis.
Prerequisites: AGR 100 or $A G R 130$

AGR 274 Sustainable Agriculture Practicum II
9-0-18
This intensive YEAR 2 Field Course occurs during the Summer Session, midJune to end-July, at the Campus Educational Farm. It involves managing and maintaining the farm and gardens (under the direction of the Farm Technician), harvesting and distributing the early crops, and planning and designing future projects.
Prerequisite: AGR 174
AGR 275 Sustainable Agriculture Internship II 9-0-18
This course can replace AGR 274 Sustainable Agriculture Practicum II for qualified students who have arranged a practical agricultural experience or placement equivalent to that provided in AGR 274, to occur off-campus.
Prerequisites: AGR 174 and Permission of the Department
AGR 300 Agri-Food Business Management
3-1-2
This experiential learning course will build on existing courses to walk you through the tasks of agri-food (farm and/or food transformation) operations and business planning and management. It will give you the opportunity to strategically develop your own sustainable agri-food business, build crop enterprise budgets and comprehensive business plan. It also offers the opportunity to profile different existing agri-food businesses and learn about the tips and challenges of business management. At the end of the course, you will have produced your own agri-food business plan and developed your strategies in the key areas of business planning and management.
Prerequisite: AGR 208
AGR 303 Food Preparation and Preservation
3-1-3
This course presents an overview of food processing and food preservation, including temperature and water activity control, pasteurization, refrigeration and freezing, drying, fermentation, additives, irradiation, and others. Students will examine sustainability issues associated with food preparation and preservation practices. The course will contain theoretical, practical and experiential aspects, and feature invited guest speakers from the food handling community. As part of this course, students will have the opportunity to obtain their official "Food Handler Certification" from the Canadian Institute of Food Safety (at extra cost), which meets Canada's and Quebec's legal requirement for food safety training.

## AGR 304 Agritourism

3-3-0
Agritourism includes farm stands or shops, U-pick, farm stays, tours, on-farm classes, fairs, festivals, pumpkin patches, corn mazes, Christmas tree farms, winery weddings, orchard dinners, youth camps, barn dances, hunting or fishing, guest ranches, and more. Food and wine tourism is a rapidly growing sector of tourism, which reflects changing lifestyles and increasing diversification within the tourism industry. This course explores the development of the food and wine tourism industry, the concept and size of agritourism, food and wine business development, marketing and broad trends affecting tourism enterprises within this sector - with case studies and field visits within the Eastern Townships region of Quebec.
AGR 311 Agricultural Pests and Integrated Pest Management 3-3-0 This course presents the principles of sustainable Integrated Pest Management (IPM) and teaches their application vegetable and fruit and berries production. Sustainable IPM principles include no disruption to agro-ecosystems, natural pest control mechanisms, and no synthetic pesticides. The course begins with a survey of pests, plant pathogens, diseases and weeds, continues with non-chemical and biological means of control, monitoring and forecasting methods, and ends with sustainable practices and discussion of the techniques employed for IPM on the Campus Educational Farm.
Prerequisite: AGR 130
AGR 312 Sustainable Agroforestry
3-3-0
This course exposes students to agroforestry as a farming system in which trees and shrubs are grown in association with agricultural crops, pastures and livestock, and in which there are both economic and ecological benefits between trees and other components. Emphasis will be on sustainability issues, and how agroforestry can contribute to climate resilient farming. Topics examined include nut trees, windbreaks and shelterbelts, riparian buffers, vegetated swales, understory crops, silvopasturing, acericulture, and wild and cultivated non-timber forest products (such as mushrooms and others). Field trips to the Educational Farm and campus forests.
Prerequisite: AGR 130

AGR 333 Climate Change, Agriculture, and Food Security 3-3-0
This course examines the role that agriculture plays in climate change as a producer of greenhouse gases, and how this intersects with food security concerns around the globe. Likewise, the course examines how climate change impacts agriculture and food security. Agriculture's role as mitigating agent in climate change, through various peasant practices and modern innovations, and their effect on food security is examined.
Prerequisites: AGR 100 and AGR 130
AGR 341 Sustainable Food Systems
3-3-0
The agriculture and food sectors are subjects of growing interest in terms of their social and ecological impacts, and overall sustainability. This course builds on concepts encountered in AGR 100 and other program courses. It examines methods of analysis used to study food systems, and gives students opportunities to conduct relevant case studies. Students will learn how the analysis of food systems at various scales can help to reduce environmental impact, including through practical applications such as modelling, policy development, and dietary guidelines.
Prerequisite: AGR 100
AGR 343 Agroecology 3-3-0
This course will expose students to the growing field of agroecology, an integrated approach that applies both ecological and social principles to the design and management of food and agricultural systems. Agroecology is a transdisciplinary, participatory and action-oriented process that seeks to optimize the interactions between plants, animals, humans and the environment. This course examines how agroecology can be utilized to transform agriculture and food systems and how to employ agroecological solutions in response to a variety of environmental or social obstacles (e.g., diversified systems, the co-creation of knowledge, promoting gender equality, etc.).
Prerequisites: AGR 100

## AGR 344 Indigenous Food Systems

3-3-0
This course examines the food systems of Indigenous peoples. Students will be exposed to the wide range of historical and contemporary food systems, practices and issues that impact Indigenous communities all around the world, and their connections to the ecosystems that support them. Furthermore, this course examines how these relationships have transformed over time and current threats to Indigenous food culture.
Prerequisites: AGR 100 orAGR 104

## AGR 370 Special Topics/Field Course in

Sustainable Agriculture and Food Systems II 3-1-5
A third-year special topics seminar/field course offered by regular and visiting faculty on topics related to their research interests in sustainable agriculture and food systems. Topics are determined by the instructor and may include casestudies, projects and farm and agri-business visits, with the result that content of the course varies from one offering to the next. The course will be offered on an occasional basis.
Prerequisites: AGR 100 or AGR 130

## AGR 461 Honours Proposal in

## Sustainable Agriculture and Food Systems <br> 3-0-0

This course provides an introduction to the planning, execution and reporting of Sustainable Agriculture and Food Systems research. The student is required to select an appropriate research project and, under the supervision of a faculty member, complete a formal research proposal. The proposal must include a detailed Introduction, including the purpose, objectives and research hypothesis, a detailed Conceptual Background, with associated Literature Review and Bibliography, and a description of the Research Methods and Data Collection Techniques to be used in the project. Preliminary data collection should also take place. The Proposal will be presented at a Departmental seminar to be scheduled near the end of the semester.
Prerequisite: Permission of Department.
A minimum cumulative grade average of $70 \%$ is required to be admitted into AGR 461.

Honours Thesis in
Sustainable Agriculture and Food Systems
3-0-0
This course is a continuation of AGR 461. Information and data collected for the Honours Research Proposal, plus additional data collected will be analyzed, discussed and presented in an Honours thesis. Research findings will be presented at a Departmental seminar to be scheduled during the last two weeks of classes; the final submission of the thesis must occur before the last day of the formal examination period. The completion of both AGR 461 and AGR 462 is necessary to satisfy the requirements for Honours in Sustainable Agriculture and Food Systems.
Prerequisite: AGR 461 and permission of the Department.
A minimum of $75 \%$ in $A G R 461$ is required to be admitted into AGR 462.

## AGR 471 Experiential Learning in

Sustainable Agriculture and Food Systems I
3-0-0
The aim of this course is to expose students to the application of what they have learned with a practical, field project or placement. Students will be expected to engage in a project or field placement, with off-campus, community projects preferred. A project proposal will be required. Each experiential learning project will include an "external supervisor", and an internal supervisor (a departmental faculty member). The project will be expected to take significant time to complete, at least 100 hours. The student's performance during the practical work will be evaluated by the external supervisor. The student will also be required to produce a final report concerning the project outcomes, and/or a presentation of the findings. The course is normally restricted to students with a cumulative average grade of at least $70 \%$.
Prerequisite: This course may only be registered during the final 30 credits of the student's program and by permission of the Department.

## AGR 472 Experiential Learning in

Sustainable Agriculture and Food Systems II
3-0-0
This course follows the same course structure and requirements as AGR 471 and builds further depth in this field of study.
Prerequisite: AGR 471 and by Permission of the Department.

## Politics and

## International Studies

## Faculty

## Don Dombowsky,

B.A. (Concordia), M.A. (New School for Social Research), Ph.D. (Ottawa);
Associate Professor
Gilbert Gagné,
B.A., B.Soc.Sc., M.A.(Ottawa), D.Phil.(Oxford); Full Professor
Chair of the Department
Sarah-Myriam Martin-Brûlé
B.Sc., M.Sc. (Montréal), Ph.D. (McGill); Full Professor

## Heather McKeen-Edwards,

B.A. (Manitoba), M.A., Ph.D. (McMaster); Associate Professor
Jacob Robbins-Kanter
B.A. (McGill), M.A., Ph.D. (Queen's);

Assistant Professor
Trygve Ugland,
Cand.mag., Cand.polit.(Oslo and Queen's Belfast),
Dr.polit.(Oslo);
Full Professor

## Program Overview

Knowing the political system increases one's capacity for choice. Therefore, a knowledge of how political systems work in Canada and abroad, as well as the impact of globalization on the emergence of a new international economic and political order, presents a student with not only an understanding of power, authority and decision making in the system but also with greater opportunities and advantages within their society. Lectures, seminars and individual tutorials are normal methods of instruction and the department stresses personal contact with students as much as possible in order to assist them in choosing a postgraduate career in government, business, non-profit or the academic fields. Guest lectures are given by visiting politicians, academics, interest group representatives and industry leaders.

The department offers the following programs of study: Honours, Major and Minor in Political Studies; Honours, Major and Minor in International Studies; Honours and Major in International Political Economy.

# Credit Requirements for Programs Offered by the Department 

## Credits Required

| PROGRAM | Honours $^{\wedge *}$ | Major $^{\wedge}$ | Minor |
| :--- | :--- | :--- | :---: |
| Political Studies | 60 | 48 | 24 |
| International Studies | 60 | 48 | 24 |
| International <br> Political Economy** | 60 | 48 | X |

${ }^{\wedge}$ Students in any major or honours program must also complete a one-credit lab course - ILT 104.

* Grade requirements - To enter or continue in an Honours program, students must normally obtain and sustain a cumulative average of $75 \%$. This minimum cumulative average must be met in order to graduate with the honours degree.
** Offered jointly by the Department of Politics and International Studies and the Department of Economics.


## Cross Counting and Program limits

- A maximum of 9 POL credits ( 3 courses) can be counted towards the multiple Honours/Majors and Minors in the Department of Politics and International Studies.
- The maximum number of Honours/Majors/Minors (POL, INT, IPE) offered through the Department that a student can simultaneously register in is limited to two (2).


## Political Studies -

## Programs and Requirements

Political Studies provides students with a working knowledge of power and authority in society and how decisions are made. Governments, politicians, leaders in private industry and ordinary individuals function within a framework of accepted political norms, e.g. notions of justice, freedom, rights and duties. Over time, these received norms are challenged by conventional methods such as voting, political parties, interest group lobbying and protest movements; or the challenge may be by militant, revolutionary or terrorist means. Political Studies systematically examines and presents these phenomena. This program looks at the Canadian political system, as well as other systems around the world, and considers conflict and cooperation between states internationally. It also allows for a critical evaluation of society and its institutions through a study of the history of political theory. The program is divided into six divisions: I) Canadian Politics, II) Political Theory, III) Comparative Politics, IV) International Relations, V) Research Theory and Methods, VI) Honours Thesis, Independent Studies, Practicum and Internships.

## Honours in Political Studies (60 credits)

## Required Courses

POL 100 Introduction to Political Theory
POL 101 Introduction to Comparative Politics
POL 112 Introduction to Canadian Politics
POL 140 Introduction to International Relations
POL 229 History of Political Philosophy - Modern
POL 262 Methods and Approaches to Political Science
POL 361 Techniques of Quantitative Research
ECO 103 Principles of Economics: Macroeconomics ILT 104 Information Retrieval and Evaluation Skills for the Social Sciences ( 1 credit lab)

Plus either:
Two POL courses at the 400 level
Or
POL 550 Honours Thesis ( 6 credits)
Plus Structured Electives in Political Studies:
One additional course from the Political Theory division
One additional course from the Canadian Politics division
Two additional courses from the Comparative Politics division
Two additional courses from the International Relations division
Plus Free Electives in Political Studies
12 additional POL credits (4 POL courses)
Additional note: To enter and to remain in the Honours program, students must normally attain a cumulative average of $75 \%$ in program courses. Honours students who do not meet this cumulative average requirement at graduation will automatically revert to the Major program.

## Honours Thesis and Independent Study

The Honours Thesis and Independent Study courses are open only to advanced level Honours students. They are offered exceptionally and at the discretion of the Department. These courses are also governed by departmental regulations that are available from the Chair of the Department.

## Cognate Courses

Honours students are normally expected to take at least 60 credits of Political Studies courses. However, students in their final thirty (30) credits of study, may petition the Department for authorization to take six (6) credits of cognate courses. This is to be done immediately following the formal registration period, but before the last day in the semester to add, drop or change all threecredit courses. It is understood that this is an exceptional measure to be granted at the discretion of the Department.

## Major in Political Studies

(48 credits)

## Required Courses

POL 100 Introduction to Political Theory
POL 101 Introduction to Comparative Politics
POL 112 Introduction to Canadian Politics
POL 140 Introduction to International Relations
ILT 104 Information Retrieval and Evaluation Skills for the Social Sciences (1 credit lab)
Plus one of:
POL 262 Methods and Approaches to Political Science
POL 361 Techniques of Quantitative Research
Plus Structured Electives in Political Studies:
One additional course in the Canadian Politics division.
Two additional courses in the Comparative Politics division.
Two additional courses in the International Relations division.
Plus one of:
POL 228 History of Political Philosophy - Ancient, Medieval, Renaissance
POL 229 History of Political Philosophy - Modern
Plus Free Elective in Political Studies
15 additional POL credits (5 POL courses)

## Independent Study

Independent study is open primarily to Honours students, but may be offered to advanced level Major students, who maintain a $75 \%$ average in Political Studies. These courses are offered exceptionally and at the discretion the Department. They are also governed by departmental regulations that are available from the Chair of the Department.

## Cognate Courses

Major students are normally expected to take at least 48 credits in Political Studies courses. Students in their final thirty (30) credits of study may seek Departmental authorization for a three-credit cognate. It is understood that this is an exceptional measure to be granted at the discretion of the Department.

## Minor in Political Studies (24 credit program)

## Required Courses

POL 100 Introduction to Political Theory
POL 101 Introduction to Comparative Politics
POL 112 Introduction to Canadian Politics
POL 140 Introduction to International Relations
Plus Free Electives in Political Studies:
12 additional POL credits

## 400-Level Courses

Not normally open to students in the regular Minor program.

## Independent Study

Not normally open to students in the regular Minor program.
Cognates
No cognate courses are allowed in the regular Minor program.

## International Studies - <br> Programs and Requirements

The International Studies programs provide students with working knowledge of the global community in which they live, and prepare them to pursue careers involving international interactions. The programs consist of an integrated group of courses reflecting international aspects from cultural, economic, environmental, legal, political and social perspectives. Foreign language training and study abroad experiences are also incorporated into the programs.

## Honours in International Studies (60 credit program) <br> HONINT

Honours in International Studies involves some required POL courses, some language courses, a semester abroad, and additional courses within one of two concentrations.

## Required Courses ( $\mathbf{3 3}$ credits):

POL 101 Introduction to Comparative Politics
POL 140 Introduction to International Relations
POL 262 Methods and Approaches to Political Science
ILT 104 Information Retrieval and Evaluation Skills for the Social Sciences (1 credit lab)
Plus one of:
POL 241 International Affairs
POL 242 International Organizations
Plus three of:
POL 141 Introduction to Diplomacy
POL 240 International Political Economy
POL 338 International Law and Human Rights
POL 340 Strategic Issues: Questions of War and Peace
POL 345 Introduction to Public International Law
POL 352 United Nations Practicum I
Plus:
Two POL courses at the 400 level
Or
POL 550 Honours Thesis (6 credits)
Plus:
Four language courses (at least two of which must be at an advanced level)
Plus:
One semester exchange abroad

## Or

International Studies Internship
Plus Elective Courses (21 credits)
Students choose one of the following two concentrations:
Global Governance Concentration: Seven (7) courses from the Global Governance concentration list
Global Culture Concentration: Seven (7) courses from the Global Culture concentration list

## Notes:

1) To enter and to remain In the Honours program, students must normally attain a cumulative average of $75 \%$. Honours students who do not meet this average requirement at graduation will automatically revert to the Major program.
2) Language Courses:
a. 12 credits of language courses other than the student's mother tongue. The language courses can be taken at Bishop's or from a program at another university, approved by the Department of Politics and International Studies and the Department of Modern Languages.
b. Depending on a student's entry-level competence, extra courses at the beginner or intermediate level might be required.
c. Upon entering the program students should (a) consult with the appropriate Modern Languages faculty, regarding the language requirements for the program and (b) familiarize themselves with the language competency required for any intended exchange destinations.
d. Students with no previous familiarity with a foreign language should anticipate two years of study (normally a minimum of 6 courses) in order to attain a level adequate for exchange studies in that language. This may vary according to the country of exchange.
e. To count as language courses, culture courses in Modern Languages should be taught in the language being credited. For students pursuing English as the language option, English-language courses coded ESL as well as two of CDC 100, CDC 201 or ENG 116 are accepted.
3) Any additional required course can count as one of the electives in either of the two concentrations. In addition, students who have passed both POL 241 and POL 242 need take only two further courses from the third required list.
4) POL 441, POL 442, and POL 443 cannot be simultaneously counted as electives in the Global Governance concentration and as fulfilling the 400 -level course requirement.
5) The addition of a Minor language concentration (8 courses) to the Major in International Studies is strongly recommended.
6) Students taking the International Studies Honours will normally be required to spend a semester at one of the many universities abroad with which Bishop's has an exchange program. Such programs are developed in consultation with the Chair of the Politics and International Studies Department. Note, however, that students must normally maintain a $70 \%$ average to be eligible for the exchange program.

POL 300 - International Studies Internship
OR
INT 300 - International Development Assistance Internship may substitute for an exchange.

## Major in International Studies ( 48 credit program) MAJINT

A major in International Studies involves some required POL courses, some language courses, and some courses within one of two declared concentrations. Students are also encouraged to spend a semester studying abroad.

## Required Courses ( 30 credits):

POL 101 Introduction to Comparative Politics
POL 140 Introduction to International Relations
POL 262 Methods and Approaches to Political Science
ILT 104 Information Retrieval and Evaluation Skills for the Social Sciences ( 1 credit lab)
Plus one of:
POL 241 International Affairs
POL 242 International Organizations
Plus three of:
POL 141 Introduction to Diplomacy
POL 240 International Political Economy
POL 338 International Law and Human Rights
POL 340 Strategic Issues: Questions of War and Peace
POL 345 Introduction to Public International Law
POL 352 United Nations Practicum I
Plus:
Four language courses (at least two of which must be at the intermediate or advanced level)
Plus Elective Courses (15 credits)
Students choose one of the following two concentrations:
Global Governance Concentration: Five (5) courses from the Global Governance concentration list
Global Culture Concentration: Five (5) courses from the Global Culture concentration list

## Notes:

## 1) Language Courses:

a. 12 credits of language courses other than the student's mother tongue. The language courses can be taken at Bishop's or from a program at another university, approved by the Department of Politics and International Studies and the Department of Modern Languages and the Département d'études françaises et québécoises.
b. Depending on a student's entry-level competence, extra courses at the beginner or intermediate level might be required.
c. Upon entering the program students should (a) consult with the appropriate Modern Languages and Études françaises et québécoises faculty, regarding the language requirements for the program and (b) familiarize themselves with the language competency required for any intended exchange destinations.
d. To count as language courses, culture courses in Modern Languages should be taught in the language being credited. For students pursuing English as the language option, English-language courses coded ESL as well as two of CDC 100, CDC 201 or ENG 116 are accepted.
2) Any additional required course can count as one of the electives in either of the two concentrations. In addition, students who have passed both POL 241 and POL 242 need take only two further courses from the third required list.
3) Students are strongly encouraged to consider taking an International exchange abroad during the course of their degree.
4) The addition of a Minor language concentration (8 courses) to the Major in International Studies is recommended.

## Global Governance Concentration

BMG 215 Introduction to International Business
ECO 103 Principles of Economics: Macroeconomics
ECO 217 International Economics
ECO 125 Economic Development I
ECO 237 Economics of the Environment
ESG 350 Environmental Justice
ESG 358 International Environmental Issues
HIS 229 Human Rights and Humanitarian Organizations
POL 170 Introduction to European Politics
POL 175 Introduction to U.S Politics
POL 230 The Politics of Sport
POL 231 European Union: History, Institutions and Policies
POL 232 Politics in Asia
POL 233 Politics of the Iberian Peninsula
POL 234 Politics of Africa
POL 236 Introduction to Middle Eastern Politics
POL 237 Politics of Japan
POL 239 Politics of Russia and Eastern Europe
POL 245 American Foreign Policy
POL 249 Canadian Foreign Policy
POL 277 European Diplomacy Since 1914
POL 330 Topics in US Public Policy
POL 331 Canada-EU Relations
POL 333 Internationalization of European Public Policies
POL 335 Politics of Latin America and the Caribbean
POL 343 Canadian-American Relations
POL 344 Politics of International Trade and Investment
POL 346 Politics of Global Finance
POL 347 Scandinavian Politics
POL 354 United Nations Practicum 2
POL 441 Theories of International Relations
POL 442 Issues in Global Governance
POL 443 Peacekeeping
RSC $200 \quad$ Politics and Religion
RSC 310 The Religious Right in the United States

## Global Culture Concentration:

DRA 170/ENG 170 Introduction to Film
ENG 102 Approaches to Media Studies
ENG 228 Introduction to Post-Colonial Literature
ENG 352 Canadian Literature and Theories of Globalization
FIH 240 Art, Popular and Mass Culture
FIH 246 Public Art and Monuments
FIH $314 \quad$ Colonial and Postcolonial Issues in the Visual Arts
FRA 250 French Cinema
FRA 353 Littératures migrants de la francophonie
GER 250 German History in Recent German Films

GER 270
GER 271
GER 289
GER 290
HIS 105
HIS 108
HIS 228

HIS 255
HIS 256
HIS 269
HIS 277
HIS 284
HIS 291
JSE 150
LIB 370
POL 354
RSC 100
RSC 101
RSC 124
RSC 125
RSC 126
RSC127
RSC 200
RSC 302

SOC 190
SOC 207
SOC 223
SOC 294
SOC 296
SPA 311
SPA 313
SPA 314

SPA 317

SPA 318
SPA 319
SPO 360

Introduction to German Film East German Cinema History and Memory in Berlin (De)Constructing Identity in Vienna The 20th Century World A Global History of Indigenous Peoples
Remembering Atrocities: Truth and Reconciliation in Global Context History of Modern Southeast Asia Latin America 1800 to the Present First Nations/Settler Relations in Canada South: The Making of the Third World History of Modern China Women in the Islamic World Japanese Society and Culture Social Movements and Social Change in Brazil United Nations Practicum 2 Western Religions Eastern Religions Hinduism: The Many Faces of the Divine Buddhism: The Middle Way Judaism: A Covenant With God Islam: Submission to Allah Politics and Religion Of Latter-day Saints and Modern-day Prophets: New Religious Movements Introduction to Post-colonial Study Sociology of Indigenous-Settlers Relations Women and Global Inequality Sociology of Tourism Globalism and Culture Spain: Civilization and Culture Mexico: Civilization and Culture The Central American Region and the Spanish Caribbean: Civilization and Culture

## Minor in International Studies

 ( 24 credit program)
## Required Courses

POL 101 Introduction to Comparative Politics
POL 140 Introduction to International Relations
Plus one of:
POL 241 International Affairs
POL 242 International Organizations
Plus three of:
POL 141 Introduction to Diplomacy
POL 240 International Political Economy
POL 338 International Law and Human Rights
POL $340 \quad$ Strategic Issues: Questions of War and Peace
POL 345 Introduction to Public International Law
POL 352 United Nations Practicum I
Plus:
Two language courses at any level.

Notes:

## Language Courses

6 credits of language courses other than the student's mother tongue. The language courses can be taken at Bishop's or from a program at another university, approved by the Department of Politics and International Studies and the Department of Modern Languages.

To count as language courses, culture courses in Modern Languages should be taught in the language being credited. For students pursuing English as the language option, Englishlanguage courses coded ESL as well as two of CDC 100, CDC 201 or ENG 116 are accepted

## International Political Economy Programs and Requirements

The International Political Economy program provides students with the tools to understand the interaction between economic and political forces in the global environment. Offered jointly by the Departments of Economics and the Department of Politics and International Studies, this area of inquiry examines the complexities of the increasingly interdependent global economy and its relationship to decisions about the governance and redistribution of resources locally, nationally and globally. In the process, students will be able to see how their individual decisions and local environments are intertwined with a worldwide system of economic and political processes that affect people around the globe.

The B.A. Major Program in International Political Economy consists of at least 48 credits, with 24 credits drawn from Politics and International Studies and 24 from Economics. The Honours program in International Political Economy consists of at least 60 credits, with 30 credits drawn from Politics and international Studies and 30 from Economics.

# Honours in International Political <br> Economy (60 credit program) HONIPE 

ILT 104 Information Retrieval and Evaluation Skills for the Social Sciences
(1-credit lab)

## Economics Requirements ( 30 credits)

## Required Courses:

ECO 102 Principles of Economics: Microeconomics
ECO 103 Principles of Economics: Macroeconomics
ECO 212 Intermediate Macroeconomics I
ECO 270 Public Economics
Plus one of:
ECO 175 Economic Geography
ECO 217 International Economics
ECO $220 \quad$ Economic Development I
ECO 251 History of Economic Thought I
ECO 280 Contemporary Perspectives in Political Economy
Plus Free Elective Courses in Economics: 15 credits

## Politics and International Studies Requirements (30 credits) Required Courses:

POL 101 Introduction to Comparative Politics
POL 140 Introduction to International Relations
POL 240 International Political Economy
POL 361 Techniques of Empirical Research

Plus two of:
POL 217
Business and Government
POL 241 International Affairs
POL 242 International Organizations
POL 317
POL 344
Canadian Welfare State
POL 346
Politics of International Trade and Investment
Politics of Global Finance
Plus:
One POL 400 level course
Plus Free Elective Courses in Politics and International Studies:
9 credits (3 POL courses)
Note that some of these courses may have prerequisites or, alternatively, require permission from the instructor:
To enter and remain in the Honours program, students must normally attain a cumulative average of $75 \%$ in program courses. Honours students who do not meet this average requirement at graduation will automatically revert to the Major program.

## Major in International Political Economy

(48 credit program)

| ILT 104 | Information Retrieval and Evaluation Skills |
| :--- | :--- |
|  | for the Social Sciences |

## Economics Requirements (24 credits)

Required Courses:
ECO 102 Principles of Economics: Microeconomics
ECO 103 Principles of Economics: Macroeconomics
Plus one of:
ECO 175 Economic Geography
ECO 217 International Economics
ECO 220 Economics Development I
ECO 251 History of Economic Thought I
ECO 270 Public Economics
ECO 280 Contemporary Perspectives in Political Economy
Plus Free Elective Courses in Economics: 15 credits

## Politics and International Studies Requirements ( $\mathbf{2 4}$ credits) <br> Required Courses:

POL 101 Introduction to Comparative Politics
POL 140 Introduction to International Relations
POL 240 International Political Economy
Plus two of:
POL 217 Business and Government
POL 241 International Affairs
POL 242 International Organizations
POL 317 Canadian Welfare State
POL 344 Politics of International Trade and Investment
POL 346 Politics of Global Finance
Plus Free Elective Courses in Politics and International Studies: 9 credits (3 POL courses)
Note that some of these courses may have pre-requisites or, alternatively, require permission from the instructor.

## List of Courses

## I. Canadian Politics

POL 112 Introduction to Canadian Politics $\quad$ 3-3-0
An analysis of the Canadian political process. This course will examine the social and economic environment of Canadian politics, political culture and socialization, political participation, voting behaviour, political parties and interest groups.
POL 118 Constitutional Law and Canadian Government 3-3-0
An analysis of the impact of leading constitutional decisions on the structure of Canadian government.
POL 213 Canadian Sport System and Policy 3-3-0
This course examines the key sport policy and governance issues in Canada. Students will develop an understanding of the bodies and organizations that guide the delivery and regulation of sport, and the resulting multilevel policy system that integrates the public, private, and not-for-profit sectors. They will also develop an understanding of policy analysis and sport governance models.
POL 214 Public Administration
3-3-0
An introduction to the theory and practice of public administration in Canada. The structure of the public service, organization theory and motivation theory, public planning and finance, public personnel administration, the growth of administrative discretion and administrative responsibility will be studied.
Prerequisite: One POL 100-level course or permission of instructor
POL 216 Canadian Provincial and Territorial Politics 3-3-0 A comparative analysis of contemporary trends in provincial and territorial politics, with special emphasis on Quebec. The structures and processes of provincial and territorial policy making will be examined. Topics include regional political development, provincial and territorial political cultures, Indigenous-provincialterritorial intergovernmental relations, and policy development in such areas as health, education, language and resource development.
Prerequisite: POL 112, or permission of instructor
POL 246 The Politics of Gender and Sexuality
3-3-0
A theoretical and empirical study of the relationships among gender, sexuality, and politics in Western democracies, with a special emphasis on Canada. Drawing upon feminist, queer, and intersectional theories, the course explores such issues as reproductive rights, LGBTQ politics, trans* rights movements, sex work, political masculinity, and the representation of women in politics.
POL 249 Canadian Foreign Policy 3-3-0
An analysis of the development of Canadian foreign policy and defense policy. Canada's relations with the Superpowers, the European Union and the Third World will be studied. Topics will include Canada's role in the U.N. and N.A.T.O., Canada's antinuclear diplomacy, and Canada's domestic interests in relation to energy, the Law of the Sea and aerospace law.
Prerequisite: POL 140, or permission of instructor
POL $312 \quad$ Federalism in Canada
3-3-0
Federalism is an essential yet often misunderstood element of Canadian politics. This course will examine the meaning and purpose of federalism and consider the historical evolution of Canadian federalism, alongside its key institutional features. It will subsequently address the topics of constitutional design, national unity, and the place of Quebec within Canada's federal framework as well as how major policy issues are shaped by Canada's division of powers. Finally, the course will move beyond federal-provincial relations to examine how federalism affects gender politics, Canada's indigenous peoples, and the governance of large urban areas.
Prerequisite: POL 112
POL 315 Indigenous-Settler Intergovernmental Relations 3-3-0
This course examines contemporary intergovernmental relations between Indigenous and settler governments in Canada. The course emphasizes political science approaches to Indigenous-settler relations that are grounded in postcolonial, settler colonial, and institutional theory. Topics include treaty federalism; the incorporation of indigenous political and legal orders within Canadian constitutionalism; the political and administrative development of Indigenous government; and federal/provincial/territorial policy relationships with Indigenous peoples. State-based responses to reconciliation are explored. Contemporary developments in Yukon, the Northwest Territories, and Nunavut are highlighted.
Prerequisite: POL 112
POL 317 Canadian Welfare State
3-3-0
The course will focus on the 20th century development and expansion of the Canadian welfare state, as well as the subsequent global period of welfare state
retrenchment, or scaling back of the welfare state. More recently, increased socioeconomic inequality, changing labour market patterns such as the gig economy, and questions surrounding social solidarity amidst growing ethnocultural diversity have placed pressures on existing social policy arrangements. In addition, the COVID-19 pandemic has led some to question long-held assumptions about welfare state politics. This course will consider how such challenges are affecting the Canadian welfare state, with frequent comparisons to other advanced democracies.

POL 318 Elections, Parties and Voters in Canada
3-3-0
This course examines some of the defining features of Canadian democracy: elections, parties and voters. It focuses on Canada's electoral system, election campaigns, the structure, function and role of parties, and factors which influence the preferences of voters.
Prerequisite: POL 112
POL $410 \quad$ Selected Topics in Canadian Politics and Public Policy 3-3-0
An analysis of selected topics in Canadian public policy from a comparative theoretical perspective. Lectures and seminars.
Honours students only or permission of instructor.

## II. Political Theory

POL 100 Introduction to Political Theory 3-3-0
A study of the foundational principles of democracy, conservatism, liberalism, feminism, nationalism, socialism, Marxism and anarchism, as developed in political writings from the 18 th and 19 th centuries.

## POL 223 /

CLA 223 Democracy in the Ancient World
3-3-0
The idea of government by the people is highly valued today, but it was first given the name of "demokratia" (democracy) in ancient Greece. The most famous example in Greece is Classical Athens, but democratic elements appeared in many other ancient states, including republican Rome. The course will examine in detail how democracy worked in Athens, Rome, and various other ancient societies: how it began, who could participate, who was left out, what ancient writers thought of it and what were the results of democratic government on those inside and outside of the community.

POL $228 \quad$ History of Political Philosophy -
Ancient, Medieval, Renaissance
3-3-0
A study of the history of political philosophy through an analysis of the classical theories from Thucydides and Plato to Machiavelli and the humanistic age of the Renaissance. Some of the questions explored will include those concerning justice, the state, citizenship, the best constitution, natural law, just war and colonization. Prerequisite: POL 100 or permission of instructor.
POL 229 History of Political Philosophy - Modern
3-3-0
A study of the history of political philosophy through an analysis of the modern theories from Thomas Hobbes to Karl Marx. Analysis will focus on social contract theory and the foundations of international relations theory, engaging critical concepts such as the state of nature, the natural law and natural right. A special topics section may include themes such as citizenship, human rights, war and security, slavery, genocide, liberty, and the nature of power.
Prerequisite: POL 100 or permission of instructor.
POL 324 /
PHI 324 The Philosophy and Politics of Karl Marx
3-3-0
A study of the philosophy and political theory of Karl Marx, with emphasis on Marx's theory of society, political economy and history. The course will consider a variety of Marx's texts, but focus on Capital, Volume 1.

## POL 325 /

PHI 366 Topics in Critical Theory
3-3-0
This seminar course will explore the development of Critical Theory from its roots in dialectical philosophy (especially Hegel and Marx), to its appropriation of psychoanalysis (especially Freud), to its engagement with contemporary politics, society and art. Authors studied may include Walter Benjamin, Theodor Adorno, Max Horkheimer and Herbert Marcuse.
Prerequisite: POL 228 or POL 229, or one course in Philosophy.

## POL 326 Contemporary Political Philosophy <br> 3-3-0

This course will explore themes in contemporary political philosophy, including treatment of concepts such as friend-enemy, persecution-esotericism, biopolitics, bare life, state of exception, speed, empire, clash of civilizations, and the end of history. It draws on the works of Schmitt, Strauss, Foucault, Esposito, Agamben, Virlio, Negri and others.

POL 348 /
PHI 348
Topics in Social and Political Philosophy
3-3-0
This course will typically consist of a detailed study of a great work of Western social and political philosophy. Students will be expected to present seminars and do research on the text itself, the social and political context in which it emerged and its implications for all serious inquiry into questions of society and politics.

POL 420 Modern Political Thought
3-3-0
A study of various approaches and forms expressed in 20th century politics and society: symbolism, myth, skepticism, the psychological, anarchism and structuralism. Works will be from Freud, Oakeshott, Marcuse, Sartori, MacIntyre and Hayek.
Honours students only or permission of instructor.

## III. Comparative Politics

POL 101 Introduction to Comparative Politics 3-3-0
A broad view of modern political institutions and processes. The differing forms and workings of governments - unitary, federal, presidential, parliamentary/ cabinet, and how they get things done. The main features of representative democracies; comparative party, voting and electoral systems; referendums and recall procedures. Various countries will serve to illustrate the varieties and styles of governing.
POL 170 Introduction to European Politics 3-3-0
A comparative analysis of European political history, economy, culture, and politics. This course will be offered only on an occasional basis.

## POL 175 Introduction to U.S.

3-3-0
An examination of the political system in the United States. Topics will include U.S. political institutions and the Constitution, as well as the socioeconomic bases of U.S. politics, political ideology and culture, parties, interest groups, and elections.
Antirequisite: POL 172 or POL 173
POL 201 Contemporary Political Ideologies 3-3-0
A critical examination of the nature and role of ideologies in contemporary politics. Conservatism, liberalism, socialism, communism, fascism and other relevant ideologies in theory and practice will be covered.

## POL 217 Business and Government <br> 3-3-0

This course examines the multifaceted relationships between business and government. It focuses on the ways that business seeks to engage with public policy and governance, as well as the role of governments in supporting business interests, both historically and in contemporary politics. It also examines the ways business advocacy has adapted to changing government structures and the global economy and looks at the response of business to challenges faced in the public policy process.
POL 230 The Politics of Sport
3-3-0
This course examines the various intersections of politics and sport at the domestic and international levels. Some topics include the role of the state in regulating sport, the use of sport in promoting national identity and other political agendas, the politics of international sporting events and the potential of 'sport and development'
POL 231 European Union: History, Institutions and Policies 3-3-0
A study of the foundation, operation, and policies of the European Union (EU). The first part of the course examines the history of the EU, the second part looks at its institutions, and the final part explores EU policy making processes and several different policy areas.

POL 232 Politics in Asia
3-3-0
This course will examine one or more Asian countries, such as China, India or Japan. It will focus on the character of domestic political institutions, processes, and culture in the context of a changing international environment.
POL 233 Politics of the Iberian Peninsula
3-3-0
An analysis of the structures and processes of governance in Spain and Portugal, including their relationships with each other, the European Union, and international organizations.
POL 234 Politics of Africa 3-3-0
Students are exposed to the approaches of political anthropology in the examination of ancient kingdoms, tribal societies, traditional cultures and the development of contemporary nations in Africa. Present political structures and processes are examined within the framework of Third World politics.

POL 236 /
RSC 234 Introduction to Middle Eastern Politics 3-3-0
The course will focus on the forces that have shaped current Middle Eastern politics: particularly the growing influence of Islam and Islamic fundamentalism on political life and thought; the enduring legacies of westernization, colonialism and secular nationalism; and the Arab-Israeli conflict. Arriving at an understanding of Middle Eastern politics in this course will also entail study of the challenges modernizing states, parties and leaders are confronting today, and the profound impact of Western interests and policies on the region.
POL 237 Politics of Japan
3-3-0
An analysis of the structures and processes of Japanese governance, including an analysis of Japan's global relations.

POL 239 Politics of Russia \& Eastern Europe
3-3-0
A study of the formation, development and the breakup of the USSR, as well as an examination of politics, society, economy and public policies of Russia and Ukraine.

POL 246 The Politics of Gender and Sexuality
3-3-0
A theoretical and empirical study of the relationships among gender, sexuality, and politics in Western democracies, with a special emphasis on Canada. Drawing upon feminist, queer, and intersectional theories, the course explores such issues as reproductive rights, LGBTQ politics, trans* rights movements, sex work, political masculinity, and the representation of women in politics.
POL 330 Topics in U.S. Public Policy
3-3-0
A study of some of the most controversial issues in contemporary American politics. Topics may include abortion, euthanasia, gun control, capital punishment, pornography, hate speech and censorship, drug legalization, affirmative action and welfare reform.
Prerequisite: POL 172 or POL 173, or permission of Instructor
POL $331 \quad$ Canada-EU Relations
3-3-0
This course examines the political relationship between Canada and the European Union (EU) and its forerunners. Particular attention will be devoted to exploring theories and practices of transatlantic policy learning between Canada and the EU Prerequisite: POL 231
POL 333 Internationalization of European Public Policies 3-3-0 An advanced study of the European integration process from a political science / political economy point of view. The relationships between Europeanization, internationalization and globalization of public policies in Europe will be examined.
Prerequisite: POL 231 or permission of instructor
POL $334 \quad$ Public Policy Analysis
3-3-0
A critical analysis of the formation, content, and impact of public policy within selected postindustrial societies.
Prerequisite: POL 101 or POL 112 or permission of instructor
POL 335 Politics of Latin America and the Caribbean 3-3-0 Latin American and Caribbean politics will be studied through general theories of development. Examined are such notions as growth, modernity, industrialization, underdevelopment, cultural history as they relate to national and international dependency and interdependency.

## POL 347 Scandinavian Politics 3-3-0

A study of political structures and processes in the Nordic countries of Denmark, Finland, Iceland, Norway and Sweden. While largely based on the comparative approach to the study of policies, the program will also highlight special features in each Nordic country. This course will also draw on comparisons between the Nordic countries and Canada.

## POL 434 Theories of Public Policy

3-3-0
An examination of the principal theoretical approaches to the study of public policy. The course will cover such things as pluralism and elite theory, Marxism and neo-marxism, statist and neo-institutional approaches, power resource theory, rational choice, ideas and social learning, advocacy coalition frameworks and punctuated equilibria.
Honours students only or permission of Instructor:
POL 436 Comparative Politics: A World of Regions 3-3-0
Regions and regional integration have become critical to contemporary world politics. This course offers a comparative analysis of regional integration efforts and their consequences in different parts of the world.
Honours students only or permission of instructor

POL 438
Honours Seminar in Political Economy
3-3-0
An analysis of selected classical and contemporary literature inquiring into the nature and causes of the wealth of nations.
Honours students only or permission of instructor

## IV. International Relations

POL 140 Introduction to International Relations
3-3-0
Examination of international political issues, institutions and processes. How do states behave toward each other in different types of international systems, and why do they behave in certain ways? Some discussion of international law.
POL 141 Introduction to Diplomacy
This course seeks to present students with an overview of the essential character and evolution of diplomacy, understood as the primary and peaceful means by which states and other actors try to cooperate and solve problems on the world scene.

POL 240 International Political Economy
3-3-0
A study of the political relationships to economic activities in the international arena. The theories, actors and structures in the world political economy will be examined.
Prerequisite: POL 140, or permission of instructor
POL 241 International Affairs
3-3-0
This course will offer an introduction to key political issues in developing countries. It will cover the main theoretical approaches to the study of developing areas. It will focus on the trajectory of developing states from precolonial times until today. The main political, social and economic forces at play in the building, shaping and consolidating of states and regimes will be addressed. Selected themes will be used to highlight the role of the military, revolutions, liberalization, democratization, environmental and gender issues.
Prerequisite: POL 140, or permission of instructor

## POL 242 International Organizations: <br> Principles, Institutions and Politics

3-3-0
A study of the origins, structures and processes of institutions designed to resolve world conflict and secure international cooperation. The United Nations and Regional Organizations will be examined.
Prerequisite: POL 140, or the permission of instructor

## POL 245 American Foreign Policy

3-3-0
The development of American foreign relations and national security policy from the nineteenth century to the present day. Topics include: interventionism and isolationism, the Cold War and the nuclear arms race, the Cuban missile crisis, Vietnam, US-Soviet relations in the Reagan era, the Gulf War, the response to international terrorism and the invasions of Afghanistan and Iraq.
POL 249 Canadian Foreign Policy
3-3-0
An analysis of the development of Canadian foreign policy and defense policy. Canada's relations with the Superpowers, the European Union and the Third World will be studied. Topics will include Canada's role in the U.N. and N.A.T.O., Canada's antinuclear diplomacy, and Canada's domestic interests in relation to energy, the Law of the Sea and aerospace law.
Prerequisite: POL 140, or permission of instructor
POL 277 European Diplomacy Since 1914
3-3-0
This course examines the international relations and foreign policies of the major European states from the beginning of World War I to the Cold War and the emergence of the New Europe.
Antirequisite: HIS 366
POL 338 International Law and Human Rights
3-3-0
An analysis of the theory and practice of fundamental human rights in contemporary societies. A comparative study of the development and problems of civil liberties from a legal perspective.
Prerequisites: POL 140 or permission of instructor.
POL $340 \quad$ Strategic Issues: Questions of War and Peace 3-3-0
A study of the general character of war and conflict in the modern world since World War II. Discussions of the basic trends which influence conflicts, be they superpower rivalry or peculiar local conditions. Inquiry into the exploitation or the containment of conflicts by the major powers. Analysis of the most important crises and actual conflicts in such geopolitical areas as the Middle East, Central America, Africa or Asia. Discussion of the changing patterns of warfare, conventional and nuclear strategies, détente and changes in the maintenance of peace in the future. Prerequisite: POL 140, or permission of instructor

POL 343 Canadian-American Relations 3-3-0
This course seeks to describe the main aspects of the relations between Canada and the United States. For that purpose, we will concentrate on the main determinants of the bilateral relationship, analyzed around five major themes: the political relations, the economic and trade relations, the identity/cultural relations, the defence and security relations, and the environmental relations.
Prerequisite: POL 140, or permission of instructor
POL 344 The Politics of International Trade and Investment 3-3-0 This course explores the key principles and practices underlying International trade and investment negotiations, as well as the main provisions and institutions regulating these fields. Bothe the world trading regime and preferential agreements are considered.
Prerequisite: POL 140 or permission of instructor

## POL 345 Introduction to Public International Law 3-3-0

An introduction to the nature and development of international law which includes topics such as the law of treaties, the law of the sea, air and space law, and international environmental law as well as jurisprudence related to international dispute settlement.
Prerequisite: POL 140 or permission of instructor
POL 346 Politics of Global Finance 3-3-0
A thematic exploration of the issues and politics of the global financial system. This course explores areas of money and global capital movements, financial instruments and bodies. It examines the functioning and ramifications of international finance, including the politics of international debt, global monetary relations and the transnational governance initiatives of global financial markets and actors.

## POL 441 Theories of International Relations

3-3-0
A study of the various theories used in the investigation of international political behaviour: systems, models, empirical research will be examined towards a more precise understanding of evolving structures and processes in the international arena.
Honours students only or permission of instructor
Prerequisite: POL 140, or permission of instructor

## POL 442 Issues in Global Governance

3-3-0
This course examines various approaches to understanding global governance and transnational public policy and links them to current and controversial issues in the global arena.
Honours students only or permission of instructor
Prerequisite: POL 140, or permission of instructor
POL 443 Honours Seminar on Peacekeeping 3-3-0
This seminar will examine the political issues related to conflict prevention, humanitarian aid, peacekeeping and peacemaking, demobilization, disarmament and reintegration of combatants, negotiation and mediation, peacebuilding, postconflict reconciliation and reconstruction, refugees and internally displaced issues. It will present the role of international and regional actors (notably NGOs, IOs, regional organizations, civil society, military, etc.). It will address the strategic, political, economic and social aspects of conflict intervention.
Honours students only or permission of Instructor

## V. Empirical Theory and Methods

## POL 262 Methods and Approaches to Political Science <br> 3-3-0

An introduction to research methods in Political Science. This course covers the basic concepts and practices for the scientific approach to studying politics from the development of research projects through the different techniques for conducting empirical research.
POL 361 Techniques of Quantitative Research 3-3-0
An introduction to empirical political research: the formulation of research problems, the selection of samples, interviewing, questionnaire construction, analysis and interpretation of data.

## VI: Honours Thesis, Independent Studies, Practicum and Internships

POL 259
Topics in Politics and International Studies
3-3-0
The United States and Canada share many political similarities, but one important difference is how elections are conducted in the two countries. This course will focus on public engagement in electoral politics, how elected representatives are chosen, and the institutional incentives that constrain politicians once in office. While voters in both countries are increasingly skeptical towards politicians and the electoral process, elections remain an indispensable mechanism for selecting who governs and ensuring political accountability. By comparing the two countries, broader insights can be drawn about the capacity of each system to improve its responsiveness and inclusiveness in the context of representative democracy.
POL 300 International Studies Internship
3-3-0
Student must apply, in writing, to the Department to take a Department-sponsored or student arranged internship abroad for credit. A faculty member will be appointed to oversee the internship and to supervise the written component.
POL 350 Independent Study $\quad$ 3-3-0
Individual research and reading under the guidance of an advisor and the Department, of special themes in political studies
Prerequisite: Permission of the Department and instructor
POL $352 \quad$ United Nations Practicum I
3-3-0
This course examines the study of the processes and structures of the UN System and will introduce students to rules and diplomatic practices of these UN bodies through seminars, labs and simulations. This course is to be taken in the same calendar year as POL 354, which is offered in the Winter term.
Prerequisites: POL 140 and one of POL 241 or POL242 and the permission of the instructor.
POL 353 The Nicholas Bachand Canadian Civil Society Internship

3-3-0
The Nicholas Bachand Canadian Civil Society Internship is intended to provide a practical work-experience related to the Political Studies programs. The internship is intended to enable students to contribute to the well-being of society by participating in voluntary and non-profit non-governmental organizations (NGOs).
POL 354 United Nations Practicum 2 3-3-0
This course examines the study of the processes and structures of the UN System through seminars and labs, culminating in an annual Model United Nations simulated conference. Students will also study the political processes and issues of the country to be represented that year. Students are expected to enrol in both POL 352 and POL 354 in the same calendar year.
Prerequisite: POL 352 and the permission of the instructor
POL 359 Special Topics in Politics and International Studies 3-3-0 A course offered by regular and visiting faculty on current topics related to Politics and International Studies. Topics covered will be dependent on the research interests and expertise of the faculty member instructing, therefore content of the course varies year by year. The course will be offered on an occasional basis.
POL 450 Independent Study
3-3-0
Individual research and reading under the guidance of an advisor and the Department, of special themes in political studies.
Prerequisite: Permission of the Department and instructor
POL 550 Honours Thesis 6-3-0
Individual research and reading under the guidance of an advisor and the Department, on advanced themes in Political Studies.
Prerequisite: Permission of the Department and instructor.

## Psychology

## Faculty

## Jonathan Carriere,

B.A. (Winnipeg), M.A., Ph.D. (Waterloo);

Associate Professor
Chair of the Department
Claude Charpentier,
B.A. (Bishop's), Ph.D. (Edinburgh);

Associate Professor

## Suzanne Hood,

B.Sc. (Toronto), M.A., Ph.D. (Concordia); Assistant Professor
Heather Lawford, B.A. (Trent), M.A. (Wilfrid Laurier), Ph.D. (Concordia); Associate Professor
Stine Linden-Andersen,
B.A., M.A., Ph.D. (Concordia); Associate Professor

## Catherine Malboeuf-Hurtubise,

 B.A. (Concordia); Ph.D. (Université de Montreal); Associate ProfessorAdrianna Mendrek,
B.A. (Concordia), M.A., Ph.D. (UBC);

Full Professor
Joel Montannez,
BFA., MFA. (Concordia),
Ph.D. (Université de Montreal)
Courtney Plante,
B.Sc. (Alberta), M.A., Ph.D.; (Waterloo); Assistant Professor

Dale Stout,
B.Sc., M.Sc. (Calgary), Ph.D. (Edinburgh); Full Professor

## Program Overview

Psychology aims at giving students an understanding of the human mind and behavior. We offer Major and Honours programs that emphasize Psychology as an objective science, cover the various subfields of Psychology and allow the students who desire to do so to gain specialization into specific areas of interest. We also offer a Minor in Psychology, a Minor in Mindfulness and Contemplative Studies, a one-year Certificate in Human Psychology, as well as Graduate Certificate in Knowledge Mobilization, 15-credit program including practicum.

Within this general framework, we offer an array of courses that apply the psychological approach to a wide range of topics. We emphasize quality of teaching and a close relationship between professors and students. A fundamental concern of the Department is to provide an education that not only prepares students for further training in Psychology and related fields at the graduate level, but also enables them to be active, contributing members to their communities.

## Mission Statement

The Psychology Department dedicates itself to understanding and supporting our shared journey towards a well-lived life. Our approach, therefore, takes seriously the literary voice of others cast across time. We explore the pathways into human condition by cultivating openness to scientific methodology, and to clinical, humanistic, as well as neuropsychological perspectives. Encouraging ways of breaking out of the classroom in the hope of making the lives of others better is as much a part of our mission as conducting a study, reading Plato, or deciphering an fMRI report. Our goal is to nurture within our students an intimacy with the human condition that changes them while, at the same time, providing them with the means of making their communities better.

## Prerequisites

Note that all prerequisites can be completed at Bishop's.
All our programs include two Introduction to Psychology prerequisites (PSY 101 and PSY 102). Our Majors/Honours programs also include an Introductory Biology (BIO 196/BIL 196 or BIO 194) prerequisite. These courses must be completed within the first three semesters of study. These prerequisites will be waived for students who have completed CEGEP courses in Psychology (Introductory Psychology and two other Psychology courses) and Human Biology. Our psychology - neuroscience program includes additional science prerequisites; these will be waived for CEGEP science students.

## Psychology Programs

Please note that the complete list of courses to be taken within each program is outlined in the table on the next page.

## Honours and Major in Psychology (60 and 78 credits) HONPSY/MAJPSY

This classic program is our most flexible and most popular. The Major includes 24 credits of Core Courses and 30 credits of Psychology options for a total of 54 credits. The Honours adds an additional 18 credits of Core Courses for a total of 72 credits.

## Special Requirements for Honours

To qualify for an Honours program, students must have a cumulative average of at least $80 \%$ in program courses. Students must also achieve a combined average of at least $75 \%$ in PSY 313 (Advanced Research Methods) and PMA 360 (Advanced Psychological Statistics). Eligible students will officially transfer into Honours after the acceptance of their Thesis proposal in the Fall term of their final year.

## Major in Psychology - Humanistic Concentration (54 credits) <br> MAJPSH

This program is our most flexible and is designed for the student looking to truly benefit from the liberal arts experience, while completing a major in psychology. The major includes 39 credits of Core courses and 15 credits of options, for a total of 54 credits. Students coming from CEGEP may receive advanced credits for PSY 101, PSY 102 and PMA 113, reducing the Core credits count to 30.

## Honours or Major in Psychology -

## Applied Concentration

(69 and 93 credits)
HONPSA/MAJPSA
This program emphasizes the applied/clinical side of Psychology. The Major includes 24 credits of Core Courses and 33 credits of courses specific to the Applied concentration for a total of 57 credits. The Honours adds an additional 18 credits of Core Courses and an additional 6 credits of Honours courses specific to the Applied concentration for a total of 81 credits.

## Honours or Major in Psychology -

Neuroscience Concentration
(B.Sc.; 81 or 102 credits) HONPNS/MAJPNS

This program focuses on the physiological aspects of Psychology and the brain-behavior relationship. To complete the neuroscience program within three years, Quebec students should enter with a collegial diploma in science (D.E.C.), that includes Mathematics 201-NYA-05, 201-NYB-05, Physics 203-NYA-05, 203-NYB-05, Chemistry 202-NYA-05, 202-NYB-05, and Biology 101-NYA05 . Students entering from other CEGEP programs or from Grade 12 will be required to complete science prerequisites prior to undertaking the neuroscience major and will usually complete the degree in four years. The major includes 39 credits of core courses and 15 credits of Psychology and Science options for a total of 54 credits. The Honours adds an additional 18 credits for a total of 72 credits.

## Minor in Psychology

## (24 credits)

MINPSY
The Minor involves completing any 8 courses in Psychology. This flexible and popular program has been joined with Majors/ Honours in almost every discipline offered at Bishop's. The most popular and most useful combinations include, among others: Biology, Political Studies, Sociology, Business, Philosophy, English and Education.

## Minor in Mindfulness and Contemplative Studies ( 24 credits) <br> MINPMC

This program provides students with a platform to investigate the psychological, philosophical, and scientific bases of human contemplative experience. It will prepare students who are thinking about clinical work using mindfulness-based interventions; those who are planning research in the area of contemplative neuroscience; as well as those who want to deepen the understanding of themselves and the world they live in. This is an interdisciplinary Minor, involving courses in Psychology and Humanities, to facilitate exploration of human consciousness, nature of self, and life meaning. It requires 8 courses ( 24 credits), two of which are mandatory (PSY 298 \& PSY 420). The remaining six courses can be chosen from a pre-selected list of courses from a wide range of departments listed below:

## A. Psychology

PSY 298 - Zen \& the Brain (mandatory)
PSY 303 - Positive Psychology
PSY 408 - Psychology of Consciousness
PSY 410 - Psychology of Death \& Dying
PSY 420 - Contemplative Practicum (mandatory)
PSY 292 - Psychology of Music and the Fine Arts

## B. Religion, Society and Culture

RSC 101 - Eastern Religions
RSC 124 - Hinduism: The Many Faces of the Divine
RSC 125 - Buddhism: The Middle Way
RSC 148 - Psychology of Religion
RSC 236 - Death \& Dying in the Ancient World

## C. Liberal Arts

LIB 216 - The Divine \& Ultimate Concern
LIB 303 - On the Road Again: Pilgrimage in Theory and Practice
D. Philosophy

PHI 201 - Medieval Philosophy
PHI 263 - Hegel
PHI 271 - Socrates and Plato
PHI 272 - Aristotle
PHI 354 - The Philosophy of Contemplation
PHI 374 - Spinoza

## E. Fine Arts

FIS 169 - Drawing I
FIS 170 - Sculpture I
FIS 181 - Painting I
FIN 222 - Art Therapy

## F. Music

MUS 108 - Choral \& Sacred Music
MUS 110 - The Art of Listening I
MUS 111 - The Art of Listening II
G. Other

DRA 131 - Acting I
BIO 111 - Organic Gardening

## Certificate in Human Psychology (30 credits)

CONPSH
This one-year program is designed for adult students. It has particular relevance for teachers, health or social workers, and managers. It involves taking 10 psychology courses that relate to human behavior.

| B.A. Psychology |  |
| :---: | :---: |
| Complete the Core, Humanities, Biology, Physiology, Cognition \& Motivation, Development, and Social blocks (60 credits) |  |
|  |  |
| Core |  |
| PSY 101 | Introduction to Psy. I |
| PSY 102 | Introduction to Psy. II |
| PCS 207 | Cognition |
| PSY 206 | Personality |
| PSY 213 | Research Methods |
| LIB 218 | Hist. \& Phil. of Science |
| PSY 235 | Child Development |
| PSY 245 | Fund. Social Psychology |
| PMA 260 | Psychological Statistics |
| PBI 288 | Brain \& Behaviour |
| PSY 342 | History of Psychology |
| PMA 353 | Psychometrics |
| PMA 360 | Advanced Statistics |
| Plus, at least one of: |  |
| PSY 301 | Abnormal Psychology |
| PSY 311 | Psychopathology |
| Humanities (at least 1) |  |
| LIB 210 | Eros, Love \& Desire |
| LIB 212 | In Search of Justice |
| LIB 217 | Towards Spatial Justice |
| RSC 100 | Western Religions |
| RSC 101 | Eastern Religions |
| RSC 148 | Psychology of Religion |
| RSC 204 | Women in Religion |
| CLA 100 | Food, Comm \& Culture |
| CLA 102 | Ancient Greece: Hist/Cult. |
| CLA 112 | Ancient Greek Mythology |
| CLA 250 | Sex in the Ancient World |
| PHI 100 | On the Way to the Good |
| PHI 101 | On Thinking Well |
| PHI 105 | Freedom, Anxiety, Auth. |
| PHI 244 | Philosophy of Mind |
| ENG 205 | The Art of Persuasion |
| FIH 240 | Art, Popular Culture |

Biology (at least 1)
BIO 131 The Human Body
BIO 194 General Biology
BIO/L 196 Intro. Cell \& Mol. Biology
Physiology (at least 1)
PBI 379 Neuropsychology
PBI 380 Psychopharmacology
PBI 388 Brain \& Behaviour II

Cognition \& Motivation (at least 1)
PSY 203 Cognition \& Motiv. Sports
PBI 217 Motivation \& Emotion
PSY 302 Perception
PCS 307 Cognitive Processes
PSY 370 Learning \& Memory
PSY 386 Psychology of Language
Development (at least 1)
PSY 266 Adult Aging
PSY 290 Adolescence
PSY 333 Exceptional Child Dev.
PSY 348 Social Development*
Social (at least 1)
PSY 204 Social Psy. of Sports
PSY 214 Community Psychology
PSY 219 Psychology of Gender
PSY 246 Social Psychology II
PSY 293 Multicultural Psychology
PSY 348 Social Development*
PSY 330 Psychology and Ethics

* This course can contribute to only one block


## Honours Option

(18 additional credits)
PSY 313 Adv. Research Methods or PSY462 Qualitative Methods
PSY 443 History of Psy. Seminar
PSY 498 Honours Seminar
PSY 499 Honours Thesis ( 6 credits)
PMA 460 Multivariate Statistics
The Honours adds 18 credits, for a total of 78 credits. To qualify for the Honours option, students must have a cumulative average of at least $80 \%$ in their major courses. Students must also achieve a combined average of at least $75 \%$ between PSY 313 and PMA 360 or at least $75 \%$ between PSY462 (Qualitative Methods) and PMA360.
(See page 232 for additional details)

## Typical First Year From CEGEP

Fall: PSY 206, PMA 260, PSY 235, PBI 288, Elective or Biology block
Winter: PCS 207, PSY 301 or PSY 311, PSY 213, PMA 360, Elective or Biology block

## From High School

Fall: PSY 101, PSY 102, Elective or Humanities block, Elective or Biology block, Elective
Winter: PSY 206, PBI 288, PCS 207, Elective or Humanities block, Elective or Biology block

## Typical Second Year From CEGEP

Fall: PSY 245, Development block, Elective or Humanities block, Cognition or Physiology block, LIB 218 or Elective
Winter: PMA 353, Social block, Cognition or Physiology block, Elective or LIB 218, Elective
From High School
Fall: PMA 260, PSY 301 or PSY 311, PSY 235, PSY 245, Elective
Winter: PSY 213, PMA 360, Development block, Cognition or Physiology block, Elective

## Typical Third Year From CEGEP

Fall: PSY 342, Elective or Humanities block, plus 3 Electives
Winter: 5 Electives

## From High School

Fall: LIB 218 or Elective, Cognition or Physiology block, Social block, plus 2 Electives
Winter: PMA 353, Elective or LIB 218, plus 3 Electives

## Typical Fourth Year

From High School
Fall: PSY 342, plus 4 Electives
Winter: 5 Electives
B.A. Psychology - Humanistic

Complete the Core, Humanities, and Biology blocks, plus two Free Options (54 credits)

## Core

PHI 100 On the Way to the Good PSY 101 Introduction to Psy. I PSY 102 Introduction to Psy. II PHI 105 Freedom, Anxiety, Auth. PMA 113 Data Collect. \& Analysis*
PCS 207 Cognition
PSY 206 Personality
LIB 218 Hist. \& Phil. of Science
PSY 235 Child Development
PSY 245 Fund. Social Psychology
PBI 288 Brain \& Behaviour
PSY 342 History of Psychology
Plus, at least one of:
PSY 301 Abnormal Psychology
PSY 311 Psychopathology

* Or SOC 110, or PMA 260+PSY 213

Humanities (at least 2)
LIB 210 Eros, Love \& Desire
LIB 212 In Search of Justice
LIB 217 Towards Spatial Justice
RSC 100 Western Religions
RSC 101 Eastern Religions
RSC 148 Psychology of Religion
RSC 204 Women in Religion
CLA 100 Food, Comm \& Culture
CLA 102 Ancient Greece: Hist/Cult.
CLA 112 Ancient Greek Mythology
CLA 250 Sex in the Ancient World
PHI 101 On Thinking Well
PHI 244 Philosophy of Mind
ENG 205 The Art of Persuasion
FIH 240 Art, Popular Culture
Biology (at least 1)
BIO 131 The Human Body
BIO 194 General Biology
BIO/L 196 Intro. Cell \& Mol. Biology
Free Options (at least 2)
ECO 105 Behavioural Economics
EDU 203 Educational Psychology
EDU 212 Mind, Brain \& Education
BHR 221 Organizational Behaviour
BHR 224 Human Resource Mgmt.
PBI XXX Any PBI course
PCS XXX Any PCS course
PMA XXX Any PMA course
PSY XXX Any PSY course

## Honours Option

There is no Honours option for this major. If you wish to become an Honours student, you will need to change to one of the other major options. Be aware as well that PMA 113 only counts toward the B.A. Psychology - Humanistic; if you are considering changing majors to pursue an Honours option in the future, it is recommended that you take PMA 260 plus PSY 213 rather than PMA 113.

## Typical First Year From CEGEP

Fall: PHI 100 or PHI 105, PSY 206, PSY 235, PBI 288, Elective or Biology block
Winter: PCS 207, PSY 301 or PSY 311, Elective or Biology block, Elective or Humanities block, Elective

## From High School

Fall: PSY101, PSY 102, PHI 100 or PHI 105, and 2 Electives and/or Biology block
Winter: PSY 206, PBI 288, PCS 207, PBI 113, and Elective or Humanistic or Biology block

## Typical Second Year From CEGEP

Fall: PHI 100 or PHI 105, PSY 245, LIB 218 or Elective, Free Options block or Elective, Elective or Humanities block
Winter: Free Options block or Elective, Elective or LIB 218, plus 3 Electives

## From High School

Fall: PHI 100 or PHI 105, PSY 235, PSY 245, PSY 301 or PSY 311, LIB 218 or Elective
Winter: Humanities block, Free Options block or Elective, Elective or LIB 218, plus 3 Electives

## Typical Third Year <br> From CEGEP

Fall: PSY 342, plus 4 Electives
Winter: 5 Electives

## From High School

Fall: Free Options block or Elective, plus 4 Electives
Winter: 5 Electives

## Typical Fourth Year From High School

Fall: PSY 342, plus 4 Electives
Winter: 5 Electives

## B.A. Psychology - Pre-Clinical

Complete the Core, Humanities, Biology, Physiology, Cognition \& Motivation, Development, Social and Applications blocks (69 credits)

## Core

PSY 101 Introduction to Psy. I
PSY 102 Introduction to Psy. II
PCS 207 Cognition
PSY 206 Personality
PSY 213 Research Methods
PSY 235 Child Development
PSY 245 Fund. Social Psychology
PMA 260 Psychological Statistics
PBI 288 Brain \& Behaviour
PSY 342 History of Psychology
PMA 353 Psychometrics
PMA 360 Advanced Statistics
Plus, at least one of:
PSY 301 Abnormal Psychology
PSY 311 Psychopathology
Humanities (at least one of)
LIB 210 Eros, Love \& Desire
LIB 212 In Search of Justice
LIB 217 Towards Spatial Justice
RSC 100 Western Religions
RSC 101 Eastern Religions
RSC 148 Psychology of Religion
RSC 204 Women in Religion
CLA 100 Food, Comm \& Culture
CLA 102 Ancient Greece: Hist/Cult.
CLA 112 Ancient Greek Mythology
CLA 250 Sex in the Ancient World
PHI 100 On the Way to the Good
PHI 101 On Thinking Well
PHI 105 Freedom, Anxiety, Auth.
PHI 244 Philosophy of Mind
ENG 205 The Art of Persuasion
FIH 240 Art, Popular Culture
Biology (at least l)
BIO 131 The Human Body
BIO 194 General Biology
BIO/L 196 Intro. Cell \& Mol. Biology
Physiology (at least l)
PBI 379 Neuropsychology
PBI 380 Psychopharmacology
PBI 388 Brain \& Behaviour II
Cognition \& Motivation (at least 1)
PSY 203 Cognition \& Motiv. Sports
PBI 217 Motivation \& Emotion
PSY 302 Perception
PCS 307 Cognitive Processes
PSY 370 Learning \& Memory
PSY 386 Psychology of Language

Development (at least 1)
PSY 266 Adult Aging
PSY 290 Adolescence
PSY 333 Exceptional Child Dev.
PSY 348 Social Development*
Social (at least 1)
PSY 204 Social Psy. of Sports
PSY 214 Community Psychology*
PSY 219 Psychology of Gender
PSY 246 Social Psychology II
PSY 293 Multicultural Psychology
PSY 348 Social Development*
Applications (at least 4)
PSY 210 Psychology of the Couple
PSY 214 Community Psychology*
PSY 222 Group Therapy
PBI 275 Health Psychology I
PBI 276 Health Psychology II
PSY 277 Physical \& Mental Health
PSY 292 Psy. of Music \& Fine Arts
PSY 298 Zen and the Brain
PSY 303 Positive Psychology
PSY 306 Adv. Theories Personality
PSY 322 Dance/Movement Therapy
PBI 327 Psychology of Nutrition
PSY 330 Psychology and Ethics
PSY 336 Interviewing
PSY 337 Crisis Intervention
PSY 339 Madness \& Film:
Representations of Mental Illness
in Current Psychiatry Nosology and Mainstream Cinema
PSY 345 Family Therapy
PSY 389 Humanitarian Psychology:
Mental Health, Psychosocial Support and Coordination in Humanitarian Settings
PBI 361 Psychology of Sexuality
PBI 399 Psy. of Drug Addiction
PSY 406 Curr. Topics in Treatment
PSY 410 Psy. of Death \& Dying

* Courses contribute to only one block


## Honours Option

(24 additional credits)
PSY 313 Adv. Research Methods or
PSY462 Qualitative Methods
PSY 441 Adv. Applied Seminar
PSY 442 Practicum
PSY 443 History of Psy. Seminar
PSY 498 Honours Seminar
PSY 499 Honours Thesis (6 credits)
PMA 460 Multivariate Statistics
The Honours adds 24 credits, for a total of 93 credits, while emphasizing the applied and clinical sides of psychology.

To qualify for the Honours option, students must have a cumulative average of at least $80 \%$ in their major courses. Students must also achieve a grade of at least $75 \%$ in PSY 336 and a combined average of at least $75 \%$ between PSY 313 and PMA 360 or at least a $75 \%$ between PSY 462(Qualitative Methods) and PMA360..
(See page 242 for additional details)

## Typical First Year From CEGEP

Fall: PSY 206, PMA 260, PSY 235, PBI 288, Elective or Biology block
Winter: PCS 207, PSY 301 or PSY 311, PSY 213, PMA 360, Elective or Biology block

## From High School

Fall: PSY 101, PSY 102, Elective or Humanities block, Elective or Biology block, Elective
Winter: PSY 206, PBI 288, PCS 207, Elective or Humanities block, Elective or Biology block

## Typical Second Year

## From CEGEP

Fall: PSY 245, Applications block, Development block, Cognition or Physiology block, Elective or Humanities block
Winter: PMA 353, Social block, Cognition or Physiology block, PSY 336 or Applications block, Elective

## From High School

Fall: PMA 260, PSY 301 or PSY 311, PSY 235, PSY 245, Elective
Winter: PSY 213, PMA 360, Development block, Cognition or Physiology block, Elective

## Typical Third Year From CEGEP

Fall: PSY 342, Applications block,
Elective or Humanities block, plus 2 Electives
Winter: Applications block, 4 Electives

## From High School

Fall:Cognition or Physiology block, Social block, Applications block, Elective
Winter: PMA 353, PSY 336 or
Applications block, plus 3 Electives

## Typical Fourth Year

## From High School

Fall:PSY 342, Applications block, plus 3 Electives
Winter: Applications block, 4 Electives
B.Sc. Psychology - Neuroscience

Complete the Core, Humanities, Cognitive Science, and Natural Science blocks (81 credits)

Core
PSY 101 Introduction to Psy. I
PSY 102 Introduction to Psy. II
CHM/L 191 General Chemistry I
CHM/L 192General Chemistry II
PHY/L 193 Physics I
PHY/L 194 Physics II
BIO/L 196 Intro. Cell \& Mol. Biology
MAT 198 Calculus I for Life Sci.
MAT 199 Calculus II for Life Sci.
BIO 201 Cellular Molecular Bio.
PCS 207 Cognition
PSY 206 Personality
BIO/L 208 Genetics
PSY 213 Research Methods
PMA 260 Psychological Statistics
PBI 288 Brain \& Behaviour
PCS 309 Intro. Python for Research
PMA 360 Advanced Statistics
PBI 379 Neuropsychology
PBI 380 Psychopharmacology
PBI 388 Brain \& Behaviour II
Plus, at least one of:
PSY 301 Abnormal Psychology
PSY 311 Psychopathology
Humanities (at least 1)
LIB 210 Eros, Love \& Desire
LIB 212 In Search of Justice
LIB 217 Towards Spatial Justice
RSC 100 Western Religions
RSC 101 Eastern Religions
RSC 148 Psychology of Religion
RSC 204 Women in Religion
CLA 100 Food, Comm \& Culture
CLA 102 Ancient Greece: Hist/Cult.
CLA 112 Ancient Greek Mythology
CLA 250 Sex in the Ancient World
PHI 100 On the Way to the Good
PHI 101 On Thinking Well
PHI 105 Freedom, Anxiety, Auth.
PHI 244 Philosophy of Mind
ENG 205 The Art of Persuasion
FIH 240 Art, Popular Culture

Cognitive Science (at least 1)
PSY 302 Perception
PCS 307 Cognitive Processes
PSY 370 Learning \& Memory
PSY 386 Psychology of Language
Natural Science (at least 3)
CHM 111 Organic Chemistry
BIO/L 205 Diversity of Life
BCH 210 General Biochemistry
BCH 312 Lipids \& Biomembranes
BCH 313 Metabolism
BIO 336 Animal Physiology I
BIO/L 337 Animal Physiology II
BIO 359 Human Genetics
BCH 382 Biochem. \& Toxicology
BCH 411 Molecular Biology

## Honours Option

(21 additional credits)
PSY 313 Adv. Research Methods or
PSY462 Qualitative Methods
PSY 443 History of Psy. Seminar
PMA 353 Psychometrics
PSY 498 Honours Seminar
PSY 499 Honours Thesis (6 credits)
PMA 460 Multivariate Statistics
The Honours adds 21 credits, for a total of 102 credits. To qualify for the Honours option, students must have a cumulative average of at least $80 \%$ in their major courses. Students must also achieve a combined average of at least $75 \%$ between PSY 313 and PMA 360 or at least a 75\% between PSY462(Qualitative Methods) and PMA360..
. Potential Honours students are advised to take PMA 353 before their final year.
(See page 232 for additional details)

## Typical First Year

From CEGEP (Science)
Fall: BIO 201, PSY 206, PMA 260, PBI 288, Elective
Winter: PSY 102, PCS 207, BIO 208, BIL 208, PSY 213, PMA 360

## From CEGEP (Other)

Fall: PBI 288, CHM 191, CHL 191, PHY 193, PHL 193, BIO 196, BIL 196, MAT 198
Winter: PSY 102, CHM 192, CHL 192, PHY 194, PHL 194, MAT 199, PCS 207

## From High School

Fall: PSY 101, CHM 191, CHL 191,

PHY 193, PHL 193, BIO 196, BIL 196, MAT 198
Winter: PSY 102, CHM 192, CHL 192, PHY 194, PHL 194, MAT 199, PBI 288

## Typical Second Year

## From CEGEP (Science)

Fall: PSY 301 or PSY 311, PCS 309, Cognitive Science block, Natural Science block, plus 2 Electives
Winter: PBI 388, Natural Science block, Humanities block, plus 2 Electives
From CEGEP (Other)
Fall: BIO 201, PSY 206, PMA 260, Natural Science block or Elective, Elective
Winter: BIO 208, BIL 208, PSY 213, PSY 301 or PSY 311, PMA 360, Natural Science block or Elective

## From High School

Fall: BIO 201, PSY 206, PMA 260,
Natural Science Block, Elective
Winter:PCS 207, PSY 301 or PSY 311, PSY 213, PMA 360, Elective or Natural Science block

## Typical Third Year <br> From CEGEP (Science)

Fall: PBI 379, Natural Science block or Elective, plus 3 Electives
Winter: PBI 380, Elective or Natural Science block, plus 3 Electives
From CEGEP (Other)
Fall: PCS 309, PBI 379, Humanities block, Cognitive Science block or Elective, Elective
Winter: PBI 380, PBI 388, Cognitive
Science block or Elective, Natural
Science block or Elective, Elective

## From High School

Fall: PCS 309, PBI 379, Cognitive
Science block or Elective, Humanities block, Elective
Winter: BIO 208, BIL 208, PBI 380, PBI 388, Cognitive Science block or Elective, Elective

## Typical Fourth Year

From High School or CEGEP
Fall: Natural Science block or Elective, plus 4 Electives
Winter: Natural Science block or Elective, plus 4 Electives

## List of Courses

The following list includes courses which are normally offered by the department each year, as well as courses which are offered on a rotating basis. Those courses which are offered only irregularly are listed separately at the end of this section.
PSY 101 Introduction to Psychology I : Basic Processes 3-3-0
An introduction to the functioning and development of the basic cognitive processes: perception, learning, memory, thinking, intelligence and consciousness. Approaches and methods will also be discussed.

PSY 102 Introduction to Psychology II: Human Interactions 3-3-0
An introduction to motivation, emotion, and personality as factors in human functioning. Approaches, methodology, social psychology and abnormal psychology are also discussed.
PSY 203 Cognition and Motivation in Sport: Performance Enhancement

3-3-0
A systematic review of how individual factors influence and optimize sports performance. Major topics include introduction and research methods, personality, mood, motivation, learning and cognition. Both theory and application will be emphasized.
Students who have taken PSY 208 (Sports Psychology) cannot take this course for credit.
Prerequisite: PSY 101 or PSY 102
Corequisite: PSY 101 or PSY 102
PSY 204 The Social Psychology of Sport and Exercise $\quad$ 3-3-0
A systematic review of the social aspects and effects of sport and exercise. Major topics include introduction and research methods, audience effects, leadership, team cohesion, aggression in athletes and fans, bias in judging, and benefits and costs of sports and exercise participation.
Prerequisite: PSY 101 or PSY 102
Corequisite: PSY 101 or PSY 102
PSY 206 Personality
3-3-0
An examination of theories of personality based on the clinical approach, as illustrated by psychoanalytic and humanistic theories; and based on the psychometric and experimental approaches, as illustrated by trait and learning theories.
Students who have taken PSY 107 (Personality)or PSY 207 (Personality II) may
not take this course for credits
Corequisite: PSY 101 or PSY 102
PSY $210 \quad$ Psychology of the Couple
3-3-0
This course is a survey of research on the psychology of the couple. Topics treated include: psychology of the female and male; factors in partner choice; bonding and love; commitment and contract; stages of coupling; divorce and recommitment. Psychodynamic, behavioural and systemic approaches to couple therapy will be examined.
Prerequisite: PSY 101 and PSY 102

## PSY 213 Research Methods

3-2-2
Scientific bases of psychological theory; experimental and non-experimental research methods; data analysis; report writing; critical analysis of published articles. Class projects are conducted, statistically analyzed, and written up.
Students who have taken PSY 113 (Research Methods I) cannot take this course for credit
Prerequisite: PMA 260 or Business (BMA 140 or BMA 141) or Physics (PHY
101) equivalent

Corequisite: PMA 360
PSY 214 Community Psychology
3-3-0
Community Psychology is the study and application of psychological solutions to community-based problems. Through an analysis of the reciprocal relationship between person and environment (clubs, churches, schools, neighborhood, larger culture) Community Psychology emphasizes action and interventions whose aim is to prevent problems in living, promote social-psychological competencies and improve people's well-being. This course introduces students to the ways in which research and science intersect with the practical aspects of working successfully with people in their communities. Topics include the background and history of the field, community research methods, empowerment of disenfranchised groups, social support, cultural diversity, prevention, program evaluation and development of community intervention strategies.
Prerequisite: PSY 101 AND PSY 102

PBI 217 Motivation and Emotion
3-3-0
An exploration of the underlying causes of human behavior. Topics include hunger and eating, sex and love, aggression, drug use/abuse and higher-level behaviors (e.g. creativity, attaining peak performance, goal setting, self-regulation). The role of emotions in guiding behavior will also be addressed.
Prerequisite: PSY 101
PSY 219 Psychology of Gender
3-3-0
In this course, gender diversity, gender stereotypes and biases are exposed. The rape myths are debunked and sexual orientation is demystified. Gender comparisons in cognitive abilities and in social and personality characteristics are discussed. Other topics of interest include love relationships, sexuality, sexual harassment and assault, gender-based violence, as well as prevalence of specific mental health problems across gender. This course is a must for those who enjoy class discussions.
Students who have taken PSY 109 (Psychology of Women) cannot take this course for credit Prerequisite: PSY 101 or PSY 102
Corequisite: PSY 101 or PSY 102
PSY 222 Group Dynamics
3-3-0
This course introduces students to the principles and practices of group behavior, emphasizing dynamic processes (norms, roles, relations, development, social influence) which form a basis for group therapy as a branch of psychotherapy. Background, founders and key influences, contexts of use, techniques, methodology and current trends in group therapy will be discussed.
Prerequisite: PSY 101 and PSY 102
PSY 235 Child Development: Infancy to Middle Childhood 3-3-0
The foundations of child development. Topics include basic genetics, development of learning and cognition, socioemotional development, moral development and the classic theories of developmental psychology.
Students who have taken PSY 236 or PSY 237 cannot take this course.
Prerequisite: PSY 101 or PSY 102
PBI 241 Evolutionary Psychology 3-3-0
Evolutionary Psychology is the study of behavior founded within the framework of Darwin's Theory of Evolution through Natural Selection. The purpose of this course is to introduce the students to the principles of Evolutionary Psychology and to investigate the adaptive origins of many common behaviors such as cooperation, mating strategies, parenting, aggression and dominance.
Students who have taken PBI 141 (Evolutionary Psychology) cannot take this course for credit
Prerequisite: PSY 101
PSY 245 Fundamentals of Social Psychology $\quad$ 3-3-0
This course introduces students to the history, research techniques, and fundamental principles of the field of social psychology, including the basics of social affect, social cognition, and social behaviour. Research on topics such as self and social identity, social perception, attitudes, social influence, and cultural psychology are discussed with an emphasis on learning the basic principles of the field
Prerequisite: PSY 101 or PSY 102
PSY 246 Applications of Social Psychology
3-3-0
This course is a survey of applied topics in social psychology, including the application of social psychological principles to the understanding of attraction and close relationships, aggression, altruism, prejudice, morality, conflict, and political discourse
Prerequisite: PSY 245
PSY 247 Lessons from the Marvel Universe
3-3-0
In this class we examine the psychology of storytelling in the Marvel universe and what it tells us about our own untapped superpowers. We explore issues of morality, identity, leadership, and learning by exploring how we can connect with literary and psychological theory in a close reading of the storytelling in the Marvel Universe. We will take a deep dive into characters such as Captain Marvel, Loki, Wanda, Black Panther, and Black Widow. Evaluation will be on collaborative participation, writing, and creative assignments
Cross Listed with ENG 237
PMA $260 \quad$ Psychological Statistics
3-2-1
Basic descriptive and inferential statistics developed from a conceptual perspective. Topics include measures of central tendency and variability, normal distribution, probability, confidence intervals, sampling distributions, hypothesis testing, power analysis, z-tests, t-tests and chi-square.
Students who have taken PMA160 (Psychological Statistics I) cannot take this course for credit
Students who have taken PHY 101 may not take this course for credit Students who have taken BMA 140 or BMA 141 do not need to take this course as well

PSY 266 Adult Development and Aging
3-3-0
An examination of psychological development during adulthood and old age. Research findings on age related changes in memory, health issues, adjustment, coping styles, and stress will be covered. Case studies will be used to explore various applications in society.
Prerequisite: PSY 101 or PSY 102
Corequisite: PSY 101 or PSY 102

## PBI $275 \quad$ Health Psychology I <br> 3-3-0

Introduction to health psychology and the biopsychosocial model of health. Topics include: methods of health research, obtaining care and following health advice, stress, pain, behavioural factors in health, alternative medicine, mental illness, global health issues.
Prerequisite: PSY 101. It is highly recommended that students also take PSY 102

## PBI 276 Health Psychology II

 3-3-0Selected topics in health psychology: cardiovascular disease, cancer, chronic and terminal illness, preventing injuries, smoking tobacco, using alcohol and other drugs, diet and weight control, exercising, future projects.
Prerequisite: PSY 101. It is highly recommended that students also take PSY 102
PSY $277 \quad$ Physical and Mental Health
3-3-0
This course will examine the mutual interaction between physical and mental health, using the biopsychosocial model as a conceptual framework. For example, depression as a factor in cardiovascular disease (and vice-versa), or the effect of diet upon behaviour disorders, will be explored with detailed attention to genetic, developmental, personality, lifestyle and social factors. Therapeutic interventions will also be covered, for example to compare the success of behavioural versus medical approaches in the treatment of depression. The course will include lectures and seminar presentations.
Prerequisite: PSY 101. It is highly recommended that students also take PSY 102

## PBI 288 Brain and Behavior I

3-3-0
An introduction to physiological psychology and to the complex relationship between brain activity and human behavior. Topics include structure and function of the brain, the neuron, neurotransmitters, neuroscience research methods and the physiology of the sensory and motor systems.
Students who have taken PBI 128 (Physiological Bases of Behavior I) may not take this course for credit
Prerequisite: PSY 101
PSY 290 Adolescence
3-3-0
An examination of developmental issues in the adolescent period and related clinical phenomena: environmental influences (family, school, peers) and intra personal concerns (identity, sexuality, moral development); clinical conditions such as depression (suicide), eating disorders, and delinquency.
Prerequisite: PSY 101 and PSY 102
PSY 292 Psychology of Music and the Fine Arts 3-3-0
This is an introductory course to the use of the arts, broadly defined, in clinical settings. Specifically, this course will explore the use of music and fine arts as clinical tools to improve wellbeing with adults and children, in a variety of settings (schools, hospitals, rehabilitation facilities, retirement homes, etc.). This introduction to the psychology of music and fine arts will explore key areas such as music and language, music/fine arts and emotion, as well as the applied psychology of music and fine arts in a range of social, health, educational and therapeutic contexts. The big questions in the field will be considered; such as the role of music and fine arts in our evolutionary history, whether some of us are 'born musical/artistic' and others are not, whether music and arts can make us smarter, or can encourage us to behave aggressively.
Prerequisite: PSY 101 and PSY 102
PSY 293 Multicultural Psychology 3-3-0 The place of culture in the evolution of psychology. Cultural similarities and differences in behaviour, thoughts, emotions, attitudes, motivations, mental and physical health, etc. Understanding that psychological principles can range from being universal to culture-specific.
Prerequisite: PSY 101 and PSY 102
PSY 298 Zen and the Brain 3-3-0
The interest in Eastern philosophy and religion in the West is not a new phenomenon, but careful scientific examination of the techniques linked to some Eastern traditions, such as meditation and mindfulness, as well as their increasing use in psychotherapy, is relatively new. In this course we will introduce the basis of Buddhist and Hindu thought and practice, and review critically the available literature on the neurophysiological and neuropsychological effects of different forms of meditation.
Pre or Corequisites: PSY 101 or PSY 102 or being admitted to Mindfulness \& Contemplative Studies Minor

PSY 301 Abnormal Psychology
3-3-0
An introduction to the experimental approaches, diagnoses, classifications, viewpoints, and the therapeutic techniques used in abnormal psychology. The interaction between genetic predisposition and environmental stressors in the etiology of abnormal behavior will be emphasized. Various anxiety disorders (e.g., specific phobias), trauma and stress-related disorders (e.g., PTSD), obsessivecompulsive and related disorders (e.g., OCD), and psychotic disorders (e.g., schizophrenia), will be discussed.
Prerequisites: PSY 101, PSY 102 and PSY 206
Students who have taken PSY 341 (Abnormal Psychology) may not take this course for credit.
PSY 302 Perception 3-3-0
Based on a rich array of perceptual demonstrations, this course provides a comprehensive overview of how our senses, mostly vision and audition, allow us to know and understand the world. Topics include physiology of the sensory systems, perceiving objects and faces, color, depth and motion perception, visual illusions, music perception, perceptual illusions and perceptual impairments.
Prerequisite: PSY 101 and PBI 288
PSY 303 Positive Psychology 3-3-0
Traditionally, when we think of psychology, and especially of clinical psychology, we think of mental illness and psychopathology. However, researchers and clinicians alike have recently been also interested in studying variables that make individuals flourish and thrive. What makes us happy? What roles do hope and optimism play in our overall well-being? Can keeping a gratitude journal have an impact on our outlook on life? All of these variables fall within the realm of positive psychology, which can be described as the study of factors that make people lead fulfilling lives. This class will present theory behind variables that are comprised within positive psychology, while providing a strong clinical and experiential component.
Prerequisite: PSY 101 and PSY 102
PCS 305 Cognition
3-3-0
Cognitive processes: language, memory, concepts, heuristics, the nature of thought, reasoning, problem solving, creativity, and anomalous beliefs.
Students who have taken PCS 205 (Cognitive Psychology) cannot take this
course for credit
Prerequisites: PSY 101 and PSY 102 and PBI 288
PSY 306 Advanced Theories of Personality
3-3-0
An advanced course focused on deepening knowledge of core aspects of personality theories. Topics will focus on the clinical aspects and the social implications stemming from personality theories. In addition, the role of statistical methodology (e.g., factor analysis) will be explored in terms of how personality dimensions are established.
Prerequisites: PSY 101 and PSY 102, PSY 206, PSY 213
PCS 309 Introduction to Python for Researchers
3-3-0
This course will teach the fundamentals of programming using the Python language in the context of conducting research in psychology, with an emphasis on cognitive psychology and cognitive neuroscience applications. The course will first cover how to break complex tasks into discrete logical steps, then address how to convert large raw data sets into smaller summary data sets ready for traditional statistical analysis. Students will also learn to use a primarily point-and-click programming environment designed around Python to quickly design basic experiments for research in psychology.
Prerequisites: PSY 213 and PMA 260 or the Business (BMA 140 or BMA 141) or Physics (PHY 101) equivalents for PMA 260

## PSY $311 \quad$ Psychopathology

3-3-0
This course is a continuation of PSY301. Topics covered include: mood, personality, dissociative, somatic and eating disorders, as well as sexual dysfunctions and disorders of childhood and adolescence.
Students who have taken PSY 341F (Abnormal Psychology) may not take this course for credit
Prerequisites: PSY 101, PSY 102 and PSY 206
PSY 313 Advanced Research Methods 3-2-2
Research methodology in the study of human behaviour. Formulation of the research proposal; presentation and discussion of results in APA format reports; factorial and correlational designs; computers in data analysis. Class and individual projects are conducted.
Students who have taken PSY 215 (Research Methods II) cannot take this course for credit
Prerequisites: PSY 213 and PMA 360

PSY 325 Independent Studies I
3-0-0
Theoretical or experimental work conducted under the direct supervision of two faculty members. The project and grading scheme needs to be approved beforehand by the Psychology Department.
Prerequisite: PSY 101 and PSY 102
PSY 326 Independent Studies II
3-0-0
Theoretical or experimental work conducted under the direct supervision of two faculty members. The project and grading scheme needs to be approved beforehand by the Psychology Department.
Prerequisite: PSY 101 and PSY 102
PBI 327 Psychology of Nutrition 3-3-0
This course explores the many physiological, psychological and sociocultural factors that influence children and adults' food choice and preferences. The activity of eating is understood in its relation to physical and psychological health, body size and dissatisfaction, dieting, obesity, anorexia nervosa and bulimia nervosa. Students who have taken PBI 227 (Psychology of Nutrition) cannot take this course for credit
Prerequisite: PSY 101. It is highly recommended that students also take PSY 102
PSY 333 Psychology of Exceptional Development
3-3-0
A survey of various kinds of exceptionality in children, including intellectual disabilities, giftedness, speech and language differences, learning disabilities, hearing and vision impairments, behaviour disorders, health problems, and developmental disabilities.
Students who have taken PSY 233 (Psy. of Exceptional Children) cannot take this course for credit
Prerequisite: PSY 101 and PSY 102

## PSY 336 Interviewing

3-3-0
Interviewing techniques are explored by surveying various theories of change (psychoanalytic, existential, feminist, person-centered, cognitive-behavioral, reality, and postmodern). Emphasis is placed on the acquisition of both theoretical knowledge and practical skills that have direct relevance in applied settings. Class discussions, role-playing, and use of video clips are pedagogical tools enjoyed by students.
Students who have taken PSY 230 (Interviewing) cannot take this course for credit
Prerequisites: PSY 101, PSY 102 and PSY 206
Co-requisite PMA 353 or permission of the instructor
PSY 337
Crisis Intervention
3-3-0
Engaging class discussions, guest speakers, role plays, videos and practice-based lectures provide a framework for understanding what constitutes a crisis, various types of crises and key elements of crisis assessment and intervention that are used in a variety of crisis situations. Specific crises examined include crises of lethality, conjugal violence, sexual assault, crises of loss and human-made disasters.
Students who have taken PSY 231 (Crisis Intervention) cannot take this course for credit
Prerequisites: PSY 101, PSY 102 and PSY 206

## PSY 339 Madness \& Film: Representations of Mental Illness in Current Psychiatry Nosologyand Mainstream Cinema <br> 3-3-0

While cinematic representations may conform to past or current psychiatric nosology, specific and unique portraits of mental disorders have also been associated with the film discourse. Film portrayals of psychopathology can then be based on scientific definitions but also in other perspectives such as historical interpretations, cultural beliefs, reassessments of character, creative malady views, big screen traditions, public appeal, marketing, authorship interpretations, or revisions and critiques vis-à-vis psychiatric nosology or societal control. This course will explore the visions and conceptualizations of behaviours considered to be within the realm of madness in film and within the spectrum of mental illness in the psychiatric field.
Prerequisites: PSY 301 or PSY 311 or ENG 287 or ENG 291 or ENG 282 or PHI 345
Students in Psychology, Film and Philosophy will be prioritized
PSY 342 History of Psychology
3-3-0
An examination of the early conceptions of human nature that influenced psychology's development. The course is presented in two parts, the first examining the nature of history and the history of science. The second part explores the conception of humanity in ancient texts from Homer, Sophocles, Plato, Aristotle and Augustine.
Prerequisite: PSY 101, PSY 102. Open to those students entering their final undergraduate year

PSY 345 Family Therapy

3-3-0
A critical survey of major theories of family dynamics and family therapy, including psychoanalytic; existential, systemic, structural, and strategic approaches. The course also aims to further the student's understanding of his or her own family system through individual and group exercises.
Prerequisite: PSY 101 and PSY 102
PSY 348 Social Development
3-3-0
An examination of the development of social relationships from childhood to adolescence, with a particular focus on peer relationships. This includes an examination of sociometrics, social-cognitive and emotional processes, bullying, morality, friendships and romantic relationships.
Pre or Corequisites: PSY 101 and PSY 102
PMA 353 Psychometrics and Psychological Testing
3-3-0
The course covers the development process and psychometric properties of typical psychological measurement tools, including norms, reliability, validity, and factor analysis. Critical examination of these properties for selected instruments and different research scenarios will be involved, and students will practice developing their own measurement tool.
Students who have taken PMA 223 (Psychometrics) or PSY 224 (Issues in
Psychological Testing) cannot take this course for credit
Prerequisites: PSY 213 and PMA 260, or the Business (BMA 140 or BMA 141) or Physics (PHY 101) equivalents for PMA 260
PMA $360 \quad$ Advanced Psychological Statistics
3-3-0
Advanced inferential statistics developed from a conceptual perspective. Topics include one and two-way analysis of variance, repeated measures ANOVA, fixed and random designs, post-hoc and a priori tests. Explorations will also include correlation, regression and their relationship to ANOVA and use of jamovi and/ or SPSS in analysis.
Students who have taken PMA 161 (Psychological Statistics II) cannot take this course for credit
Prerequisite: PMA 260, or the Business (BMA 140 or BMA 141) or Physics (PHY 101) equivalent.

Corequisite: PSY 213
PBI 361 The Psychology of Sexuality
3-3-0
Various aspects of human sexuality from a psychological perspective. Includes the following topics: sexuality in childhood, adolescence, and early through late adulthood; sex differences; androgyny; transsexualism; sexual dysfunction and sex therapy; sexuality in the chronically ill and disabled; homosexuality and bisexuality; historical and cross-cultural sexual attitudes and practices.
Prerequisite: PSY 101. It is highly recommended that students also take PSY 102
PSY 370 Learning and Memory 3-3-0
A seminar course examining theories of learning and memory. The seminars follow a historical sequence examining changes in our understanding of learning and memory. Topics include classical conditioning, behavioural, cognitive and gestalt approaches to learning and memory.
Students who have taken PSY 270 (Learning and Memory) cannot take this
course for credit
Prerequisite: PSY 101 and PSY 102
PBI 379 Neuropsychology
Neuropsychology is the study of the relationship between brain structures and behaviour. In this course we will explore the neuroanatomical correlates of both normal and abnormal behaviors in humans. Among the topics to be discussed are the behavioural sequelae of head injury, mood disorders associated with regional trauma and epilepsy, sex differences in cerebral organization, cerebral asymmetries, language and aphasia and the various disorders of perception. Depending on the interests of the students, special topics include dyslexia, alexithymia, Alzheimer's disease, alcoholism and schizophrenia.
Students who have taken PBI 279 or BIO 279 (Neuropsychology) may not take this course for credit
Prerequisite: PSY 101, PBI 288 or permission of the instructor

PBI 380
Psychopharmacology
3-3-0
This course is designed to introduce students in psychology and the natural sciences to the field of psychopharmacology. Emphasis will be placed on the relationships between psychoactive drugs, their mechanisms of action in the nervous system, and human behaviour. Following an analysis of the principles of pharmacology and pharmamacokinetics, as well as the mechanisms of drug tolerance and dependence, the cognitive, emotional and behavioural aspects of specific classes of drugs will be examined. These classes of drugs will include sedatives, hypnotics; stimulants; narcotics; psychotomimetics, psychedelics and hallucinogens.
Students who have taken PBI 280 or BIO 280 (Psychopharmacology) may not take this course for credit
Prerequisite: PSY 101, PBI 288 or permission of the instructor
PBI 388 Brain and Behavior II
3-3-0
The physiological bases of motivated behavior (sleep, sex, hunger and thirst), emotions, learning/memory and language. The focus is on normal physiology but some aspects of abnormal physiology (e.g. amnesia, anxiety, schizophrenia) will be addressed.
Students who have taken PBI 228 (Physiological Bases of Behavior II) cannot take this course for credit
Prerequisite: PBI 288 or permission of the instructor
PSY $389 \quad$ Humanitarian Psychology: Mental Health, Psychosocial Support and Coordination in Humanitarian Settings

3-3-0
The impacts of emergencies may be acute in the short term but can also undermine the long-term mental health and well-being of vulnerabilised populations. Therefore, one priority is to protect and improve people's mental health and psychosocial well-being and to prevent or treat mental disorder, which requires coordinated action among government, community, and humanitarian actors. In this course, students learn mental health, psychosocial support and coordination strategies in humanitarian settings. For instance, how to organize psychological care and capacity building while advocating for the survival, well-being and preparedness of vulnerabilised populations. Key elements of mental-health assessment, intervention, preparedness and responses during acute phases and early reconstruction are discussed. Psychological and psychiatric interventions for problems such as sexual assault, loss, PTSD, outbreak, human-made disaster and protracted crisis are introduced.
Prerequisites: Either PSY 214 or PBI 380 and one of PBI 275 or PSY 301 or PSY 337

## PBI 398 Neuroscience Seminar

3-3-0
This course will be taught as a series of student-led seminars covering a wide range of topics including molecular, cellular, behavioral, cognitive and clinical neuroscience, as well as new developments in psychopharmacology and neuroendocrinology. Course content will vary from year to year to encompass the most recent developments in the field of neuroscience.

## Prerequisites: PSY 101, PSY 102, and PBI 288

PBI 399
Psychology of Drug Addiction
3-3-0
Despites decades of intense research, development of new therapeutic approaches, and public advertisement campaigns (e.g. "JUST SAY NO", the problem of drug abuse does not want to go away (and in fact is on the rise in the selected demographic groups such as women, adolescents and children). During this course we will examine different classes of addictive substances; discuss various neurobiological, psychological and sociocultural factors implicated in the initiation and development of dependence; as well as evaluate critically the available therapies and interventions for treatment of drug addiction.
Pre or Corequisites: PSY 101, PSY 102 and PBI 288
PSY 406 Current Topics In Clinical Treatment Models 3-3-0
This course applies sound scientific methodology in evaluating current clinical treatment models for specific mental disorders. Students will critically examine outcome data from a variety of clinical diagnoses as outlined in the Diagnostic Statistical Manual 5 (DSM 5).
Prerequisite: PSY 301 or PSY 311
Pre or Co-requisite: PMA 353
PSY 409 Advanced Topics in Psychology 3-3-0
This is an advanced seminar that takes an in depth look at some of the key areas of inquiry in Psychology. Topics and instructors will vary, but courses might cover issues such as morality, clinical issues, neuropsychology, community development, and media. Students will engage in reading primary sources, in depth discussions, and critical thinking about the topic presented.
Prerequisite: PSY 101 and PSY 102, PSY 213 and permission of instructor

PSY $410 \quad$ Psychology of Death and Dying
3-3-0
Death is a human affair, not simply a biological one. Adopting an historical, existential-humanistic psychology perspective, the role of death and its impact on our lives will be examined. Texts from the ancient world will be read along with those written by psychologists (Fechner, James, Freud, Jung, Fromm, Erikson, Frankl, May, Rogers, Skinner, Kübler-Ross and Becker). Integrated throughout the course are contemporary texts drawn from diaries and books by authors who have recorded their experiences with death and dying.
Pre or Corequisites: PSY 206 and PSY 336

## PSY 420 Contemplative Practicum <br> 3-0-3

Mindfulness and contemplation are essential for intellectual, emotional and spiritual growth and insight. They facilitate deepening of self-knowledge and understanding of the world around us. In this course, students will get a chance to examine their selves, their minds and their surroundings from the first-person perspective. Each student, in consultation with the course instructor, will select a specific method of self-inquiry (e.g., meditation training, pilgrimage, artistic process) and devote to it approximately 50-70 hours of practice. The students will be required to keep a detailed diary of their experience describing the process, providing personal insights, comparative analysis, implications and impact of the experience on their lifestyle and philosophy. In addition, students will be encouraged to share their experiences with others during class discussions.
Pre-requisites: Being admitted to Mindfulness \& Contemplative Studies Minor or permission of instructor
PSY 441
Advanced Applied Seminar
3-1-2
As a link between Interviewing (PSY 336) and Applied Practicum (PSY 442), this course is taught as a series of student-led seminars on various clinical topics. Vigorous class debates, meaningful exchanges with guest speakers (from the community at large) and the opportunity to learn and apply basic interviewing skills with video tape feedback are all enriching aspects of this course. Students enrolled in a major program are welcome, providing that they have the prerequisites. Prerequisites: PSY 101, PSY 102, PSY 206, PMA 353 and at least $75 \%$ in PSY 336

PSY 442
Practicum
3-0-3
Aimed at introducing students to psychology's applied field while sensitizing them to its stakes, this course is completely practical and offers experiential learning opportunities. Students spend $6 \mathrm{hrs} /$ week under close supervision in one of a number of applied settings. Field placements are possible in hospital and school settings, various community organizations, senior citizens' homes, life skills development centres, women's centre, etc., and are assigned in accordance with students' competencies and interests.
Prerequisite: PSY 441
PSY 443 History of Psychology Seminar 3-3-0
A seminar course that examines the effects the scientific revolution on our conception of mind and psychology. The seminars are based on the writings of the Rationalists (Descartes, Spinoza, Leibniz), Empiricists (Locke, Berkeley, Hume) and those that reflect the emergence of Evolutionary thinking and its influences on our conceptions of mind/brain, consciousness, and the nature of human science.
Students who have taken PSY 343 (History of Psychology II) cannot take this course for credit
Prerequisite: PSY 342
PMA $460 \quad$ Multivariate Statistics
3-3-0
An examination of multivariate statistical approaches to research. Topics include multiple correlation, regression, partial \& semipartial analysis, stepwise regression, statistical control, hierarchical modeling, multiple regression with categorical and continuous variables, analysis of covariance, and multivariate analysis of variance. Students who have taken PMA 261 (Multivariate Statistics) cannot take this course for credit
Prerequisite: PMA 360
PSY 462 Qualitative Methods in Psychology
3-3-0
This course provides students a conceptual understanding of qualitative research and their application in psychology. The course introduces major concepts and terms, and different qualitative methods including case studies, in-depth interview, participant observation, life histories (narratives) and ethnographies. It focuses on developing a theoretical understanding of qualitative methodology.
Pre or Corequisites: PSY 101 and PSY 102

PSY 477 Personality, Health and Well -being 3-3-0
An advanced seminar that undertakes a critical analysis of historical and contemporary theoretical perspectives on the role personality plays in physical and psychological well-being. General topics may include the contribution of personality to physical health and illness, the role of personality in stress and coping, the links among personality, health, and well-being across the adult lifespan, the role of personality in health and well-being in the context of personal relationships, and issues related to the assessment of personality and well-being. Prerequisite: PBI 275 or PBI 276

## PSY 498 Honours Seminar

3-3-0
This seminar aims at exploring cutting-edge issues in Psychological Science. Selected topics from these areas are presented and critically discussed. The course will also guide students as they get their Honours Thesis under way and address practical issues such as applications to graduate school, scholarship applications, GREs and career planning.
Students who have taken PSY 449 (Honours Seminar: Advanced Topics) cannot take this course for credit
Prerequisite: Only open to Honours students (having already completed PSY 313 and PMA 360 with an average of $75 \%$ or above)
Co-requisite: PSY $499 f$
PSY 499F Honours Thesis
6-0-0
Under the guidance of two faculty advisors, the student will formulate a proposal for original research involving the collection of data, undertake the research, and report it both as a public talk and in the form of a thesis conforming to the publication style of the American Psychological Association.
Students who have taken PSY 450 (Dissertation) cannot take this course for credit
Prerequisite: Only open to Honours students (having already completed PSY 313 and PMA 360 with an average of $75 \%$ or above)
Co-requisite: PSY 498
PMA 460 is an additional prerequisite for projects involving multivariate research.

## Cognate Courses

These courses may count for Psychology credit.
BHR 221 Organizational Behavior 3-3-0
EDU 203 Educational Psychology
3-3-0
PHI 244 Philosophy of Mind
RSC 148 Psychology of Religion

## Courses offered on an irregular basis.

PSY 285 Psychology of Reading and Reading Disability
3-3-0
The aim of this course is to consider the psychological processes involved when we read. In particular, the skills that are acquired, the mechanisms involved, and the abilities that are essential will be examined. Why some people fail to acquire reading skills will also be examined. Answers to this question will focus on theoretical approaches to reading disability, and to the question of why some methods of remediation are successful.
Prerequisite: PSY 101 and PSY 102

## PSY 309 Industrial and Organizational Psychology <br> 3-3-0

This course introduces students to theories and applications of psychology to human resource concerns in organizations. Topics include: Personnel recruitment, selection, training and performance appraisal; motivation; work attitudes; leadership; group behaviour; and other special topics (e.g., work related stress, applied ethics, and organizational conflict)
Students who have taken BHR 221cannot take this course for credit
Prerequisite: PSY 101 and PSY 102

PBI $320 \quad$ Physiology and Pharmacology of Aging
3-3-0
The major physiological systems will be reviewed, with emphasis on how these systems change during the aging process and how these changes affect the individual's everyday functioning. Topics will include the cardiovascular system; respiratory system; metabolic regulation, digestion and absorption; and electrolyte and mineralocorticoid regulation. A review of basic pharmacological principles and mechanisms of action will follow this. Finally, we will discuss how the aging process interacts with various types of medications most frequently prescribed to elderly people, and some common idiosyncratic reactions seen in the elderly. Also, the special precautions which must be observed in prescribing and administering drugs to the elderly will be outline.
Prerequisite: PSY 101. It is highly recommended that students also take PSY 102
PSY $330 \quad$ Psychology and Ethics 3-3-0
A wonderful way to learn how to think ethically in several areas of psychology. Students learn about the importance of fundamental ethical principles, values, theoretical and practical models of ethical decision-making and legal considerations, while engaged in the comparison of relevant ethics codes (with particular emphasis on the CPA code of ethics). Specialized topics include confidentiality, multiple relationships, the ethics of teaching, the ethics of counselling, the ethics of assessment, research ethics, and ethics in forensic settings. Class discussions are part and parcel of this course.
Prerequisite: PSY 101 and PSY 102
PSY 350 Environmental Psychology
3-3-0
Influence of the physical and cultural environment on behaviour, including factors such as heat, noise, crowding, traffic, buildings and urban design. Costs and benefits of city and rural lifestyles. Technology and the working environment. Population, resources and environment.
Prerequisite: PSY 101 and PSY 102
PSY 356 Forensic Psychology
3-3-0
This course provides broad overview of the issues and processes of Forensic Psychology. Topics include social/cognitive topics such as eyewitness testimony, jury decision making, and police procedures as well as abnormal/clinical topics such as the meaning of being unfit to stand trial, mentally disordered offenders and psychopathy.
Prerequisite: PSY 101 and PSY 102
PSY 386 Psychology of Language 3-3-0
The aim of this course is to provide students with a broad introduction to psychological phenomena in language acquisition and use. The structure of language and speech will be described briefly. Emphasis will be placed on a number of topics, including; language development, perception of language, word meaning and semantic memory, syntax and discourse processing, language production and conversational interaction, cultural influences and bilingualism, and language errors and disorders.
Prerequisite: PSY 101 and PSY 102
PSY 408 Psychology of Consciousness 3-3-0
A critical examination of consciousness in scientific psychology. Major topics are the nature of consciousness (e.g., consciousness and brain, states of consciousness), the methodology for studying consciousness (e.g., introspection), and the function of conscious experience (e.g., free will, conscious processing in cognition). Prerequisite: PSY 101 and PSY 102

## Sociology

## Faculty

Vicki Chartrand,
B.S.Sc., M.A. (Ottawa), Ph.D. (Macquarie); Associate Professor

Steven Cole,
B.A. (Trent), M.A. (Queen's), Ph.D. (Alberta);

Full Professor
Cheryl Gosselin,
B.A. (Bishop's), M.A. (Concordia),

Ph.D. (Montreal); Full Professor
Genner Llanes-Ortiz,
B.A. (UADY), M.A., M.Sc., Ph.D. (Sussex);

Associate Professor, CRC Tier 2
Alex Miltsov
B.A. (Concordia), M.A. (New Brunswick), Ph.D. (McGill); Associate Professor
Chair of the Department

## Program Overview

The Department of Sociology provides students with theoretical and methodological tools and substantive insights which can assist them in understanding social life, social organization, and action. The program is designed to provide students with a broad intellectual and sociological background which will help prepare them for a variety of careers and for advanced study at graduate school. The small size of our program and the dedication of our faculty allow us to provide personal attention to students and access to faculty. Through required courses and a study concentration option, students are given substantial flexibility in meeting individual intellectual pursuits and preparation for satisfying employment after university. We offer a minor, major, or honours in Sociology as well as a concentration in Criminology, Law and Social Policy (see below). Students are encouraged to participate in the Experiential Learning program which is linked to their academic field of studies and involves course work and placement in an organization.

The subject matter of our courses ranges widely from theoretical to applied study and our professors employ diverse pedagogies to facilitate student learning. The department has particular strengths of faculty expertise in the areas of Indigenous-Settler relations, criminology, theory, policy, health and family, digital communication technology, and gender and diversity studies.

## Careers in Sociology

Recent graduates of the program have embarked on many careers including: education; media, communications, public relations and journalism; policing and corrections; health, human and social services; a wide variety of careers in both the private and public sector, management and business; graduate degrees in Sociology, and related disciplines and in law and other professional schools. To view a more comprehensive list of career options and for more information, please consult Sociology Department's website.

| Honours Sociology HONSOC (61 credits) | Concentration: Criminology, |
| :---: | :---: |
| There is an optional 6-credit thesis for the Honours' programs | Law and Social Policy MAJSCL |
| Required Courses: | Required Courses: <br> All of the Major course requirements plus: |
| All of the Major course requirements plus: | SOC 208 Criminology |
| SOC 311 Quantitative Data Analysis | SOC 230 Deviance I |
| SOC 402 Honours I | SOC 295 Social Inequality |
| SOC 404 Honours II | SOC 307 Sociology of Health |
| SOC 490 Contemp. Theory | Elective Courses: <br> 18 credits (6 courses) from List below |
| Plus, one of: |  |
| SOC 315 Political Sociology in the <br> Digital Era <br> SOC 320 Knowledge | Concentration in Criminology, Law and Social Policy Selections |
| SOC 322 Urban Sociology | SOC 105 Media and Society I |
| SOC 340 Feminine Subjectivity in Theory and Ideology | SOC 107 Indigenous and First Nations Peoples in Canada |
| SOC 396 Post Colonial Theory | SOC 190 Introduction to Postcolonial |
| SOC 361 Qualitative Studies | Study |
|  | SOC 202 Directed Independent Study I |
| Honours Concentration: | Directed Independent Study II |
| Criminology, Law and Social | SOC 204 Experiential Learning in |
| Policy HONSCL | Sociology I |
|  | SOC 205 Family I |
| All of the Major Concentration course | SOC $207 \begin{aligned} & \text { Sociology of Indigenous / } \\ & \text { Re-settler Relations }\end{aligned}$ |
| requirements plus: | SOC 209 Youth Justice |
| SOC 311 Quantitative Data Analysis | SOC 214 Aging |
| SOC 402 Honours I | SOC 215 Culture, Ethnicity and Aging |
| SOC 404 Honours II | SOC 217 Social Policy of Aging |
| SOC 490 Contemporary Theory | SOC 220 Work and Leisur |
| Plus: <br> SOC 331 Deviance II | SOC 232 Sociology of Criminal |
|  | SOC 233 Carceral Studies |
| (48 credits) MAJSOC | $\begin{array}{ll}\text { SOC } 235 & \begin{array}{l}\text { Women and the Penal } \\ \text { System (see requirements for }\end{array}\end{array}$ |
| Required Courses: | Honours in this concentration) |
| credit) | SOC $245 \begin{aligned} & \text { Racialization and Ethnic } \\ & \text { Diversity }\end{aligned}$ |
| SOC 101 Introduction | Diversity |
| SOC 102 Quebec Society | SOC 250 Social Movements |
| SOC 110 Research Methodology | SOC 260 Community |
| SOC 211 Quantitative Methodology | SOC 292 Social Policy |
| ILT 104 Information Retrieval (lab) | SOC 298 Social Problems |
| SOC 221 Modern Sociological | SOC 299 Sociology of Education |
| Theory I | SOC 280 Interpersonal |
| SOC 222 Modern Sociologic | Communications |
|  | SOC 281 Communications Metho |
| Plus, one SOC 300 level course | SOC 302 Directed Independent Study |
| Elective Courses: <br> 27 credits (9 courses) in Sociology | SOC 303 Directed Independent Study IV |
|  | SOC 304 Experiential Learning in Sociology II |
|  | SOC 305 Family II: Selected Topics |
|  | SOC 308 Formal Organization |

SOC 311 Quantitative Data Analysis
(see requirements for
Honours in this concentration)
SOC 315 Political Sociology in the Digital Era
SOC 321 Sociology of Technology
SOC 322 Urban Sociology
SOC 331 Deviance II:
Selected Topics (see requirements for Honours in this concentration)
SOC 333 Justice Clinic Internship
SOC 361 Qualitative Studies
ECO 126 Economics of Crime and Criminal Justice
ELL 200 Experiential Learning Lab
ELP 300 Experiential Learning
Placement
ESG 350 Environmental Justice
PHI 100 On the Way to the Good Life
PMA 260 Psychological Statistics
(you can not get credit for this course if you have taken SOC 211)
POL 173 US Government and Public Policy
POL 345 Introduction to Public International Law

## Minor in Sociology (24 credits)

MINSOC
Required Courses:
SOC 101 Introduction
Plus seven (7) other courses in Sociology
Minor in Criminology ( 24 credits)

MINCRM

## Required Courses:

SOC 208 Criminology
Two of:
SOC 110 Research Methodology
SOC 211 Quantitative Methodology
SOC 311 Quantitative Data Analysis
PMA 260 Psych Statistics (equivalent to SOC211)
Five of:
SOC 101 Introduction to Sociology
SOC 102 Quebec Society I
SOC 107 Indigenous and First Nations Peoples in Canada
SOC 207 Sociology of Indigenous/ReSettler Relations
SOC 230 Deviance I
SOC 235 Women in the Penal System

SOC 245 $\begin{aligned} & \text { Racialization and } \\ & \text { Ethnic Diversity }\end{aligned}$
WGS120 Gender, Justice, and the Law
SOC 315 Political Sociology in the Digital Era
SOC 298 Social Problems
SOC 331 Deviance II
POL 314 Law, Politics \& Canadian Society
ECO 126 Economics of Crime and Criminal Justice

## Minor in Gender, Diversity, Equity Studies (24 credits) <br> MINSGD

The minor in Gender, Diversity and Equity Studies is a 24 credit program offering students the opportunity to explore gender in society, past and present, applying new concepts that have emerged in femisist scholarship over the past two decades. WGS 101 (formerly WOM 101), is required. Courses in this program can not be offered every year so students should plan to take the minor over at least 2 years (unless they have already taken at least 4 of the courses listed below).

## Required Courses:

WGS101 Introduction to Gender Studies

## Selected Courses for Gender, Diversity, <br> Equity Studies Minor:

21 credits ( 7 courses) from this list WGS120 Gender, Justice, and the Law
WGS201 Introduction to Feminist Critique
WGS301 Directed Independent Study
WGS305 Selected Topics in Feminist Critique
WGS230/DRA 230 Women in Performance
SOC 129 Sociology of Gender and Society
SOC 190 Introduction to Postcolonial Study
SOC 205 Family I
SOC 223 Women, Gender and Global Inequalities
SOC 229 Masculinities
SOC 235 Women and the Penal System
SOC 241 Cinema
SOC 305 Family II: Selected Topics
SOC 340 Feminine Subjectivity in Theory and Ideology
CLA 250 Sex and Gender in the Ancient World
CLA 350 The Goddess: History, Cult and Myth
DRA 202 Contemporary American Drama

DRA 203
DRA 273
DRA 212 Theatre \& the State
ENG 115 Women Writers before 1900
ENG 239 Feminist Literary Theory
ENG 275 The Contemporary Canadian Novel: "The Myths Are My Reality"
ENG 334 Restoration and Eighteenth-Century Drama: Sex, Politics and Intrigue
FRA 263 De la féminité au féminisme
FRA 284 Littérature et condition des femmes au Québec
HIS 288 Women in 19th and 20th Century Canada
PSY 219 Psychology of Women
PSY 123 Multicultural Psychology
PSY 231 Crisis Intervention
PBI 361 The Psychology of Sexuality
PSY 345 Family Dynamics
RSC 204 Women in Religion
RSC 207 Sex and Religion
*Other courses may be taken for credit, with the approval of the coordinator of the Women's Studies section of Sociology.

## Sociology Program Guidelines

All Majors and Honours in Sociology (with or without concentration) must complete the lab course ILT 104: Information retrieval and Evaluation Skills for the Social Sciences.

The Major in Sociology (with or without concentration): all new students enter the department with a major in Sociology and are encouraged to take a concentration or a second Major or minor(s) from other departments.

Majors and Honours in Sociology should complete the six required courses in their first two years and the 7th course at the 300 level in their third year. Majors seriously considering graduate school should complete an Honours in Sociology.

During the first year, students should complete SOC 101 and SOC 100 in the Fall term, during the Winter term of the first year, students should complete SOC 102 and SOC 110. SOC 211 and SOC 221 will be taken in the Fall term of their second year. SOC 222 will be taken in winter of the second year.

The remaining 27 credits of the Major are electives and may be chosen from any SOC course listed. The student may request up to 6 credits from other disciplines be considered (by the Chair) for cognate credit in the Major or Honours in Sociology. Any student who wishes exemption from a requirement should submit a request and relevant documentation (course outlines) to the

Department Chair and the professor of the course before registration is completed The Sociology Department may offer Spring/ Summer courses online upon Departmental approval.

## Sociology Honours

## The Honours in Sociology

In the final year of the Honours Program (Year 3 or 4, whichever is last), students are required to complete SOC 402 (Honours I: Special Topics) and SOC 404 (Honours II: Research Strategies). The Thesis is optional ( 6 credits and done in the final year of Honours). The Department reserves the right to review the overall academic performance and integrity of students in its programs. Students wishing to graduate with an Honours degree combined with a concentration should consult the previous concentration section for additional requirements.

## Sociology Major with a Concentration

The major in Sociology with the Criminology Law Social Policy concentration consists of 48 credits, plus ILT 104.

Elective courses the concentration and for the Gender, Diversity, Equity Studies Minor are often offered on a rotation rather than every year so you are advised to watch for them in the timetable and register for them when they are available.

## Criminology Minor

We offer a number of courses germane to the pursuit of a degree in criminology. Many criminology programs originated in, and take for granted, sociological research, theories and methods. Students seriously considering graduate studies in Criminology should complete the Honours Concentration in Criminology, Law and Social Policy. Students consult with the Department Chair and Calendar course descriptions to assure completion of program outlined below. No limitation on cross-counting of courses between this and other programs is in effect.

## Gender, Diversity \& Equity Studies Minor

This minor consists of a minimum of 24 credits (see course list from Gender, Diversity \& Equity Concentration). WOM 101 is required.

## List of Courses

SOC 100 Sociological Imagination
3-3-0
The primary objective of this course is to stimulate curiosity about that part of people's behaviour that is determined by relationships with others and by membership in groups. This course examines and evaluates the contribution sociology makes to the ongoing process of attempting to understand the surrounding social world. This course is intended for students who are either lacking introductory sociology or need to improve their effective writing skills in the discipline.
SOC 101 Introduction to Sociology
3-3-0
This course introduces the foundations of sociology by examining numerous theoretical and empirical issues/debates. Special emphasis will be placed on understanding "the social" or "society" as a distinct and unique object of scientific analysis. Students are also encouraged to use sociological understandings to "make sense" of their personal lives.
SOC 102 Québec Society I
3-3-0
The course presents an analysis of Québec in historical perspective, and examines nationalism, bilingualism and social structures.
This course is required of all Sociology Minors, Majors, and Honours students.

## SOC 105 Media and Society I 3-3-0

An introduction to the impact of media upon society and the social structuring of contemporary media as industries which produce values and ideology.
SOC 107 Indigenous and First Nations Peoples in Canada
3-3-0
An introduction to the study of First Nations in Canada.
SOC 110 Research Methodology
3-3-0
Sociological research will be dealt with in its quantitative and qualitative orientations. Students will be introduced to techniques of conceptualization, hypothesis formulation, and operationalization.
This course is required of all Sociology Majors and Honours students.
SOC 129 Sociology of Gender and Society 3-3-0 This course critically examines the ways gender informs the social world in which we live. It explores how we experience gender in the world around us; considers how we develop our gendered identities; explores the workings of the institutions that shape our gendered lives, and leads to an understanding the relationship between gender and the social structure.
SOC 190 Introduction to Postcolonial Study
3-3-0
An introduction to postcolonial theory and sociological issues arising from the cultural and economic conditions left behind by colonizers and the colonized. By looking at events in countries such as India, Nigeria, the Congo and other former colonies we come to understand the challenge of developing theoretical perspectives which grasp the complex influences of colonizer and colonized upon each other.
SOC 202 Directed Independent Study I
3-3-0
A tutorial course in which the student (normally a major) may pursue his or her interests in a selected area of sociology, under the direction of a member of the Department.
Prerequisite: Permission of the instructor and the Department

SOC 203
Directed Independent Study II
3-3-0
See SOC 202
Permission of the instructor and the Department
SOC 204 Experiential Learning in Sociology I 3-3-0
The course integrates a sociology student's research interests with the opportunity to participate with and explore a community organization or other coordinated social phenomena. A required component is a minimum 30 hours of active participation. A substantive written analysis based partially on the student's participatory research experience, and partially upon a study of the relevant literature is also required. It is up to the student to get agreement from the appropriate organization representative(s) for participation in the course and to recruit a professor to be their instructor.
SOC 205 Family I
3-3-0
Changing forms and functions of the family in Western society; growth and decline of the symmetrical family, definitions, theories, marital and sexual roles, and child rearing.
SOC 207 Sociology of Indigenous / Re-settler Relations 3-3-0
The course examines the sociology of strategies of assimilation and the forms of resistance to these strategies in North America.
SOC 208 Criminology
3-3-0
A survey of theories of crime and criminality in relation to class, race and gender. Substantive issues will include murder, prostitution, legal and illegal drug use, woman abuse, white collar crime, and organized crime.
SOC $209 \quad$ Youth Justice
3-3-0
This course provides an introduction to the youth justice system. It examines the evolution and impact of youth justice philosophy and legislation in Canada and the experience of youth at various stages within the system.
SOC 211 Quantitative Methodology and Research Design in the Social Sciences

3-3-0
This is an introductory course to quantitative data analysis. The course covers the principles of research design and statistical analyses frequently used in the social sciences. This is an important preparatory course for more advanced courses in quantitative methods.
Prerequisite: SOC 110
SOC 214 Aging 3-3-0
Aging and the life course perspective. Sociological theories on aging in relation to gender, class, and ethnicity.
SOC 219 Sociology of the Body
3-3-0
Notions of the body as the cultural representation of our contemporary "embodied" selves will be explored. This course will uncover the strategies of social, political and economic forces as theses problematize the body and seek to control, manipulate, and alter behaviour.
SOC 221 Modern Sociological Theory I 3-3-0
An introduction to the nature and purpose of sociological theory. Students will learn the foundations of theory (ontology, epistemology, methodology) and social theory's historical development before examining the work of Emile Durkheim. Prerequisite: SOC 101
SOC 222 Modern Sociological Theory II
3-3-0
Building from the ideas established in SOC 221, this course pursues an extensive analysis and critical evaluation of Karl Marx and Max Weber's respective work.
Prerequisite: SOC 221 or permission of the instructor
SOC 223 Women and Global Inequalities
3-3-0
This course considers the social location of cis and trans women within political economy and globalization. Understanding women's diverse lives required attention to public, private and geographic locations.
SOC $225 \quad$ Québec Society II
3-3-0
Selected topics for analysis of the values, ideologies, behaviour patterns and material culture of Québec society. The course critically examines Québec society during modernity and early post-modernity and draws heavily on artistic and cultural representations (painting, sculpture, literature, etc.)
It is recommended that students take SOC 102 or SOC 101 prior to this
SOC 229
Masculinities
3-3-0
This course examines both dominant and variant interpretations of gender with an emphasis on the narratives and proscriptions of masculinity. We consider how proscribed definitions of masculinity impact institutional structures, personal lives, safety, relationships, health and professional opportunities.
SOC 230
Deviance I
3-3-0
Definitions of deviant behaviour, social roles of deviants and the structure of control.

SOC 232
Sociology of Criminal Justice
3-3-0
An overview of the criminal justice system from initial contact with the police through to arrest, prosecution, disposition, incarceration, and release to the community. Emphasis is on the role of the police, prosecution, courts, and corrections with a consideration of moving towards alternative approaches to justice.
SOC 233 Carceral Studies 3-3-0
This course considers diverse carceral space in relation to a socio-political and historical context. Carceral spaces can include prisons, migrant detention centers, refuge camps and residential schools.
SOC 235 Women and the Penal System 3-3-0 A critical understanding of gender in criminology. Substantive issues will include: Sexual assault and the justice system, women and family law in the courts, domestic violence, gender and murder. Contemporary theories in criminology and their application are examined.

## SOC $241 \quad$ Cinema

3-3-0
Culture phenomena and values such as: class interest, gender roles, important events, national character and foreign policy, the ideal family, the deviant, etc., are reflected and contested in film. Students will be exposed to and discuss a variety of theories and methods of analyzing culture by way of film as industry and meaning creation.

## SOC 245 Racialization and Ethnic Diversity <br> 3-3-0

The purpose of this course is to explore the ethnic and racial diversity of Canada's plural and multicultural society. It critically assesses justifications of racism and of gendered racialization with knowledge of such processes and other harmful historical constructions.

SOC 250 Social Movements
3-3-0
Macro-structures of society such as crowds, publics, fads and riots are examined, including evolving collectivities and their subsequent ideological transformations.
SOC 260 Community 3-3-0
A comparative and historical analysis of rural, urban, and ethnic communities.
SOC 280 Interpersonal Communication
3-3-0
Human interaction at the macro sociological level. Equality, domination, integration, marginalization, co-operation and conflict will be examined.
SOC 291 Sociology of Art 3-3-0
An introduction to the Sociological study of the Arts. The course focuses on the social practices and organizational frameworks related to artistic production/ creation, mediation processes, and the reception of art works and artists. Attention will be given to issues related to race, gender, class, and power.

## SOC 292 Social Policy

3-3-0
Introduction to the sociological study of social policy in the Canadian context. The course will examine civil society in relation to a rapidly changing policy context. The development and outcomes of policy will be investigated from a number of theoretical perspectives.
Prerequisites: SOC 101 and SOC 110
SOC 294 Sociology of Tourism
3-3-0
Travel, journeys and their associated human migrations are the key areas of focus in this course. While movement for purposes of rest and recreation has always been part of our collective legacy, in this world of increasing globalization, the mass tourist industry and a variety of leisure activities has helped transform many locations around the globe. The course will explore tourism, in all its forms and the impact of traveling, both positive and negative, on cultures, sustainability and the environment.

SOC 295 Social Inequality
3-3-0
This course addresses concepts of social and cultural sustainability. Key questions concerning the environmental impacts of social organization as well as options for change will be considered.
SOC 296 Globalism and Culture
3-3-0
An introduction to key concepts for the current understanding and applications of cultural and social globalization.

SOC 298 Social Problems
3-3-0
The course develops a structural understanding of crime, health, inequality, and environmental destruction etc. Situating these problems within the framework of contemporary capitalism, it examines their root causes and possible solutions.

SOC 299 /
EDU 303 Sociology of Education
3-3-0
Comparative study of the Canadian education system and processes in light of current sociological theory and research
SOC 302 Directed Independent Study III
See SOC 202
Prerequisite: Permission of the instructor and the Department
SOC 303 Directed Independent Study IV
See SOC 202
Prerequisite: Permission of the instructor and the Department.
SOC 304 Experiential Learning in Sociology II $\quad$ 3-3-0
The course integrates a sociology student's research interests with the opportunity to participate with and explore a community organization or other coordinated social phenomena. A required component is a minimum 30 hours of active participation. A substantive written analysis based partially on the student's participatory research experience, and partially upon a study of the relevant literature is also required. It is up to the student to get agreement from the appropriate organization representative(s) for participation in the course and to recruit a professor to be their instructor. Prerequisite: SOC 233

SOC 305 Family II: Selected Topics
3-3-0
An advanced seminar on selected issues affecting the family in historical and contemporary settings involving the relationship between public and private spheres and between production and reproduction.
Prerequisite: SOC 205
SOC 307 Sociology of Health 3-3-0
This course seeks to examine the place of health and illness in society, the relationship between bio-medical problems and the social, political and economic realities that help shape them. Topics will include poverty and health, mental illness, aging, death and dying, professionalism, health service organization, inequalities in health service access and use, recent policies and difficulties with health care reform.

SOC 309 Advanced Seminar in Global Colonization and Decolonization

3-3-0
Colonialism and imperialism are considered in relation to settler societies and global power structure. This course questions theories of decolonization and liberation in the context of cultural and economic empires.
SOC 311 Quantitative Data Analysis with Computer Software 3-3-0
This is a more advanced course in quantitative methods. Students will learn how to manage and analyze quantitative data with computer software. Topics include data entry, statistical procedures and interpretation of output.
Prerequisites: SOC 110 and SOC 211, or permission of instructor. Required for Honours Sociology students.
SOC 315 Political Sociology in the Digital Era
3-3-0
This course provides a sociological understanding of politics and power relations focusing on the changes brought by the rise of digital technologies. It covers such topics as the nature of state, social control, surveillance, labour relations and politics, digital media and politics, globalization and deglobalization, among others.
SOC 320 Knowledge
3-3-0
How do we know what we know? An analysis of the role of ideas in the development of social institutions and the impact of belief systems on social values. Science, politics, education, religion, the arts and the professions are examined.
SOC 321 Sociology of Technology
3-3-0
The social and cultural context of technology as it has become embedded at the local and global arena. Topics may include social theories of knowledge and information, the political economy of information, the development of technology as a tool of consumption, and knowledge production.
Prerequisite: SOC 101 and SOC 110 and SOC 211
SOC $322 \quad$ Urban Sociology
3-3-0
Theories of urban growth and development; comparative analysis of cities and their problems.
Prerequisite: SOC 101 and SOC 110
SOC 331 Deviance II: Selected Topics
3-3-0
Selected topics such as drugs, homosexuality, prostitution and juvenile delinquency will be discussed.
Prerequisite: SOC 208. SOC 230 recommended.

SOC 340 Women: Theory and Ideology
This course explores past and current writings about women and by cis and trans women in social science texts, Using selected readings, students will delve into gendered positioning in comparison to the ways non-Western, postcolonial and critical race feminists talk about their identities, locations and gendered subjectivities. The conceptual frameworks of intersectionality and transnationalism will help us expose dominant representations of gender and how they can be disrupted by writers who expose a diversity of understandings of women across time, language, culture and geography. Prerequisite: Some women's studies background is required. Register with permission of the instructor
This course is offered infrequently
SOC 361 Qualitative Studies 3-3-0
Introduction to the theory, methods, and practice of qualitative sociological research. Various qualitative research methods, techniques, and strategies are explored.
Prerequisites SOC 101, and SOC 110
SOC $396 \quad$ Post Colonial Theory
Advanced seminar in contemporary postcolonial theories.
Prerequisite: Prerequisite SOC 190 or SOC 107 or ENG 228 or ENG 375
SOC 402 Honours I: Special Topics
3-3-0
The course accommodates the study of particular sociological topics at an advanced undergraduate level. Subjects will vary from year to year.
Required for Honours Sociology students; normally to be taken in the final year. Prerequisite: Permission of the department chair is required
SOC 403 Directed Independent Study V 3-0-0
A tutorial course in which the student (normally a major) may pursue his or her Interests in a selected area of sociology, under the direction of a member of the Department.
SOC 404 Honours II: Research Strategies 3-3-0
This course examines research procedures, the objectives and limits of particular approaches, and the relationships between theory, research strategy and its application.

## Required for Honours Sociology students

Prerequisite: Permission of the department chair is required

## SOC 450 Thesis

Supervised honours research project under the direction of an instructor.
This is an option for Honours Sociology students only and must be submitted to the Department upon completion.
Prerequisite: The completion of all required courses within the Major and the permission of the Departmental member who acts as the thesis advisor. Normally taken along with 402 and 404 in the final year of the Honours Sociology program.
SOC 490 Contemporary Theory
3-3-0
This course examines both the linguistic turn and the crisis of representation within $21^{\text {st }}$ century sociological theory. Using advanced social theory the course (re) examines the relationship of empirical research and theory to offer a reassessment of social scientific knowledge
Prerequisite: Required for SOC Honours students
Prerequisite: SOC 222 and good standing in the program
WGS 101 Introduction to Gender Studies
3-3-0
This course uses interdisciplinary feminist theories that consider how systems of power constitute one another. It examines particular local and global topics such as health, education, work, violence against women, globalization, media and cultural representations, families, and feminist activism.
A prerequisite and required in Gender, Diversity, Equity Studies Minor.
WGS 201 Introduction to Feminist Critique 3-3-0
This course explores a range of current issues and debates within feminism in Canada.

## WGS 230 Women in Performance

3-3-0
An analysis of the role of women in the performing arts as practitioners, creators, producers and spectators with emphasis on the modern era and western cultures. The course takes a cultural studies approach to the subject and includes readings by feminist theorists, sociologists and cultural historians.
WGS 301 Directed Independent Study
3-3-0
A student undertakes independent study with a faculty member in the programs.
Prerequisite: Permission from the coordinator and the instructor.

WGS 305 Selected Topics in Feminist Critique
3-3-0
This course explores a range of current issues and debates within feminism in Canada.
Prerequiste WOM 101(WGS101) or WOM 201(WGS201)
For WGS230 / DRA 230 see Drama department course descriptions, courses
offered on an irregular basis.

## Courses Offered on an Irregular Basis

SOC 155 Sociology of Sport 3-3-0
A theoretical and empirical introduction to the social organization of sports and how they are mediated.
SOC 215 Culture, Ethnicity and Aging
3-3-0
This course is designed to raise an awareness of aging in relation to culture and ethnicity. Concepts and theories of culture, aging and group interaction understood within a Canadian perspective will be provided in addition to sociological examination of class, gender and race.
SOC 217 Social Policy of Aging
3-3-0
This course will study the content, the interpretation and impact of laws affecting elderly and will examine the evolution of social policies and programs in the province of Quebec and in Canada. It will analyse the principles that the state follows to determine its implication in the field of social and health services to the aging population. The evolution of social policies and programs, the current configuration of governmental resources, community resources, and natural networks will also be examined.
SOC $220 \quad$ Work and Leisure
3-3-0
Industrial and "post-industrial" societies, especially Canada, are examined within a world-system framework. The focus is on power dynamics, contemporary and theoretical issues, involving workers, professionals, owners and consumers.
SOC 281 Communications Methods 3-3-0
Research in the areas of interpersonal, organizational and mass communication. Methods particular to communications studies are examined and applied.
SOC 293 Visual Sociology 3-3-0
We live in cultures which are saturated with digital information and new media. This course engages with major thinkers who study the use of photographs, film, and video to understand society. The course is organized around a series of ideas and problems involving intersections between theory and practice.
SOC 301 The Response to Marx 3-3-0
This course examines the response to Marx throughout the 20th and 21st century. In particular, the course examines how developments in linguistics, theoretical reconceptualization's of power, and new understandings of science, have problematized Marx's work. By considering the relative strengths and weaknesses of such approaches, the course prepares students to gauge the continued relevancy of Marx's insights.
Prerequisites: SOC 222
SOC $308 \quad$ Formal Organization
3-3-0
The institutionalization and legitimation of power and decision-making processes. Special emphasis is given to innovation and deviance in formal organizations.
Prerequisite: Students should have 9 credits in Sociology or permission of the instructor.
SOC 381 Media and the Environment 3-3-0
This course examines processes of technologically mediated interaction at the macro-sociological level. Trends and structures of mass culture and communications are examined in relation to how we relate to nature.
Prerequisite: Students should have 9 credits in Sociology or permission of the instructor
SOC 395 Advanced Theories of Social Sustainability 3-3-0
Advanced seminar on the dynamics of global and local relationships regarding the nature of sustainable societies.
Prerequisite: Some background in the study of ecological and economic issues are strongly recommended
WGS 120 Gender, Justice, and the Law
3-3-0
This course provides a study of the political and legal conditions of gender historically and contemporarily. It uses feminist and sociolegal theories to study legal culture and law as a site of social struggles.

## Sports Studies

## Faculty

## Danilo Fernandes da Silva,

B.Sc. (State University of Maringa),
M.Sc. (State University of Maringa),

Ph.D. (State University of Maringa)

## Tavis Smith

BMOS (Western)
M.Sc. (Edinburgh)

Rafael Tedesqui,
B.A. (Faculdade Ruy Barbosa), M.A. (Ottawa), Ph.D. (Ottawa)

Maxime Trempe,
B.Sc. (Montreal), Ph.D. (Montreal)

Chair of the Department

## Objective

The Sports Studies Department at Bishop's provides an intensive study of sport and exercise in society with a primary focus on three themes: Athletic Development, Sport Business, and Exercise and Health. The Sports Studies program and its courses belong to the Division of Social Sciences at Bishop's. Sports Studies is offered as a Major (with a specialized concentration), an Honours, and a Minor. The Major and the Honours programs are general Bachelor of Arts degrees, designed to encourage students to develop liberal education competencies while acquiring in-depth knowledge in at least one area of specialization. The programs also provide opportunity for practical experiences.

## Program Outcomes

After graduation, students will be qualified to work in the field of athletic development (e.g., as a physical trainer, coach, performance analyst, or member of a support team), in the management business of sport (e.g., administrator of a provincial/ national sport organization, municipal leisure department, sport centre, or professional team), or to pursue additional studies in a health-related discipline (e.g., athletic therapy, public health, etc.).

## Sports Studies Major (48 credits)

## MAJSPO

The Major in Sports Studies is a program of 48 credits (16 courses) divided into core courses ( 27 credits) and concentration courses ( 21 credits; see table below). At the time of their choosing during their Bachelor's degree, Sports Studies students will have to "declare" at least one of the three possible concentrations and complete its requirements. Completing two or all three concentrations is possible, yet optional.

## Notes:

1) Students wishing to complete 2 or 3 concentrations in Sports Studies must note that SPO 401, SPO 402, and SPO 411 will count as optional courses in only one concentration.
2) Students completing the Athletic Development concentration of the Sports Studies Major will have the possibility to apply for a recognition of achievement via Sports-Québec to obtain a coaching certification (NCCP modules). More information can be obtained by contacting the Chair of the Sports Studies program.

## Electives

Bachelor's Degree programs at Bishop's require 120 credits. Quebec students with a DEC receive 30 advanced credits, allowing completion of the degree in three years. Therefore, a Sports Studies Major has 72 credits ( 42 for a Quebec student) of "free elective" courses. Students are encouraged to consider adding a minor from another discipline, or even a second major.

All Sports Studies students must meet the "Arts and Science" requirement of the University by completing at least one (3 credits) course offered by the Division of Natural Sciences and Mathematics. Popular options among Sports Studies students are BIO 131, BIO 233, and EXS/BIO 433.

| Sports Studies Major (48 credits) |  | PSY 203 | Cognition and Motivation in Sport: Performance Enhancement | SPO 312 | Development <br> Talent Identification and |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Core (27 credits): |  | $\begin{aligned} & \text { SPO } 301 \\ & \text { SPO } 311 \end{aligned}$ | 硣les \& Society | SPO 36 | elopment through |
| EXS 111 | Motor Learning and Control |  | Long-Term Athlet |  | Sport |
|  |  |  | Development | SPO 370 | Public Relations in Sport |
| EXS 117 | Active Lifestyle, Fitness and Health | SPO 312 | Talent Identification and Development in Sport | SPO 390 | Sport and Social Inequality |
| SPO 101 | Introduction to Sports Studies and the Workplace | SPO 321 | Personality and Expertis | SPO 40 | Experiential Learning |
|  |  |  | Development in Sport | SPO 40 | dependent Study |
| SPO 170 | Social Media and Sport | SPO 401 | Experiential Learning | SPO 408 | Special Topics in Sports |
| SPO 201 Sports, Culture \& Society |  | $\begin{aligned} & \text { SPO } 402 \\ & \text { SPO } 407 \end{aligned}$ | Independent Study |  | Business and Society |
| SPO 211 | The Theory of Coaching |  | Special Topics in Athletic | SPO 41 | Sports Centre Practicum |
| $\begin{aligned} & \text { SPO } 212 \\ & \text { SPO } 303 \end{aligned}$ | Applied Sport Analytics |  | Development <br> Sports Centre Practicum |  |  |
|  | Advanced Seminar in | SPO 411 |  | Hea | xercise |
|  | Athletic Development and |  |  | Concentration |  |
|  |  | Business and Society |  |  |  |  |
| $\text { SPO } 304$ | Advanced Seminar in Sport Business | Concentration <br> (21 credits) | CONSPB | Required (6 credits): |  |
|  |  |  |  | EXS 231 | Nutrition |
| SPO 416 | Knowledge Mobilization in Sports Studies | Required (6 credits): |  |  | Exercise |
|  |  | SPO 270 | Sporting Even | EXS 301 | ealth and Exercise |
| Athletic Development |  |  | Organization | Science |  |
| Concentration |  | SPO 280 | Sports Centre <br> Management and <br> Recreation Planning | Optional (15 credits): |  |
| (21 cre | CONSAD |  |  | $\text { (BIO } 131$ | The Human Body in |
| Required (6 credits): |  | Optional (15 credits): |  | OR |  |
| EXS 127 | Introductory Exercise | BHR 221 | Organizational Behaviour | BIO 233 | Human Anatomy) |
| EXS 227 | Physiology <br> Fitness Assessment in Health Populations | BMG 100 | Understanding Business and Society | PBI 2 | Health Psychology I |
|  |  |  |  | PBI 276 | Health Psychology II |
|  |  | G 214 | Introduction to Entrepreneurship: New Venture Creation | PBI 327PSY 277 | Psychology of Nutrition Physical and Mental Health |
| Optional (15 credits): |  |  |  |  |  |
| BIO 233 | Human Anatomy |  |  |  |  |
| EXS 137 | Introduction to applied strength and conditioning | BMK 211 <br> BMK 214 | Marketing Management Consumer Behavior | $\begin{aligned} & \text { SOC } 219 \\ & \text { SOC } 307 \end{aligned}$ | Sociology of the Body Sociology of Health |
|  |  |  |  |  |  |
| EXS 228 | Functional Anatomy and Injury Prevention | BMK 362 <br> CLA 130 | Sport Marketing <br> Sports and Games in the | SPO 217 | Active Lifestyles in Society |
|  |  |  |  |  |  |
| EXS 231 | Nutrition for Sports and Exercise |  | Ancient World Sports Economics | $\begin{aligned} & \text { SPO } 401 \\ & \text { SPO } 402 \end{aligned}$ | Experiential Learning Independent Study |
|  |  | ECO 224 |  |  |  |
| EXS 317 | Biomechanics of Human Movement | $\begin{aligned} & \text { HIS } 267 \\ & \text { POL } 213 \end{aligned}$ | History of Sport in Canada Canadian Sport System | SPO 409 | Special Topics in Health and Exercise Sports Centre Practicum |
|  |  |  |  |  |  |
| EXS 327 | Athletic Performance and Development |  |  | SPO 411 |  |
|  |  | POL 230 | The Politics of Sport Long-Term Athlete |  |  |
| EXS 433 | Advanced Exercise Science | SPO 311 |  |  |  |

## Sports Studies Honours (60 credits)

 HONSPOThe Honours in Sports Studies offers students a comprehensive introduction to the research process. Through a series of pedagogical and research activities, students are exposed to modern ethical and methodological issues pertaining to the field of sports studies, they are introduced to advanced data analysis techniques, and they learn to analyze results and interpret findings in relation to the existing literature. The Honours in Sports Studies also allows students to deepen their theoretical knowledge while further developing the liberal education competencies. This program prepares students to pursue graduate studies.

The Honours in Sports Studies is a 60 -credit program. It incorporates the 48 credits of the Major in Sports Studies, to which 12 additional required credits are added. These additional credits are meant to be completed during the final year of the degree.

## Required courses for the Honours ( $\mathbf{1 2}$ credits)

SPO 332: Advanced Data Analysis (3 credits) - Note: this course will not be restricted to Honours
SPO 498: Honours Seminar (3 credits)
SPO 499: Honours Thesis ( 6 credits)

## Admission criteria

Honours in Sports Studies is restricted to Sports Studies majors in their final year ( 90 credits or above) who have successfully completed the statistics requirement of the SPO major (i.e., PSY 213 or BMA 140 or SOC 211 or PHY 101) and have maintained a cumulative general average of at least $75 \%$. In addition, students need to find two faculty members to supervise their research work (a primary and a secondary supervisor). Thus, meeting the objective requirements (i.e., 90 credits and above, completion of statistics course, GPA of $75 \%$ and above) does not guarantee acceptance in the Honours program.

## Sport Studies Minor

## (24 credits)

MINSPO
The Minor in Sports Studies is a program of 24 credits ( 8 courses) requiring student to complete EXS 111, EXS 117, and SPO 170 as well as 5 additional SPO and/or EXS courses.

## List of Courses

EXS 111 Motor Learning and Control 3-3-0
In this introductory course, historical and contemporary theories related to motor learning and control will be presented. Through a series of lectures, workshops, and directed reading, this course will explore the neural basis of movement production, the information processing capacities of the brain, as well as the formation of procedural memory. At the end of the course, students are expected to be able to evaluate the effectiveness of different intervention strategies in the context of skill development.
Note: EXS courses do not fulfill the "Arts and Science" requirement for students in the Divisions of Social Sciences or Humanities
EXS 117 Active Lifestyle, Fitness and Health 3-3-0
The Active Lifestyle, Fitness and Health course is designed to explore, through a series of lectures and workshops, the scientific principles relating to physical activity, exercise, fitness and health in asymptomatic populations from different age groups. At the end of the course, students are expected to understand the dose-response relationship between a variety of physical activities (e.g. Aerobic and resistance training, leisure activities, etc.) and different fitness outcomes (e.g. Body composition, muscle strength, cardiorespiratory fitness, etc.). Moreover, students will be exposed to a mechanistic approach to understand how fitness is associated with long-term health and longevity. Liberal Education Competencies: Quantitative Reasoning (Introductory), Critical Thinking (Introductory), Information Literacy (Introductory).
Note: EXS courses do not fulfill the "Arts and Science" requirement for students in the Divisions of Social Sciences or Humanities
EXS 127 Introductory Exercise Physiology 3-3-0
This course explores concepts in Exercise Physiology, with applications in Sports Medicine. The student will be challenged to apply basic knowledge of human anatomy and physiology to exercise, training and sports. Adaptation of body systems to exercise, injury and reconditioning will be studied. Basic principles of biomechanics and exercise will be explored. The course will consist of lectures, presentations, discussion periods, and demonstrations.
Note: EXS courses do not fulfill the "Arts and Science" requirement for students in the Divisions of Social Sciences or Humanities
EXS 137 Introduction to applied strength and conditioning $\quad$ 3-3-0 This course will offer students an introduction on how to program, execute and coach the most common movements in athletic development. Using a practical and hands-on approach, this course will focus on traditional resistance training, Olympic weightlifting, plyometrics, speed \& agility, metabolic conditioning as well as other modern methods. Throughout the course, students will be introduced to the biomechanical, physiological and coaching principles that are essential to become a successful athletic development coach. Most of the classes will be held at the John H. Price Sports Centre.
EXS 227 Fitness Assessment in Healthy Populations 3-3-0 This course is designed to provide general guidelines with regards to fitness assessment in healthy populations. Through a series of lectures and workshops (fitness room), students will be exposed to the scientific principles underlying fitness assessment including aerobic and anaerobic energy systems, muscle strength, body composition and gross motor skills. At the end of the course, students are expected to be able to understand different tests and how to apply them with healthy populations. Students will also be asked to develop a critical thinking in order to better appreciate the available scientific literature.
Note that students who successfully completed SPO 406 in 2015 or 2016 may not receive credits for EXS 227.
Prerequisite: EXS 127 Introduction to Exercise Physiology
Note: EXS courses do not fulfill the "Arts and Science" requirement for students in the Divisions of Social Sciences or Humanities

## EXS 228 Functional Anatomy, Injury Prevention and Treatment in Sport

This course explores topics in functional anatomy relating to sports injuries and their treatment. Mechanisms of musculoskeletal injury will also be presented with a prevention perspective. Through lectures and workshops on basic human anatomy, students will examine how body parts and systems are involved during movement production. This course will provide hands-on opportunities through demonstrations, small group discussions and practical work. Liberal Education Competencies: Oral Communication Skills (Intermediate), Problem Solving (Intermediate).
Prerequisites: EXS 127 Introduction to Exercise Physiology or BIO 233 Human Anatomy
Note: students may not earn credit for both EXS 228 and EXS 328. EXS courses do not fulfill the "Arts and Science" requirement for students in the Divisions of Social Sciences or Humanities

EXS 231 Nutrition for Sports and Exercise
3-3-0
An introduction to the principles of sports nutrition. Application of these principles to various contexts: exercise, fitness, as well as competitive sports environments. Topics include energy requirements for exercise and performance, both for recreational and elite athletes; carbohydrate, protein, fat and micronutrient requirements; carbohydrate and fluid intake prior to, and during exercise; nutrition for post-exercise/performance/injury recovery; dietary supplements; weight loss and "making weight" in sport; contemporary issues.
Prerequisites: EXS 117 Active Lifestyle, Fitness and Health or EXS 127
Introduction to Exercise Physiology Nutrition or BIO 233 Human Anatomy
Note: EXS courses do not fulfill the "Arts and Science" requirement for students in the Divisions of Social Sciences or Humanities
EXS 301 Health and Exercise Science 3-3-0
This course examines the relation and links between exercise and health. Using epidemiological studies, students are exposed to the role of physical activity on morbidity and mortality. Primary and secondary health-risk factors are examined relative to the influence physical activity has on them and one's quality of life.
Prerequisites: EXS 127 Introductory Exercise Physiology and a statistics course: SOC 211 or PSY 213 or BMA 140, or PHY 101.
Note: EXS courses do not fulfill the "Arts and Science" requirement for students in the Divisions of Social Sciences or Humanities
EXS 317 Biomechanics of Human Movement
3-3-0
This course provides an introduction to the biomechanics of human movement and kinesiology. In particular, the kinematics and kinetics of the musculoskeletal system are studies. The course teaches concepts and techniques of analysis, with practical examples taken from sports and exercise, gait analysis, physical rehabilitation, ergonomics and more.
Prerequisites: EXS127 Introductory Exercise Physiology or BIO 233 Human Anatomy
Note: EXS courses do not fulfill the "Arts and Science" requirement for students in the Division of Social Sciences and the Division of Humanities
EXS 327 Athletic Performance and Development
3-3-0
This course explores the many factors influencing athletic performance and its development. Specifically, students will be exposed to the scientific principles of athletic training. Topics will include: power and endurance training, strength training, recovery strategies, field and laboratory tests, periodization of training. The course will consist of lectures, presentations and experiments.
Prerequisites: EXS 227.
EXS 433 Advanced Exercise Science
3-3-0
This course examines selected topics in Exercise Physiology. Through traditional lectures, directed readings, seminars, and case studies, students will study short-term and long-term adaptations to exercise. We will also examine the scientific principles underlying sports-related topics such as optimizing exercise performance, injuries, and injury repair.
Prerequisite: EXS 327 or BIO 336
Note: See BIO 433. Students may not take this course for credit if they have received credit for BIO 433.
SPO 101 Introduction to Sports Studies and the Workplace 3-2-1
This course provides a general introduction and overview of the field of sports studies. Through a series of case studies, readings, simulations, presentations, written reports and reflections, students will be exposed to the role of different sport specialists in our society and the ways in which they practice their profession. Specifically, this course will explore professions such as: fitness and personal trainer, varsity coach, sports injuries therapist/physiotherapist, sports nutritionist, sports facilities manager, municipal parks and recreation planner/manager, sports journalist, kinesiologist, professional athlete, and more. Effective goal setting and
career planning will also be addressed as well as current issues in Sports Studies. Note: This course is restricted to students majoring in Sports Studies and is normally completed within the first thirty credits
Co-requisite: ILT 141

## ILT 141 Information Retrieval and Evaluation Skills

 for the Social Sciences (Lab)1-0-1
The objective of this laboratory course is to introduce students to the skills necessary to effectively complete their research assignments, including the correct use of library resources, such as the online catalogue, periodical indexes, and other relevant databases. Other areas of study include the identification of key terms for effective searching, productive use of the internet, and the critical evaluation of retrieved resources. Academic integrity, plagiarism, and the correct citation of print and online sources are also covered. Taught in conjunction with a researchbased course, the specific resources relevant to research in the Social Sciences are introduced, and the students retrieve the material necessary to complete the essays for their particular course. The course is taught in the library's electronic classroom, and each week the students are given the opportunity for practical experience.
SPO 155 Sociology of Sport
3-3-0
A theoretical and empirical introduction to the social organization of sports and how they are mediated.
Note: This course if offered irregularly. Students may not take this course for credit if they have received credit for SOC 155.
SPO 170 Social Media and Sport
Social media is now an integral component of the communication strategy of sporting organizations. More than just a marketing tool, social media facilitates a dialogue between organizations and their targeted audience. This reciprocal communication is however complex as it is performed in an ever changing environment: the tools and good practices of today may become obsolete tomorrow. This course is designed to introduce students to current social media theories and their applications in sporting contexts. Liberal Education competencies: Quantitative reasoning (Introductory), Written Communication (Introductory).

## SPO 201 Sports, Culture \& Society

3-3-0
An interdisciplinary course focusing on the impact of sport on society. Topics include history and philosophy of sport, sport in the ancient world, its relationship to social identity, social hierarchy, media, film, popular culture, business and our economy.

SPO 211
The Theory of Coaching
3-3-0
The aim of this course is to explore the fundamentals of athletic coaching. Through a series of lectures, presentations and workshops, students will be exposed to the theoretical elements that contribute to successful athletic coaching. Topics will include: teaching and learning theories, planning a practice, designing a sport program, coaching and leading effectively.
Prerequisite: SPO 201.
SPO 212 Applied Sport Analytics
3-3-0
Affordable and widely distributed technological tools such as cameras, accelerometers, and smartphones now allow the recording of an overwhelming quantity of information related to individual athletic abilities and/or team performance. With such an abundance of quantitative information, contemporary challenges reside in our capacity to analyze and interpret this data in a meaningful way. Through a series of lectures and workshops, students will be exposed to modern trends in sport analytics as well as tools offering efficient ways to analyze and visualization data. Liberal Education Competencies: Problem Solving (Introductory), Critical Thinking (Intermediate), Quantitative Reasoning (Advanced).
Prerequisite: SOC 211 or PSY 213 or BMA 140 or PHY 101
SPO $217 \quad$ Active Lifestyles in Society
3-3-0
In Active Lifestyles in Society, students will explore the sociocultural and economic conditions that enable or constrain one's capability to lead an active lifestyle, thus providing an opportunity to engage critically with the relationships among sport, active lifestyles, and health and well-being. Various social determinants of physical activity will be considered and the specific challenges and opportunities across the life course from childhood to adulthood will be examined. The course will conclude with an in-depth examination of active lifestyles and lifestyle sports in society, considering the implications of/for social cohesion, national identity, risk, professionalization and commodification, and more.
Prerequisite: SPO 201

SPO 270 Sporting Events Organization
3-3-0
This course is designed to help students develop the skills and acquire the knowledge required to organize successful sporting events such as tournaments, championships, and conferences. Through lectures, workshops, and case studies, students will learn about the theories supporting sporting events organizations and will have the opportunity to apply these concepts to overcome real-life challenges. Topics related to budget planning, human resources, material and equipment availability, transport, lodging and communication strategies will be discussed.

SPO 280 Sports Centre Management and Recreation Planning 3-3-0 This course is designed to help students develop the skills and knowledge to effectively manage a sports centre as well as design a comprehensive and economically sustainable recreation plan for a community. Through lectures, workshops, and case studies, students will learn about the theories and bestpractices supporting successful management in a sport-specific context while also reviewing modern initiatives favouring participation in sport programs. Topics related to resource management, program design for various populations, marketing strategy, and continued participation in sport programs will be discussed.
SPO 301 Athletes \& Society
3-3-0
An interdisciplinary course focusing on the social implications of professionalizing sport. Topics include the role of media in professionalizing sport, its effects on amateur athletics, technology and sports, the proliferation of drugs in sport, the business models of sports professionals.
Prerequisite: SPO 201.
SPO $303 \quad \begin{aligned} & \text { Advanced Seminar in Athletic Development / } \\ & \text { Exercise and Health }\end{aligned}$
This seminar is an advanced directed study in specialized areas of athletic development and health. Using scientific articles published in peer-reviewed journals, selected topics are presented and critically discussed in a small group format led by students. The content of this course will explore a variety of issues and may vary year to year. Liberal Education Competencies: Oral Communication (Advanced), Quantitative Reasoning (Advanced), Critical Thinking (Advanced). Prerequisites: SPO 201 and SPO 212 and ILT 141
Note: Students may earn credit for only one of the following courses: SPO 303, SPO 304, SPO 403
SPO 304 Advanced Seminar in Sports Business and Society 3-3-0
This seminar is an advanced directed study in specialized areas of sports business and society. Using articles published in peer-reviewed journals, selected topics are presented and critically discussed in a small group format led by students. The content of this course will explore a variety of issues and may vary year to year. Liberal Education Competencies: Oral communication (Advanced), Quantitative Reasoning (Advanced), Critical Thinking (Advanced).
Prerequisites: SPO 201 and SPO 212 and ILT 141
Note: Students may earn credit for only one of the following courses: SPO 303, SPO 304, SPO 403

SPO 311 Long-term Athlete Development
Developing Olympians and professional athletes is a complex endeavor requiring National Sport Organizations to develop a structured, large scale, and multistage plan. This plan must include initiatives to ensure that children are given the opportunity to sample a variety of sporting activities in their early years, develop holistically, and ultimately remain active for life. In this course, students will examine the Long-Term Athlete Development model and its implication for the design of sporting programs. Persistent myths regarding athletic development will also be presented concomitantly with recommendations formulated by the scientific community. Liberal Education Competencies: Oral Communication (Intermediate), Quantitative Reasoning (Advanced), Critical Thinking (Advanced) Prerequisites: SPO 211 or Permission of instructor

## SPO 312 Talent Identification and Development in Sport 3-3-0

This course examines the state of the art and science on talent identification and development in sports. Through lectures, debates, projects, and presentations, the students will be exposed to theoretical, research, and applied issues in the field. By the end of the course, students will have an understanding of relevant issues surrounding the practice of identification and development of sport talent and will have applied critical thinking to assess the current talent identification and development practices of sport organizations.
Prerequisites: SPO 201

SPO 321 Personality and Expertise Development in Sport
3-3-0
This course examines the relationship between personality and the development of expertise in sports. We will discuss which and how personality characteristics may facilitate learning, training, and talent development in sport. We will engage with theoretical, research, and applied issues in the area through lectures, discussions, debates, projects, and presentations. By the end of the course, students will have an understanding of different personality characteristics that distinguish individuals and will have applied critical thinking in assessing the relevant literature to identify which personality characteristics are conceptually and empirically related to expertise development in sports.
Prerequisites: SPO 201
Note: Students who successfully completed SPO 407 during the Fall 2019
semester may not receive credits for SPO 321
SPO 332 Advanced data analysis
3-3-0
This course will explore the advanced data analysis techniques frequently used when conducting research projects in the field of sports studies. Through a series of lectures and workshops, students will be exposed to both quantitative and qualitative techniques. Modern data analysis softwares will also be used.
Prerequisites: SPO 212
SPO 360 Development through Sport 3-3-0
In recent decades, sport has been identified by a range of institutions as a potentially valuable tool for pursuing the goals of international development. This includes economic development, gender empowerment, peace-building, sustainability, education, and disease prevention, among other things. Today, organizations ranging from small community-based programs to international organizations like the United Nations and the International Olympic. Committee recognize this sentiment, and support the use of sport to achieve a wide variety of international development goals. In this course, students will be introduced to some of those international development goals and the ways that sport has (or has not) contributed to them. Students will also be invited to consider the potential for sport programming to address these issues, and the methods that sport managers and researchers use to evaluate its impact.
Prerequisites: SPO 201 or POL 140
Note: students who successfully completed SPO408 during the Fall 2021 semester may not receive credits for SPO 360
SPO $370 \quad$ Public Relations in Sport 3-3-0
Public Relations in Sports defines and examines the role of public relations (PR) in the sport industry. Through hands-on activities, lectures, readings, group projects and guest speakers, this course will focus on how sporting organizations and athletes manage their relationships and reputations with internal and external stakeholder groups, including media, community, fans, donors, corporate partners, and governing bodies. Students will analyze management issues, crises, and legal, ethical, and sociological issues that are associated with PR in the sport industry. Students will also practice technical skills associated with PR in sport, such as writing press releases, pitching stories, and conducting press conferences. Liberal Education Competencies: Oral and Written Communication Skills, Creative and Adaptive Thinking, Social and Cultural Literacy, Ethical and Moral Reasoning.
SPO 390 Sport and Social Inequality
3-3-0
This course is about fairness in sport, physical activity, and physical culture. It is about the right and capability to participate, and the way that those are differentially distributed in the Canadian population. The capability to participate in sport and recreational physical activity is profoundly affected by the social structures of Canadian society and by persistent inequalities. This course enables students to study the effects of class, gender, race, sexuality, and other aspects of social inequality upon opportunities, programs, and practices. The role of sport in reproducing or transforming those social inequalities and the means by which social equity might be more effectively pursued are considered throughout the course.
Prerequisites: SPO 201 or SOC 245
Note: students who successfully completed SPO409 during the Fall 2021 semester may not receive credits for SPO390
SPO 401 Experiential Learning $\quad \mathbf{3 - 1}-10$
The aim of this course is to integrate knowledge with a practical component. Although the content focus changes from year to year, the aim of the course is to expose students to the application of what they have learned. The course will mix seminars with practical placements. Topics may include: Marathon running, coaching, assisting in a community sports program, developing exercise programs in hospitals, homes for the aging, convents, or some other care-giving institution. Prerequisite: Permission of instructor

## SPO 402 Independent Study

3-3-0
Students are expected to design and carry out research in an area related to Sports Studies. This can be original research, the development of a case study, or a program evaluation.
Prerequisite: Permission of instructor
SPO 403 Advanced Seminar in Sport Studies $\quad \mathbf{3 - 3 - 0}$
This seminar is an advanced directed study in specialized areas of sport and recreation. Selected topics are presented and critically discussed in small group format. The content of this course will explore a variety of issues and may vary year to year.
Prerequisite: SPO 301 and one of: SOC 211, PSY 213, BMA140 or PHY 101
Only open to students in their final year (last 30 credits).
Note: Students may earn credit for only one of the following courses: SPO 303, SPO 304, SPO 403
SPO $407 \quad$ Special Topics in Athletic Development
3-3-0
A lecture/seminar course offered by regular and visiting faculty on topics related to athletic development. Topics covered will be dependent on the research interests and expertise of the faculty member instructing. The course will be offered on an occasional basis. Liberal Education Competencies will be developed according to the special topic. However, considering it is a 400 -level course, it is expected that an advanced level of competency will be acquired at the end of the semester. Prerequisites: Subject to change depending on topic taught. Please contact the Chair of Sports Studies.
SPO 408 Special Topics in Sports Business and Society 3-3-0 A lecture/seminar course offered by regular and visiting faculty on topics related to sports business and society. Topics covered will be dependent on the research interests and expertise of the faculty member instructing. The course will be offered on an occasional basis. Liberal Education Competencies will be developed according to the special topic. However, considering it is a 400-level course, it is expected that an advanced level of competency will be acquired at the end of the semester.
Prerequisites: Subject to change depending on topic taught. Please contact the Chair of Sports Studies.
SPO $409 \quad$ Special Topics in Health and Exercise 3-3-0
A lecture/seminar course offered by regular and visiting faculty on topics related to health and exercise. Topics covered will be dependent on the research interests and expertise of the faculty member instructing. The course will be offered on an occasional basis. Liberal Education Competencies will be developed according to the special topic. However, considering it is a 400 -level course, it is expected that an advanced level of competency will be acquired at the end of the semester.
Prerequisites: Subject to change depending on topic taught. Please contact the Chair of Sports Studies.
SPO 411 Sports Centre Practicum 3-3-0
This course provides an experiential learning opportunity at the John H. Price Sports and Recreation Centre on campus, and is aimed at introducing students to the practice of fitness training and mentoring, and training in various sports and recreational/fitness activities. Students spend up to $10 \mathrm{hrs} /$ week $(100+$ hours for a semester), volunteering under the close supervision of a member of the staff of the Sports Centre. An outcomes report of the practicum will be expected. Enrolment will be limited and only students having completed at least one year at Bishop's and who have maintained at least a $70 \%$ cumulative average will be eligible.
Prerequisite: Permission of instructor
SPO $416 \quad$ Knowledge Mobilization in Sports Studies 3-3-0 While possessing sound theoretical knowledge is crucial to lead a team or an organization, the ability to communicate efficiently is of the utmost importance to positively influence the behavior of others and their decision-making. In this course, knowledge mobilization tools and strategies will be presented to allow students to communicate key scientific information to diverse audiences. Through lectures, seminars, and mostly workshops, students will explore a variety of topics related to the three concentrations of the Sports Studies program (Business and Society, Athletic Development, Health and Exercise) and will be invited to present the results of their investigation during the annual Congress of Sports Studies. Liberal Education Competencies: Oral and Written Communication Skills (Advanced), Problem Solving Abilities (Advanced), Information Literacy Skills (Advanced), Creative Thinking (Advanced), Social Confidence and Inter-personal Competence (Advanced)
Prerequisites: ENG 116 and SPO 303 or SPO 304

SPO 498 Honours seminar
3-3-0
This course will prepare students to complete a research project in the field of Sports Studies. Using a seminar approach, students will be introduced to all the steps involved in the planning of a research project: literature review, ethics application, grant/scholarship application, formulation of research questions and hypotheses, selection of the adequate methodology, and presentation of the proposed project.
Prerequisite: Permission of instructor

## SPO 499 Honours Thesis

6-3-0
Under the supervision of two members of the Faculty, students will lead and complete the research project conceptualized in SPO498. Students will thus be exposed to data collection and analysis, and they will be expected to report their results and conclusions during a public talk and in the form of a written thesis conforming to the publication standards of the field of Sports Studies.
Prerequisites: SPO 498 and SPO 332

## Electives of interest

BIO 131*
Human Body in Health and Disease
BIO 233* Human Anatomy
BMG 214 Intro. to Entrepreneurship: New Venture Creation
BMG 324 Management of Innovation
BMK 362 Sport Marketing
CLA 130
ECO 224 Sports Economics
ENG 296 Sports Writing
ESG 264 Outdoor Recreation
HIS 267 History of Sports in Canada
PBI 217 $\dagger \quad$ Motivation and Emotion
PBI 275 $\dagger$ Health Psychology I
PBI 276 $\dagger \quad$ Health Psychology II
PBI 327 $\dagger \quad$ Psychology of Nutrition
POL 213 Canadian Sport System and Policy
POL 230 The Politics of Sport
PSY 203 $\dagger$ Cognition and Motivation in Sport
PSY 204 $\dagger$ The Social Psychology of Sport and Exercise
PSY 277 $\dagger \quad$ Physical and Mental Health
RSC 209 Sports and Religion
SOC 155 The Sociology of Sport
SOC 219 Sociology of the Body
SOC $220 \quad$ Work and Leisure
SOC 307 Sociology of Health
*may receive credit for only one of BIO 131 and BIO 233
these courses all require PSY 101
and/or PSY 102 as pre-requisites.
Note: Some of these courses are only offered on an irregular basis

## Graduate Programs

## Overview

The University offers graduate degrees in Education (MA, MEd), Computer Science (MSc), and Physics (MSc) and graduate Certificates in Management, Brewing Science, and a graduate level Micro-program in Climate Change.

Bishop's University also offers thesis-based, Individualized Masters Programs. Thesis-based Individualized Masters Programs allow students to tailor a Master's program (M.Sc. or M.A) to specific research goals and explore topics outside of traditional disciplines. Students applying to the Individualized Program must contact a supervisor in a field of research they are interested in and collaborate with them to develop a proposal for a research project. Considering the research project and following a defined structure, they must also propose a program structure and flow using existing courses within the university and at other universities.

The program can involve one or several disciplines. The discipline will be determined by the research projects. It can be one or several disciples attached to a department at the University. The Individualized Master's Program has 45 credits that are normally completed over 2 years of full time study. The thesis component of the program should represent 30 credits and the coursework component 15 credits. Specific coursework would be defined for each Individualized Program as part of their proposal.

For more information, contact the Graduate Studies Coordinator (jimmy.couturier@ubishops.ca).

## Admission Requirements

## Master of Education (MEd) and <br> Master of Arts in Education (MA)

## General Admission Requirements

- have completed a B.Ed. or related degree at a recognized university with an average of at least $75 \%$;
- normally have at least two years of relevant educational experience (teaching or related professional experience).


## Required Supporting Documents

- 2 references using the School of Education Reference Form.
- Proof of English proficiency. All applicants must submit proof of English proficiency. Consult the English Language Proficiency Requirements document to determine what, if any, supplementary documents you must provide.
- Copy of most recent university transcript.
- Letter of intent outlining why you believe you are a good candidate for graduate studies at Bishop's University.
- Your curriculum vitae

MA applicants only: One-page description of your research interests, including area of interest, initial research questions, approach, possible resources required, and an approximate time line for completing the program.

Copy of personal identification document(s). Consult the Personal Identification Documents page to determine what document(s) you must provide.

## Graduate Certificates in Education

## General Admission Requirements

- have completed a B.Ed. or relevant degree at a recognized university, normally with an average of at least $75 \%$;
- have at least two years of relevant experience (teaching or related professional experience); such experience will be taken into account as we consider admissions.
Required Supporting Documents
- 1 reference letter of reference addressing academic ability, qualifications and experiences, and how this certificate will benefit your professional learning.
- Proof of English proficiency. All applicants must submit proof of English proficiency. Consult the English Language Proficiency Requirements document to determine what, if any, supplementary documents you must provide.
- Copy of most recent university transcript.
- Personal statement illustrating experience working with students and reason(s) for seeking admission to the program.
- Your curriculum vitae


## Master of Science (MSc)

## General Admission Requirements

- Completed undergraduate degree in a related field with high academic standing
- Proof of English proficiency. All applicants must submit proof of English proficiency.


## Computer Science (Thesis option)

The minimum requirements for admittance to the program are an undergraduate degree with a major in Computer Science or equivalent, and a high upper-second class standing.

Candidates with high academic standing in an undergraduate degree other than computer science, who have some computer science background either academic or professional, may be admitted as graduate preparatory students. Preparatory students will be asked to complete up to one year of undergraduate courses to enhance their background. We may at our discretion replace the requirement of preparatory period with a set of preparatory co-requisites. These co-requisites will consist of undergraduate courses to be taken concurrently with the regular graduate courses. In these circumstances the candidate is admitted directly to the graduate program, but should expect a longer residency in the program.

In addition to academic performance, a combination of factors is taken into consideration in assessing the eligibility of a candidate for admission into graduate programs. One important such a factor is the availability of a faculty member competent and willing to supervise the academic program of studies and research of the candidate; a candidate will not be admitted to the program under any circumstance unless such a faculty member exists. Other factors include the performance of the candidate and the assessment provided by his/her referees as a measure of the likelihood that the candidate can successfully complete the course of studies and research.

## Computer Science (Project Option)

The minimum requirements for admittance to the program are an undergraduate degree with a major in Computing Science, Information Technology, Computer Engineering, Electrical Engineering, Mathematics, Physics, or equivalent, as well as a $70 \%$ standing. Note however that the admission process is competitive and so meeting the minimum requirements does not guarantee admission.

Candidates with insufficient academic background in Computer Science may be admitted as graduate preparatory students and will be asked to complete up to one year of undergraduate courses to enhance their background. We may at our discretion replace the requirement of qualifying period with a set of preparatory co-requisites. These co-requisites will consist of undergraduate courses to be taken concurrently with the regular graduate courses. In these circumstances the candidate is admitted directly to the graduate program, but should expect a longer residency in the program.

## Application procedure

The application procedure for our graduate degrees is the following two-step process:

- A pre-application submitted to the department is mandatory and authoritative, meaning that it will guarantee admission provided that the information submitted is correct and complete. Note that the pre-application forms are different for the two options (thesis and project). Pre-applications are free of charge.
- An official application must then be submitted using the Bishop's on-line application system (fees apply). Note that the application can be submitted at the same time or even before the pre-application, though in this case the application fees will be charged irrespective of the departmental decision.


## Regulations for Graduate Studies in Science (MSc)

The Division of Natural Sciences and Mathematics of Bishop's University offers a Master of Science degree (M.Sc.) program in the Departments of Chemistry, Computer Science, and Physics. Potential students are referred to the appropriate departmental section of this Calendar for specific program information.

## Admission

1. Completed applications will be forwarded to the appropriate department for evaluation. Recommendations for admission to a degree program are made by the department to the Dean. Final approval for admission is made by the Dean.
2. Advanced courses of instruction leading to the Master of Science degree are open to graduates of any university of recognized standing who have obtained at least a Bachelor's degree with Honours with Class II standing or its equivalent. An applicant who has followed a combined program must have obtained at least a Class II standing in the subject of the Masters degree.
3. Applicants who do not satisfy these requirements may, with the permission of the department concerned and the Dean, be admitted to a qualifying semester(s) or year to bring their standing up to that of an Honours B.Sc. degree.
4. Admission to graduate courses does not in itself imply candidacy for a graduate degree.
5. All information is processed through the Admissions Office.
6. These regulations for admission are minimum requirements. Additional requirements may be specified by departments, with the approval of the Division.

## General Regulations

1. Apart from any qualifying semesters, the minimum period of registration for the M.Sc. shall be one academic year of fulltime study, including research, or its equivalent in part-time study. This requirement must be met regardless of the amount of graduate work previously completed in any other program or at any other university.
2. The maximum time allowed for the fulfillment of the requirements for graduation shall normally be four years in the case of full-time students, excluding any qualifying or inactive semesters. For part-time students the course-work required for qualifying semesters (if any) and the regular credit requirements of the program must be completed at the rate of no fewer than 6 credits per year.
3. Students may choose to leave the program temporarily for one semester, but only with permission of their supervisor; these students shall be considered inactive for that semester. Such a one-semester leave of absence from the program will not normally be allowed more than twice.
4. Students must obtain a minimum of $65 \%$ in each required course. Courses may not be repeated more than once.
5. Each degree candidate will be assigned, by the department in which the thesis is to be submitted, to a supervisor who shall be a faculty member of the department and who will
be responsible for advising the candidate and directing his/ her research. Co-supervisors may also be assigned with the department's approval.
6. The course of study will be arranged by the supervisor. The subject of the thesis also requires approval by the supervisor.
7. The responsibilities of the students include: informing themselves of program requirements and deadlines, working within these deadlines, communicating regularly with their supervisors; and submitting annual progress reports to their supervisors and the Division.
8. Students may receive (limited) financial support from the University in the form of research assistantships, undergraduate marking, tutoring and/or laboratory demonstrating duties. Such support requires approval in writing from both the department and the Dean. Duties and remuneration will be clearly stated and in no case shall duties exceed ten hours per week on average.
9. All students in graduate courses or degree programs enjoy the protection of the University's policy and procedures on academic review and appeal (see pp. 21-24 of the University Calendar) and on research ethics (see the Vice-Principal for documentation).
10. A passing grade is $65 \%$ or better or " P " for pass. A grade less than $65 \%$ or " F " is a failure.
11. Full-time status for graduate level studies is defined to be 9 credits or more.

## Supervision

1. It is the responsibility of the supervisor to monitor the progress of students throughout the graduate program, to ensure that all conditions of admission and requirements are fulfilled, to provide students with information on their program, and to advise them how to resolve problems which may arise during their program.
2. Thesis supervisors must be tenured or tenure-stream faculty or adjunct faculty. Sessional and contract faculty may co-supervise students with the department's approval. Emeritus Professors may co-supervise. In all cases, the department must ensure continuity of appropriate supervision of their graduate students.
3. Problems that cannot be resolved by discussion between the student and the supervisor shall be referred to the Dean.
4. Information concerning sources of financial support and policies on obtaining same should be sought from the Dean.
5. Students must receive guidance and constructive criticism concerning their progress on a regular basis through the program, including regular meetings and/or e-mail communication with supervisors, attendance at research seminars, and appropriate responses to the student's annual progress report.
6. By April 15 of each year, M.Sc. candidates must submit to their supervisors a progress report covering both courses and research programs. This report must include the candidate's name, program and semester, a list of courses completed and their grades, a list of courses in which the candidate is registered, and a list of courses yet to be taken. A statement concerning the research work must include the title of the thesis
(or if this has not yet been decided, a general title of the project), a short outline of the work to its present state, including the amount of work done and the significant findings of the research, plus a statement of the work proposed for the future and a realistic estimate of the time required for its completion.
7. The supervisor will evaluate the annual progress report and grant a grade of "satisfactory" or "unsatisfactory". Copies of this graded report will go to the department concerned and to the Division. The department may compel a student to withdraw from the M.Sc. degree program in the event of an "unsatisfactory" grade on an annual progress report. Students have the right to have this decision reviewed, first by the Dean and then by the Academic Review Committee.

## Thesis Regulations

1. All M.Sc. students must make a satisfactory oral presentation and defense of their thesis before graduating. Three copies of the thesis of a degree candidate must be submitted, with the approval of the supervisor, to the Division at least two months in advance of the marks deadline of the semester in which it is to be defended.
2. The three copies of the thesis delivered to the Division must be accompanied by a letter from the supervisor informing the Division of the names of the two persons who have consented to act as examiners of the thesis (see Regulation 3). The secretary of the Division shall forward one copy of the candidate's thesis to each examiner with an appropriate covering letter.
3. The thesis shall be orally presented and defended before two examiners other than the supervisor, one of whom shall be an external examiner who is a specialist in the candidate's field of interest. The examiners shall be selected by the supervisor and department concerned, subject to the approval of the Dean. A thesis will be accepted only following approval of its defense by both examiners. A thesis may be returned to the candidate for revision on the advice of one or both examiners and subsequently re-defended (once only).
4. After the thesis has been defended and accepted, at least three copies shall be properly bound by the University at the candidate's expense, one for deposit in the Library, one for the retention of the department concerned and one for the supervisor. At the request of the candidate, a fourth copy maybe bound for his/her personal use.
5. Advice concerning the preparation and presentation of theses is to be provided by the supervisor and department concerned.
6. It is the responsibility of a supervisor to uphold and to transmit to students the highest professional standards of research and scholarship in the preparation of theses; to provide guidance in all phases of the student's research; to meet with their students regularly; to provide prompt feedback on submitted work, including drafts of the thesis; and to clarify expectations regarding collaborative work, authorship, publication and conference presentations which may result from the student's research.

## Physics (Thesis-based)

The program is open to graduates of any university of recognized standing who have obtained at least a Bachelor's degree with honours with a Class II standing (GPA of $3 / 4$ or its equivalent). An applicant who has followed a combined program (e.g., majors in math and physics), must have obtained at least a Class II standing in their physics courses. Applicants who do not satisfy these requirements may, with the permission of the University, be admitted to a qualifying year to bring their standing up to that of an honours degree. Alternatively, the department may require students to do additional courses to those that are considered mandatory to meet the minimum requirements. Even if MSc applicants meet the minimum requirements, the department is not obligated to accept applicants based on the availability of supervisors, financial considerations, ability to offer the necessary courses, or the ranking of more qualified candidates.

## Application procedure

The application procedure for our graduate degrees is the following two-step process:

- Pre-apply by completely filling in the departmental form. Note that the form is different for the two options (coursebased and thesis-based). If the form contains all the pertinent information then you will receive from the department a fairly accurate evaluation, which in most cases indicate that your official application will be successful. Pre-applications are free of charge.
- Once you receive a positive evaluation from the department you must go to the Bishop's on-line application system and submit an official application (fees apply) in order to be granted official admission by the Admission Office.
Note that the two steps above can also be completed at the same time. However, in this case the application fees will be charged irrespective of the departmental decision.


## Micro-program in Climate Change

The basic entry requirement will be an undergraduate degree in any field from a recognized university with at least a B standing in the final two years of study. There are no specific pre-requisites, but students will need to be comfortable with basic mathematical and scientific concepts.

## Graduate Certificate in Brewing Science

To quality for enrolment, students must hold a B.Sc. in Biochemistry, Biology, Chemistry, or another discipline relating to one or more of the three (e.g. Chemical or Biological Engineering) and a minimum graduating average of $60 \%(\mathrm{C}+)$.

This program has a limited enrolment.

## Application procedure

The application procedure is the following:

1. Visit the Bishop's University Online Application page, look under the Winter (January 2022) section and click the "Graduate Winter Application form" link. The letters of reference can be uploaded to the website or emailed directly to: admissions@ubishops.ca.
2. Complete the application form and upload a copy of all of the following:
a. A statement of interest, no longer than 400 words in length, indicating why you want to be enrolled in the program and what you hope to gain from it
b. An official copy of all university transcripts
c. Two letters of reference. The letters of reference can be uploaded to the website or emailed directly to: admissions@ubishops.ca.

## Regulations for Graduate Studies in Education

## The Degree of Master of Education or Master of Arts

To qualify for the degree of Master of Education or Master of Arts in Education, a candidate must be a graduate of this or another approved university and must complete 45 credits of graduatelevel work in Education.

Courses leading to these programs are offered year round, on the Bishop's campus and possibly at off campus locations, via technology.

## General Academic Regulations

1. Applicants may be admitted to one of the following: the Master of Arts in Education or the Master of Education program.
2. M.Ed./M.A. students who receive a grade lower than $70 \%$ have failed the course and are not permitted to continue in the program without formal permission of the School of Education's Admissions Committee.
3. Students enrolled in either the M.Ed. or the M.A. who have not registered for any course during a period of more than 24 months are deemed to have withdrawn. They may reapply for admission to the program, subject to the same procedures and conditions as new applicants.
4. Full-time status for graduate level studies is defined to be 9 credits or more.

## Transfer Credit

A candidate for the Master of Arts in Education or the Master of Education degree may, with the permission of the Dean of the School of Education, complete up to three appropriate courses (9 graduate-level credits) at another recognized institution. Candidates should obtain prior approval for such courses. Such courses may not be used to meet the requirements of core courses or projects, monographs, or theses.

## M.Ed. and M.A. in Education

## Program Overview

Certified teachers, educational administrators and those with a first undergraduate degree may make application to graduate programs leading to Master of Education (M.Ed.) in Educational Studies and Leadership, or a Master of Arts (M.A.) in Educational Studies (thesis).

Students in this program will further their scholarly and professional development as administrators, educational leaders, educators, and researchers, while engaging with the social, historical, cultural, and linguistic dimensions of education. Students will consider issues of power, diversity, gender, and marginalization in education. Studies may be based on sociological, historical, or linguistic foundations; they may draw on a variety of contemporary perspectives including comparative and international education, post-colonial theory and theories of decolonization, applied linguistics, sociolinguistics, discourse analysis, and critical theory.

Underlying each of these themes is the overarching theme of leadership in educational institutions and in other organizational, professional, and community settings where enhancing learning for the social, cultural, digital, and economic needs of the 21st century is at the forefront.

Requirements for entrance into graduate programs in Education at Bishop's University are as follows.

Applicants for the M.A. and M.Ed. (full and part-time) must:

- have completed a B.Ed. or related degree at a recognized university with an average of at least $75 \%$;
- normally have at least two years of relevant educational experience (teaching or related professional experience).
NOTE: If your mother tongue is not English and you have not studied for at least three full years in English, you must submit TOEFL, IELTS, or other equivalent English language proficiency test results. Minimum scores in the School of Education for graduate studies are:
- TOEFL minimum score of 80 (Internet-based) with at least a score of 20 in each of the four components
- IELTS minimum score of 6.5 with at least a score of 6.5 in each of the four components


## Applicants for the graduate certificates should:

- have completed a B.Ed. or relevant degree at a recognized university, normally with an average of at least $75 \%$;
- have at least two years of relevant experience (teaching or related professional experience); such experience will be taken into account as we consider admissions.
NOTE: If your mother tongue is not English and you have not studied for at least three full years in English, you must submit TOEFL, IELTS, or other equivalent English language proficiency test results. Minimum scores in the School of Education for graduate studies are:
- TOEFL minimum score of 80 (Internet-based) with at least a score of 20 in each of the four components
- IELTS minimum score of 6.5 with at least a score of 6.5 in each of the four components


## Specific requirements for M.A. and M.Ed.

Applicants to both the M.Ed. and the M.A. must submit two references using the form provided on the Admissions website, a CV and a letter of intent outlining why you believe you are a good candidate for graduate studies at Bishop's University. Applicants to the M.A. must also submit a two-page description of their research interests, including area of interest, initial research questions, methodological approach (e.g. case study, classroom study), possible resources required (e.g. access to specialized computer technologies, special schools and/or populations), and an approximate time line for completing the program. Students applying to the M.A. also must name one or two professors from the School of Education who they believe will be possible supervisors. Because the resources of the School of Education are limited, potential students should be advised that the School reserves the right to refuse admittance to a student whose research interests do not coincide with those of existing faculty for supervision purposes, or if the resources required are not readily accessible.

It is recommended that students complete the program within six years. After six years all students who have not completed the program will be required to meet with the Dean of the School of Education to reassess their progress.

Full-time M.Ed. students who are registered but inactive for a period of one year will be withdrawn from the program and must reapply. Part-time M.Ed. students who are registered but inactive for a period of three years will be withdrawn from the program and must reapply. M.A. students who have not registered for a course or for their thesis for two years will be withdrawn from the program and must reapply.

## Specific requirements for the graduate certificates

Applicants should submit one letter of reference addressing academic ability, qualifications and experiences, and how this certificate will benefit their professional learning. They must also submit a personal statement illustrating experience working with students and reason(s) for seeking admission to the program. This certificate does not lead to teacher certification.

Application information and admission and program criteria for the graduate programs in Education are listed in the Admissions and Registration section of this Calendar.

## Programs leading to the Master of Education (M.Ed.) in Educational Studies and

 Leadership, or the Master of Arts (M.A.) in Educational Studies (thesis)Graduate courses leading to the M.Ed. and M.A. degrees are normally offered during each of the following four sessions: Fall, Winter, Spring 1, and Spring 2.

## Course Offerings

In the M.Ed. and M.A. program, students pursue compulsory courses common to all students, in addition to some specific ones, depending on which program the student has opted for. Students who have completed graduate courses in Education at Bishop's University may be considered for advanced standing. The Admissions Committee of the School of Education may consider the transfer of credits from one of our existing certificate programs. Such transfer credits will only be considered for courses in which the grade received is at least $75 \%$. Practicum courses are not eligible for such transfers. A maximum of nine credits from another institution may be applied to the M.Ed. and M.A. program. For more details on the Master's of Arts program, please refer to the M.A. Handbook.

## Master of Education in

 Educational Studies and Leadership ( 45 credits - without thesis) CONSTL
## Research Module

6 compulsory credits

- GSE 510: Academic Reading and Writing
- GSE 516: Educational Research for Practice


## Foundations courses

9 compulsory credits,
3 credits from:

- GSE 502: Educational Philosophies
- GSE 506: Globalization and Global Education
- GSE 540: Sociological Perspectives in Schooling

3 credits from:

- GSE 501: Psychology of Teaching and Learning
- GSE 523: Educational Neuroscience: Mind, Brain, and Teaching
3 credits from:
- GSE 503: Curriculum Explorations I
- GSE 574: Understanding Professional Development
- GSE 575: Educational Leadership Theories


## Elective Courses 30 credits

More detailed information about specific course choices is available from the School of Education.

## Master of Arts

in Educational Studies ( 45 credits - with thesis)

CONESD

## Research Module

9 compulsory credits

- GSE 510 Academic Reading and Writing
- GSE 516 Educational Research for Practice
- GSE 518 Seminar in Research Methods


## Foundations courses

6 compulsory credits, 3 credits each from 2 of the 3 following courses:

- GSE 502 Educational Philosophies
- GSE 501 Psychology of Teaching and Learning
- GSE 503 Curriculum Explorations I


## Elective Courses 6 credits

More detailed information about specific course choices is available from the School of Education

## Thesis documents 24 credits

- GSE 705: Thesis Proposal (3 credits)
- GSE 700: Thesis (21 credits)


## List of Courses

## GSE 500 Selected Topics in Curriculum 3-3-0

This course has been designed to provide the student with the opportunity to examine recent developments in curriculum.
GSE 501 Psychology of Teaching and Learning 3-3-0
This course will examine ways to use the theories and principles of psychology to understand learning and to inform teaching and curriculum processes. Students will compare and contrast the implications of different theories of learning, including how the theories define knowledge and learning. Students are encouraged to explore in depth topics relevant to their practice.

## GSE 502 Educational Philosophies 3-3-0

This course will examine the philosophical principles and theories that provide a foundation for education today. Through a critical review of philosophical perspectives, students will develop an understanding of the way in which these perspectives continue to shape current educational thinking and practice.
GSE 503 Curriculum Explorations I
3-3-0
This introductory course will examine curriculum as a socially constructed process. Students in the course will examine the principles and theories relating the various dimensions of the curriculum process: designing, planning, enacting and reflecting.

GSE 504 Curriculum Explorations II
3-3-0
This course is an extension of GSE 503, Curriculum Explorations I. Students will focus on using the knowledge acquired in GSE 503 and new knowledge constructed in GSE 504 to generate a curriculum design and the resources necessary to enact that design.
Prerequisite: GSE 503
GSE 505 Evaluation and Assessment 3-3-0
This course will focus on the role of evaluation and assessment of the learning process and will include an examination of their underlying principles. The practical implications of the school context on the learning process will be explored.

GSE 506 Globalization and Global Education
3-3-0
This course provides an overview and introduction to areas of research that inform the practice of global citizenship education. These include inter-disciplinary studies in globalization and education, transnational studies, postcolonial theory, citizenship education, social justice education, migration studies, and sociological and pedagogical approaches to education for social diversity. Students will engage current debates and implications of these for practice.
GSE 507 Origins of Modern Schooling 3-3-0
This course examines the trends and themes in educational history that have influenced and shaped contemporary school systems. The course will explore how schooling and concepts of education have changed over time, and will critically analyze the successes and failures of educational developments. Students will engage in historical thinking and research in order to understand how the educational past continues to impact education today.

## GSE 508 History of Education Policy

3-3-0
This course explores the historical processes that have created current Canadian school systems, with a particular emphasis on Quebec. Through an analysis of public policy case studies, the course will assess the unfolding educational policy environment and how policymaking ideas and debates have impacted the current education landscape.
GSE 510 Academic Reading and Writing
3-3-0
This course has been designed to facilitate students' ability to (1) read, synthesize and analyze academic articles, books and other primary source texts and (2) express their knowledge and ideas in a scholarly fashion using the conventions defined by academic journals. Different types of research articles will be examined and strategies for reading each type explored.

## GSE 511 Educational Statistics

3-3-0
This course is an introduction to statistical analysis methods. Topics to be covered include means, standard deviations, variances, sampling distributions, hypothesis testing z-tests, t -tests, correlation/regression and, if time permits, Chi-squared tests. This course emphasizes a conceptual understanding of statistics and their application in educational research rather than mechanical calculation.
GSE 516 Educational Research for Practice 3-3-0
This course leads participants to consider the relationship between approaches to educational research, knowledge, and practice. Participants explore, in-depth, the epistemological positions and basic principles of action research and the importance of critical reflective practice for transformative education. Individual class projects are carried out, such that students in the M.Ed. Program will adopt an inquiry stance towards their practice, while students in the M.A. Program will deepen their understanding of the foundations of Educational Research.

## GSE 518 Seminar in Research Methods

3-3-0
This compulsory course in research in education for M.A. students is designed to help participants to evaluate and conduct research in education. The course includes topics such as the selection of a research topic and generation of research question(s); collection, analysis and interpretation of qualitative and quantitative date; presentation and evaluation of research; and a range of research designs. Prerequisite: GSE 516
GSE $520 \quad$ Selected Topics in Special and Inclusive Education 3-3-0
This course has been designed to provide the student with the opportunity to examine recent developments in special education.
GSE 521 The Exceptional Learner
3-3-0
This course in special education will examine the characteristics of learners with diverse special needs, including the psychological, medical and sociological aspects of the various exceptionalities and the various ways in which they are educated. The content of this course will be of relevance to administrators and regular classroom teachers as well as to special General educators. Participants in this course will critically examine the many approaches to facilitating learning for individuals with learning disabilities and other exceptionalities.
GSE 522 Special Topics in the Psychology of Learning
This course provides students an opportunity to further explore topics related to the psychology of learning.
Prerequisite or Co-requisite: GSE 501
GSE 523 Educational Neuroscience: Mind, Brain, and Teaching 3-3-0 This course will provide students with an introduction to educational neuroscience framed from an interdisciplinary perspective. This course will review recent research from neuroscience, psychology, and education and will provide a balanced perspective about the potential and limits of linking these disciplines. Students will acquire the skills and concepts needed to interpret basic neuroscience research in the context of a meaningful interdisciplinary question. The course will also investigate the different histories, philosophies, and epistemological lenses
through which common problems in neuroscience, psychology, and education are approached. Topics such as bilingualism, reading and language, numeracy and arithmetic, cognitive control, emotion, and creativity will be addressed.

## GSE 527

Motivation and Teaching/Learning
3-3-0
This course will focus on motivational theories. It will include a rich analysis of how to create motivating learning environments and how to sustain student engagement. It may call on cognitive, constructivist, indigenous, and/or humanist approaches to motivation
GSE 530
Selected Topics in Media Literacy
3-3-0
This course has been designed to provide the student with the opportunity to examine recent developments in media literacy. It will foster an expanded understanding of media and media technology, including the impact on our society and the shaping of individual and collective values and beliefs.
GSE 534 Selected Topics in Educational Theory 3-3-0
This course is designed to provide the student with opportunities to explore various theories of education. Specific topics will be chosen for each course by the professor.
GSE 535 Policy Analysis for Educators 3-3-0
This course will offer educators the opportunity to analyze public policy and the various settings typically associated with education policy making. Readings will introduce students to education policy debates, including the theoretical and ethical, as well as the political and economic, challenges facing policy makers and those impacted by education policy. Students will be guided through critical analyses of education policy, with a particular emphasis on the policies and related laws guiding the Quebec school system. Students will be given opportunities to consider the ways in which practitioners engage with policy, and how they can play a role in the making and reform of that policy.
GSE 540 Sociological Perspectives in Schooling 3-3-0
This course examines the role of schooling in society based in a comprehensive review of research in the sociology of education. Student will develop a comparative framework to analyze the competing agendas underpinning educational policy, curriculum development and a range of pedagogical practice in order to identify the forces associated with the changing landscape of public education in the 21 st century (with particular forces in the forces of globalization and the neoliberal restructuring of the public sector).
GSE 541 Colonialism, Education, and Decolonization 3-3-0 In this course, students will develop a comprehensive understanding of the ongoing history of settler colonialism in Canada and of imperialism and colonialism in the global context. This grounds an examination of the role of education in colonization and in the project of decolonization in a range of national contexts. This course responds directly to the calls for action issued in the 2015 final report of Canada's historic Truth and Reconciliation Commission on Indian Residential Schools and new curriculum on the history of IRS and treaty education subsequently introduced in every Canadian province.
GSE 550 Selected Topics in Educational Technology 3-3-0
This course has been designed to provide the student with the opportunity to examine recent developments in educational technology.
GSE 552 Technology in Education
3-3-0
This course will focus on the potential which technology offers for the enrichment of learning and teaching. Drawing on current research students will examine issues of appropriate effective integration of technology in the curriculum such as the need for value-added approaches. The course will focus on modern technologies including applications of e-learning.
GSE 553 Technology and the Role of the Educator 3-3-0 This course examines the role of the educator in an increasingly technological world. Modern advances in technology have seen a concomitant change in the role of the teacher from one who passes on knowledge to one who mentors students in developing their knowledge. Students become active in their educational activities. This course will examine theoretical perspectives on the role of the educator in a technologically-defined world and the implications for current and future practices. The students in this course will also learn how to create studentcentered applications of technology in the classroom, allowing students to make their own products and their own content.

## GSE 559 Research Paradigms in Educational Technology 3-3-0

This course introduces students to the field of educational technology, an interdisciplinarity field drawing on psychology, anthropology, communications, and systems analysis amongst others. Educational technology involves systemic and systematic perspectives of educational systems and processes. This is not a course about information technology. The course provides students with the opportunity to focus on an area of interest within the field. They will critically analyze the literature base related to one facet of educational technology and produce a scholarly, written review of that literature. This literature review will culminate in research questions, objectives, or hypotheses that align with the literature reviewed. Students will also write an action plan regarding an innovation based on the literature.
GSE 560 Selected Topics in Literacy
3-3-0
This course allows students to examine research related to current issues in literacy learning and teaching. Specific topics vary from year to year to take advantage of the special expertise of the faculty.
GSE 561 Language and Literacy Studies $\quad \begin{array}{r}\text { 3-3-0 }\end{array}$
Through this course, students examine current trends, issues, theory and research in teaching and learning in the English language arts classroom. Topics include media literacy, critical literacy, multiliteracies, multicultural curricula, and language learning and teaching across the curriculum.
GSE 564 Learning to Write and Writing to Learn 3-3-0
This course is designed for teachers who are interested in exploring many different approaches to learning to write in different genres. Participants should be prepared to engage in a great deal of writing as the philosophy of the course is one that is grounded in the notion that "we learn to write by writing".

## GSE 570 Selected Topics in Educational Leadership and

 Administration3-3-0
This course has been designed to provide the student with the opportunity to examine recent developments in educational leadership and issues related to educational administration.
GSE 571 Principles of Educational Leadership
3-3-0
This course, designed for teachers and administrators interested in becoming effective leaders, is an introduction to the study of educational leadership. Participants in this course will be introduced to the theory and research literature on issues of leadership in general and school leadership in particular. Students will explore topics such as school-based management, invitational leadership, flexible leadership, professional collaboration and individual initiative.
GSE 573 Creating and Leading Effective Schools
3-3-0
This course aims to inform practicing and aspiring school leaders about ways to mobilize a school staff toward greater effectiveness in reaching a joint mission. It examines current research and school improvement literature with a view to developing practical strategies for whole school assessment, evaluation and development.
GSE 574 Understanding Professional Development
3-3-0
This course will explore the many ways teachers develop as professionals, both individually and as members of educational organizations. Participants in the course will be involved in reading about and discussing topics such as the following: What knowledge is held by good teachers? What does teacher reflection contribute to development? What can be done by organizations to promote teacher learning and development? How are student learning and teacher learning related? What are the possibilities for designing professional development programs for teachers?

## GSE 575

Educational Leadership Theories
3-3-0
This course is designed to provide students the opportunity to examine a set of educational leadership theories that have been or are currently used in school settings. Participants will be encouraged to critically examine the theories that are presented and explore the implication of using them in educational settings.

## GSE 576 Teacher Leadership

3-3-0
Participants will explore the changing roles of teacher leaders and perspectives on teacher leadership. Participants will review relevant literature and will examine features of teacher leadership including teacher participation in institutional hierarchies and teacher involvement in shaping institutional cultures and acting as agents of transformation.
GSE 577 Family, School and Community Partnerships
3-3-0
This course is designed to facilitate the development of communication and leadership skills necessary for positive family, school and community interactions. Students will examine contemporary issues from both a theoretical and practical perspective and develop strategies which address a variety of complex situations.

GSE 578 Creating, Implementing and Evaluating Innovations in Education 3-3-0
This course will allow students to develop skills in drawing on the literature to create an innovation in education. They will create an action plan outlining the innovation and how to implement and evaluate it
GSE 580 Selected Topics in Second Language Learning 3-3-0
This course has been designed to provide the student with the opportunity to examine recent developments in second language learning.
GSE 581 Introduction to Linguistics for Language Teaching 3-3-0
This course is a survey of linguistic theory as it relates to second language teaching. Students are exposed to major themes in linguistics as a basis for the study of second language teaching and learning.
GSE 582 Language Acquisition
3-3-0
The purpose of this course is to examine ways in which theories of language acquisition have implications for the teaching and learning of a second language. The course includes a study of important research in the field of language acquisition and its relevance to second language teaching.

## GSE 584

Teaching English Grammar
3-3-0
This course provides an overview of the theoretical background for the teaching of grammar. It includes a review of major grammatical patterns of English, as well as a focus on learner errors and the design of material appropriate to the teaching of grammatical concepts.
GSE 585 Methods in Second Language Teaching I 3-3-0
This first course in methodology introduces the student to classroom practices in teaching English as a second language. It includes a historical overview of approaches to second language teaching. The course focuses on the selection of teaching material and classroom techniques for second language teaching.
GSE 586 Methods in Second Language Teaching II 3-3-0
The second course in methodology extends the content covered in Methods I. Classroom practice and development of curriculum resources are the major topics covered in this course.
Prerequisite: GSE 585
GSE 587 Assessment and Evaluation in

## Second Language Teaching

3-3-0
This course includes an exploration of design strategies for effective assessment and evaluation procedures for second language teaching. It combines the theory of effective assessment with practical applications for the second language classroom.
GSE 588 The Second Language Learner
3-3-0
This course focuses on a learner-centered approach to second language teaching. It emphasizes the importance of individual learner backgrounds, special needs of learners, individual learning styles and strategies, and cultural considerations in the teaching of English as a Second Language.
GSE 589 Observation and Practice Teaching in Second Language Classrooms

6-3-0
This six-credit course involves the observation of experienced second language teachers in their classrooms, as well as peer observation of students in the course. Students will develop and teach lessons under supervision at both the primary and secondary levels. Students may observe and teach in adult classes.
GSE 590 The Creative Process in Education 3-3-0
Students will explore the creative process as it affects and is affected by the relationship between the teacher and the learner. Students will engage in creative projects and monitor their own creative process. Through readings, discussion, and experiences with different media, students will learn to articulate and evaluate learning within a creative process framework.
GSE 591 Studio Inquiry I 3-3-0
GSE 592 Studio Inquiry II 3-3-0
GSE 593 Selected Topics in Art Education 3-3-0
This is a seminar course offering students the opportunity to study various aspects of art education. Specific topics vary from year to year to take advantage of the special expertise of the faculty.
SE 594 Readings in Art Education 3-3-0
This is a seminar course in which students study selected texts to gain insight into formative notions and recurring issues in art education. Assignments include historical research questions arising out of an examination of personal experiences in the teaching and learning of art.

GSE 596 Art and Technology: an on-going dynamic 3-3-0
This course addresses the assumptions that underlie the discourse about art and technology. Technology has and continues to be used as a part of art, in the service of art, and as forms of art. Correspondingly each technological innovation in art raises a new set of practical, theoretical, and aesthetic questions that challenge theoretical underpinnings within art education. A review of some of the types of technology-based art, with examples of work by some prominent artists, establishes the range of difficulties that accompany the introduction of new technologies into art and the effects of these new visual languages on discourses in art and art education.

GSE 599
Transformative Praxis
3-3-0
The intent of this course is to cultivate Action Research based experiences with a specific focus on social justice grounded themes and collaborative interaction with relevant community. Students are expected to work in tandem with and under the supervision of faculty members who are actively engaged in such fieldwork. In addition to spending at least four weeks in the field, students can anticipate completing preparative and culminating academic activities. The result of which is meant to encourage students and community members to creatively expand their own borders of transformative possibilities through the art of praxis.
GSE 630 Independent Study in Education 3-0-0
Students in an existing graduate program may be granted permission to pursue an independent study project under the guidance of a faculty supervisor on a topic in Education significant to their program. Topics must be approved by the Graduate Program Committee of the School of Education.
Pre-requisite: Permission of the Graduate Program Committee
GSE 700 Thesis 21 credits Under the supervision of the School of Education thesis supervisor, the M.A. student conducts a research study, which is followed by completion of an academic document that must meet the standards of scholarship established by the appropriate research community.
Prerequisite: Successful completion of GSE 705: Thesis Proposal
GSE 701F Monograph 6 credits
This 6-credit monograph, under the supervision of a mentor assigned by the School of Education, permits the student in the final stages of his/her program to use the knowledge acquired to inform the designing and composing of an original piece of scholarly writing. This document can take a variety of forms including a research report, a book, or a critical review of a body of literature. A successful graduate level monograph is an academic document that must meet the standards of scholarship established by the appropriate research community.

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& \text { Prerequisite: Completion of all course requirements for the Master of Educa- } \\
& \text { tion degree. }
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## GSE 705 Thesis Proposal <br> 3-3-0

This 3-credit independent study, done under the supervision of a thesis supervisor, leads to completion of a proposal, which is defended by the M.A. student prior to registration in the thesis. In addition to developing the proposal, the student deepens their understanding of research ethics and policies. Where pertinent to the proposed study, the student prepares ethics submissions.
Prerequisite: Completion of course requirements for the Master of Arts in Educational Studies

GEA 522 The Principal
3-3-0
This course will examine the relationship of the school principal with various constituencies, including students, teachers, the larger educational community and parents. Expectations and skills related to the roles and responsibilities of the school principal will be explored.
GSL 582 Building Oral Competencies 3-3-0 This course provides students with an overview of theory related to the teaching of adults. It focuses on the application of this theory to the teaching of English as a second language to adults: the development of a needs analysis, selection and design of appropriate materials, and the involvement of adult learners in the learning process.
GSL 589F Individual Project in the Teaching of English 3-3-0 This course may be taken with the special permission of the School of Education. It provides an opportunity for a student to pursue an area of special interest in the field of second language teaching.

## Graduate Certificates

Graduate Certificates offered at Bishop's in the School of Education consist of 15 credits. The certificates are intended primarily for in-service teachers, administrators, educational leaders, and other school-based professionals. The Graduate Certificate in Teaching and Learning in an Uncertain World is designed to meet the needs of educational professionals in the K-12, post-secondary, and private sectors.

The Graduate Certificate in Inclusive Education and the Graduate Certificate in Teaching and Learning in an Uncertain World are offered following a cohort model. Students will take two intensive, on-site or online summer courses in their initial session, and a further three courses online -- one in fall, one in winter, and one in spring.

## Graduate Certificate in Inclusive Education: Teaching and Learning for All

This program is intended for in-service teachers, administrators, and other school-based professionals who would like to be better equipped to support students in an inclusive setting. The certificate provides participants with opportunities to review and extend their knowledge of teaching, learning, assessment, and policy in Inclusive Education, while engaging with other practitioners in similar roles. Students enrolled in this certificate will be have the opportunity to reflect on their own practice, and to critically engage with current themes, theories, and research in the field of Inclusive Education. The graduate certificate will use a cohort model. Students will take two intensive, on-site or online summer courses in their initial session, and a further three courses online -- one in fall, one in winter, and one in spring. The initial intensive session is intended to help develop community within the cohort.

Please note: This certificate may not be offered every year. This certificate does not lead to teacher certification.
Students will earn 15 credits by taking 5 of the 6 courses below:
GCI 524 Exceptional Learners in Inclusive Classrooms
GCI 525 School-based Mental Health Practice
GCI 526 Leading for Inclusion
GCI 527 Differentiating Instruction and Assessment
GCI 528 Special and Inclusive Education: History of Policy and Practice
GCI 529 Inclusive Education: Syntheses and Culminating Explorations
GCI 524 Exceptional Learners in Inclusive Classrooms 3-3-0
This course focuses on the teaching of students with exceptionalities in inclusive settings in the school community. It will provide students with the opportunity to examine the characteristics of diverse learners, including the psychological, medical and sociological aspects of various exceptionalities, and to consider how this knowledge best informs educational practice. Participants in this course will also critically examine approaches to facilitating learning for individuals with learning differences and other exceptionalities, such as Universal Design for Learning (UDL), and differentiated instruction (DI). Finally, students will consider collaboration with students, families, and other school personnel in the instructional process.

## GCI 525 School-based Mental Health Practice <br> 3-3-0

This course focuses on school-based mental health practice. Students will develop an understanding of the prevalence and range of mental health concerns that may be present in children and adolescents. They will analyze the educational impact of mental health issues on youth. They will examine various approaches to support students within the home, school and community. Students will explore a range of topics such as the benefits of authentic home/school collaboration, building children's resiliency, looking at behaviour through a self-regulation lens, and the role of connected relationships with caring educators.
GCI 526
Leading for Inclusion
3-3-0
This course explores student diversity within the context of inclusive education. Current theoretical and conceptual frameworks related to holistic learning, equity integration and a capacity-approach to diverse student learning will be examined. Attention will be given to critique the dominant views of equity and inclusion and how current schooling policies and practices are informed and constructed as a result. Students will reflect upon their agency and roles as leaders to envision and reconstruct more inclusive, student-centered, learning environments.
GCI 527 Differentiating Instruction and Assessment 3-3-0
This course will focus on various ways to differentiate instruction and assessment. Drawing on research- based best practices, specific cases highlighting different approaches will be used as a basis for investigation. Teachers and administrators will engage in an inquiry-based approach drawing on research to develop their own 'cases' showcasing plans to differentiate instruction and assessment.
GCI 528 Special and Inclusive Education:
History of Policy and Practice
3-3-0
This course examines the origins of special education and the historical development of education policy and law related to students with disabilities. The course will consider historical shifts in the theory and practice of identifying students with special needs, as well as educational debates concerning the type and quality of education that such students ought to receive. The movement for integration and inclusion will be explored through an analysis of major court rulings, legislation, and the growth of school policies related to equality, equity, and diversity.
GCI 529 Inclusive Education: Syntheses and Culminating Explorations

3-3-0
Students in the graduate certificate will have the opportunity to bring learning together through a capstone project related to certificate themes and their own teaching and learning contexts. The capstone course consists largely of independent work undertaken alongside regular check-ins, guidance, and supervision from the course instructor. Capstone projects will be open in terms of focus and format, but are expected to represent a synthesis and/or application of developing understandings.

## Graduate Certificate in Teaching and Learning in an Uncertain World CONTLW

This graduate certificate program will bring together teachers, educational leaders, and other educational professionals in the K-12, post-secondary, and private sectors to consider teaching and learning in an increasingly uncertain world. Through a focus on radical hope (Lear, 2008; Smits \& Naqvi, 2015), students will consider how taking educational action in the present might lead to improved outcomes in the future. The program as a whole will explore multiple and interdisciplinary lenses for considering the issues under study. There will also be a strong emphasis on curriculum as a tool for change. The graduate certificate will use a cohort model. Students will take two intensive, on-site or online summer courses in their initial session, and a further three courses online -- one in fall, one in winter, and one in spring. The initial intensive session is intended to help develop community within the cohort. Ideally it would occur face-to-face in order to engage in teaching alongside land.

Please note: This certificate may not be offered every year. This certificate does not lead to teacher certification.

Students will earn 15 credits by taking 5 of the 8 courses below:
GCU 542 Radical hope: Teaching and learning in the context of human-driven climate change
GCU 543 Reconceptualization of curriculum: Curriculum as a process in precarious times
GCU 544 Respect, relevance, reciprocity, and responsibility: Teaching and learning in good relation
GCU 545 Getting dirty: Experiential teaching and learning within and beyond the classroom
GCU 546 Protest as curriculum: Curriculum as protest
GCU 547 Navigating the uncertainty of living and learning online
GCU 548 Leading in an uncertain world: Considering the meanings of transformation in education Teaching and learning in an uncertain world: Syntheses and culminating explorations
GCU 542
Radical hope: Teaching and learning in the context of human-driven climate change

3-3-0
This course will take an interdisciplinary approach to considering the humandriven climate change and what it means in terms of teaching and learning. It will present narratives from literature, science, education, anthropology, geography, the media, Indigenous studies, philosophy, and policy to consider how climate change is framed, what it implies for education, and how teachers and students might learn together hopefully in the face of how climate change is profoundly impacting global processes.
GCU 543 Reconceptualization of curriculum:
Curriculum as a process in precarious times
3-3-0
This course invites students to consider the meaning of curriculum for a world in crisis, and for leading and educating in uncertain times. Drawing on theorists who conceive of curriculum as process, rather than jurisdictionally-mandated content and prescribed outcomes, the course looks at curriculum and education as a responsive and dynamic social and cultural relationship. Within the course, the integration of natural, social, political and economic dimensions serves as a means for course participants to pose problems and design inquiries that they see as significant to themselves and relevant in school-setting - for youth who are facing an uncertain world and future.
GCU 544 Respect, relevance, reciprocity, and responsibility: Teaching and learning in good relation

3-3-0
This course examines the current context for Indigenous-settler relations in education in Canada. In particular it considers how Indigenous peoples have positioned education as a platform for resistance, resurgence, and the potential development of good relations. The course will explore key documents for framing such relations - Indian Control of Indian Education, the Royal Commission on Aboriginal Peoples, the Final Report of the Truth and Reconciliation Commission - in order to critically consider responses in place, curricular opportunities, and teachers' obligations.

GCU 545 Getting dirty: Experiential teaching and learning within and beyond the classroom

3-3-0
This course will focus on gardening, outdoor learning, and experiences in/with the natural world as a means of cultivating relationships with place and land for both teachers and students. There will be a significant hands-on component to the course in order to break down the fear of getting dirty and perceived risks of moving outside the confines of a classroom or school space. The course will work towards development of systems thinking where teachers and learners see themselves as a part of a relational world rather than in control of an objectified existence.
GCU 546 Protest as curriculum: Curriculum as protest
3-3-0
This course will examine the deep connections between social and ecological justice through protest and land protection movements. It will consider historical origins of protest, the goals and impacts of protest, and motivations for protest. The course focus will be protest and land protection movements led by young people and members of communities that are marginalized, undertaken in support of the planet and all its inhabitants. It will position such movements as opportunities for learning, and take a particular interest in public curricula emerging from the movements to consider how such curricula can inform teaching and learning in schools.

GCU 547 Navigating the uncertainty of living and learning online 3-3-0 Online technologies have influenced how we live and how we learn. This course will explore the relationships between online communication technologies and our communities, our relationships, and our learning. It will explore challenges associated with the use of online communication technologies including cyberbullying and the role of educational leaders in addressing these issues. It will consider transformational possibilities for life-long learning and community building, examining specific cases in multiple contexts including schools. It will also explore ways technologies can support us navigating uncertain times.
GCU 548 Leading in an uncertain world: Considering the meanings of transformation in education

3-3-0
Through this course students will learn about and critically analyze frameworks for transformational work in educational settings. Taking into account increasing uncertainty, ambiguity and complexity in the world, the course takes up a variety of disciplinary and inter-disciplinary lenses such as educational leadership and systems thinking. The course develops competencies related to leading and engaging in transformational change processes in the context of global uncertainties.
GCU 549 Teaching and learning in an uncertain world: Syntheses and culminating explorations

3-3-0
Students in the graduate certificate will have the opportunity to bring learning together through a capstone project related to certificate themes and their own teaching and learning contexts. The capstone course consists largely of independent work undertaken alongside regular check-ins, guidance, and supervision from the course instructor. Capstone projects will be open in terms of focus and format, but are expected to represent a synthesis and/or application of developing understandings.

## Graduate Certificate in

Culturally and Linguistically Responsive Teaching
The certificate aims to prepare in-service teachers and/or educational personnel who teach and work with linguistically and culturally diverse students in local and international contexts. The program equips participants with the essential knowledge in linguistics, second language acquisition as well as teaching and learning approaches that are linguistically and culturally responsive to the needs of additional language learners in different contexts. The program also highlights a critical understanding of bi/plurilingual learner characteristics and how their complete communicative repertoires in first and additional languages as well as their diverse cultural resources can be leveraged for meaningful language and content learning and intercultural communication.

Please note: This certificate may not be offered every year. This certificate does not lead to teacher certification.
Students will earn 15 credits shown below:
GSE 581 Introduction to Linguistics for Language Teaching
GSE 582 Language Acquisition
GSE 588 The Second Language Learner
GCL 597 Plurilingualism and Intercultural Education
GCL 598 Methods in Plurilingual Integrated Teaching and Learning
GSE 581 Introduction to Linguistics for Language Teaching 3-3-0
This course is a survey of linguistic theory as it relates to second language teaching. Students are exposed to major themes in linguistics as a basis for the study of second language teaching and learning.

## GSE 582 Language Acquisition

3-3-0
The purpose of this course is to examine ways in which theories of language acquisition have implications for the teaching and learning of a second language. The course includes a study of important research in the field of language acquisition and its relevance to second language teaching.

GSE 588 The Second Language Learner
3-3-0
This course focuses on a learner-centered approach to second language teaching. It emphasizes the importance of individual learner backgrounds, special needs of learners, individual learning styles and strategies, and cultural considerations in the teaching of English as a Second Language.
GCL 597 Plurilingualism and Intercultural Education 3-3-0 This course explores recent changes in language theory, viewing individuals' language competencies as complex, dynamic and holistic repertories of communicative resources that language learners/users employ to construct meaning and engage in intercultural communication.
Implications for teaching and learning will be examined and discussed, focusing particularly on how plurilingual pedagogies can facilitate metalinguistic awareness, cross-language connections as well as critical intercultural awareness.

## GCL 598 <br> Methods in Plurilingual Integrated Teaching and Learning

 3-3-0This methods course introduces the participants to teaching approaches that support diverse students' use and development of plural repertoire of linguistic and cultural resources to meet communication needs in academic and/or professional contexts. It includes a specific focus on curricular design, development of curricular materials, as well as teaching and learning practices that foster the development and use of transversal language and literacy skills and strategies to promote effective knowledge construction and communicative performance.

# Graduate Certificate in <br> Teaching Intensive English 

CONGSL
The Graduate Certificate in Teaching Intensive English is intended for in-service ESL teachers who would like to be better equipped for intensive ESL (IESL) teaching positions. The program provides teachers with opportunities to review and extend their knowledge of language teaching pedagogy while studying in an English-environment.

## Please note: This program is not offered every year.

Students will gain 15 credits through the courses below:
GSL 540 Intensive English: New Trends and Theories
GSL 541 Teaching and Learning in Intensive English
GSL 544 Course and Curriculum Design in Intensive English
GSL 547 Language Learning through Cultures
GSL 549 Building Oral Competencies
GSL 540 Intensive English: New Trends and Theories 3-3-0 This course addresses issues related to second language learning and acquisition, particularly those that relate to intensive English. Topics addressed include language learning theories, such as cognitive and sociocultural perspectives; theories of bilingualism and multilingualism; new literacies - multiliteracies, critical literacy; discussion and debate about Intensive English in society; and various models of Intensive English.

## GSL 541 Teaching and Learning in Intensive English <br> 3-3-0

This course discusses both new and familiar learning theories and pedagogy in the context of the Intensive English program. Participants will explore learnerresponsive teaching through examining individual differences \& multiple intelligences, differentiated instruction, and cooperative learning. They will also look at the ways In which various technologies can contribute to intensive English pedagogy and computer-assisted language learning (CALL)
GSL 544 Course and Curriculum Design in Intensive English 3-3-0 Participants will examine aspects of course and curriculum design that are relevant to teachers of intensive English. They will learn about and apply Interdisciplinary design, backward design, and universal design. They will discuss content-based, task-based, and project-based approaches to language teaching and pedagogical issues related to the teaching of linguistic forms in meaning-focused instruction. The challenges and benefits of making connections with other subject areas and collaborating with other colleagues will be discussed.

GSL 547 Language Learning through Cultures
3-3-0
This course will explore the language arts approach to the teaching of ESL. Theories regarding the connection between English-language cultures and language learning will be introduced, and students will be involved in the construction of classroom learning situations based on different cultural forms (e.g., (poetry, short stories, films, songs and other media) to promote language learning and a critical appreciation of the English-language cultures.
GSL 549 Building Oral Competencies
3-3-0
This course will address issues related to the development of listening and speaking skills in second language learners, including those related to pronunciation. In addition, it will focus on varieties of oral communication in different contexts and the different levels and ages of learners.

## Graduate Certificate in Brewing Science

 CONBRW
## Program Overview

The Graduate Certificate in Brewing Science is a two-semester graduate certificate designed specifically to meet the growing need for well-trained, scientifically educated brewers and / or brewing analysts in the craft and industrial brewing sectors. Students completing this program will be prepared to fill any position relating to the brewing process, the chemical and microbiological analysis of beer and precursor materials (water, malt, hops, yeast, wort, etc.), and research and development.

To qualify for enrolment in the Graduate Certificate in Brewing Science program, students must hold a B.Sc. in Biochemistry, Biology, Chemistry, or another discipline relating to one or more of the three (e.g. Chemical or Biological Engineering) and a minimum graduating average of $60 \%(\mathrm{C}+)$.

The Graduate Certificate in Brewing Science is comprised of six one-semester classroom courses and a two brewing practicum courses in the University's teaching brewery, as shown below.

| Fall Semester | Winter Semester |
| :--- | :--- |
| BRS 501 - <br> Brewhouse Chemistry | BRS 504 - <br> Microorganisms in the <br> Brewery |
| BRS 502 - <br> Malt and Malting | BRS 505 - <br> Chemical Analysis of Beer <br> and its Ingredients |
| BRS 503 - <br> Hops | BRS 506 - <br> The Business of Brewing |
| BRS 531 - <br> Brewing Practicum I | BRS 532 - <br> Brewing Practicum II |

BRS 501 Brewhouse Chemistry
3-3-0
Water, referred to as Hot Liquor in brewing jargon, provides the medium in which all of the chemical and biochemical reactions that are involved in producing beer take place. Additionally, the mineral content of the Hot Liquor is a critical factor in determining many of the final characteristics of the beer, provides many of the essential elements for healthy yeast growth, and contributes enormously to mash pH . This course provides an in depth, comprehensive look at water, its properties, and how its mineral contents affect all aspects of beer and the brewing process.

## BRS 502 Malt and Malting

3-3-0
Malt is produced by the germination of grain (barley, wheat, rye, etc.) followed by application of heat (kilning). It is the heat regimen, together with the type of grain that determines the characteristics of the malt. The malt is the source of the starch that is converted to sugars which the yeast ferments to produce alcohol and it is also primarily responsible for the colour of the beer. Malt is also an important contributor to flavour, aroma, characteristics of the foam (head), mouth feel, and
other characteristics of the beer. This course will cover malt from farming and harvesting of the grain, through the transformations of the malting process, to its chemical and biochemical transformations in the brew house.
BRS 503 Hops 3-3-0 Hops is the ingredient that contributes the characteristic bitterness of beer. It is also responsible for much of the flavours and aromas of beer, particularly those observed in heavily hopped beers such as India Pale Ale, American Pale Ale, and even hoppier double IPAs. The first section of this course will cover the farming, harvesting and processing of hops. The second section will cover hop chemistry, focusing on the resins (bittering agents) and essential oils (flavour and aroma contributors) of the hop cone and their transformations during the brewing process.
BRS 504 Microorganisms in the Brewery
3-3-0
The role of brewer's yeast in the brewing process, particularly its fermentation of sugars to produce alcohol, is fairly well known. However, yeast is also responsible for producing dozens, if not hundreds, of chemical compounds as it metabolizes the sugars, amino acids, and other components during fermentation. Many of these compounds contribute significantly to the flavour and aroma of beer. Other microorganisms, such as wild yeast and bacteria, are also potential contributors to the complex chemistry and biochemistry that occurs in the fermenter; sometimes to the benefit of the beer but more often to its detriment. This course will look at all of the microorganisms that are commonly found in the brewery and provide a detailed description of their chemistry and thus their impact on beer flavour and aroma.
BRS 505 Chemical Analysis of Beer and its Ingredients 3-3-0 As a food product, beer is rigorously controlled at both the federal and provincial levels of government. Part of this process is ensuring that a number of analytical parameters are accurately reported (e.g. alcohol by volume). Many other properties of beer are indicators of the efficacy of the brewing process and whether the brewer is producing a quality product. Analysis of the ingredients of beer (water, malt, hops, yeast) is essential to ensure that standards of quality necessary to produce good beer are met. This course will provide students with an in depth look at the chemical analyses commonly used to analyse beer and its precursors, using the methods database of the American Society of Brewing Chemists. Students will use what they learn to analyse the ingredients and the beer that they use / produce in the co-requisite practicum in brewing.
BRS 506 The Business of Brewing 3-3-0
There is a great deal of time and hard work that goes into planning, building, equipping, and running even a small microbrewery. When a microbrewery fails, it is generally because the ownership doesn't have a particular skill set on the business side. This course will provide students an overview of the brewing industry trends and exposure to all important elements of a business plan to set up a microbrewery. The following topics are discussed: Vision, Mission statement, Marketing, Finance, Operations, Regulatory and Legal aspects that are crucial to operate a successful microbrewery.
BRS 531 Practicum in Brewing I
3-3-0
Ultimately, brewing is a hands-on activity. The brewer must pay careful attention at every step of the brewing process in order to ensure that they have the best chance of producing the desired final product. Even then, the beer, although well crafted, may not exhibit the characteristics of flavour, aroma, colour, bitterness, etc. that the brewer was attempting to produce. Recipe development is a wonderful example of the scientific method and this approach to brewing will be the main focus of this course. Upon completion of BRS 531, students will receive more than 90 hours of brewing experience, constantly comparing what they observe in the brewery with what they are learning in their BRS lecture courses. The aim is to produce a brewer who is proficient in the brewery but also understands the complex chemistry and biochemistry that is involved in producing the highest quality beers.
BRS 532 Practicum in Brewing II
3-3-0
The brewer must pay careful attention at every step of the brewing process in order to ensure that they have the best chance of producing the desired final product. Even then, the beer, although well crafted, may not exhibit the characteristics of flavour, aroma, colour, bitterness, etc. that the brewer was attempting to produce. Recipe development is a wonderful example of the scientific method and this approach to brewing will be the main focus of this course. Upon completion of BRS 531 and BRS 532, students will receive more than 180 hours of brewing experience, constantly comparing what they observe in the brewery with what they are learning in their BRS lecture courses. The aim is to produce a brewer who is proficient in the brewery but also understands the complex chemistry and biochemistry that is involved in producing the highest quality beers.

## Graduate

## Micro-Program in Climate Change

## Faculty

Matthew Peros,<br>B.Sc. (Toronto), M.Sc. (York), Ph.D. (Toronto); Professor and Director of the Graduate Micro-Program in Climate Change<br>Elisabeth Levac,<br>B.Sc., M.Sc. (UQAM), Ph.D. (Dalhousie); Professor

## Alexandre Langlois,

B.Sc. (Université de Sherbrooke), M.Sc. (Université de Sherbrooke), Ph.D. (University of Manitoba); Professor

Darren Bardati,
B.A. (Bishop's), M.A., Ph.D. (McGill); Professor

## Program Overview (9 Credits)

Finding solutions to the problems brought on by climate change requires educating a new generation of global citizens well-versed in the concepts, issues, and challenges associated with such a complex topic. Bishop's University has responded to this need by developing a largely online graduate-level Micro-Program in Climate Change. The program offers instruction from leading experts on the science of climate change, its impacts, and strategies for its mitigation. At the end of the program, it is expected that students will be able to:

- Take a position and provide evidence to support arguments concerning major issues in climate change science
- Develop an understanding of the causes and effects of climate change on local, regional, and international scales, in major regions of the world (poles, tropics)
- Articulate a range of plausible solution strategies to confront climate change in terms of adaptation and mitigation
Graduates of the Micro-Program will be well positioned to compete for jobs in both government and the private sector. Moreover, the Micro-Program could be used as a springboard for further study, whether it involves graduate school in a climate or environment-related field, or a professional degree such as law school or an MBA. Indeed, the Micro-Program has been designed so that it will provide students with a solid understanding of both the scientific and non-scientific aspects of climate change and thus will be highly applicable to a range of career options.


## Admission Requirements

The basic entry requirement will be an undergraduate degree in any field from a recognized university with at least a $B$ standing in the final two years of study. There are no specific pre-requisites, but students will need to be comfortable with basic mathematical and scientific concepts. It is not possible to enroll in the MicroProgram before the completion of all undergraduate degree requirements.

## List of Courses

To complete the Micro-Program, students will do three threecredit masters-level courses (for a total of nine credits) from a list of potential courses:
ESG 502 Sustainable Agriculture and Climate Change 3-3-0
The purpose of this course is to examine the nexus of agriculture and climate change. What are the impacts that climate change is having on agriculture, and what are the impacts that agriculture is having on climate change? We will examine climate change projections, changing agricultural practices, and their impact on food security. We will also learn agriculture's role in reducing greenhouse gas emissions, and discuss how agroecological and regenerative approaches to agriculture might build resilient systems, and help people adapt to climatic changes. The course will include guest lectures from prominent academics working in this field.

ESG 526 Environmental Impacts of Climate Change and Human Activities on the Oceans

3-3-0
People living in cities remote from the sea often forget about the role of the oceans in their economy and in the climate system. The course will examine society's relationship with the oceans, especially in coastal zones. Oceans are the site of many important human activities, and thus are sensitive to pollution and modifications brought by climate change. The goal of the course is to increase students' awareness of the major environmental issues presently affecting the oceans and the challenges facing decision makers when dealing with the impacts of climate change on the oceans (e.g., sea level rise, saltwater intrusions into aquifers, fisheries, etc.).

ESG 550 Global Climate Justice 3-3-0
Grounding our conversation in social science, environmental ethics, and movement \& community-based knowledge, we will work to understand the problems associated with mounting climate injustices globally and to learn about the transformative visions, mobilizations, and solutions offered by the communities and movements fighting for climate justice in different continents and regions of the world.
ESG 561 Arctic and Antarctic Environmental Change 3-3-0
The polar environments, especially the Arctic, are undoing change at a rate far faster than most other regions. Change at the poles has happened in the past and will continue to have important consequences for all Earth's systems. This course will examine the development of these extreme environments and examine what can be expected for the future.
ESG 570 Special Topics in Climate and Environmental Change 3-3-0 A graduate-level lecture/seminar course offered by regular and visiting faculty on topics related to their research interests in climate and environmental change. Topics are determined by the instructor therefore content of the course varies year by year. The course will be offered on an occasional basis.

ESG 573 Energy and the Environment 3-3-0
This course introduces the concepts of energy and power and their units and reviews energy sources, fossil fuels, their environmental impacts, and resource consumption. The basics of heat transfer, energy conversion, and its efficiency according to thermodynamics are covered (including the concepts of temperature, specific and latent heat, the first and second law of thermodynamics, heat engines, and thermal systems). Other topics discussed include electromagnetic and blackbody radiation, the greenhouse effect, the Earth's energy balance, the basics of electromagnetism, and electric power. Radioactivity, nuclear energy, and renewable energy sources are introduced.
ESG 575 Tropical Environments and Climate Change 3-3-0 This course attempts to provide an overview of the tropics as a unique environment and one that poses special problems to its human occupants. The working assumption in the course is that the tropics comprise a far too complex and heterogeneous environment for simple generalizations to apply. However, by gaining some understanding of how its component systems work, one can be in a better position to identify the appropriate questions to be asked and experiments to be performed, so that site-specific solutions can be developed for management problems in different parts of the tropical world. The course will provide a review of tropical climatology, soils, and biomes, in addition to discussing more applied issues such as forestry and agriculture.

ESG 577 The Health Impacts of Climate Change 3-3-0
Climate change is expected to affect human health in numerous ways. The most obvious health impacts are those associated with thermal stress and extreme weather events such as floods and hurricanes (premature deaths, infectious diseases; diarrhoeal disease). Global warming will also be associated with a spread of vector-borne diseases (such as malaria, dengue fever, yellow fever, Lyme disease, etc.) and increases in seasonal allergies. The course will examine the overall impact of environmental degradation, displacement and loss of livelihood on the general physical and mental health of populations.

Courses will be offered in the winter semester of each year. Students may take all three courses in one semester, or take courses over a period of several years. The courses will consist of a combination of seminar, lecture, fieldtrip, and laboratory instruction.

## Graduate Certificate in Knowledge Mobilization

## Program Overview (15 credits)

CONKMB
Knowledge Mobilization (KMb) is the process by which we share and uptake information for the benefit of society. The goal of this Graduate Certificate is to develop students' knowledge, skills and values with respect to KMb and build the capacity to select and apply KMb tools and techniques in research and/or applied contexts. The basic entry requirement will be an undergraduate degree in any field from a recognized university with at least a B standing in the final two years of study. There are no specific prerequisites, though it is highly recommended that students have some background in research methods and scientific concepts. Students in this program will complete 3 courses ( 15 credits), including a 6 -week practicum.

## KMB 511 Theories of Knowledge Mobilization in Research Settings

3-3-0
This course is an overview of the theories and practices involved in the creation, synthesis, translation and dissemination of knowledge in science and social science research contexts, including areas of knowledge translation and implementation science. We will discuss various contexts in which knowledge is created, ethical and equity principals of what research "should" be mobilized, integrating knowledge mobilization into research design, and how to identify barriers and facilitators researchers face using and sharing knowledge. Across various disciplines, we will identify current tools and techniques to evaluate the success of KMb initiatives. Students in this class will create their own KMb plan for a program of research and will design an evaluation of their KMb project.

KMB 515 Theories of Knowledge Mobilization in Applied Settings 3-3-0 This course is an overview of how applied settings such as health, social services, and non-profit sectors, can engage with research at the level of practice, program development, and policy. We will also discuss how these sectors can inform research creation. We will discuss various contexts in which research could/should be applied and weighed in decision making, how to identify audiences for specific areas of knowledge, and how to identify barriers and facilitators to brokers or people in the field. We will discuss how researchers can building partnerships with consumers of their research. Across various sectors, we will identify current tools and techniques to evaluate the success of KMb initiatives. Students in this class will create their own KMb package to inform or raise awareness, and will design an evaluation of their KMb project.
KMB 520 Science Communication 3-3-0
This course will focus on skill development, writing and communication strategies for online and print media, such as online blogs, and columns in local newspapers, as well as current innovations in communication such as infographics. Students will hone their skills in writing techniques, particularly in communicating complex scientific material to a broader audience.

KMB 530 Knowledge Mobilization Practicum 6-6-0
The practicum will explore the application of knowledge gained from the theoretical courses taken in the first half of the Certificate. Students would be placed in a local organization with a mandate to translate knowledge into action. Examples of projects that could be conducted during a practicum include establishing a KMb strategy for an organization, creating KMb materials that would meet the organization's needs, researching and writing a column in a local newspaper, developing a workshop, or participating in a KMb internship at Bishop's University's Research Office. At the end of the practicum, students would submit a portfolio that would include the KMb projects that they have led and/or supported over its duration, a preliminary evaluation of these projects, as well as a journal outlining how previous study of KMb theories and of science communication informed their practicum experience.
Prerequisites: KMB 520

## Master's Degree in Computer Science

# Master's Degree Program (45 credits) 

## I. Thesis Option

CONCSC

## Entrance Requirements

The minimum requirements for admittance to the Master's program are an undergraduate degree with a major in Computing Science or equivalent, and a high upper-second class standing.

Candidates with high graduate academic standing in an undergraduate degree other than computer science, who have some computer science background either graduate academic or professional, may be admitted as graduate preparatory students. Preparatory students will be asked to complete up to one year of undergraduate courses to enhance their background. We may at our discretion replace the requirement of preparatory period with a set of preparatory co-requisites. These co-requisites will consist of undergraduate courses to be taken concurrently with the regular graduate courses. In these circumstances the candidate is admitted directly to the graduate program, but should expect a longer residency in the program.

In addition to graduate academic performance, a combination of factors is taken into consideration in assessing the eligibility of a candidate for admission into graduate programs. One important such a factor is the availability of a faculty member competent and willing to supervise the graduate academic program of studies and research of the candidate; a candidate will not be admitted to the program under any circumstance unless such a faculty member exists.

Other factors graduate the performance of the candidate and the assessment provided by his/her referees as a measure of the likelihood that the candidate can graduate complete the course of studies and research.

## Program Requirements

## 45 CS credits:

15 credits: five 500-level CS courses
6 credits: Graduate Seminar CS 597
24 creidts: Master's Thesis CS 599
Graduate students should familiarize themselves with the University and divisional calendar and regulations. Some of the information herein is adapted from these regulations, but is not intended as a replacement.

Completing the degree normally requires five one-term 500-level courses, registration and participation in the Graduate Seminar (CS 597), together with a Master's thesis (CS 599). Courses are chosen by students in consultation with their supervisor. All courses prescribed for a student's approved program of study are designated as primary. Courses additional to the student's approved program are designated as secondary. Failure to attain a minimum of $65 \%$ in any of the primary courses may result in the student being required to withdraw from the program.

Under certain circumstances, it is permissible for a student admitted to the program to follow an approved graduate-level credit course at another university. All interested students should consult their supervisor and the chair of their department prior to registration in order to obtain further information on procedures and conditions of eligibility.

A thesis proposal should be completed as soon as possible and by the end of the second term in the program at the latest. Students are expected to present their proposal in the Graduate Seminar course and also expected to give more detailed seminars describing their work later.

Thesis topics are chosen after discussion with potential supervisors. The amount of flexibility allowed in pursuing a particular topic will vary according to the supervisor's needs and interests. Theses are defended before an examining committee consisting of two examiners and one chair The chair of the examining committee does not have to submit an evaluation of the thesis, but can do so if she/he so wishes. In the event of a difference in opinion between examiners on whether the thesis is acceptable the chair shall have the tie-breaking vote. The supervisor(s) of a candidate cannot be a voting member of that candidate's examining committee, but is expected to participate in the committee's deliberations.

Any candidate (full-time or part-time), after initial registration in a thesis must maintain this registration in all successive terms (including the term in which the student is examined) until his/her thesis is completed, with the exception of possible temporary leaves of absence dully approved by their supervisor as specified in the general regulations for graduate studies in science. Completion means submission of a final grade to the Division after modifications, any retyping involved, etc. Students should note that faculty approval to register in the thesis is given on the understanding that the student will be in regular contact with his/ her supervisor, and that thesis research will be actively pursued in each term of registration.

## Stream change

Students in the thesis stream can switch to the project stream at any time. Any regular graduate courses they already passed will count toward the requirements of their new program. No credits for the graduate seminar or the Master's thesis can be transferred.

## II. Project Option

CONCSP

## Entrance Requirements

The minimum requirements for admittance to the Master's program are an undergraduate degree (minimum of a 70\%) with a major in any of the following disciplines: Computing Science, Information Technology, Computer Engineering, Electrical Engineering, Mathematics or Physics. Note however that the admission process is competitive and so meeting the minimum requirements does not guarantee admission.

Candidates with insufficient academic background in Computer Science may be admitted as graduate preparatory students. Preparatory students will be asked to complete up to one year of undergraduate courses to enhance their background. We may at our discretion replace the requirement of preparatory period with a set of preparatory co-requisites. These co-requisites will consist of undergraduate courses to be taken concurrently with the regular graduate courses. In these circumstances the candidate is admitted directly to the graduate program, but should expect a longer residency in the program.

## Program Requirements

45 CS credits:
36 credits: twelve 500-level CS courses
9 credits: CS 590 (Master's Project)
CS Graduate students should familiarize themselves with the University and divisional calendar and regulations. Some of the information herein is adapted from these regulations, but is not intended as a replacement.

Completing the degree normally requires twelve one-term 500-level courses, together with a Master's project (CS 590). Courses are available during the regular semesters (Fall and Winter), and are chosen by students depending on their interest, their background, and on course availability. The Master's project is normally available only during the Spring/Summer semester.

Students whose cumulative average falls under $65 \%$ will be restricted to 3 course per semester until their average is brought back to $65 \%$. Failure to maintain a minimum of a $65 \%$ cumulative average may result in the student being required to withdraw from the program.

## Stream change

Students in the Project stream can switch to the Thesis stream as long as they meet the following conditions: (a) they have taken and passed at least four graduate courses at Bishop's, (b) they have an average grade of 75 or better in the graduate courses taken at Bishop's, and (c) at least one faculty expresses interest in supervising their research toward the Master's thesis. No more than five graduate courses can be counted toward the requirements of the new program.

## List of Graduate Courses

CS 500
Project I
3-3-0
This course can only be taken by M.Sc.-course-based (CONCSP) students. The goal is to pursue a research proect under the supervision of a faculty member. The project must be approved in advance by the department. It is also the responsibility of the student to find a faculty member of the department willing to supervise the proposed project. Students will be expected to submit a written report and to make at least one presentation on the project.
Prerequisites: Permission of the department and availability of a supervisor.
CS 501 The Internet of Things 3-3-0
How can companies deal with the vast amount of data coming from a variety of different devices? In the 'Internet of Things' there are many different devices, sensors and data logs. How can a computer scientist take this data and turn it into a readable or graphical form (dashboard) for people to make sense of. The course will consist of looking at how devices such as the 'Fitbit', smartphones, in house security systems send data over the Internet to a server and how this data can be interpreted into something that large corporations can use.
CS 502
Computational Topology
3-3-0
Computational topology uses topological concepts with efficient algorithms to analyze data and solve problems in many fields, including computer graphics and image analysis, sensor networks, clustering, robotics, and others. This course will present an introductory, self-contained overview of computational topology. This course has no formal prerequisites, but a basic mathematical knowledge in calculus and algebra at the senior undergraduate level and some familiarity with the use of computer packages (e.g., Matlab, R, C++, etc.) are expected. We will cover basic concepts from a number of areas of mathematics, such as abstract algebra, algebraic topology, and optimization. We will also look at algorithms and data structures, and efficient software for analyzing the topology of point sets and shapes - termed topological data analysis, or TDA.
CS 503

## Data Visualization

3-3-0
The course explores analytical methods paired with appropriate visualizations for automated and human-assisted analysis for data sets. Several visualization techniques allowing to present data to an observer in a way that yields insight and understanding will be investigated. These big data analysis and visualization techniques are applied to data sets from a wide variety of scientific domains such as biology, physics, engineering, and medicine. The analysis and visualization methods will be illustrated through concrete examples.

## CS 504 Programming Languages for Data Analysis

3-3-0
In this course students will be introduces to the most popular languages and software environments used in statistical computing and visualization. The course will involve significant programming projects in SAS, Weka, R and Python.
CS 505
Data Mining
3-3-0
Cross-listed with CS 405. Data is now created faster than humans are able to understand it and use it. There may be patterns hiding within this data with potentially useful information. This course will teach students, how to discover these patterns for the purpose of solving problems, gaining knowledge, and making predictions. Topics covered in this course include data preparation, clustering, classification, association rules for mining and models combination. This course includes assignments and a final project where the students are required to perform mining on real datasets. Students are expected to perform a substantial analysis of the data set, or prepare a research paper.
CS 506 Parallel Models and Algorithms 3-3-0
This course provides an introduction to the design and analysis of parallel algorithms and to the various models of parallel computation. The course will discuss parallel algorithms for problems such as: basic arithmetic, sorting, searching, selection, graph theory, matrix computations, combinatorial enumeration, optimization, computational geometry, and numerical analysis. Parallel computational models and their properties will be presented. Other typical topics include: complexity classes, and the parallel computation thesis.
CS $507 \quad$ Statistical Learning
3-3-0
Statistical learning is concerned with modelling and understanding vast and complex datasets using methods rooted in statistics. The main objective is for the students to master how and when to apply statistical learning techniques in real world applications. Topics covered include linear regression, classification, linear discriminant analysis, tree based methods, support vector machines, graphical models, random forests and boosting. Projects illustrating how to implement each of the statistical learning methods are carried out using a statistical software package.

CS 508 Project II

3-3-0
This course can only be taken by M.Sc.-course-based (CONCSP) students who have already completed Project I course (CS500). The goal is to further a study undertaken in Project I (CS500). The project must be approved in advance by the department. It is also the responsibility of the student to find a faculty member of the department willing to supervise the proposed project. Students will be expected to submit a written report and to make at least one presentation on the project.
Prerequisites: CS 500, permission of the department, and availability of a supervisor.
CS 509 Pattern Recognition
3-3-0
This course addresses the fundamental theory and techniques of pattern and features classification in numerical data. Pattern recognition methods can be useful in diverse real world applications such as medical data processing, data mining, information retrieval, computer vision, handwriting and speech recognition, and more. The course topics include Bayesian decision theory, statistical classification, maximum likelihood estimation, nonparametric techniques, stochastic methods and unsupervised learning.
CS 510 Model-Based Testing of Reactive Systems 3-3-0
The course provides an in-depth exposure to the area of formal methods called model-based testing. Various testing models will be presented, including traces, may- and must-testing, refusals, and failure traces. Relations to related specification and verification techniques such as temporal logic and model checking will also be investigated. Students are expected to participate in the presentation of the lecture material and perform independent research.
CS 512 Computer Games Design
3-3-0
Cross-listed with CS 412. This course will explore the theory and practice of video game design and programming. Students will learn the basic concepts and techniques for the design and development of digital games. The topics covered in this course will include the history and taxonomy of video games, the basic building blocks of a game, computer graphics and programming, user interface and interaction design, and the software architecture for video games. Students are expected to prepare a research paper during the course, or pursue a larger applied project.
CS 515
Concurrent \& Real-Time Systems
3-3-0
This course provides an introduction to a process algebra such as CSP. It then uses this language for the specification, analysis, and verification of concurrent and real-time systems. Finally, the course presents the use of such a process algebra as a formal method for concurrency at different stages in the development process.
CS 516 Volumetric Image Analysis \& Visualization 3-3-0
Digital volumetric images are stacks of two dimensional image slices produced for instance by tomographic scanner. The goal of this course is to study the different techniques and algorithms for the analysis of volumetric images including a discussion about some sources of volumetric images, especially those occurring in medical imaging with different modalities (Radiology, Computed Tomography, Magnetic Resonance Imaging, Nuclear Medicine, Ultrasound, Positron Emission Tomography). The course will also address the different techniques used to display and visualize volumetric images including volume slicing, surface rendering, and volume rendering.
CS 520 Advanced Topics in Software
3-3-0
The course will present topics of current interest or research directions in software and related areas. The course content is expected to vary to reflect the current interests of students and faculty. Students are expected to participate in the presentation of the lecture material and engage in independent research.

## CS 526 Computer-Aided Intervention

3-3-0
This course introduces students to the fundamentals of computer-aided intervention (CAI) in medicine. The use of computing technology before, during, and after interventions will be examined. Specifically, this course will teach students about tracking devices, coordinate systems, spatial transformations, rigid and non-rigid registrations (feature-based \& intensity-based), calibration, digitization and imaging. Clinical applications will also be discussed. Basic knowledge of either $\mathrm{C}++$, python or matlab is an asset.
Note: Students cannot receive credits for both CS426 and CS526.
CS $550 \quad$ Big Data Management and Analytics 3-3-0
In this course, students will learn the fundamental theory and techniques of Big Data management and analytics, and to apply them to resolve problems in realworld applications. The principle is to learn the strategic extraction and usage of information from large datasets. In fact, the students will exploit recent concepts and trends to manage and analyze Big Data. For that purpose, recently designed algorithmic approaches and technologies will be covered to help the students to manage and analyze large datasets. For that aim, the covered topics will include, but
will not be limited to streaming algorithms, distributed file-system architecture, resilient distributed datasets, similarity search, recommendation systems, link analysis, edge computing, and federated machine learning. The students will work on large projects to practice the concepts presented in this course. In addition, the students will have to submit a paper on a topic related to their research.
Note: Students may not take this course for credit if they have received credit for CS 450
CS 555 Automata Theory \& Computational Complexity 3-3-0 Cross-listed with CS 455. The course will address finite-state machines, contextfree languages and pushdown automata, computability. A systematic study of the known relations between the most important resource bounded complexity classes, reductions, separation results and translation techniques is also included. Students are expected to prepare a research paper during the course.
CS 556 Compilers and Interpreters 3-3-0
Cross-listed with CS 406 . This course is intended as an introduction to the fundamentals of language translation and compiler construction. Topics will include language theory and syntax; grammars, finite state machines, non-deterministic push-down automata; a thorough treatment of parsing methods covering topdown, bottom-up and precedence parsers; Syntax directed translation; Run-time environments; optimization and error recovery; code generation. Students are expected to implement complex semantic analysis and a complex compiler backend. In particular they are expected to implement various aspects of machine code optimization.
CS 557
Database Software Design
3-3-0
Cross-listed with CS 457. This course covers how one can implement a Database Management system. Major topics are Storage management, Query processing, and Transaction management. As a basic assumption, data will not all fit in main memory, so algorithms and data structures appropriate for effective disk storage and quick access must be used. For example, one may use index structures such as B-trees or hash tables. We cover parsing of queries and optimizing of query plans. Finally, we cover durability of transactions using logging, and concurrency control for isolation of transactions. Additional topics in distributed databases are also presented. Students are expected to prepare a research paper during the course, or pursue a larger applied project.
CS 560 Software Engineering 3-3-0
Cross-listed with CS 410. Software is an engineered product that requires planning, analysis, design, implementation, testing and maintenance. This course is a presentation of the techniques used in each step of the software product process. Topics: software requirements analysis and specifications; software design process, object oriented design; testing, reliability and maintenance; automated design tools, programming environments. Students are expected to prepare a research paper during the course, and work on large applied projects.
CS 561 Discrete Structures and Computational Statistics
3-3-0
Sets and functions, Propositional logic, predicates and quantifiers, logical inference, mathematical induction, sequences, summations, recurrence relations, algorithms design and complexity analysis. In depth review of the basic concepts of probability and statistics, simple and multiple linear regressions and applications, analysis of variance. Classification Models: Overview of classification, linear methods, nearest neighbor classification, Bayes classification, logistic regression, linear discriminant analysis. Clustering.
Students cannot receive credits for both CS 561 and MAT 529
CS 562 Mathematical Models in Image Processing
3-3-0
Cross-listed with CS 462. Image processing is a rapidly growing field. As such, it requires and necessitates a number of mathematical models and domains to achieve efficient processing algorithms. Designing a successful processing technique invariably relies on having a successful model for images themselves. The mathematical techniques needed could range from Partial differential equations, Differential geometry, Morse theory, Topology, Algebraic topology, Wavelets, Statistical techniques, Calculus of variations, Numerical methods, Graph theory, and Optimization. The objective of this course is to discuss in depth a number of selected mathematical topics (and their use in image processing) that are of interest to the students at the moment the course is given.

## CS 563 Image Analysis

3-3-0
Cross-listed with CS 463. Image analysis is concerned with the development of machine algorithms in order mimic the biological organism's ability to see and understand images and videos. The course content include: camera models and calibration, image enhancement, features extraction and representation, shape from shading, stereo and texture, optical flow, motion analysis, high level vision and case studies.

CS 564 Network Programming and Distributed Algorithms 3-3-0
Cross-listed with CS 464. The course presents computer networks at a functional level, with strong emphasis on programming distributed applications over a network. Discussion will be based on open networking and application standards such as the TCP/IP protocol suite and the Portable Operating System Interface (POSIX). The concept of distributed algorithms together with the associated challenges and examples are then presented. Programming distributed applications (in C or $\mathrm{C}++$ ) is an integral part of the course. Students are expected to work on a large, distributed, and practically meaningful application as part of the course.
CS 565 Advanced Topics in Computer Analysis 3-3-0
The course will present advanced topics of current interest or research directions in Computer Applications. The course content is expected to vary according to the interests of students and faculty. Students are expected to prepare a research paper during the course, or pursue an applied project.
CS 566 Advanced Topics in Artificial Intelligence
3-3-0
The aim of this course is to cover some advanced topics of current interest in artificial intelligence and their practical side. These topics include but are not limited to Bayesian learning approach, predictive analytics, neural networks, deep learning, generative adversarial networks, and reinforcement learning. Students are required to work on large projects based on the concepts presented in this course, and to submit a paper on a topic related to their research.
CS 567 Advanced Topics in Algorithms
3-3-0
Cross-listed with CS 467. The course covers some advanced aspects of algorithms and complexity. It studies the topic of NP- complete problems. Some specialized algorithms in several areas will be discussed, such as Bioinformatics, Computational Geometry and Network Flow.
CS $569 \quad$ Special Topics in Computer Science
3-3-0
The course will present topics of current interest in Computer Science. The course content varies reflecting the interests of the faculty. Students are expected to participate in the presentation of the lecture material and engage in independent research.
CS 571 Graph Theory and Algorithms 3-3-0
This course provides an introduction to the combinatorial, algorithmic and algebraic aspect of graph theory. There will be a brief refresher of mathematical proof techniques. Topics will include paths and circuits, graph trees, planar graphs, graph colourings, and the Max Floss-Min Cut Theorem. Programming Assignments to implement graph algorithms (in Maple or Octave for example) will be required.
Note: See MAT 421/MAT 521. Students may not take this course for credit if they have received credit for MAT 421 or MAT 521.

## CS 590

Master's Project
9-0-0
The Master's project asks students to pursue a topic or a set of topics in depth and is therefore a more substantial effort than the usual course work. The topics will be chosen by the department. In addressing the topics students must demonstrate that they have command of the subjects involved, and that they understand and are capable of employing research methods. They must also show evidence of perspective on the topics and must show that appropriate methodology has been understood and applied. The deliverable for the project is a report (with appended code if applicable) that, in addition to the above, should show that the students are capable of writing a professional technical document. This capstone project is mandatory for all students enrolled in the course-based Master's and cannot be replaced by other internal or external courses or projects. Students cannot take this course in the first or second terms of their program.

## CS 596 Research Topics in Computer Science

3-3-0
This course provides an introduction to the primary and secondary sources of information in the computing science literature. Faculty discuss their own research objectives and present an overview of research issues in the major subject areas of Computer Science. Students are required to submit and present a paper on a topic that relates to their research.
CS 597F Graduate Seminar
6-0-0
Students are expected to participate in the departmental seminars and give at a minimum two presentations (one outlining their thesis proposal, and another one about their thesis work). All Master's students are normally expected to enrol in this course in their first year in the program. Students will not receive credit for both this course and CS 598 at the same time.

## CS 599 Master's Thesis <br> 24-0-0

The Master's thesis should be an original research paper that is suitable for becoming part of a submission to a peer-reviewed academic journal. The thesis must comprise overall a coherent account of a unified research project rather than a collection of results. It must be expressed in a satisfactory literary form consistent with the discipline and display a scholarly approach to the subject and a thorough knowledge of it. The candidate should consult the thesis supervisor for guidance regarding the content of the manuscript and the graduate coordinator for information regarding formatting requirements

## MSc in Physics

## Program Overview

The Master of Science (MSc) program is designed to give students a much deeper appreciation of physics while at the same time training them to become independent researchers and scientists. Graduate supervision is available in a wide variety of disciplines including astrophysics, exoplanetary science, theoretical cosmology, gravitational theory, field theory and particle physics.

## Master's in Physics ( 45 credits)

## CONPHY

Students who have completed a BSc degree in physics with at least a B average will be considered for admission into the graduate program. Students who have completed only a major in the subject may be required to take additional courses at the Master's level. Students who have been admitted will be assigned a supervisor by the Chair of Physics and Astronomy. The student's research interests will be taken into consideration when a supervisor is assigned. Current areas of research in the department include astrophysics, gravity and cosmology, field theory, particle physics, and theoretical physics.

## Course Requirements (MSc):

The MSc degree requires the successful defense of a thesis ( 15 credits), satisfactory participation in the seminar series ( 18 credits), and the completion of a minimum of 12 credits in course work. Course selection is determined in consultation with the thesis supervisor and departmental chair. All MSc students must make an oral presentation and defense of their thesis before graduating. The normal period for completion of the M.Sc. degree requirements is two academic years (five semesters). The minimum number of credits required to complete the program is 45 .

## List of Courses

PHY 561 Quantum Mechanics I
3-3-0
Foundation of quantum mechanics; Schroedinger equation, angular momentum, central potentials, harmonic oscillator, hydrogen atom.
Students who have received credit for PHY 461 may not enrol in this course.

## PHY 562 Quantum Mechanics II

3-3-0
Matrix mechanics and applications of quantum mechanics to various branches of physics. Perturbation theory, scattering, molecular applications, and Hartree-Fock theory.
Students who have received credit for PHY 462 may not enrol in this course.
PHY 564 Condensed Matter Physics 3-3-0
Topics to be studied include the one-electron theory of solids, energy bands, lattice vibrations, transport theory, and thermodynamic properties.
Students who have received credit for PHY 464 may not enrol in this course.
PHY 565 Electromagnetic Theory 3-3-0
Static and dynamic electric and magnetic fields: Maxwell's equations and solutions involving plane waves. Covariant formulation of electromagnetic field theory.
Students who have received credit for PHY 475 may not enrol in this course.

## PHY 566 Theoretical Topics

3-3-0
Topics to be studied will be selected from the areas of special and general relativity, particle physics, astrophysics, and cosmology. In particular, the covariant nature of physics and various physical symmetries will be investigated.
PHY 567 Advanced Statistical Mechanics
3-3-0
Derivation of the laws of thermodynamics from statistical principles. Quantum statistics, arbitrarily degenerate and relativistic perfect gases, transport theory, thermodynamic fluctuations, and low-temperature physics will also be studied.
Students who have received credit for PHY 467 may not enrol in this course.
PHY 571 Advanced Quantum Theory 3-3-0
Topics to be studied include: Path integral and second quantization approaches to non-relativistic quantum mechanics. Feynman rules and diagrams. Relativistic quantum field of spin-zero particles.
PHY 572 Particle Physics 3-3-0
Quantum field theory of spin $1 / 2$ and spin 1 particles will be introduced. Topics include: renormalization and the renormalization group; quantum electrodynamics and quantum chromodynamics; the Standard Model of particle physics; overview of string theory.
PHY 573 Advanced General Relativity
3-3-0
Topics to be studied include: differential geometry, Einstein equations, junction conditions, shell and dust collapse, gravitational waves, and black hole thermodynamics.
PHY 574 Cosmology $\quad$ 3-3-0
Topics to be studied include: Cosmology, inflation, dark energy, compact objects, relativistic fluid dynamics, gravitational lensing, and gravitational waves.
PHY 575 Numerical Methods \& Simulations 3-3-0
This course will cover selected topics in High Performance Computing including cellular automata, finite element methods, molecular dynamics, Monte Carlo methods, and multigrid methods, with applications to classical fields, fluid dynamics, materials properties, nanostructures, and biomolecules.
PHY 576 Stellar Astrophysics I $\quad \mathbf{3 - 3 - 0}$
An introduction to the properties of stellar atmospheres and interiors. The equations of stellar evolution, nuclear energy generation, radiative transport and stellar model building will be studied. Further topics include the formation of starts, and the physics associated with supernovae, white dwarfs, neutron stars, and pulsars.

PHY 577 Many-Body Quantum Theory in
Condensed Matter Systems
3-3-0
The following topics will be studied: Green's functions at zero and finite temperature; the interacting electron gas; the Hubbard model and strongly correlated systems; electron-phonon interaction; superconductivity and superfluidity.
PHY $578 \quad$ Selected Topics in Astronomy \& Astrophysics
3-3-0
Topics to be determined in consultation with prospective students.
PHY $579 \quad$ Selected Theoretical Topics 3-3-0
Topics to be determined in consultation with prospective students.
PHY 580F Graduate Seminar I
Students are expected to participate in the departmental seminar series and to make a presentation on either their own work or on a research-related topic. All M.Sc. students are normally expected to enroll in this course at the beginning of their first year of studies.
Offered alternate years with PHY 581.
PHY 581F Graduate Seminar II
Students in the second year of their degree program are expected to participate in the departmental seminar series and to make a presentation on either their own work or on a research-related topic.
Offered alternate years with PHY 580.
PHY 586 Stellar Astrophysics II 3-3-0
A detailed study of the physics that determines the evolution of stars during all of their possible phases. This includes radiative hydrodynamics and atmospheric modeling, specialized equations of state, and the nuclear physics needed to understand the various channels that lead to the creation of the heavy elements. The physics of neutrino production and detection will also be investigated. These topics will form the basis for a study of the evolution of supernovae and other highenergy phenomena in stellar astrophysics.
PHY 600 Thesis Research Dissertation
15-0-0
Each student is required to carry out independent, publishable research that is presented in the form of a thesis. The research is conducted under the supervision of a faculty member. The thesis will be evaluated externally and must be successfully defended in a meeting for which the presentation of the thesis results is open to all members of the academic community.

## Services and Facilities

## Student Services

## Mission Statement

Student Services understands Bishop's University to be a learning community in which the student is the centre of our educational mission.

We commit ourselves to work together with students and with all partners, both teaching and non-teaching, to enhance the quality of student life so that each student may experience the fullest personal growth, enjoy a learning environment that is just, mutually respectful, and strives for academic excellence.

We support an atmosphere where both freedom of expression and civility are powerfully affirmed. Further, we endorse a disciplined community where individuals accept their reciprocal obligations for the common good; where well-defined procedures of governance guide behaviour; where service to students is encouraged; and where a caring community supports the well-being of each individual.

Finally, we support the University as a community in which the heritage of Bishop's is remembered, the contribution of students is honoured; where the rituals affirming tradition are acknowledged and the procedures governing change are widely shared.

## Dean of Student Affairs

As a Senior Administrator and Officer of the University, the Dean oversees the overall coordination and quality of student services (Athletics, Campus Ministry, Counselling Services, Student Accessibility Services, Career \& Employment, Health Services, Residence Life, Student Leadership Development, Recruitment and Retention, and Security), and certain ancillary services (Sports Centre, the Old Lennoxville Golf Course and Parking).

The Dean of Student Affairs is responsible for all matters of student engagement, conduct, for ensuring respect for the Charter of Student Rights and Responsibilities, and for the application of sanctions to students who are in violation of the Charter. Working closely with the Students' Representative Council, the role is at times that of an advisor and partner on projects initiated either by the University or by the student government. At other times the role is to ensure the respect of the University's policies and to approve the use of University facilities for major student activities and events.

The Dean of Student Affairs is available to meet with students to discuss issues of University policy, to hear suggestions for the improvement in the quality of campus life and to receive complaints about areas under the jurisdiction of the Dean. The office of the Dean of Student Affairs is located in the Marjorie Donald building, room 244.

## Co-curricular Record (L.E.A.P. Program)

The Leadership and Extra-Curricular Activity Profile (L.E.A.P.) is an official university document designed to verify and validate a student's leadership positions, organizational memberships, and other significant involvement in activities outside of the classroom not documented on the academic transcript. The University endorses this certificate as an official document when
signed by the Dean of Student Affairs. Enrollment in the L.E.A.P. program is completely voluntary and must be initiated by the student. L.E.A.P. provides students a credible official listing of their accomplishments outside the classroom to complement an academic transcript and resume for applications to graduate school and prospective employers. For more details, visit www. ubishops.ca/leap or contact the LEAP Coordinator at (819) 8229600 ext. 2766 . The office is located in the Marjorie Donald building, room 243.

## Ombudsperson

The major role of the Ombudsperson is to receive inquiries and complaints from any member of the University community who believes they have suffered some form of injustice, whether it has to do with academics or other matters. The Ombudsperson can normally give advice about where to go to have an issue looked into or reconsidered, or, after determining that all normal avenues of recourse and appeal have been exhausted, will investigate the factual basis of a complaint and, if appropriate, attempt to facilitate a solution using either formal or informal procedures. The Ombudsperson may also recommend changes to existing rules, policies, regulations or procedures, to make them more fair, or more clear and effective.

The Ombudsperson operates independently of all other offices in the University. Initial inquiries to the Ombudsperson are completely confidential until the complainant agrees to allow the Ombudsperson to act on the matter, at which point the matter remains confidential, restricted to those with a need to know.

The Ombudsperson must investigate all sides of a particular problem, must maintain a neutral stance throughout the investigation, and must strive to achieve solutions which are as fair as possible given the circumstances involved. At the end of an inquiry, the Ombudsperson will explain the nature of the chosen solution to those who initiated the complaint or, where the complaint has been found to be not justified, explain to the individual or groups involved the reasons for not continuing the investigation.

From time to time, the Ombudsperson may act as a mediator between individuals or groups of individuals in the University community who have been unable to resolve a conflict, particularly where no procedure exists for the resolution of such matters.

Please see the University website for further information, including the complete terms of reference for the Ombudsperson, and, especially, the Charter of Student Rights and Responsibilities.

## Athletics and Recreation

Bishop's University offers its students and staff a diversified athletic program. It is divided into three categories, offering levels of competition and instruction to meet a variety of individual interests and needs.

1) Inter-university Athletics. Bishop's is a member of $U$ SPORTS, the RSEQ and CUFLA. They compete in Football, Men's and Women's Rugby, Women's Soccer, Men's and Women's Golf, Men's and Women's Basketball, Men's Lacrosse, Women's Ice Hockey and Cheerleading. More information about the Gaiters can be found at www.gaiters.ca or on social media using @BishopsGaiters or \#GaiterNation
2) Intramural Sports provides another level of competition in men's, women's and co-educational leagues and individual sports such as badminton, ball hockey, basketball, broomball, touch football, golf, ice hockey, water-polo, soccer, softball, squash, tennis, and volleyball. More details are available at www.gaiters.ca/intramurals.
3) Recreational Instructional Program offers a wide array of non-competitive, life-enhancing, instructional activities such as aerobics, yoga, and martial arts. Brochures provide details about the Fall, Winter and Spring programs; these are available at the beginning of each session. For more information on courses, please call 819-822-9600 ext. 2669 or visit www. gaiters.ca/recreation.

## Athletic Facilities

The newly-renovated John H. Price Sports and Recreation Centre houses two double gymnasiums for basketball, volleyball, and badminton, with bleachers seating 700 spectators; a new $800-$ seat arena; a six-lane, 25 -metre swimming pool equipped with a one-metre diving board; and a 4,000 -square-foot fitness room. There is a spectators' level with a cafeteria/lounge leading to an exterior outdoor patio. The complex provides the opportunity for sport and recreational experience to all members of the university community and plays a vital role in fulfilling the concept of total education at Bishop's. Other campus sports facilities include Coulter Field Stadium, a lighted 1,500 -seat stadium with a FieldTurf® synthetic surface; four outdoor tennis courts, a 9 -hole golf course, an FIS (International Ski Federation) certified crosscountry ski trail and a number of playing and practice fields.

Specific information concerning athletics can be obtained from:
Bishop's University
2600 College Street
Sherbrooke, Quebec J1M 1Z7
Visit our website at: www.gaiters.ca
819-822-9600 ext. 2669

## Sports Medicine

The Sports Medicine clinic provides services to our studentathletes, the general student population and community patients alike. This arrangement and quality of care is rarely found in Canadian universities. The clinic benefits from the most modern equipment available. In addition to athletic therapy, there is also osteopathy, physiotherapy and massage therapy available. More details can be found at www.gaiters.ca/sportsmed.

## Campus Ministry

The Campus Minister is available for counselling \& pastoral care. The campus ministry seeks to foster faith, spirituality, and social justice. The Campus Ministry sponsors speakers, discussion groups and outreach programs.

Campus Ministry is located on 2nd Floor, Marjorie Donald Building, Room 246, (819)-822-9695.

## Mental Health and Counselling Services

A variety of mental health resources and professionals are available to work with you to assess your wellness needs, from self-directed programs to workshops, support/psychoeducation, and individual therapy. Counsellors offer short-term (3-4 session), with a solution focused approach. Individual appointments may
be scheduled from Monday to Friday, 9:00am - 4pm. Drop-in counselling is also available. Schedules are regularly posted on the Student Services website and social media.
Mental Health and counselling services are also offered specifically to students living in residence. Drop-in hours are also available. Residence Counselling Services are located in Paterson 100.

Mental Health and Counselling Services are located on 2nd Floor, Marjorie Donald Building,
(819) 822-9695 - studentservices@ubishops.ca

Empower Me (Toll Free: 1-833-628-5589)
For direct connection to counselling or coaching support. Empower Me is a mental health services offering counselling in person, by telephone by video counselling, or by e-counselling. You can also speak to a life coach about subjects like personal performance, wellbeing, and relationships. Empower Me is available $24 / 7$ and is available free to charge for students who are members of the SRC Student Dental Plan. Crisis support through Empower ME is available to all students regardless of your health care plan.

## Career and Transition Services

Career and Transition Services offers professional Career Counselling and employment support services for all students, focusing on career and employment skill development. In collaboration with different stakeholders on and off campus, Career and Transition Services provide students with enriching opportunities while preparing for their transition to their next academic or professional experience. Educational, career, and employment recruitment activities are also organized on-campus throughout the school year. These events are regularly posted on the Career and Transition Services website and social media.

Career Counselling Services is located on 2nd Floor, Marjorie Donald Building, (819) 822-9695 - careerservices@ubishops.ca

## Student Accessibility Services (SAS)

Bishops's is committed to the academic and non-academic development of students and promotes a respectful attitude, and awareness of the needs and abilities of students living with disabilities and by fostering, creating, and maintaining both an attitudinal as well as a barrier-free environment. The University understands that persons living with disabilities may have different methods for achieving success and acknowledges that assessment and evaluation outcomes should remain consistent with course objectives.

Bishop's University recognizes its moral and legal duty to provide equal educational opportunities to all students, including students living with disabilities. Members of faculty, and instructional staff, support and administrative staff share the University's responsibility under the Québec Charter of Human Rights and Freedoms to provide accommodations to students living with disabilities. The University's goal is to ensure equitable and consistent treatment of all students, including students living with a disability, in accordance with their distinct needs and without compromising academic standards and principles.

Services located in the Marjorie Donald Building, 2nd floor, (819) 822-9695 - accessibility@ubishops.ca

## Indigenous Support Services

We value the respectful recognition of Indigenous history, culture, traditional values, stories and healing practices that support counselling alongside the use of western therapeutic approaches. The Indigenous Support and Liaison Advisor support Indigenous students and helps facilitate cultural practices and traditions.

Location: CEN 10, Centennial Building, (819)-822-9600 \#2544.

## Sexual Violence Prevention and Response Services

Bishop's University is deeply committed to providing a safe learning environment free from any type of sexual violence. We are dedicated to preventing sexual violence by using education and safety measures in our community. We use a feminist, survivor centered and intersectional lens when supporting survivors and educating our community.

The Sexual Aggression Response Coordination team provides support and counselling to any student exposed to sexual violence. The SARC also provides prevention programing and education to campus while liaising with the off-campus community. The SARC is trained in receiving disclosures and supporting students through the process of reporting sexual violence.

Location: 2nd Floor, Marjorie Donald Building (819)-8229695 SVPRS@ubishops.ca

## Health Services

The Champlain-Bishop's Health Service is located in the John H. Price Sports Centre and offers health care to all full-time students and any part-time student who has paid the student services fee. Staff and faculty may use the service for a small fee. The staff at Health Services will do everything possible to treat illnesses and injuries quickly so that class absences will be kept to a minimum.

Some of the services offered include diagnoses and treatment of acute and chronic illness, emergency care, routine physicals, sexually transmitted infection testing and information, pregnancy tests, contraception, wart treatment, allergy shots and certain vaccinations. This is only a partial list of services offered; please inquire about any other medical needs.

The staff includes nurses, physicians, a nutritionist, and a secretary who are available Monday through Friday. Students wishing to see the nurse will be seen in order of arrival. To see the doctor, it is recommended that you make an appointment. Emergency situations will always have priority.

Records are strictly confidential. No information is released, for any reason, without the student's consent.

Health Services are supported by student fees, therefore, there is no charge to use the service. However, the doctor's services and the cost of any tests required are only paid by health insurance or provincial medicare plans.

Quebec students who do not have their Medicare cards, or who present cards that have expired, will be required to pay the full cost of services immediately.

Canadian students from another province are fully covered by their provincial medicare plans provided they:

1) inform the Ministry of Health in their home province that they are studying in Quebec before they leave home;
2) have their Provincial Medicare card with them when they come to see the doctor. If the card is unavailable or has expired, the full cost of services must be paid immediately.
International students (including Exchange students) must subscribe to the Health and Hospitalization Insurance plan offered through the University. Details of this plan can be obtained from the Business Office. The plan entitles the student to full medical coverage both here and at local hospitals.

International or exchange students from France, Denmark, Sweden, Norway, Finland, Luxembourg, and Portugal are eligible to apply for a Quebec Medicare card. This should be done as soon as possible after their arrival in Quebec. Information on how to apply can be obtained from Health Services or from the International Student Coordinator.

Anyone requiring further information about Health Services should telephone 819-822-9600, ext. 2696, or at www.ubishops. ca, Life at Bishops, Health Services.

## Residence Life

At Bishop's University we believe that the residence experience is an integral part of the university experience and thus guarantee all of our first-year degree students, who meet the required deadlines, a place in residence. Over $70 \%$ of our incoming class chooses to live in residence and each year $28 \%$ of our current residence students return for a subsequent year.

Bishop's University residences can accommodate 610 students in Traditional Style, Bog Style and Suite Style Residences. These three choices provide students with the opportunity to choose the residence that suits their individual life style. Mackinnon and Norton/Pollack are our traditional style residences accommodating students in both single and double configurations. Kuehner, Munster and Abbott are our newly renovated Bog Style Residences. These Bogs accommodate students in single rooms and double rooms with adjoining bathrooms. Paterson Hall accommodates four students per suite, each with their own private bedroom, common kitchen, living room and two full bathrooms. All of our residences have mandatory meal plans.

An important part of the Residence life program is the support that students receive while living in residence. This support comes from a well-trained staff of upper year students who are employed as Resident Assistants. They are in the residences to help students with their transition to university life, and to promote a community atmosphere that focuses on mutual respect and consideration for all members of the residence community.

Students will receive information about how to apply to residence in their admissions package and can go online to apply at that time. We encourage students to return their application as soon as possible as the priority for residence is based upon the date we receive the application.

For more specific information please feel free to contact Residence and Conference Services at:

## Residence, Accommodation and Event Services

Bishop's University
2600 College Street
Sherbrooke, Quebec J1M 1 Z7
Tel: 1-819-822-9600 ext. 2685
Fax: 1-819-822-9615
e-mail residence@ubishops.ca

## Off-Campus Housing Service

The Off-Campus Housing Service provides students with a list of suitable housing in the community. The lists are available on the Bishop's University website: www.ubishops.ca; simply click on Life at Bishop's and you will find Off-Campus Housing. You may also contact the office if you have any questions at 819-822-9600 ext. 2685 or via e-mail at offcamp@ubishops.ca

Those who would like to add housing opportunities to our list may contact us as above, or by fax at 819-822-9615.

## Academic Facilitation

Adjusting to university can be both exciting and overwhelming. Academic Facilitation is about developing skills that can help you become more successful in school and life in general. You'll work closely with an Academic Facilitator as you move towards your educational goals and learn to be accountable for your results. Your Facilitator can help set you up for educational success by providing you with study skills, time management advice, and study-life balance strategies. For additional information about Academic Facilitation, please contact Ms. Katie Bibbs at (819) 822-9600 ext 2381 or kbibbs@ubishops.ca

Location: Floor 2A, Marjorie Donald Building

## Student Government and Student Activities

## Students' Representative Council (SRC)

The Bishop's University Students' Representative Council, founded in 1893, is an autonomous, government-accredited organization representing full-time and part-time students. The SRC represents students on most committees at Bishop's including Academic Senate, and the University Board of Governors.

The SRC provides numerous services and events for students. Through the VP Student Life and VP Academic offices, the SRC supports both academic and non-academic clubs, societies and extracurricular groups. The SRC organizes Fall and Winter Orientation Week, Winterfest and the Grad Formal, blood drives, and many other activities. The SRC offices are located on the ground floor of the Student Centre and are open daily.

The SRC is governed day-to-day by the Executive Council composed of the President (srcpres@ubishops.ca), VP Academic (srcacad@ubishops.ca), VP Student Life (srcstu@ubishops.ca), , the Director of Finance (srcdfo@ubishops.ca), and the Director of Events (srcdoe@ubishops.ca). The Executive Council plus seven Student Senators, two General Councillors, a Health and Wellness Representative, an Equity Representative, an Environmental Sustainability Representative, an International Student Representative, an Ethnic Diversity Student Representative, an Indigenous Student Representative, a First Year Representative and an On Campus Representative make up the voting membership of the Board of Student Representatives. This large group convenes twice a month. Additionally, the SRC employs a General Manager, a Manager of Operations and Services, , a Manager of Communications and Marketing, an Accounting and Administrative Coordinator, a Secretary General, and offers several student positions (academic managers and peer academic mentors, communications staff, Clean Community Team members, Gait managers and staff, etc.).

## Mandate

The purpose of the Bishop's University SRC shall be:
i. To act as the official representatives of the students of Bishop's University in their relations with the administration of Bishop's University and the official representative of the students of Bishop's University in their relations with any other private or public organization including national, provincial, and international student organizations.
ii. To promote the welfare and interests of the Student Association (SA) including the promotion of artistic, literary, educational, social, environmental, recreational and charitable activities for the advancement of the interests of the members of the SA and the Bishop's community. The SRC shall also promote among members of the SA a sense of responsibility and cooperation in the achievement of these objectives.
iii. To safeguard the rights of the individual members of the SA, as given in the Bishop's University Charter of Student Rights and Responsibilities and as given in the Canadian and Quebec Charters of Human Rights and Freedoms.

## Representation

Most committees at the university have at least one student representative. It is the role of the SRC to ensure that student concerns are heard. The SRC also represents students on Senate (the highest academic body at the university) and on the Board of Governors (the highest non-academic body).

## Clubs

There are more than 20 student clubs within the SRC. These include both charity/volunteering based clubs as well as social clubs. See https://busrc.com/busrc-extra/ for a full list.

## Academic Societies:

There are more than 15 student-run academic societies within the SRC. These can represent different departments, programs or academic interests. See https://busrc.com/busrc-extra/for a full list.

## SRC Student Associations:

There are more than 7 student associations within the SRC. These associations represent groups of students based on culture, race, ethnicity, religion and/or sexual orientation. See https://busrc. com/busrc-extra/for a full list.

## SRC Sports:

There are more than 13 sports groups within the SRC. These included both competitive teams and leisure sports. See https:// busrc.com/busrc-extra/for a full list.

## SRC Publications:

The Student Handbook - Distributed free to first-year students and sold to others. The Student Handbook is a great way to stay organized. It is especially useful for first-year students, offering information on Bishop's University policies, and helpful hints on life at Bishop's

The Mitre - This collection of poetry, stories, artwork, and photographs is the oldest university literary publication in Canada (1893). It is produced annually and collects submissions from students, faculty, alumni, and the local community.

The Quad - The Bishop's Yearbook is one of the treasured souvenirs of the university. It is published each year and lovingly compiled and edited by a team of students.

BUSRC Website - www.busrc.com allows for direct communication between students and executives via an open forum while also offering students information on upcoming events, activities, clubs, job openings, elections, etc.

The Dish - delivered to student email boxes Monday and Thursday, The Dish offers a glimpse of daily campus and community events.

## SRC Operations and Services:

## Health and Dental Plan

The SRC offers a health plan to all Canadian students and a dental plan to all Canadian and international students. This plan is automatically offered to all students but they may change their coverage or opt out during the opt out period. Students covered by the dental plan also benefit from Empower Me, a mental health and wellness service, legal protection, travel insurance and virtual health care. For more information: https://studentcare.ca/rte/en/ IHaveAPlan_BishopsUniversitySRC_Home

## BU Lounge/The Gait

The BU Lounge is open in The Gait space on Monday - Friday from 8:30 a.m. on days when there are no special events planned. This is a relaxed spot to bring your lunch, do homework, and meet friends.

The Gait is the on-campus pub open each Tuesday, Thursday, and Saturday, and it is also available for special events.

The Gait provides employment for students, as well as providing a safe environment for dancing and drinking on campus. The Gait is located on the first floor of the Student Centre and is operated by students for students.

## SRC Awards

## SRC Merit Award

Chosen by SRC Executive, goes to a student/s who has rendered outstanding service to the SRC in numerous areas.

## Joseph E. Cassar Award

Chosen by the SRC Board of Student Representatives and given to the student who has contributed the most to the SRC during the past year.

## Ray Lawson Award

Given to the returning student who, in the opinion of the SRC Board of Student Representatives has contributed the most to the life of the university.

## Michel Fontaine Experience Award

Given to the student chosen by the SRC Executive who exemplifies the Bishop's Experience through campus leadership, athletics and/or community involvement. The SRC podium was made by Michel Fontaine's father in his memory.Joy Chandler Community Involvement Award
Named in honour of a previous SRC manager, given to a person who helps bring BU students and the community together. This is usually given to a community member but can be given internally.

## Joan \& Alex Paterson Award

The selection Committee for this award, is comprised of the VicePrincipal of Student Affairs and the SRC Executive Council. Awarded to a graduating student who during his or her years at Bishop's University, contributes the most to volunteer work and activities in the off campus community.

## Golden Mitre Award

The Golden Mitre Awards are the highest non-academic honour that graduating students can receive. Recipients are elected by popular vote of the prospective graduating class.

## Julie Bradshaw Memorial Award

Established in 2003 in memory of Julie Bradshaw '80 and given to the Golden Mitre winner with the highest number of votes.

## Purple Letter Award

This award is given to those students who have made a consistent contribution to the life of the university and community and who might not otherwise be recognized for their efforts. Award winners are nominated by members of the university and the community.

## Olga Reid Memorial Award for Journalism

Awarded annually to the student journalist or writer who, in the opinion of The Campus Editorial Board, has written the best article or series during the academic year.

## SRC Extra Leadership Award

Given to an SRC extracurricular group lead (or leads) who has shown dedication to not only the group, but to the greater Bishop's community.

## SRC Extra Community Impact Awards:

Each year, two SRC extracurricular groups are given these awards based on the change they have made in the Bishop's community and/or the Lennoxville community.
go to ubishops.ca/ewp-workshops

## ENZO EVANGELISTI OUTSTANDING LEADERSHIP AWARD

The Enzo Evangelisti Outstanding Leadership Award, which is accompanied by a $\$ 500$ monetary award, is given to one student who, in the opinion of the Board of Student Representatives, has demonstrated exemplary leadership qualities and has left a significant mark on the Bishop's community.

## Other Services and Facilities

## Doolittle's Co-op

Doolittle's Co-op is an all in one, one-stop shop for students' textbooks, Bishop's apparel, snacks, drinks, school/art supplies, coffee, tea, bus tickets and much more! The Co-op is a member of the Coopsco network, and its mission is to offer a wide variety of products to students at competitive prices.
Doolittle's Co-op is a student driven organization, so the purchase of a life-long membership for a flat fee of only $\$ 25$. entitles you to discounts on everything in the store, including sale items (except alcoholic beverages).
Get your membership to Doolittle's Co-op today!

## Campus Tours

There is no better way to see if a university is the right fit for you than to visit the campus. This is very simple to do at Bishop's as we offer personalized tours almost every day of the week!

Student ambassadors give complete tours of our campus and introduce you to life at Bishop's. On weekdays, you can meet with a Recruitment Officer and during the academic year, we provide you with an opportunity to attend a class, and/or talk to a professor. If the weekend suits you better, we will ensure that you get a comprehensive tour of our beautiful campus.

You may book a tour by clicking on the following link: http:// www.ubishops.ca/future-current-students/campus-tours-events/ or by calling $819-822-9600 \times 2681$. The best time to see a typical day at Bishop's is on a weekday from mid-September through mid-June. Please schedule your tour at least three days in advance of your arrival.

For more information, please contact:
The Bishop's University Recruitment Office
Toll-free tel: 1-877-822-8200
Tel: 819-822-9600 ext. 2681
E-mail: recruitment@ubishops.ca

## Information Technology Services

ITS provides a range of technology services to the university community through its three divisions: Client Services, Innovation \& Enablement, and Infrastructure \& Security.

Client Services provides front-line support for all IT Services, whether on campus or remotely, via the phone, e-mail, online (Virtual Help Desk) and in-person. Client Services is responsible for all "end user computing", including office/lab computers, laptops, telephony, printers, photocopiers and all multimedia classrooms and meeting spaces.

Client Services operates an in-person Helpdesk at the Library Learning Commons, open extended hours to answer computer, software, account, and network questions from students, staff, and faculty. Additionally, it supports and maintains 75 multimedia classrooms, 1300 computers, and a myriad of other devices across campus, along with the University's "production studio" in the basement of the LLC where faculty, staff, and students can access high quality video recording capabilities with technical assistance.

Innovation \& Enablement works primarily with faculty and staff to understand and translate business needs into functional and/or technical requirements for technology solutions that meet the needs of the university. The team provides management, development, integration, and support for a general suite of desktop
applications, institutional data, and business processes.
Infrastructure \& Security is responsible for ensuring safe and secure campus-wide access to the university's network, e-mail, systems and IT services. It manages the operations and evolution of a state-of-the-art technology infrastructure, including:

- $\quad$ Servers (both physical and virtual)
- Data storage and backup services
- IT Data Centres
- Network infrastructure for wired and wireless networks
- Telecommunications infrastructure and systems

A high-speed wired network serves administrative and academic offices, research, library, residences and student lab needs. Wireless connectivity is provided across campus in all academic and residential spaces and most recreational spaces as well.

ITS also provides part-time employment and experiential learning opportunities for approximately 10-20 students each year.

## Cormier Centre of International Economics

The Cormier Centre was founded in 1989 with a generous gift from Mr. George Petty, CEO of Repap, a Canada-based, multinational paper corporation. The Centre's original mission was to promote research in international economics, to study the impact of economic policy on business, and to contribute to economic information, communication and education. In the early years, the Centre sponsored conferences and visiting scholars, supported research projects and promoted academic/business joint projects with an international orientation. In recent years, the Centre's focus has shifted towards the funding of low-budget, student-centered initiatives, such as: (a) the funding of student travel to Montreal to enable attendance at academic events related to international economics, (b) the funding of Skype-based, international-economics-related exchanges between our students and academics worldwide, and (c) the funding of prizes in studentcentered essay contests related to international economics. The annual budget for such endeavors is modest, and so the requests for funds are considered on a competitive basis only.

For information, contact: Dr. Robert Sproule, e-mail: rsproule@ubishops.ca.

## Cultural Affairs

Superb facilities support a dynamic cultural life on the Bishop's campus. The Florence Foreman Art Gallery brings performances and exhibitions of international calibre into the campus community throughout the academic year. Student participation in several aspects of the arts, including mounting productions is encouraged in the venues of Bandeen Recital Hall and the Turner Studio Theatre. Work-study programs in all the cultural venues offer hands-on experience in virtually every aspect of the cultural industry: promotion, technical production, marketing, and arts administration. In addition, there are plenty of opportunities for volunteer participation.
Artists who have recently visited campus include the late Gord Downie, Adam Cohen, Leahy, The Gryphon Trio, RUBBERBANDance Group, Berlin's 17 Hippies, Holly Cole, Theatre of Early Music, lyric soprano Marie-Josée Lord, and The East Village Opera Company.

## Peter D. Curry Wildlife Refuge

The Peter Curry Marsh is an area of approximately 15 -hectares of wetland and upland forest, located on the Bishop's property, just a stone's throw away from the Sportsplex. This area a joint development between the school and Ducks Unlimited Canada and represents an ideal area for field laboratories for biology students studying ecology and biodiversity. Ranked as the second most popular birding location in the region, it is a focus for local bird watchers, naturalists, or those just wanting to relax in a natural setting.

Named after Bishop's alumnus and donor Peter D. Curry, in recognition of his commitment to both conservation and education, the area is maintained thanks to generous donations from local alumni and the participation of faculty and students at the school.

## Daycare

The Panda Daycare Centre, which is located on the Bishop's campus, has space for 140 children from newborn to 5 years of age. Interested parents are urged to make application as early as possible. For information, telephone 819-346-1414.

## Dobson-Lagassé Centre for Entrepreneurship

The Centre is located on the Bishop's campus and is a co-operative venture funded by the John Dobson Foundation, Bishop's University, and several private individuals and organizations. The Centre works very closely with all the divisions of the university to instill the entrepreneurship values of teamwork, leadership, communications and problem-solving for students in the arts, science, business and education. Established in 1998, it has a mission to support students to become successful entrepreneurs. The Centre focuses on helping students bridge the gap between student projects in entrepreneurship and successful businesses in the real world.
The Centre also provides guidance and services for Bishop's University student members of the worldwide ENACTUS entrepreneurship ssociation. The centre offers a series of webinars on topics of interest to entrepreneurs-in-the-making and holds a bi-weekly Entrepreneurship Round Table which allows students to discuss their ideas and ventures with their peers and with a moderator. Students can also consult with Centre staff personally to discuss their ventures and move them forward.
A key offer also includes paid internships for students in local businesses, to promote experiential learning, to get a sense of the challenges, opportunities and rewards of starting and running a business, and to provide a competitive advantage to the businesses that participate.
Interaction between students and community organizations and businesses is a key element in the programming.
For more information, visit our website at: www.dobsonlagasse. ca or contact us directly at:

## Dobson-Lagassé Entrepreneurship Centre

Bishop's University
2600 College Street
Sherbrooke (Qc) J1M $1 Z 7$
Tel.: 819-822-9600, ext. 2701
Email: dobsonlagasse@ubishops.ca
Facebook: www.facebook.com/CentreDobsonLagasse

## Eastern Townships Resource Centre

The ETRC's mission is to act as a resource centre for the study of the Eastern Townships of Quebec. While the Archives Department concentrates on the acquisition of private archives related to the English-speaking community, the Centre's mission, mandate and ongoing activities are meant to be inclusive of all linguistic and cultural communities present in the Eastern Townships.

## Preserving the Region's Heritage

As one of the top accredited archives in Quebec, the Eastern Townships Resource Centre preserves the documentary heritage of the Eastern Townships and serves as an archival expertise resource for local heritage organizations.

Accredited by Bibliothèque et Archives nationales du Québec, the ETRC Archives acquires, processes, preserves and gives access to archival fonds and collections that illustrate the development of the Eastern Townships' English-speaking community. Thousands of documents such as diaries, letters, minute books, photographs, postcards, maps, plans and audio-visual material are made available to researchers. Assistance is also provided to genealogists tracing their family roots.

## Promotion of the Region's History

The ETRC promotes the Townships' rich and unique history through public lectures, colloquia, and exhibitions. The Centre offers educational materials for teachers and its own publication, the Journal of Eastern Townships Studies (JETS). As a longstanding and proud member of the Bishop's community, the ETRC creates bridges between Bishop's and the surrounding communities.

The ETRC Archives Department is open from 9:00 a.m. to 12:00 p.m. and 1:00 p.m. to 4:00 p.m. Monday through Friday. For information about the archives contact our Head Archivist, Jazmine Aldrich, ext. 2261. For information about Centre activities contact: Jody Robinson, Executive Director 819-822-9600 ext. 2647.

## Financial Aid

The Financial Aid Office is located on the $2^{\text {nd }}$ floor of Mountain House and provides students with information and assistance in applying for various federal and provincial government loan and bursary programs. Further information can be obtained from the University's Enrollment Service Office at 819-822-9600 ext. 2655 or 2205 .

## Florence Foreman Art Gallery

As a vibrant part of university life at Bishop's University, the Foreman Art Gallery serves as a strong link to the community of Lennoxville and Sherbrooke as well as an active site of scholastic research about contemporary art and curatorial practice. The Gallery is named in honour of the late Florence May Foreman, formerly of Vancouver B.C., who left to the University the largest bequest in its history.

The FOREMAN ART GALLERY of Bishop's University is a space for thinking and producing knowledge about contemporary art and its relation to the global and local communities we share. The Gallery strives for excellence as it researches, exhibits, and documents contemporary art by emerging and mid-career professional artists in innovative curated contexts. These exhibitions are presented with the objective of provoking public debate on cul-
tural and social issues for an expanding audience that includes our local University community, a larger art community within Quebec and Canada, as well as broad and diverse general and virtual audiences.

The Foreman Art Gallery's COMMUNITY ART LAB positions itself on the cutting edge between art, education, and community development with the goal of exploring how these worlds collide and interact with one another. Through its interventions, satellite activities, and public events, the Laboratory stimulates exchanges and discussions in order to disrupt the hierarchy of knowledge and to enrich community life.

The Foreman Art Gallery shows the work of professional visual artists in innovative ways, focusing on thematic curated exhibitions part of the following series: Social Currents (thematic curated group exhibitions): New Voices (highlight on an emerging artist), New Publics (exhibitions for targeted audiences) and Carte Blanche (regionally-focused curated group exhibitions). The gallery also produces a graduating fine art student exhibition each spring.

Since 1998, 60 bilingual exhibition booklets, self-guided tour booklets and leaflets, 4 edited catalogues, and 10 group and solo exhibition catalogues have been produced. Of these are noteworthy examples: Irene F. Whittome: Conversation Adru (winner of a Graphika prize, 2007): Denyse Thomasos: Epistrophe (winner of a Graphika prize, 2007): and At the Crossroads of Art and Medicine (winner of a Graphika Prize 2009).

Admission to the gallery is free. The Foreman Art Gallery is located adjacent to the lobby of Centennial Theatre. Hours: Tuesday-Saturday, from 12:00 p.m. to 5:00 p.m.

## Gentiane Bélanger, Director/Curator

819-822-9600, ext. 2687
Gallery: 819-822-9600, ext. 2260
Fax: 819-822-9703
Website: foreman.ubishops.ca
Bishop's University also has a permanent art collection of $400+$ works, with an emphasis on Canadian art from the 19th and 20th centuries. The Bishop's University Art committee is chaired by the University Librarian, and is composed of representatives from staff, faculty, students and community members. Art works are displayed in outdoor and indoor venues, buildings and offices across the campus. Catalogues showcasing some pieces of the collection are available from the Art Collection Technician: Merrylou Smith (819) 822-9600, ext. 2561

## International Mobility Program

Student exchange and study abroad programs |
Bishop's University (ubishops.ca)
https://www.ubishops.ca/future-current-students/student-exchange-and-study-abroad-programs/

Bishop's University encourages all students who qualify to spend a semester or two abroad at one of our $70+$ bilateral partners around the world. Successfully completed pre-approved course credits taken on exchange are transferred to your Bishop's degree. Marks/grades obtained at the host university are not included in the calculation of your cumulative average at Bishop's upon your return because of different assessment and grading schemes. A "Pass" or "Fail" will appear on the Bishop's transcript for each of the courses taken along with the number of credits obtained.

Students may continue to receive financial aid for which they are eligible at Bishop's. Students on Bishop's scholarships need to maintain an equivalent level of academic excellence at their host campus to receive their scholarship in the semester following their exchange. Students with loans from the USA will need to select their host campus from international Title IV partner universities.

To be accepted into the Exchange Program, Bishop's students must meet the following criteria:

- obtain and maintain a $70 \%$ cumulative average in one year of full-time study ( 30 credits) in a degree program, prior to departure to a host university
- assume travel and living costs, health insurance, and personal expenses, during their exchange abroad
- receive written permission to participate from the Dean and Chair of their respective academic program
- demonstrate proficiency in the language of the host university if necessary
- respect all deadlines, as well as pre-departure, health and safety trainings, and other requirements as directed by Bishop's International
Tuition and fees (for 15 credits per semester) and student service fees are payable to Bishop's, and accommodation and meals are paid
to the host university. Additional criteria may pertain in some exchanges. Students planning to apply are asked to consult with BU
International (exchange@ubishops.ca), their academic program Chair and then with their Dean. Students must obtain prior approval for
all courses to be taken at the host university by their program Chair at Bishop's to participate in the Exchange Program, for a maximum
of 30 transferrable credits.


## International Students

www.ubishops.calfuture-current-students/international-students/
Bishop's University extends a warm welcome to all Exchange and International Students. Our campus provides the perfect opportunity to become fully immersed in student life while learning and living alongside the Francophone and Anglophone communities. International and Exchange Students play an important role at Bishop's to enrich our diversity, and all academic, Student Services and Bishop's International will provide support for the duration of your studies.

Bishop's International - Bishop's University<br>2600 College Street<br>Sherbrooke, Quebec<br>JIM IZ7 CANADA<br>Tel: 819-822-9600 ext. 2305<br>Email: international@ubishops.ca

## Library Learning Commons

The Bishop's University Library is a member of the Partenariat des bibliothèques universitaires du Québec (PBUQ). The Library Learning Commons houses a collection of nearly 270,000 physicals items, including books, journals, sound recordings, movies, and other audiovisual and non-print materials. The catalogue and most of the library's electronic resources, such as e-books, e-journals and databases, and their thousands of additional items, can be searched from on or off campus through the discovery tool Sofia on the library website. Through the Resource Sharing service, also in Sofia, users can request materials from any other Québec university library. The Interlibrary Loan service provides access to additional resources from outside the province of Québec. Both of these services are free of charge.

Orientation sessions are conducted by the Librarians throughout the year. The sessions, usually presented to individual classes, can be general and introductory, or designed to meet the needs of a specific class or topic. Librarians also teach one-credit courses in Information Literacy and Critical Thinking, which are taken as lab components of research-based courses offered through other departments. Sessions are taught in the technology-equipped library classrooms or online, allowing for interactive learning and practical experience. Individual assistance is available at the research assistance desk or online. An appointment can be made with a librarian for extended research consultations. Guides and study aids for research in all academic disciplines are available on the library's website.

The facilities include several group study rooms and numerous group study areas, as well as individual study spaces for more than 960 users. The Library Learning Commons also houses the Information Technology Services Helpdesk, the Writing Centre, the Teaching \& Learning Centre's Sandbox and the student-run Student Success Centre as well as classrooms and meeting rooms. The McConnell Agora is the location of academic happenings or open study. The Library Café is a place where students can relax, chat with friends, and enjoy a small meal or a beverage. A digital video production studio and editing stations permit the creation of multimedia projects. Listening stations provide access to the extensive assortment of records and CDs in the music collection. Other equipment includes banks of computer workstations, printers and scanners. The Library Learning Commons is completely wheelchair accessible.

The Archives and Special Collections Reading Room is located in the Old Library, in McGreer Hall. This room, which was the original location of the University Library, has been restored and now serves as the reference/reading area for the University's Archives, the Library's Special Collections, and the Eastern Townships Research Centre. Special Collections, developed in several fields, include rare books, historical pamphlets, maps, microfilms, and archival material. The P.H. Scowen Eastern Townships Historical Collection is an important resource for historians and other researchers of local history. The Mackinnon Collection of Canadiana includes many rare and valuable books and pamphlets relating to Canadian history and biography. Materials in the Bélanger-Gardner Collection are devoted to the history of the Eastern Townships. Rare and unusual books of 17th and 18th century theology, history, and literature have been donated from the personal libraries of such prominent people as
the Rev. George Jehosaphat Mountain, 3rd Anglican Bishop of Quebec and co-founder of the University.

More detailed information, such as hours of service, staff members, resources guides, study room reservations, and more can be obtained by consulting the Bishop's University Library Learning Commons website at https://www.ubishops.ca/library/

## Librarians

Kiersten Bradley,
B.A. (Bishop's), M.L.I.S. (Dalhousie)

Daniel Bromby,
B.A. (Bishop's), M.L.I.S. (McGill)

Sarah Heath, B.A. (Bishop's), M.L.I.S. (Western)

Gary McCormick,
B.A. (Carleton), M.L.I.S. (McGill)

Eliza McKnight,
B.A. (Bishop's), M.L.I.S. (Western)

Lorraine Smith, B.Sc. (Bishop's), M.L.I.S. (Western)

## Mathematics-Statistics Help Centre

The Math-Stats Help Centre is located in Johnson 4. Our friendly, knowledgeable staff help students individually or in small groups to perfect their mathematical skills, work on their assignments, understand mathematical concepts and study for their exams. This service is free to all Bishop's University students and no appointment is necessary. The most up-to-date schedule can be found on the Mathematics Department webpage along with a link to book online tutoring sessions if available. For more information, contact Scosha Merovitz at 819-822-9600 ext. 2722 or smerovit@ ubishops.ca.

## Theatres

Bishop's Centennial Theatre, built in 1967, contains a charming and efficient main theatre seating 550, a spacious lobby, a vast workshop, a rehearsal room, dressing rooms, a Green Room, and the administrative offices. Equipped to the newest standards since the renovations of 2006, it provides an excellent learning facility as well as a splendid focus on a diversity of renters and the annual large-scale Drama Department production. Students are offered every chance to work on the various aspects of the incoming or in-house productions.
The Turner Studio Theatre functions as a dynamic multi-purpose environment for traditional and experimental presentations. Opened in March 1989, it seats up to 150 people in a technically sophisticated yet intimate space which can adapt to the special needs of theatre. As a laboratory and teaching resource, the Turner Studio Theatre provides a creative context in which students can develop their professional skills. The Drama Department produces 2 annual Festivals of student plays as well as four other productions directed by the Drama Department teachers and professors.

## University Chapel of St. Mark's

St. Mark's Chapel is a sacred place on the campus known for its beauty and peaceful atmosphere. The Chapel was consecrated in 1857, was enlarged in 1875, and interior additions to the fabric were completed in 1898, when the present magnificent carved oak stalls and panelling were installed. These were executed by

French-Canadian craftspersons and are arranged on the pattern of the traditional collegiate church. The other furnishings, stained glass windows, memorial plaques, the organ, the sanctuary lamp, the lectern Bible, all reveal parts of the University history. In 1989, the Chapel was declared a historic site by the Quebec Ministry of Cultural Affairs.

Sunday services are held at 10:00 a.m. during the academic year and the Chapel is open daily from 7:00 a.m. to 6:00 p.m. for prayer and reflection. Special services and concerts are held at various times and are publicized throughout the University and the local community. The administration of St. Mark's and its services of worship are the responsibility of the Campus Chaplain.

## The Writing Centre

The Bishop's University Writing Centre is located in the Library Learning Commons. It offers free online and in-person consultations for students who would like help with their written assignments and/or feedback on the EWP exam. The Centre also offers free workshops to help students improve their written work. For further information, visit ubishops.ca/writing-centre/ or contact the Writing Centre Coordinator, 819-822-9600, ext. 2400, Email: ewpchair@ubishops.ca

## Write for Success Writing Assessment

Write for Success is a Writing Centre service developed to give new students the opportunity to get valuable tips and advice to improve their academic writing before their first written assignment is due. Incoming students are invited to write an essay from among a variety of topics. These essays are carefully evaluated by Writing Centre consultants who then meet with the students and offer ways in which their writing can be improved.

## Consultation Service

Students who want help or feedback on their written assignments can sign up for free consultations at The Writing Centre using the online booking system: https://www.ubishops.ca/writing-centre/ online-appointment-instructions/
Assistance is given in essay planning, organization, development, grammar and syntax. Students can also review their EWP exams and get help with application letters and letters of intent.

## Workshops

The Writing Centre offers free interactive workshops that address every stage of the academic writing process from brainstorming a topic to polishing the final draft. For more information go to https://www.ubishops.ca/writing-centre/workshops/

## Scholarships, Awards, Bursaries, Loans, and Prizes

Note: The following regulations are applicable to all students beginning their degree programs in the Fall 2023 semester or later. For students who began their degree program studies prior to Fall 2023, please consult the relevant Academic Calendar for the applicable regulations.

## Scholarship Program

Historically, most of the scholarships awarded under the Bishop's University Scholarship Program have been established by gifts from alumni, foundations, and corporate benefactors, some over 155 years ago. The University is grateful to the many donors who support its scholarship program.

## Entrance Scholarships

No formal application is required for most entrance scholarships. All applications for admission received by March 1st from CEGEP, Canadian high school, IB Diploma, and international secondary school students who have graduated within two years of registering at Bishop's University are eligible for scholarship consideration. Applicants categorized as Mature, University transfer, or College transfer are not eligible for entrance scholarship consideration.

Our entrance scholarships range in value from $\$ 1,000$ to $\$ 20,000$ CAD for the academic year. Unless otherwise indicated, entrance scholarships are non-renewable. All scholarships are competitive meaning that they are awarded based on the calibre of the total pool of applications received. All eligible students will be assessed automatically for scholarship consideration after the March 1st deadline.

Scholarship offers, including information regarding conditions of the scholarship offer and the process to accept, will be made separately from the offer of admission.

## Winter Entry Scholarships

Students who are commencing their studies for the first time in the Winter semester will be eligible for consideration for entrance scholarships at the start of the following Fall semester, provided they maintain an $80 \%$ cumulative average in the Winter and/or Spring semesters of their starting year on a minimum of 12 credits. Scholarship levels will be based on their final incoming Winter admission average. Scholarships are only awarded in September of each academic year.

## Scholarship Payment

1. Scholarships are paid to a student's account in two equal installments in the weeks following the Add/Drop deadline in the Fall and Winter semesters. If the value of the scholarship exceeds the amount charged to the student account for that semester, the balance of that semester's payment is credited to the following semester.
2. In order to receive scholarship funds, a student must be a registered full-time student (minimum 12 credits) in both the Fall and Winter semesters ( 24 credits total).

## Exceptions:

a) Students in their final semester who require fewer than 12 credits to graduate will receive a pro-rated award. (confirmation required from the Chair of the department)
b) Students on a recognized Bishop's University Outgoing Exchange program.
3. In order to receive the Winter installment of a scholarship, students must:
a) Successfully complete 12 course credits during their Fall semester studies at Bishop's with a minimum fall average of at least $70 \%$ AND
b) be registered at Bishop's on a full-time basis (minimum 12 credits) for the Winter semester.
Should the student's fall average fall below $70 \%$, or should they register in fewer than 12 credits, their scholarship is withdrawn effective that Winter semester.

## Continuing Student Scholarships

All returning students will automatically be considered for scholarships through the University's Continuing Student Scholarship Program. To be eligible for a Continuing Student Scholarship consideration, a student must:
a) complete a minimum of 24 credits (not including lab credits) in the previous September to June (Spring 1 term) at Bishop's University
Note: Courses taken at another institution on a Letter of Permission and non-credit English as a Second Language courses are not included in the 24 -credit minimum or in the calculation of the student's academic average for scholarship purposes.
b) have obtained a minimum average of at least $80 \%$ calculated on their best 24 credits from the previous September to June (Spring 1 term)
Exception: Students participating in an internship, co-op placement, or practicum will have their file evaluated by the ASAP Committee.
c) have less than 120 credits completed at the start of the upcoming Fall semester
d) be registered in their first undergraduate degree and
e) be registered as a full-time student in the upcoming Fall semester.

Students who complete the academic year fulfilling the above conditions will be eligible for scholarship consideration for the following academic year. The value of these awards varies depending on academic performance. Students with more than 90 credits completed at the start of the Fall semester who are awarded a scholarship may receive a pro-rated amount. Meeting the above criteria does not guarantee a scholarship.

Students are notified of scholarship awards by e-mail sent to their Bishop's University e-mail account before August 15.

## Scholarship Renewal

Unless otherwise indicated, Entrance and Continuing Student Scholarships are non-renewable.

## Renewable Scholarships

Recipients of renewable scholarships (Entrance and Continuing) must normally meet the following criteria:
a) Complete a minimum of 24 credits at Bishop's University in the previous academic year (September to August). Courses taken at another institution on a Letter of Permission and non-credit English as a Second Language courses are not included in the 24-credit minimum.
b) Have less than 97 credits completed at the start of the Fall semester of when the renewed scholarship is to be received.
c) Have a minimum average of $80 \%$ calculated on their best 24 credits completed in the previous academic year (September to June). Students on a recognized outgoing Exchange will have their scholarship renewal average calculated on an individual basis.
d) For certain renewable scholarships, students may need to meet different minimum average requirements or criteria to have their scholarship renewed. These criteria will be outlined, via email, in an official notification issued to the student once the scholarship has been allocated and awarded.

## Awarding of Scholarships

Bishop's scholarship program is competitive meaning that each year students are automatically considered based on their GPA from the previous year. Receiving an entrance or continuing student scholarship in the previous year does not guarantee a scholarship for future semesters.
Offers for merit based funds are sent out in mid summer. The offer outlines the minimum requirements to receive the funds for both Fall and Winter semesters.
For questions related to scholarships, please contact the University Bursar at studentaccounts@ubishops.ca.

## Scholarships

Bishop's offers several scholarships that have been established over time by generous alumni and friends of the University. Additional scholarships funded on a sporadic basis may also be available. To find out more about them, please visit:
http://www.ubishops.ca/future-current-students/money-matters/ scholarships-awards-bursaries/.

## A.W. PRESTON MEMORIAL SCHOLARSHIP IN HUMANITIES

(Endowed by alumni and friends in honour of Dr. Anthony W. Preston, who taught Classics from 1930-1964, was appointed Vice-Principal in 1964, and became Principal and Vice-Chancellor in 1969.)
Awarded to a returning student in Classics; Philosophy; Religion, Society and Culture; or Liberal Arts with a high academic average. Selected by the Chairs of the four departments.

## ALAN AND DOROTHY WILLIAMS SCHOLARSHIP IN BUSINESS <br> (Endowed in 1990 by David Williams ' 63 in memory of his parents.) Awarded to a top student in the Williams School of Business.

## AMERICAN BILTRITE (CANADA) LTD. SCHOLARSHIP

(Endowed in 1998 through the Partners in Learning campaign.)
Awarded to students whose permanent residence has been in the Eastern Townships.

## ARCHDEACON R.H. COLE SCHOLARSHIP

(Endowed in 1981 through a bequest in the Will of the Venerable R.H. Cole.)

## BANQUE NATIONALE BUSINESS SCHOLARSHIP

(Endowed through contributions to the Partners in Learning campaign, 1998-2003, and the Leading the Way campaign, 2012-2018.)
Awarded to Canadian students of high academic standing in the Marketing and Entrepreneurship concentration.

## BMO FINANCIAL GROUP SCHOLARSHIP

(Endowed through contributions to the Partners in Learning campaign, 1998-2003, and the Leading the Way campaign, 2012-2018.)
Awarded to Canadian students of high academic standing in the Williams School of Business.

## BOROUGH OF LENNOXVILLE SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003.) Awarded to a long-time resident of Lennoxville with high academic standing. Preference to an entering student. Possibility of renewal.

## BOURSE CONSTRUCTION GÉRATEK

(Endowed through the Partners in Learning campaign, 1998-2003.) Awarded to a student from the Eastern Townships.

## BOURSE D'EXCELLENCE CIMA+

(Endowed in 2021 by CIMA+)
Awarded to a full-time student who demonstrates academic excellence.

## CANADIAN NATIONAL (CN) SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003.)

## CHANCELLOR'S EXCELLENCE SCHOLARSHIP

(Endowed in 2018 by an anonymous donor to attract outstanding students to Bishop's University.)
The Chancellor's Excellence Scholarships, valued at \$10,000 per year (and renewable for up to three additional years), are intended to recognize and reward students with outstanding academic records and who personify Bishop's fundamental values - sound learning, good citizenship, community, discovery, excellence, and sustainability. Recipients will be selected by a committee, chaired by the Principal. Available to Canadian citizens and permanent residents who present a minimum cumulative admissions average of $90 \%$ in their Grade 11 year or a cumulative 33 CEGEP R-Score. Application form and details are available at ubishops.ca.

## CHEVALIER MEMORIAL SCHOLARSHIP

(Endowed in 2011 through a bequest in the Will of Louise Chevalier '53, DCL '90.)
Preference given to a Sociology student.

## CHIEF JUSTICE BOWEN SCHOLARSHIP

(Endowed in honour of The Hon. Edward Bowen, the University's Chancellor from 1856-58.)

## CHIEF JUSTICE GREENSHIELDS MEMORIAL SCHOLARSHIP

(Endowed through a bequest in the Will of Chief Justice Greenshields DCL '31, Chancellor 1932-42.)

## CLASSES OF '59, '60 \& '61 SCHOLARSHIP

(Endowed in 2000 by the Classes of '59, ' 60 \& ' 61 in honour of their professors and classmates and to celebrate their 40th anniversary.)

## COMPASS GROUP CANADA SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003.)

## CONSTRUCTION LONGER SCHOLARSHIP

(Endowed in 1998 through the Partners in Learning campaign, 19982003.)

Awarded to a student from the Eastern Townships.

## COSTCO SCHOLARSHIP

(Endowed in 2015 by Ross A. Hunt ' 81 and Costco Wholesale Canada Ltd.)
Awarded to a full-time student who is a resident of Sherbrooke, has an interest in studying Business, and demonstrates financial need. The award is renewable for up to three years provided the recipient maintains a minimum $70 \%$ average.
Multiple scholarships awarded to students with high academic standing, with a preference for those enrolled in Business or Economics.

## DAVIES CHARITABLE FOUNDATION SCHOLARSHIP

(Endowed in 1996 by the Davies Charitable Foundation in Kingston, ON.)
Awarded with a preference to students from the Kingston/Belleville/ Brockville area.

## DENNIS WOOD SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003.)
Awarded to a student from Quebec with high academic standing.

## DONALD MONTGOMERY SCHOLARSHIP

(Endowed in 2002 by Don Montgomery '75.)
Awarded to a long-time resident of Lennoxville, Quebec.

## DOUGLAS CARMICHAEL MEMORIAL SCHOLARSHIP

(Endowed in 1942 by his parents in memory of Douglas Carmichael '38, who was killed in active service during WWII.)

## DR. E.E. BOOTHROYD SCHOLARSHIP

(Endowed in memory of Dr. Boothroyd, who taught English and History at Bishop's from 1904 to 1944.)
Awarded to a student of History or English with high academic standing.

## DR. SIDNEY MEDINE SCHOLARSHIP

(Endowed through a bequest in the Will of Sidney Medine '35.)
Multiple scholarships awarded to Canadian citizens who demonstrate academic excellence.

## DROUIN FOURNIER FAMILY SCHOLARSHIP

(Endowed in 2022 by Daniel Fournier, Co-Chair of the Leading the Way capital campaign (2012-2018) and his wife Caroline Drouin.)
Awarded to a full-time undergraduate student who is in financial need and who has demonstrated academic achievement

## E.A. PRINCE MEMORIAL SCHOLARSHIP IN POLITICAL SCIENCE

(Endowed by former students, colleagues and friends of Professor E.A. Prince, a member of the Bishop's Political Studies Department from 1967-1981.)

Awarded to a returning Political Studies student of high academic standing who, in the opinion of the Department, has made a significant contribution to the life of the University.

## E.W. JOHN TURCKE SCHOLARSHIP

(Endowed by his family in memory of John Turcke. Three of his grandchildren - Christina '91, Peter '94 and Natasha '98 are Bishop's alumni.)

Awarded to an incoming student majoring in Music, who possesses high academic standing. Preference given to violin or cello. Awarded following a successful audition with the Music program.

## EATON SCHOLARSHIP

(Endowed by the Eaton Foundation in 1989.)

## ELIZABETH GRIFFIN ARTS SCHOLARSHIP

(Endowed through a bequest in the Will of Elizabeth Griffin '36.) Awarded to entering Canadian students in the Humanities or Social Sciences.

## ERIC T. WEBSTER FOUNDATION SCHOLARSHIP

(Endowed in 2004 through a bequest from Eric T. Webster, friend of Bishop's and father of Norman '62, William '67 and Maggie, and stepfather of Mark Armitage '69.)
Preference given to a student from the Eastern Townships or Montreal.

## ESPRIT DE CORPS ENTRANCE SCHOLARSHIP

(Endowed in 2015 by the Classes of '62-' 66 in honour of their 50th reunion and named after the Bishop's school song "Raise a Toast", written by members of this class.)
Awarded to an entering Bishop's student.

## EXP SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003.)

## FLORENCE MAY FOREMAN SCHOLARSHIP

(Endowed in 2003 through the Estate of Florence Foreman.)

## FONDATION J. ARMAND BOMBARDIER SCHOLARSHIP

(Endowed in 1996 by Fondation J. Armand Bombardier.)
Awarded to an outstanding Quebec student.

## FRANCES CROOK MORRISON SCHOLARSHIP IN EDUCATION

(Endowed in 1999 by the late Frances Morrison '39, to recognize the 60th year since her graduation.)
Awarded to a Bachelor of Education student who has achieved a cumulative average of $80 \%$ or higher, plans to teach at the elementary school level, and shows commitment to the teaching of Mathematics. Selected by the School of Education.

## FREDA HOWIE MEMORIAL SCHOLARSHIP

(Endowed in 2003 through the Estate of Freda Howie '39.)

## G.H. MONTGOMERY MEMORIAL SCHOLARSHIP

(Endowed in 1951 by a bequest in the Will of Dr. Montgomery, Chancellor 1942-1950.)

## G.M. STEARNS SR. AND JR. SCHOLARSHIP

(Endowed by Evelyn Stearns Murphy '53 and her brother David '52 in honour of George M. Stearns Sr. and Jr.)
Preference given to a Humanities student from the Eastern Townships.

## GALLOP-DICKSON SCHOLARSHIP IN EDUCATION

(Endowed in 2011 by W. John Gallop '57, Karen Dickson Ingimundson and Betty Mueller Dickson in memory of Doris Dickson Gallop '23 and C. Wynne Dickson '32.)

Awarded to entering students in the School of Education, or returning students, with high academic standing. Preference given to indigenous students and/or students from the Eastern Townships.

## GARY MULLINS SCHOLARSHIP

(Endowed in 2002 by Janyne M. Hodder, Principal \& Vice-Chancellor 1995-2004, in honour of her husband.)
Preference given to upper year students in the English major or honours program, whose academic achievement warrants consideration of a scholarship for the first time. When possible or appropriate, financial need shall be taken into account. Recipients selected by the English Department.

## GENE H. KRUGER SCHOLARSHIP

(Endowed in 1999 by Joseph Kruger II, Chairman and CEO of Kruger Inc.)
Preference given to a student from the Eastern Townships.

## GEOFF AND JOSÉE MACDONALD SCHOLARSHIP

Endowed in 2018 by Geoff ' 92 and José ' 93 MacDonald through the Leading the Way campaign.)
Awarded to students who demonstrate academic excellence.

## GEORGE H. TOMLINSON MEMORIAL SCHOLARSHIP

(Endowed in 1959 through the Will of George Tomlinson DCL '46, a member of the Corporation of Bishop's University 1945-1958.)
Awarded to an honours Science student, preferably entering final year.

## GEORGE WESTON SCHOLARSHIP IN HUMANITIES

(Endowed by the Weston Foundation in 1995 in support of higher education.)
Awarded to Canadian citizens, studying in the Humanities.

## GERALD JOHNSTON SCHOLARSHIP

(Endowed in 2015 through a bequest in the Will of Gerald H. Johnston '48.)
Preference given to students in the Division of Natural Sciences and Mathematics who demonstrate academic excellence.

## GERALD THEODORE RAYNER SCHOLARSHIP IN POLITICAL STUDIES

(Endowed in 2012 through funding by Gerald Theodore Rayner '51 and gifts made in his memory.)
Awarded to a Canadian student entering his/her penultimate year who is studying Honours Political Studies, has an interest in or has taken Public Policy and is planning to pursue graduate work in political studies, and has revealed a strong commitment to Canada. Selected by the Department.

## GERTRUDE CONWAY \& DAVID ALFRED CONWAY JONES SCHOLARSHIP

(Endowed in 2014 by Susan Gram and Tom Jones in memory of their mother, Gertrude Conway, and their brother, David Alfred Conway Jones.)
Awarded to students from the greater Sherbrooke area who are pursuing a Bachelor of Arts (Education), Bachelor of Science (Education), or Bachelor of Education program. If no suitable candidates are available, recipients can be selected from the Eastern Townships, and then from the province of Quebec.

## GLOBAL EXCEL MANAGEMENT SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003.) Preference given to a student from the Eastern Townships.

## GORDON SAMSON MEMORIAL SCHOLARSHIP

(Endowed through a bequest in the Will of Gordon Samson '42.)

## GROUPE CANAM SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003.) Awarded to students from Quebec with high academic standing.

## H. GREVILLE SMITH MEMORIAL SCHOLARSHIP

(Endowed in 1976 through a bequest in the Will of H. Greville Smith DCL '67.)

## HARRIET J. EVANS SCHOLARSHIP

(Endowed in 1969 by Harriet Evans, a Sherbrooke resident and Bishop's benefactor.)

## HARRISON MCCAIN SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003.) Awarded to a student from New Brunswick.

## HOLT SCHOLARSHIP IN MODERN LANGUAGES

(Endowed in 1990 by Mrs. Pam Dunn DCL '99 in honour of her father W.R.G. Holt and her grandfather Sir Herbert Holt DCL '29, and her children, four of whom attended Bishop's.)
Awarded to outstanding students in a Modern Languages program.

## HOWARD BROWN MEMORIAL SCHOLARSHIP

(Endowed through a bequest in the Will of Howard Brown, DCL '01, founder of the Department of Music and Professor of Music from 196783.)

Awarded to returning students who have exhibited strong performance in Music.

## HUBERT GRAY WELSFORD SCHOLARSHIP

(Endowed in 1969 by a bequest in the Will of Hubert Welsford DCL '66.)

## HYDRO-QUÉBEC SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003.)
Awarded to students from Quebec with high academic standing.

## IAN DOBELL SCHOLARSHIP

(Endowed in 2005 by a bequest in the Will of Ian Dobell '74.)

## J. RAYMOND MILLS SCHOLARSHIP

(Endowed in 2002 through a bequest in the Will of Raymond Mills.)

## JEAN CRÉPEAU SCHOLARSHIP

(Endowed by Jean Crépeau through the Partners in Learning campaign, 1998-2003.)

## JEAN MCCALLUM SIMPSON SCHOLARSHIP

(Endowed through a bequest in the Will of Jean Simpson '43, and gifts from her brother John McCallum '35.)
Preference given to a student in Mathematics.

## JEAN YOUNG MEMORIAL SCHOLARSHIP

(Endowed in 2003 through the Estate of Mildred Young in memory of her daughter Jean '60.)

## JOHN \& PATTIE CLEGHORN SCHOLARSHIP

(Endowed in 2000 by Pattie and John Cleghorn DCL ' 89 through the Partners in Learning campaign. John was Chair of Leadership Gifts and National Chair of the Learning for Life campaign, 1987-1992. Two of their three children, Andrea and Ian, graduated in 1990 and 1991 respectively. Lynne Bridgman '89 joined the family by marrying Ian.)
Awarded to students of high academic standing who are pursuing majors in History and/or Fine Arts.

## JOHN BASSETT MEMORIAL SCHOLARSHIP

(Endowed by friends of John Bassett DCL '39, Chancellor 1950-58.) Awarded to students in the Humanities or Social Sciences.

## JOHN C. CLARK SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003, in honour of his son Paul '89.)

## JOHN H. MOLSON SCHOLARSHIP

(Endowed in 1972 by John H. Molson DCL '48, Honorary President of the Corporation of Bishop's University.)

## JOHN HACKETT MEMORIAL SCHOLARSHIP

(Endowed by friends and family in memory of long-time friend, graduate, and counsel of Bishop's University, John Hackett '63, who died prematurely in 1999.)
Preference given to a Humanities student.b

## JOHN HAMILTON SCHOLARSHIP

(Endowed in honour of John Hamilton, the University's Chancellor from 1900-1926.)

## KENNETH CRAWFORD SCHOLARSHIP

(Endowed in 2003 through a bequest in the Will of Kenneth Crawford '31.)

## KILLAM AMERICAN SCHOLARSHIP

(Endowed anonymously in 2006 to encourage American students to attend Canadian universities.)
Awarded to entering full-time students who are domiciled in or are citizens of the United States. The scholarship is renewable provided students continue to meet the academic standards.

## KRUGER INC. SCHOLARSHIP IN ENVIRONMENTAL STUDIES

(Endowed in 1994 by Kruger Inc.)
Awarded to a student in the second or third year of a major or honours program in Environmental Studies.

## KUEHNER 437 SCHOLARSHIP

(Endowed in 2014 by a close-knit group of '92-'96 alumni, to honour Bishop's 170th birthday and their time in Kuehner residence.)
Awarded to a student in good academic standing who lives in residence, with a preference to one living in Kuehner Hall.

## LESLIE MCCAIG MEMORIAL SCHOLARSHIP

(Endowed anonymously in 2000 in honour of Leslie McCaig '35, who was killed in active service during WWII.)
Awarded to an entering student in Humanities who is pursuing a major or honours program in English or History. Possibility of renewal.

## MARION REED KERR SCHOLARSHIP

(Endowed in 2003 through the Estate of Marion Kerr.)
Preference given to a student from the Ulverton-Richmond-Melbourne area.

## MCDONALD'S RESTAURANTS OF CANADA SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1radshaw 998-2003.)

## METRO-RICHELIEU INC. SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003 and the Leading the Way campaign, 2012-2018.)
Awarded to a Quebec student with high academic standing.

## MILLS FAMILY SCHOLARSHIP

(Endowed in 2014 by Don C. Mills ' 71 and Liz Mills '72.)
Awarded to student(s) from Atlantic Canada, registered in the Bachelor of Business Administration program. Preference given to students who show an interest in pursuing a concentration in marketing.

## MOLSON FOUNDATION SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003.)

## NARCISSA FARRAND SCHOLARSHIP <br> (Endowed in 1917 by Mr. \& Mrs. H.V. Truell.)

## NORAH MOORHEAD MEMORIAL SCHOLARSHIP

(Endowed by David Jones '76 in honour of Norah Moorhead DCL '86, who devoted her life to the service of education, the Anglican Church, and projects in developing countries.)
Awarded to a student from Richmond, QC or elsewhere in the Eastern Townships who is pursuing a Bachelor of Arts, major in English or History.

## O.B. THORNTON SCHOLARSHIP

(Endowed in 1960 by an anonymous donor.)

## O.H. (BUD) DE SÉVIGNÉ SCHOLARSHIP IN THE CREATIVE AND PERFORMING ARTS

(Endowed in 1992 by Oscar H. de Sévigné '37, M.A. '39.)
Awarded to a student in Drama, Fine Arts or Music who has demonstrated high creative or performance skills.

## P.H. AND EULAH REED SCOWEN SCHOLARSHIP IN EDUCATION

(Endowed in 1994 by the Scowen grandchildren.)
Awarded to a student in the Bachelor of Education program who demonstrates financial need. Preference given to a mature student. Possibility of renewal. Selected by the Department.

## PATERSON FOUNDATION SCHOLARSHIP

(Endowed in 1993 in honour of the University's 150th Anniversary.)
Awarded to a student from Northern Ontario, Manitoba, or Saskatchewan with high academic standing.

## PEGGY AND DAVID SAVAGE MEMORIAL SCHOLARSHIP

(Endowed in 2014 by a bequest in the Will of Marguerite Savage.)
Awarded to a returning student in the Fine Arts Department, with a preference to one studying in Studio Art.

## POWER CORPORATION SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003.)

## PRICE SCHOLARSHIP

(Endowed in 1968 in honour of Brig. Gen. John H. Price DCL '62, Chancellor 1968-74.)

## PROFESSOR SYDNEY TAYLOR MEMORIAL SCHOLARSHIP

(Endowed in 2010 by Martin ' 66 and Roger ' 60 in memory of their father, a professor of Mathematics at Bishop's from 1952-1968.) Awarded to a returning Mathematics Major or Honours student for outstanding academic performance.

## PwC SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003.)

## QUEBECOR SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003.)
Awarded to a student from Quebec with high academic standing.

## R.A. LINDSAY SCHOLARSHIP

(Endowed in 1947 by Dr. \& Mrs. Lionel Lindsay in memory of their son, Robin '42, who was killed in action in WWII.)

## R.W. HENEKER SCHOLARSHIP

(Endowed in honour of R. W. Heneker, the University's Chancellor from 1878-1900.)

## REED SCOWEN SCHOLARSHIP

(Endowed in 2020 through a bequest in the Will of Reed Scowen ' 52. )

## RESOLUTE FOREST PRODUCTS SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003.) Awarded to the top returning Social Sciences student(s).

## RICHARD TOMLINSON SCHOLARSHIP

(Endowed in 1999 by the late Richard Tomlinson '43, DCL '89.)
Multiple scholarships awarded to students who demonstrate academic excellence.

## ROBERT BRUCE SCHOLARSHIP

(Endowed through a bequest in the Will of Mr. Bruce, a native of Scotland who lived in Quebec from 1835 until his death in 1885.)

## ROBIN BURNS MEMORIAL SCHOLARSHIP

(Endowed in 2003 by faculty and friends of Robin Burns, who taught History at Bishop's from 1979 until his premature death in 1998.) Preference given to a student in History with high academic standing.

## RODNEY S. MILLS SCHOLARSHIP

(Endowed by the late Rodney Mills '53 through the Partners in Learning campaign, 1998-2003.)
Awarded to Williams School of Business students, with a preference to those pursuing a concentration in Global Management and Leadership.

## RONALD CROWLEY SCHOLARSHIP

(Endowed in 2016 by a bequest in the Will of Ronald Crowley '64.)

## ROSANNE SIMARD SCHOLARSHIP

(Endowed in 2015 by a bequest in the Will of Rosanne Simard '00.) Awarded to exceptional students in the Psychology Department.

## SADIQ AWAN GRADUATE SCHOLARSHIP IN EDUCATION

(Endowed in 2019 through a bequest in the Will of Sadiq Awan, M.Ed.'75.)

Two scholarships of \$7,500 each for students of high academic standing in the Master of Education program. Preference given, where possible, to a student from Abbottbad, Pakistan. Additional scholarships of varying amounts may be awarded at the discretion of the Dean of Education. Application required. Possibility of renewal.

## SADIQ AWAN SCHOLARSHIP

(Endowed in 2019 through a bequest in the Will of Sadiq Awan, M.Ed.'75.)

A $\$ 6,000$ scholarship awarded to a full-time, undergraduate student of high academic standing in any discipline. Preference given to a student in financial need and, if possible, one from Abbottbad, Pakistan. Possibility of renewal.

## SCOTIABANK SCHOLARSHIP

(Endowed through contributions to the Partners in Learning campaign, 1998-2003, and the Leading the Way campaign, 2012-2018.)
Awarded to entering students with high academic standing. Possibility of renewal.

## SHERMAG SCHOLARSHIP

(Endowed in 2001 through the Partners in Learning campaign by Shermag and its founder, Serge Racine.)
Awarded to a student from the Eastern Townships.

## SIR EDWARD BEATTY MEMORIAL SCHOLARSHIP

(Endowed by a bequest in the Will of Sir Edward Beatty DCL '27.)

## SIR HERBERT MEREDITH MARLER MEMORIAL SCHOLARSHIP

(Endowed in 1990 by members of the Marler family, in honour of Sir Herbert Marler DCL '38.)
Awarded to a student of high academic standing in a major or honours program in Political Studies who is entering the penultimate year of undergraduate studies. Selected by the Department.

## SNC LAVALIN SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003.)

## STANLEY MILLS SCHOLARSHIP IN HUMANITIES

(Endowed in 1995 by the G.H. Stanley Mills Memorial Trust in memory of G.H.S. Mills '43, benefactor.)
Awarded to outstanding students in the Humanities.

## STEPHEN ST. CLAIR MEMORIAL SCHOLARSHIP

(Endowed in 1966 by the St. Clair Foundation in memory of a former Bishop's student.)
Awarded to a continuing male student in residence.

## STUART A. COBBETT SCHOLARSHIP

(Endowed in memory of a devoted friend and member of Bishop's Corporation, 1967-76.)

## SUSAN \& JOHN CHIPPINDALE SCHOLARSHIP

(Endowed in 2018 by John \& Susan (Drury) Chippindale '82.)
Awarded to students with high academic standing.

## SUSAN SHARP MEMORIAL SCHOLARSHIP

(Endowed in 1962 by Mr. W.O. Sharp and Miss Helen Sharp in memory of a former Bishop's student.)

## SYDNEY R. McMORRAN SCHOLARSHIP

(Endowed in 1999 by Bud McMorran '60, DCL '04, member of Bishop's Corporation 1989-1997, and Chair of Bishop's Foundation 1998-2010.)
Preference given to students in the Humanities.

## TD INSURANCE MELOCHE MONNEX SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003.)

## THE WILLIAM G. LYNN SCHOLARSHIP

(Endowed in 2021 by Brian Lynn '78, Philip Lynn '87, and Trevor Lynn '92 in honour of their late father, William G. Lynn, who founded the Continental Conveyor companies in Napanee, Ontario and Thetford Mines, Quebec.)
Awarded to an undergraduate student from Quebec in financial need who is enrolled in the Williams School of Business and who demonstrates academic merit.

## VAN HORN MEMORIAL SCHOLARSHIP

(Endowed in 1991 by Aleda Van Horn and friends in memory of her husband William '42, Bishop's Chemistry Department 1959-86.)
Awarded to a student in Chemistry or Biochemistry.

## VILLE DE SHERBROOKE ARRONDISSEMENT NO 2 SCHOLARSHIP <br> (Endowed through the Partners in Learning campaign, 1998-2003.) <br> Awarded to a student from Sherbrooke with high academic standing.

## VILLE DE SHERBROOKE SCHOLARSHIP

(Endowed in 1993 in honour of the University's 150th Anniversary.) Awarded to a student from Sherbrooke with high academic standing.

## W.G. BASSETT SCHOLARSHIP

(Endowed in 2017 by the late Marion G. Bassett, in honour of her late husband William G. Bassett '30.)
Awarded to an undergraduate student with high academic standing.

## WALKER SCHOLARSHIP

(Endowed in 1884 by Miss Helen Walker in memory of her parents, Margaret and The Honourable William Walker DCL 1856, Chancellor 1853-56.)

## WANDA ROZYNSKA SCHOLARSHIP IN FINE ARTS

(Endowed in 2007 by Wanda and Stanley Rozynski.)
Awarded to a female student in Fine Arts who has shown the aptitude and desire necessary to pursue a Studio Honours degree.

## WATERVILLE TG INC. SCHOLARSHIP

(Endowed through the Partners in Learning campaign, 1998-2003.)
Awarded to a Business student from Waterville or the Eastern Townships.

WILLIAM AND NANCY TURNER SCHOLARSHIP
(Endowed in 1988 by William I. M. Turner Jr. DCL '87, Chancellor 1987-95.)

## Awards

Bishop's has several awards that have been established over time by generous alumni and friends of the University. The deadline for entering students to apply for an award is March 1, 2022. Additional awards funded on a sporadic basis may also be available for the current year. To find out more about them, visit the webpage identified below.

The deadline for returning student awards to apply for an award is May 1, 2022

For questions or information pertaining to awards for entering students, please contact the Bursar studentaccounts@ubishops.ca 819-822-9600 ext. 2205

For questions or information pertaining to awards for returning students, please contact Student Accounts, studentaccounts@ ubishops.ca 819-822-9600 ext. 2655

For more information and an application, please visit: http://www.ubishops.ca/future-current-students/money-matters/ scholarships-awards-bursaries/.
scholarships-awards-bursaries/.

## 1954-56 TEAM AWARD

(Endowed in 2010 by members of the championship Gaiter football teams of 1954-56, in recognition of their induction to the Wall of Distinction.)
Awarded to a student-athlete playing football who has demonstrated athletic excellence. Awarded by the Athletic Awards Committee.

## 1964 GAITER FOOTBALL ATHLETIC AWARD

(Endowed in 2006 by members of the 1964 Championship Team.) Awarded to an entering football student-athlete who has demonstrated good performance.

## 1967 OSLAA BASKETBALL CHAMPION AWARD

(Endowed by members of the 1967 Championship Basketball team after their 2007 induction to the Wall of Distinction.)
Awarded by the Athletic Awards Committee to a Gaiter basketball student-athlete.

## BOB BURT AWARD

(Endowed in 2012 by Gaiter Football alumni in honour of Bob Burt '57.)
Awarded to a Bishop's student-athlete in any sport who best exemplifies Bob's qualities of leadership, integrity, and perseverance in his or her athletic endeavours. Awarded by the Athletic Awards Committee.

## BYL AWARD FOR STUDENT LEADERSHIP

(Endowed in 2006 by Sven Byl '01 and Laura (Parker) Byl '00.) Preference given to an entering student in good academic standing who demonstrates extensive school involvement and the leadership qualities necessary to become an active participant in the Bishop's experience.

## CLEGHORN FAMILY AWARD

(Endowed through the Partners in Learning campaign, 1998-2003, by John Cleghorn, DCL '89, member of Bishop's Corporation 1987-1996, Chair of the Learning for Life campaign, 1987-1992, and his wife Pattie.)
Awarded to student-athletes (entering or returning) who demonstrate athletic and academic excellence ( $80 \%+$ average). Chosen by the Athletic Awards Committee.

## COACH'S AWARD

(Endowed in 2015 by alumni and stakeholders of the Men's Basketball program to celebrate 50 years of basketball at Bishop's University, and to honour past coaches, the late Garth Smith (1958-1984) and Eddie Pomykala (1984-2007) who served as head coaches for the Gaiters for a combined 49 years.)
Presented at the discretion of the Men's Basketball Head Coach.

## DR. ROBERT M. BROWN CHEMISTRY AWARD

(Endowed in 2008 through a bequest in the Will of Dr. Robert M. Brown '44.)
Awarded by the Department of Chemistry to a continuing full-time Chemistry student who has maintained good academic standing and has demonstrated financial need. This award may be renewable, at the discretion of the Department.

## DREW MACCANNELL AWARD FOR INTERDISCIPLINARY EXCELLENCE

(Endowed in 2018 by Dr. Keith Andrew MacCannell, BSc '02.) Awarded to a BSc student engaged in a joint program that combines Biology, Biochemistry or Chemistry, with one or more of Physics, Mathematics or Computer Science. Preference will be given to Honours undergraduate students with demonstrated academic achievement and research potential. Awarded by the Chairs of the Division of Natural Sciences and Mathematics. Graduate students will be considered if there are no qualified undergraduates.

## E. ANTHONY PRICE AWARD

(Endowed in 2003 by family and friends of Tony Price '50, DCL '02.) Awarded to an upper year student who has excelled in academics and sports and whose first language is French.
Preference given to History students. Non-renewable.

## ERIC AND CANDACE INNES AWARD

(Endowed through the Partners in Learning campaign, 1998-2003, by Eric '71 and Candace ' 71 Innes.)
Preference to a second-year Canadian student from outside Quebec in good academic standing, who has made a significant contribution to campus life. To be eligible, the student must submit an essay of 500-600 words on "Objectives for my University Experience" to explain his or her aspirations for university. The award is renewable provided the recipient continues to meet the criteria.

## FELESKY LEADERSHIP AWARD

(Endowed in 2011 by Wade '92 and Rebecca Felesky, on the occasion of Wade's induction into the Top 10 After 10.)
Awarded to an entering student from Western Canada of high academic standing, whose record of engagement in athletics and/or community service demonstrates significant potential to contribute to and benefit from the full breadth of the Bishop's experience. Preference given to a student who demonstrates financial need. Application required.

## FORSYTHE AWARD

(Endowed in 2011 by Chris '99 and Jamie '96 Forsythe.) Awarded to a men's Gaiter basketball player in good academic standing who has excelled on the court and demonstrated financial need. Awarded by the Athletic Awards Committee.

## GOLDBERGER ATHLETE LEADERSHIP AWARD (GALA)

(Endowed in 1999 by Robert J. Goldberger '79, Chair of the BU Foundation 2017-present, and loyal friend of the University.) Awarded by the Athletic Awards Committee to encourage and support student-athletes who have demonstrated athletic excellence.

## GRIFFIN FAMILY AWARD

(Endowed through the Partners in Learning campaign, 1998-2003, by members of the Griffin Family.)
Awarded to full-time undergraduate students who demonstrate financial need, academic ability, and the qualities of well-rounded individuals.

## HOBBS-SPANSWICK LEADERSHIP AWARD

(Endowed in 2010 by Ebert "Bim" Hobbs '51, a proud and loyal Bishop's graduate, and his loving wife of 60 years, the late Audrey Spanswick.)
Awarded to an entering student in good academic standing who has demonstrated extensive school and community involvement in activities that have improved the quality of life for people in the local community, the nation or the world, and possesses the leadership qualities necessary to participate actively in the Bishop's experience. Preference given to a student who demonstrates financial need. Selected by the Awards and Bursaries Committee.

## HODDER AWARD IN MUSIC

(Endowed in 2004 in honour of Janyne Hodder, Principal of Bishop's University from 1995 to 2004.)
Awarded to one or more students for outstanding work in administering the "Music Chez Nous" concert series.

## HOWARD HOLLOWAY AWARD IN EDUCATION

(Endowed in 2006 in memory of Howie '65, by Anne Holloway, Stephen ' 65 \& Kathleen Prest, family and friends.)
Awarded to two students who have high academic standing, possess past or present leadership or character suitable to teaching (e.g. contribution to educational endeavours at the University or in the community), and demonstrate financial need.

## IRENE MACKAY AWARD

(Endowed in 1997 by Dr. Hugh M. Scott DCL '99, Principal \& ViceChancellor 1986-1995, in honour of his mother.)
Preference given to a student from a single-parent household who is in good academic standing and demonstrates financial need.

## J. AMY LUXTON MEMORIAL AWARD IN BIOLOGY

(Endowed in 2018 by John '67 and Sylvia Luxton in memory of their daughter.)
Awarded to promising, returning Biological Sciences students to encourage them to accept greater challenges and further their love and knowledge of the subject. Selected by the Department.

## JAMES ETCHEVERRY AWARD

(Endowed in 1998 in memory of Jim, the son of legendary Alouettes Football team quarterback Sam Etcheverry.)
Awarded to a Gaiter football player who has demonstrated athletic excellence.

## JEAN IRVINE PATERSON AWARD

(Endowed by Alex K. Paterson '52, DCL '74, Chancellor 1995-2005, in honour of his mother.)
Awarded to full-time undergraduate students who, at the time of admission, are considered to have characteristics which make it likely that they will, on graduation, contribute significantly to the community. Selection of the candidates will come from the Recruitment Office, with an aim to recruiting well-rounded Bishop's students.

## JEAN ROBINSON HUNT MEMORIAL AWARD

(Endowed in 2000 by Ross Hunt '81, in memory of his mother, Jean Robinson Hunt.)
Awarded to a Quebec student from outside the Montreal region, who demonstrates financial need and who maintains an academic average at Bishop's of $70 \%$ or better, for tuition and residence expenses.
Application required.

## JEFF CANNON MEMORIAL AWARD

(Endowed by family and friends in memory of Jeff Cannon '89, who passed away tragically in 1992.)
Presented to the graduating student who, in the opinion of his/her peers and the faculty, has contributed significantly to University life and exhibits characteristics and accomplishments similar to those of Jeff Cannon. Application required. Selected by the Deans in consultation with Department Chairs. The selected recipient will be expected to "pay it forward" by providing guidance to the recipients of the Jeff Cannon Entrance Awards.

## JEFF CANNON MEMORIAL ENTRANCE AWARD

(Endowed by family and friends in memory of Jeff Cannon '89, who passed away tragically in 1992.)
Preference given to students who demonstrate extensive school and community involvement, exhibit leadership qualities, and show an entrepreneurial spirit. Candidates are expected to submit a letter of interest.

## JOAN AND ALEX PATERSON AWARD

(Endowed in 2021 by Alex K. Paterson '52, DCL '74, Chancellor 19952005.)

Awarded at Convocation to a graduating student who contributed the most to volunteer work and activities in the off-campus community. Selected by the Vice-Principal of Student Affairs and the Executive of the Students' Representative Council.

## JOE \& YVONNE SCOTT AWARD

(Endowed through the Partners in Learning campaign, 1998-2003, to honour the graduation of their daughters, Jennifer ' 99 and Allison '01. Joe served on Bishop's Corporation from 1990-99.)
Awarded to students who have demonstrated good performance in their sport and have financial need. Selected by the Athletic Awards Committee.

## JOHN PRATT EMERGING LEADER ENTRANCE AWARD

(Endowed in 2013 by John Pratt '58.)
Awarded to entering students who demonstrate creativity and initiative in one or more of the following categories: community service, extracurricular involvement, athletics, internship or work experience. Candidates should demonstrate potential for future achievement through a track record of previous efforts. Preference will be given to students who are ineligible for other major entrance awards and major scholarships.

## JULIE BRADSHAW MEMORIAL AWARD

(Endowed in 2003 in memory of Julie Bradshaw '80, who won the Golden Mitre Award upon her graduation.)
Awarded to the Golden Mitre winner with the highest number of votes. Presented in May at the Students' Representative Council Awards Night ceremony.

## LEN KORNACK AWARD IN EDUCATION

(Endowed in 2012 through a bequest in the Will of Len Kornack '64.) Awarded to a Bachelor of Education student (preferably focusing on History or English as a teachable subject), who is a Canadian citizen and demonstrates financial need.

## LEN KORNACK AWARD IN HISTORY

(Endowed in 2012 through a bequest in the Will of Len Kornack '64.) Awarded to a student majoring in History who is a Canadian citizen and demonstrates financial need.

## MOLSON COORS BIPOC BREWING AWARDS

(Endowed in 2021 by Molson Coors.)
Awarded to two students in good academic standing, with an aim to encourage diversity in the brewing sector. Preference for candidates in financial need.

## OLGA REID MEMORIAL AWARD FOR JOURNALISM

(Endowed in 2011 by Mr. and Mrs. Leslie Reid, in memory of his sister Olga Reid '37.)
Awarded to the student journalist or writer who, in the opinion of The Campus Editorial Board, has written the best article or series during the academic year.

## OWEN CARTER AWARD

(Endowed by Owen Carter ' 38 through the Partners in Learning campaign, 1998-2003.)
Awarded to one or more full-time undergraduate students who indicate financial need and have demonstrated both athletic prowess and academic achievements.

## PATRICK SANDERSON SOCCER AWARD

(Endowed in 2019 by Erin Patrick Sanderson '02 \& Matt Sanderson '01 on the occasion of Erin's induction to the Athletic Wall of Distinction.)
Awarded to a player on the Women's Soccer team by the Athletics Awards Committee, in consultation with the Head Coach.

## PAUL GRATIAS AWARD

(Endowed with a gift from Paul Gratias '67 to the Partners in Learning campaign, 1998-2003.)
Awarded to one or two student-athletes who demonstrate financial need. Renewable, provided the recipient remains in good academic standing.

## PAUL HAWCO MEMORIAL AWARD

(Endowed in 1996 in memory of Paul Hawco '95.)
Awarded to an entering student from the province of Alberta who has demonstrated high academic standing and participation in extra-curricular activities. Information available from the Admissions Office.

## RAY LAWSON AWARD

(Endowed by the Lawson Foundation in 1985 in honour of the Honourable Ray Lawson, Lieutenant Governor of Ontario and honorary graduate of Bishop's University.)
Awarded to the returning student who, in the opinion of the Students' Representative Council, has contributed most to the life of the University.

## REV. PROF. JOHN \& BARBARA ANIDO AWARD

(Endowed in 2021 by friends and family of the late Rev. Prof. John Anido, Professor Emeritus of Theology and Warden of Divinity House from 1957-76, and his wife Barbara. Together, they nurtured and mentored countless Bishop's students.)
Awarded to a returning student who brings joy and spirit to the Bishop's community through music, performance, and/or community gatherings. Selected by the Vice-Principal of Student Affairs, the Chaplain, and the SRC Executive. Financial need may be taken into consideration.

## RICHARD FITZSIMMONS MEMORIAL AWARD

(Endowed in 2010 by family and friends of Richard Fitzsimmons '70, a Rhodes Scholar, multi-talented intellectual, gifted lawyer, and passionate defender of the rights of others. Il avait un "Cœur de Lion".) Awarded to an entering student who has shown academic promise, demonstrated the qualities of leadership and community service, and has the potential to contribute positively to the Bishop's experience. Financial need will also be considered. Awarded by the Awards and Bursaries Committee.

## RIDER FAMILY AWARD

(Endowed in 2009 by Tim and Linda Rider on the occasion of John Rider's '57 induction into the Wall of Distinction, and in recognition of the numerous Rider family members who have actively participated in the Bishop's experience.)
Awarded to a student-athlete playing football or basketball (men's or women's) who has demonstrated athletic excellence. Selected by the Athletic Awards Committee.

## RON AND SHELLY KAULBACH AWARD

(Endowed by Ron Kaulbach '66 through the Partners in Learning campaign, 1998-2003.)
Awarded to students who have demonstrated good performance in a sport and are in financial need. Selected by the Athletic Awards Committee.

## ROSS HUNTING AWARD

(Endowed in 1989 by Ross Hunting through the Learning for Life campaign.)
Awarded to a returning student who is of proven academic ability and has contributed to the life of the University through intercollegiate sports and other activities.

## SPG JUBILEE AWARD FOR STUDENT MUSICIANS AT ST. MARKS CHAPEL

Awarded to students who provide musical services at St. Mark's Chapel during the academic year. This may include playing the organ or another instrument, directing the chapel choir, or accompanying choir practices. Selected by the Chapel Music Committee.

## THE BRIDGMAN-CLEGHORN AWARD

(Established in 2022 by Lynne Bridgman '89 and Ian Cleghorn '89) Awarded to a worthy entering or returning student in need of financial assistance. The student should be seen as making a meaningful contribution to the University, whether academically, athletically, or otherwise. Available to Canadian citizens.

## THOMAS E. PRICE MEMORIAL AWARD

(Endowed in 1997 in memory of Thomas Price '51, DCL '82.)
Preference given to a continuing student-athlete, who is academically eligible to participate and has demonstrated outstanding ability in in-ter-university competition. Selected by the Athletic Awards Committee.

## TOM LONGBOAT AWARD FOR INDIGENOUS STUDENTS

(Endowed in 2021 by an anonymous Bishop's graduate. It was named in honour of Tom Longboat, an Onondaga distance runner from the Six Nations Reserve near Brantford, Ontario who won the Boston Marathon in 1907.)
Awarded to an Indigenous student with a preference for a student-athlete.

## WALLY DENVER AWARD

(Endowed through the Partners in Learning campaign, 1998-2003, by the Denver family: Wally '61 and his children Keith '88, Jennifer '91, and Kim '92.)
Awarded to a student-athlete in financial need.

## ZDENEK MUNZAR MEMORIAL AWARD

(Endowed in 1998 by Dr. Michael Munzar, B.Sc. '75, Trustee of Bishop's University Foundation from 1997-2005 and a loyal friend of the University, in honour of his father.)
Awarded by the Athletic Awards Committee to students who indicate financial need and have demonstrated athletic prowess in football.

## Bursaries

Bishop's offers several bursaries that have been established over time by generous alumni and friends of the University to assist students in financial need. Additional bursaries funded on a sporadic basis may also be available for the current year. To find out more about them, please visit the webpage identified below. An online application is required to be considered for all awards and bursaries (Entering or Returning). The application deadline for Entering students is March 1, 2022. The application deadline for Returning students is May 1, 2022. For more information and application, please visit: http://www.ubishops.ca/future-current-students/money-matters/scholarships-awards-bursaries/.

Entering students can also contact the Admissions Office at admissions@ubishops.ca or 819-822-9600 ext. 2006.

Returning students may contact the University Bursar by email: studentaccounts@ubishops.ca or by phone: 819-822-9600 ext. 2205

## APBU BURSARY

(Endowed through the Partners of Learning campaign, 1998-2003 by the Association of Professors of Bishop's University.)
Awarded to a full-time returning Bishop's student, with priority given to students from Quebec. This award is renewable unless the student's financial circumstances change.

## BISHOP'S UNIVERSITY STAFF BURSARY

(Endowed by Bishop's staff members through the Partners in Learning campaign, 1998-2003.)
Awarded to returning full-time students in good academic standing who are Canadian citizens, demonstrate financial need, and do not hold any other University scholarship or bursary.

## CAPE FAMILY BURSARY

(Endowed in 2021 by Christopher Cape '58)
Awarded to a full-time undergraduate student who is in financial need and who has demonstrated academic and athletic achievement.

## CAROL AND MICHAEL MOONEY BURSARY

(Endowed in 2002 by Carol and Michael Mooney, both BSC '68.)
Awarded to a male student in the Elementary Education program, who has completed two years of study.
Selected by the Department.

## CAROL STEVENSON BURSARY

(Endowed in 2001 by Carol Stevenson to encourage and help serious students of any age to pursue higher education.)
Awarded to a student who demonstrates financial need and has an average of $70 \%$ or higher.

## CHAWKERS FOUNDATION BURSARY

(Endowed by The Chawkers Foundation in 2000.)
Awarded to a student who is pursuing a degree in Environmental Studies and Geography, is in good academic standing, and demonstrates financial need.

## FOUR SHADES OF PURPLE MEMORIAL BURSARY

(Endowed in 2010 by alumni, friends and family to honour the memory of dear friends and former students Michel Fontaine, Kyle Pearson '06, David Teehan '07, and Cody Triggs.)
Awarded to a second-year student who was initially supported through the Refugee Sponsorship Program. Awarded by the Refugee Sponsorship Committee.

## GERALD JOHNSTON BURSARY

(Endowed in 2015 through a bequest in the Will of Gerald H. Johnston '48.)
Preference given to students in the Division of Natural Sciences and Mathematics who demonstrate financial need.

## HAZEL A. CARSON ' 75 MEMORIAL BURSARY

(Endowed in 2017 by Mary Carson, R. David Jones ' 76 and Lois Carson)
Awarded to Bishop's University students who are pursuing full-time studies within the School of Education, with preference given to those from the Eastern Townships.

## HOWARD V. HOLLOWAY BURSARY IN EDUCATION

(Endowed in 2016 in memory of Howie '65, by Anne Holloway, Stephen ' 65 and Kathleen Prest, family and friends.)
This renewable bursary is awarded to two students from the Eastern Townships or Quebec Lower North Shore who are enrolled in the School of Education and demonstrate financial need.

## JOHN LECKIE BURSARY

(Endowed in 2005 by John Leckie '68.)
Preference given to a Business student from the Eastern Townships who demonstrates financial need.

## KATHARINE SLATER ROURKE BURSARY

(Endowed in 2017 through a bequest in the Will of Katharine Slater Rourke.)
Awarded to students in the Fine Arts or Humanities programs who demonstrate financial need.

## LT. F. REGINALD ROBINSON BURSARY

(Endowed by the late Mrs. Julia M. Robinson of Granby, in memory of her son who laid down his life for his country in WWI.)

## MICHAEL B. SOMMERVILLE '65 MEMORIAL BURSARY

(Endowed in 2018 by family and friends of Mike Sommerville '65.) Awarded to full time student-athletes who are members of the Gaiter Football team. Preference given to those in financial need.

## O'KILL AND BARBARA MILLER MEMORIAL BURSARY

(Endowed in 2008 by Sandra Miller '90 in memory of her parents.) Awarded to a full-time, mature student from Quebec who has demonstrated financial need.

## REV. RAY JENSEN BURSARY

(Endowed in 2017 by Rev. Ray Jensen '50.)
Awarded to Bishop's students in financial need, studying in the Liberal Arts.

## ROGER V. HARDY BURSARY

(Endowed in 2003 by Roger V. Hardy '93.)
Awarded to Rugby or Soccer student-athletes in good academic standing, who demonstrate financial need. A minimum of $50 \%$ will be awarded to female athletes.

## RONALD C. LOUCKS BURSARY

(Endowed in 2016 by Ronald C. Loucks ' 74 through the Leading the Way campaign.)
Awarded based on financial need, often in conjunction with a student's effort and commitment to his/her studies, the bursary will help students pursue higher education at Bishop's University.

## ROYCE AND JANET GALE BURSARY

(Endowed in 2018 by the late Royce Gale '49, an inspirational Sherbrooke High School teacher, an accomplished thespian (Piggery Theatre) and a generous philanthropist who made a difference in so many ways throughout his life.)

## SEAN AND LAURA O'BRIEN BURSARY

(Endowed in 2013 by Sean O'Brien '90 and Lara O'Brien '92.)
Awarded to a student in financial need, with preference to members of the Gaiter Football team.

## STEWART GRAHAM MEMORIAL BURSARY

(Endowed by family, faculty and friends of Stewart Graham '00 who passed away prematurely in 2000.)
Preference given to a continuing student from Atlantic Canada who demonstrates financial need.

## TD BANK FINANCIAL GROUP BURSARY

(Endowed through the Partners in Learning campaign, 1998-2003.) Awarded to full or part-time students who are Canadian residents and who demonstrate financial need. Amount may not exceed $50 \%$ of tuition fees.

## THE JOYCE FAMILY FOUNDATION BURSARY

(Endowed in 2016 by The Joyce Family Foundation through the Leading the Way campaign.)
Awarded to entering, full-time students from Quebec who demonstrate critical financial need, high academic potential and perseverance in the face of challenges. Recipients are expected to participate in a mentoring program. Bursaries are renewable if criteria are met.

## THOMAS \& CECILE HENDY BURSARY

(Endowed in 2017 through the Leading the Way campaign by George Hendy '68, Chair of the BU Foundation, 2010-2017, in memory of his parents.)
Awarded to one or more deserving students who demonstrate high academic achievement and financial need.

## THOMAS E. PRICE BURSARY

(Endowed in 1997 in memory of Thomas Price '51, DCL '82.)
Preference given to continuing student-athletes who demonstrate financial need. Application forms are available from the Athletics Department.

## VIRGINIA COWAN MEMORIAL BURSARY

(Endowed by family and friends in memory of Virginia Cowan '95, who passed away prematurely in 2001.)
Presented to a continuing female Business student in good academic standing who has participated widely in campus life.

## WHITTAKER FAMILY BURSARY

(Established in 2016 by Mr. W. Gary Whittaker '68 and other members of the Whittaker Family.)
Awarded to students who demonstrate academic potential and financial need.

## WULFTEC INTERNATIONAL BURSARY

(Endowed through the Partners in Learning campaign, 1998-2003.) Preference given to a student in financial need from Ayer's Cliff, Beebe, Stanstead or Rock Island.

## Loans

## Provincial Loans and Bursaries

Governmental aid is extended to students in the form of guaranteed loans, or a combination of guaranteed loans and bursaries according to the applicant's requirements. The plan is designed to give increased aid to those with greater needs. A student is eligible who:

- is a Canadian citizen or Permanent resident.
- is domiciled and has resided in their respective Provinces and meets the government regulations in regard to residency;
- has applied, in their respective province, by the required date, in which requirements of a financial nature have been established by that province.
All students coming to Bishop's University must apply for these loans through their province of residency. The home province determines final eligibility, and the University has no say in any funding calculated.


## Research Scholarships <br> An extensive list of Graduate scholarships tenable in Canada or

 internationally is available on the Bishop's Research website at: https://www.ubishops.ca/research-excellence/graduate-studies-student-research/student-research-scholarships/
## Undergraduate Scholarships

For any questions, contact the Office of Research and Graduate Studies at researchoffice@ubishops.ca.

## NSERC UNDERGRADUATE RESEARCH AWARDS

Awarded by application to high-performing students wishing to gain research work experience that complement their studies in an academic setting in natural sciences, mathematics or engineering. Funding of $\$ 6,000$ plus organization contribution. See the program website and the $B U$ website for internal deadline.

## FRQSC UNDERGRADUATE INTRODUCTION TO RESEARCH SCHOLARSHIPS

Awarded by application to high-performing students wishing to gain research work experience that complement their studies in an academic setting in social sciences, humanities, arts and literature. Funding of $\$ 5,000$. See the program website and the BU website for internal deadline.

## Master Scholarships

For any questions, contact the Office of Research and Graduate Studies at researchoffice@ubishops.ca.NSERC CANADA GRADUATE

## SCHOLARSHIPS - MASTER'S

Awarded by application to high-performing students pursuing master's research programs in Canada in the natural sciences or engineering. Funding of $\$ 17,500$ for 12 months, non-renewable. See the program website.

## SSHRC CANADA GRADUATE SCHOLARSHIPS - MASTER'S

Awarded by application to high-performing students pursuing master's research programs in Canada in the social sciences and humanities. Funding of $\$ 17,500$ for 12 months, non-renewable. See the program website.

## CIHR CANADA GRADUATE SCHOLARSHIPS - MASTER'S

Awarded by application to high-performing students pursuing master's research programs in Canada in all health disciplines. Funding of $\$ 17,500$ for 12 months, non-renewable. See the program website.

## FRQNT MASTER'S SCHOLARSHIPS

Awarded by application to high-performing students pursuing master's research programs in natural sciences, mathematics or engineering. Funding of $\$ 17,500$ per year for two years. See the program website.

## FRQSC MASTER'S SCHOLARSHIPS

Awarded by application to high-performing students pursuing master's research programs in social sciences, humanities, arts and literature. Funding of $\$ 17,500$ per year for two years. See the program website.

## FRQS MASTER'S SCHOLARSHIPS

Awarded by application to high-performing students pursuing master's research programs in human health. Funding of $\$ 17,500$ per year for two years. See the program website.

## FONDATION ARBOUR MASTER'S SCHOLARSHIPS

Awarded by application to high-performing students pursuing master's research programs in Computer Sciences and Physics \& Astronomy. A key component of the application is social involvement and financial needs. Funding of $\$ 13,000$ for 12 months, renewable once. See the program website and the BU website for internal deadline.

INSTITUT DE RECHERCHE ROBERT-SAUVÉ EN SANTÉ ET EN SÉCURITÉ DU TRAVAIL MASTER'S SCHOLARSHIPS

Awarded by application to high-performing students pursuing master's research programs dealing with the prevention of industrial accidents and occupational diseases of the rehabilitation of affected workers.
Funding of $\$ 16,625$ per year for two years. See the program website.

## Canada-US Fulbright Scholarships

www.fulbright.ca
Canadian students may apply for a Fulbright Scholarship to enter a graduate program at a university in the USA.

Government of Canada, Department of Foreign Affairs and International Trade, and the Canadian Bureau of International Education
www.scholarships.gc.ca and www.cbie.ca
International Scholarships for graduate study and research offered to Canadians to study abroad
Fonds de recherche du Québec

## Doctoral Scholarships

For any questions, contact the Office of Research and Graduate Studies at researchoffice@ubishops.ca.

## TRI-AGENCY VANIER CANADA GRADUATE SCHOLARSHIPS

Awarded by application to high-performing students pursuing doctoral research programs in Canada. Funding of $\$ 50,000$ per year for three years. See the program website.

## TRI-AGENCY CANADA GRADUATE SCHOLARSHIPS DOCTORAL PROGRAM

Awarded by application to high-performing students pursuing doctoral research programs in Canada. Funding of $\$ 35,000$ per year for three years. See the program website.

## NSERC POSTGRADUATE SCHOLARSHIPS - DOCTOR-

 AL PROGRAMAwarded by application to high-performing students pursuing doctoral research programs in the natural sciences or engineering. Funding of $\$ 21,000$ per year for three years. See the program website.

## SSHRC DOCTORAL FELLOWSHIPS

Awarded by application to high-performing students pursuing doctoral research programs in the social sciences and humanities. Funding of $\$ 20,000$ per year for four years. See the program website.

## FRQNT DOCTORAL SCHOLARSHIPS

Awarded by application to high-performing students pursuing doctoral research programs in natural sciences, mathematics or engineering.
Funding of $\$ 21,000$ per year for four years. See the program website.

## FRQSC DOCTORAL SCHOLARSHIPS

Awarded by application to high-performing students pursuing doctoral research programs in social sciences, humanities, arts and literature.
Funding of $\$ 21,000$ per year for four years. See the program website.

## FRQS DOCTORAL TRAINING

Awarded by application to high-performing students pursuing doctoral research programs in human health. Funding of $\$ 21,000$ per year for four years. See the program website.

## INSTITUT DE RECHERCHE ROBERT-SAUVÉ EN SANTÉ ET EN SÉCURITÉ DU TRAVAIL DOCTORAL SCHOLARSHIPS

Awarded by application to high-performing students pursuing doctoral research programs dealing with the prevention of industrial accidents and occupational diseases of the rehabilitation of affected workers.
Funding of $\$ 19,950$ per year for four years. See the program website.

## Postdoctoral Scholarships

For any questions, contact the Office of Research and Graduate Studies at researchoffice@ubishops.ca.

## TRI-AGENCY BANTING POSTDOCTORAL FELLOWSHIPS

Awarded by application to high-performing students pursuing postdoctoral research programs in Canada. Funding of $\$ 70,000$ per year for two years. See the program website.

## NSERC POSTDOCTORAL FELLOWSHPS PROGRAM

Awarded by application to high-performing students pursuing postdoctoral research programs in the natural sciences or engineering. Funding of $\$ 45,000$ per year for two years. See the program website.

## SSHRC POSTDOCTORAL FELLOWSHIPS

Awarded by application to high-performing students pursuing postdoctoral research programs in the social sciences and humanities. Funding of $\$ 45,000$ per year for two years. See the program website.

## CIHR FELLOWSHIPS PROGRAM

Awarded by application to high-performing students pursuing postdoctoral research programs in human health. Funding of up to $\$ 60,000$ per year. See the program website.

## FRQNT POSTDOCTORAL RESEARCH SCHOLARSHIP

Awarded by application to high-performing students pursuing postdoctoral research programs in natural sciences, mathematics or engineering. Funding of $\$ 45,000$ per year for two years. See the program website.

## FRQSC POSTDOCTORAL SCHOLARSHIPS

Awarded by application to high-performing students pursuing postdoctoral research programs in social sciences, humanities, arts and literature. Funding of $\$ 45,000$ per year for two years. See the program website.

## FRQS POSTDOCTORAL TRAINING

Awarded by application to high-performing students pursuing postdoctoral research programs in human health. Funding of $\$ 45,000$ per year for two years. See the program website.

## INSTITUT DE RECHERCHE ROBERT-SAUVÉ EN SANTÉ ET EN SÉCURITÉ DU TRAVAIL POSTDOCTORAL SCHOLARSHIPS

Awarded by application to high-performing students pursuing postdoctoral research programs dealing with the prevention of industrial accidents and occupational diseases of the rehabilitation of affected workers. Funding of $\$ 45,000$ per year for two years. See the program website.
***All information in this section is subject to change

## Prizes

Bishop's offers several prizes that have been established over time by generous alumni and friends of the University. Additional prizes funded o n a sporadic basis may also be available for the current year. To find out more about them, please visit: http://www.ubishops.ca/future-current-students/money-matters/ scholarships-awards-bursaries/.

To be eligible for any prize, students must be in an Honours or a major program and must have completed a minimum of 30 credits at Bishop's University. There are two major categories of prizes: University-wide prizes, for which students in any program may compete; and Departmental proficiency prizes, which are awarded for excellence in a particular discipline or program.

To be eligible for a university-wide prize, a student must have a minimum cumulative average of $80 \%$ over all courses completed. A graduating student must have completed at least 60 credits at Bishop's University; a non-graduating student must have completed a minimum of 30 credits at Bishop's.

To be eligible for any Departmental prize, a student must have completed at least 30 credits at Bishop's University and must have a minimum average of $80 \%$ in courses in the discipline (or accepted cognate courses).

Where non-academic criteria are included in the specifications for a prize, students with a minimum average of $75 \%$ may be considered eligible.

## University-wide Prizes

## HON. G. HOWARD FERGUSON CUP

The student of the graduating class who has made the greatest contribution to the life of the University is to have his or her name inscribed on the cup donated by the late Hon. G. Howard Ferguson and is to receive a certificate appropriate to such a distinction. Such an award shall take into consideration:
(a) high academic standing
(b) proficiency in representing the University in athletic and other activities
(c) qualities of character and leadership

## GOVERNOR GENERAL'S GOLD MEDAL

Awarded for outstanding academic proficiency in a Master's program.

## GOVERNOR GENERAL'S SILVER MEDAL

Awarded to the student standing first in the final year of his/her undergraduate program.

## CHIEF JUSTICE GREENSHIELDS PRIZE

This prize is awarded to the winner of the Hon. G. Howard Ferguson Cup.

## COLONEL ARTHUR MILLS PRIZE

Awarded to a first-year student with a high academic standing who has made the most valuable contribution to the extra-curricular life of the University.

## CHARLES A. SHEARSON MEMORIAL PRIZE

(Endowed by the late Dr. William Shearson, Professor Emeritus, in memory of his father.)
Awarded to a student in neither the first nor final year, with high academic standing, who has made a contribution to the life of the University, represented the University in athletic and other activities and who shows qualities of character and leadership.

## ST. MARK'S CHAPEL PRIZE

Awarded to a student of proven academic ability who, in the opinion of the Friends of St. Mark's, has contributed to the life of the University through significant participation in the St. Mark's community.

## STRATHCONA FOUNDATION PLAQUE

Awarded to the athlete of the graduating year with the highest academic standing, who has represented the University in intercollegiate competition.

## VICE-CHANCELLOR'S PRIZE

Awarded for outstanding academic proficiency in the final year of an undergraduate program.

## NORMAN WEBSTER PRIZE

(Endowed by Norman Webster '62, DCL '85.)
Awarded to a student graduating in two areas of specialization (e.g. double honours, double major, major and minor, or a double concentration in the B.B.A. Program), with high academic standing, and who has made a significant contribution to University life through participation in athletics or other extracurricular activities.

## RACHELLE WRATHMALL PRIZE

Awarded to the graduating female student from the Eastern Townships with the highest academic average.

## Departmental Proficiency Prizes

## Art History

## UNDERGRADUATE PRIZE IN ART HISTORY

Awarded to the top returning student in Art History. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN ART HISTORY

Awarded to the top graduating student in Art History. Funded by Bishop's University alumni and friends.

## Arts Administration

UNDERGRADUATE PRIZE IN ARTS ADMINISTRATION
Awarded to the top returning student in Arts Administration. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN ARTS ADMINISTRATION

Awarded to the top graduating student in Arts Administration. Funded by Bishop's University alumni and friends.

## Biochemistry

## SOCIETY OF CHEMICAL INDUSTRY PRIZE IN BIOCHEMISTRY

Awarded to the graduating student with the highest standing in Honours Biochemistry.

## UNDERGRADUATE PRIZE IN BIOCHEMISTRY

Awarded to the top returning student in Biochemistry. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN BIOCHEMISTRY

Awarded to the top graduating student in Biochemistry. Funded by Bishop's University alumni and friends.

## Biological Sciences

## ARTHUR N. LANGFORD PRIZE

Awarded in the name of Emeritus Professor A.N. Langford to an outstanding graduating student in Biology.

## SUSANNA LEE MEMORIAL PRIZE

Awarded in memory of Susanna Lee ' 97 to a graduating student in Biology who intends to pursue either graduate studies or further education in the allied health sciences.

## J.K. LOWTHER PRIZE

Awarded in memory of Professor J.K. Lowther to a graduating student of high academic standing who is judged to show special interest in the field of Ecology.

## LEO SEPP PRIZE

Awarded in memory of Professor Leo Sepp to a Biology student in his or her second program year on the basis of general proficiency.

## UNDERGRADUATE PRIZE IN BIOLOGICAL SCIENCES

Awarded to the top returning student in Biological Sciences. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN BIOLOGICAL SCIENCES

Awarded to the top graduating student in Biological Sciences. Funded by Bishop's University alumni and friends.

## Business Administration

## EY PRIZE IN ACCOUNTING

Awarded to an accounting student going into his/her final year of study, who has demonstrated perseverance and actively participated in accounting-related activities. Selected by faculty members in the Accounting Concentration.

## EY PRIZE IN ACCOUNTING - TOP STUDENT

(Endowed in 2006 by Ernst \& Young and Bishop's graduates who work at the firm.)
Awarded to the student going into his/her final year of study who holds the highest average in Accounting courses (minimum of 5 courses) and who is planning to pursue a CPA designation.

## EY PRIZE IN MARKETING \& ENTREPRENEURSHIP

Awarded to a marketing and entrepreneurship student entering their penultimate or final year, with excellent academic standing.

## JOHN B. FELLOWES MEMORIAL PRIZE

Awarded for high proficiency in Business Administration to a student who, in the opinion of the Division, has made a significant contribution to the work of the class.

## CHARLES KINGSMILL '67 MEMORIAL PRIZE

Awarded for high proficiency in Business Administration to a student in the graduating year who, in the opinion of the Division, has made a significant contribution to the work of the class.

## UNDERGRADUATE PRIZE IN BUSINESS (ACCOUNTING)

Awarded to the top returning student in Business Administration (Accounting). Funded by Bishop's University alumni and friends.

## UNDERGRADUATE PRIZE IN BUSINESS (B.A. MAJOR)

Awarded to the top returning student in Business Administration (B.A. Major). Funded by Bishop's University alumni and friends.

## UNDERGRADUATE PRIZE IN BUSINESS (FINANCE)

Awarded to the top returning student in Business Administration (Finance). Funded by Bishop's University alumni and friends.

## UNDERGRADUATE PRIZE IN BUSINESS (GENERAL)

Awarded to the top returning student in Business Administration (General). Funded by Bishop's University alumni and friends.

## UNDERGRADUATE PRIZE IN BUSINESS (GLOBAL MANAGEMENT \& LEADERSHIP)

Awarded to the top returning student in Business Administration (Global Management and Leadership). Funded by Bishop's University alumni and friends.

## UNDERGRADUATE PRIZE IN BUSINESS (MARKETING \& ENTREPRENEURSHIP)

Awarded to the top returning student in Business Administration (Marketing and Entrepreneurship). Funded by Bishop's University Alumni and friends.

## UNIVERSITY PRIZE IN BUSINESS (ACCOUNTING)

Awarded to the top graduating student in Business Administration (Accounting). Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN BUSINESS (B.A. MAJOR)

Awarded to the top graduating student in Business Administration (B.A. Major). Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN BUSINESS (FINANCE)

Awarded to the top graduating student in Business Administration (Finance). Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN BUSINESS (GENERAL)

Awarded to the top graduating student in Business Administration (General). Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN BUSINESS (GLOBAL MANAGEMENT \& LEADERSHIP)

Awarded to the top graduating student in Business Administration (Global Management and Leadership). Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN BUSINESS (MARKETING \& ENTREPRENEURSHIP)

Awarded to the top graduating student in Business Administration (Marketing and Entrepreneurship). Funded by Bishop's University alumni and friends.

## Chemistry

## CANADIAN SOCIETY FOR CHEMISTRY SILVER MEDAL

Awarded to the student standing at the top of the penultimate year in an Honours Chemistry program.

## ALBERT KUEHNER MEMORIAL PRIZE IN CHEMISTRY

Awarded to a graduating student with high standing in Chemistry.

## SOCIETY OF CHEMICAL INDUSTRY PRIZE IN CHEMISTRY

Awarded to the graduating student with highest standing in Honours Chemistry.

## UNDERGRADUATE PRIZE IN CHEMISTRY

Awarded to the top returning student in Chemistry. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN CHEMISTRY

Awarded to the top graduating student in Chemistry. Funded by Bishop's University alumni and friends.

## Classical Studies

## MACKIE PRIZE

(Established in 1848 by the Rev. Dr. James Mackie (AB Canterbury), an official in the Diocese of Quebec.)
Awarded to an outstanding graduating student in Classical Studies.

## PRINCE OF WALES PRIZE

Awarded to outstanding students in courses given in the Department of Classical Studies.

## UNDERGRADUATE PRIZE IN CLASSICAL STUDIES

Awarded to the top returning student in Classical Studies. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN CLASSICAL STUDIES

Awarded to the top graduating student in Classical Studies. Funded by Bishop's University alumni and friends.

## Computer Science

## COMPUTER SCIENCE FACULTY APPRECIATION PRIZE

Awarded by the faculty members of the Computer Science Department to a Computer Science student who has made the greatest contribution to the life of the Department.

## UNDERGRADUATE PRIZE IN COMPUTER SCIENCE

Awarded to the top returning student in Computer Science. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN COMPUTER SCIENCE

Awarded to the top graduating student in Computer Science. Funded by Bishop's University alumni and friends.

## Drama

## BARD PRIZE

Awarded to a Drama student entering second year, who has achieved high academic standing and made a significant contribution to Departmental productions.

## MICHAEL C. BOISVERT MEMORIAL PRIZE

(Endowed by colleagues, friends and family in memory of Michael C. Boisvert, Technical Director of Centennial Theatre from 1987 to 1994.) Awarded to a student with high academic standing in neither first nor final year, who in the judgment of the Department has demonstrated proficiency in technical theatre production.

## JANE QUINTIN MITCHELL PRIZE IN DRAMA

(Endowed in 1965 by Dr. and Mrs. T.J. Quintin in memory of their daughter.)
Awarded to a second or third year student, with Dramatic Literature as one of their subjects, who has shown talent and interest in some practical aspect of play production in the University theatre. Selected by the Department.

## DAVID RITTENHOUSE PRIZE IN DRAMA

(Endowed in 2011 by friends and family following David's passing.) Awarded to a graduating student(s) in Drama, chosen by the Department, who has demonstrated exceptional dedication to the craft of theatre at Bishop's University.

## UNDERGRADUATE PRIZE IN DRAMA

Awarded to the top returning student in Drama. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN DRAMA

Awarded to the top graduating student in Drama. Funded by Bishop's University alumni and friends.

## Economics

## PRIZE FOR EXCELLENCE IN ECONOMIC RESEARCH

Awarded to the student with an outstanding essay in the area of economic theory. Funded by the Cormier Centre Trust.

## JOHN W.Y. SMITH PRIZE

Awarded for high proficiency in Economics.

## UNDERGRADUATE PRIZE IN ECONOMICS

Awarded to the top returning student in Economics. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN ECONOMICS

Awarded to the top graduating student in Economics. Funded by Bishop's University alumni and friends.

## Education

## CHARLES MCBURNEY PRIZE

Endowed by Mrs. Charles McBurney in memory of her husband and awarded for the highest proficiency in Practice Teaching at the Secondary level.

## DORIS DICKSON UNDERGRADUATE PRIZE IN ELEMENTARY EDUCATION

(Endowed in 2021 by W. John Gallop '57 in honour of his mother, a 1923 Bishop's graduate who taught at St. Helen's School in Dunham, and in Grand-Mère where she met the Donor's father, a WW1 veteran).
Awarded to the top returning student in Elementary Education.

## DORIS DICKSON UNDERGRADUATE PRIZE IN SECONDARY EDUCATION

(Endowed in 2021 by W. John Gallop '57 in honour of his mother, a 1923 Bishop's graduate who taught at St. Helen's School in Dunham, and in Grand-Mère where she met the Donor's father, a WW1 veteran).

Awarded to the top returning student in Secondary Education.

## JOHN S. VISSER MEMORIAL PRIZE IN EDUCATION AND FRENCH <br> (Endowed in memory of John S. Visser '42, Dip. Ed. '45.) <br> Awarded to a graduating student in Education and French who, in the opinion of the Departments concerned, has demonstrated excellent French-teaching ability.

## WILLIAM L. SHURTLEFF PRIZE FOR ACADEMIC ACHIEVEMENT

Provided by the William L. Shurtleff Fund, and awarded to an outstanding graduating student in the B.A. Major in Educational Studies.

## WILLIAM L. SHURTLEFF PRIZE FOR PRACTICE TEACHING - ELEMENTARY

Provided by the William L. Shurtleff Fund, and awarded for highest proficiency in Practice Teaching at the Elementary level.

## WYNNE DICKSON UNIVERSITY PRIZE IN ELEMENTARY EDUCATION

(Endowed in 2021 by W. John Gallop '57 in honour of his uncle, a 1931 Bishop's graduate with an illustrious career in Quebec education, culminating as Associate Deputy Minister and Secretary of the Parent Commission, responsible for the creation of the CEGEP system.)
Awarded to the top graduating student in Elementary Education.

## WYNNE DICKSON UNIVERSITY PRIZE IN SECONDARY EDUCATION

(Endowed in 2021 by W. John Gallop '57 in honour of his uncle, a 1931 Bishop's graduate with an illustrious career in Quebec education, culminating as Associate Deputy Minister and Secretary of the Parent Commission, responsible for the creation of the CEGEP system.) Awarded to the top graduating student in Secondary Education. Funded by Bishop's University alumni and friends.

## English

## JIM FERRABEE MEMORIAL PRIZE IN JOURNALISM

(Endowed in 2010 by family and friends in memory of Jim Ferrabee '57. Jim enjoyed a successful career in journalism and was one of the University's most dedicated volunteers and supporters right up until his death in January 2010.)
Awarded to a student(s) for the best work submitted in a Journalism course. Selected by the English Department.

## MACKIE PRIZE IN ENGLISH

(Established in 1848 by the Rev. Dr. James Mackie (AB Canterbury), an official in the Diocese of Quebec.)
Awarded to an outstanding graduating student in honours English.

## F.E. MEREDITH MEMORIAL PRIZE

(Endowed by the late W.C.J. Meredith, Esq., Q.C., M.A., D.C.L., in memory of his father F.E. Meredith, Q.C., L.L.D., D.C.L., who was Chancellor of the University from 1926 to 1932.)
Awarded to a graduating student in an English program who is an exemplary writer. Selected by the Department.

## SHAUNA MURRAY MEMORIAL PRIZE

(Established in 1994 by family and friends in memory of Shauna Murray, Professor of English at Bishop's from 1970-1982.)
Awarded at Convocation to the student chosen by the members of the English Department who submits the best English honours thesis, and who is not otherwise receiving a Departmental award.

## JOANNE NORMAN PRIZE IN MEDIEVAL STUDIES

(Endowed in 2007 by family and friends of Joanne Norman, Professor of English at Bishop's from 1990-2007.)
Awarded to the student who submits the best essay in Medieval Studies. Chosen by the Department.

## ARCHDEACON F.G. SCOTT PRIZE

(Established in 1881 by recognized confederation poet F.G. Scott, B.A. 1881, M.A. 1884, D.C.L. 1901, to encourage creative writing. After his death in 1944, his family endowed the prize in his name.)

STANMIL PRIZE FOR EXCELLENCE IN WRITING
Awarded through the G.H. Stanley Mills Memorial Trust for excellence in writing. Selected by the English Department.

## UNDERGRADUATE PRIZE IN ENGLISH

Awarded to the top returning student in English. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN ENGLISH

Awarded to the top graduating student in English. Funded by Bishop's University alumni and friends.

## GLEN WICKENS PRIZE IN FILM STUDIES

(Endowed in 2012 to mark the retirement of Dr. Glen Wickens from the English Department after 30 years of exceptional service, 1982-2012. Students and colleagues admired Dr. Wickens for his commitment and leadership. In later years, he was instrumental in developing the popular Film Studies concentration.)
Awarded to an outstanding graduating student in the Film Studies Program. Selected by the English Department.

## Environment, Agriculture and Geography

## THE CANADIAN ASSOCIATION OF GEOGRAPHERS PRIZE

Awarded to an outstanding graduating student in an Environment, Agriculture and Geographyhonours or major program.

## UNDERGRADUATE PRIZE IN Environment, Agriculture and Geography

Awarded to the top returning student in Environment, Agriculture and GeographyFunded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN ENVIRONMENT AND GEOGRAPHY

Awarded to the top graduating student in Environment and Geography. Funded by Bishop's University alumni and friends.

## Études françaises et québécoises

## AMBASSADOR OF SWITZERLAND PRIZE IN FRENCH

A book prize awarded to a final year student who obtains a high standing in French.

## LIEUTENANT RODDIE LEMIEUX PRIZE

Awarded for proficiency in French Literature, in memory of Bishop's student, Roddie Lemieux, who was killed in World War I.

## UNDERGRADUATE PRIZE IN ÉTUDES FRANÇAISES ET QUÉBÉCOISES

Awarded to the top returning student in Études françaises et québécoises. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN ÉTUDES FRANÇAISES ET QUÉBÉCOISES

Awarded to the top graduating student in Études françaises et québécoises. Funded by Bishop's University alumni and friends.

## Fine Arts

## WANDA ROZYNSKA PRIZE IN FINE ARTS

(Endowed by the late Wanda and Stanley Rozynski, who believed that life would not be possible without art.)
Preference given to a student(s) in Fine Arts who has shown the aptitude and desire necessary to pursue a Studio Honours Degree. Selected by the Department.

## UNDERGRADUATE PRIZE IN FINE ARTS

Awarded to the top returning student in Fine Arts. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN FINE ARTS

Awarded to the top graduating student in Fine Arts. Funded by Bishop's University alumni and friends.

## German Studies

AMBASSADOR OF SWITZERLAND PRIZE IN GERMAN
A book prize awarded to a final year student who obtains a high standing in German.

## FEDERAL REPUBLIC OF GERMANY PRIZE IN GERMAN

A book prize awarded for proficiency in German by the Montreal Consul General of the Federal Republic of Germany.

## REPUBLIC OF AUSTRIA PRIZE

A book prize awarded for proficiency in German by the Montreal Consul General of Austria.

## Hispanic Studies

## AMBASSADOR OF SPAIN PRIZE

A book prize awarded to a graduating student with high academic standing in a minor in Hispanic Studies.

## HISPANIC STUDIES PRIZE

A book prize awarded to a graduating student obtaining a high standing in a major in Hispanic Studies.

## MUNDO HISPANO PRIZE

A book prize awarded to a non-graduating student with high academic standing in either a major or minor in Hispanic Studies.

## History and Global Studies

## ROBIN BURNS MEMORIAL BOOK PRIZE

(Established in 2010 in memory of Professor Robin Burns, dedicated teacher and scholar in the Department of History, 1979-1998.) Awarded to a first year Double Major Social Studies and Secondary Education student for the best essay in History. The recipient will receive a scholarly book of critical acclaim on History or a related field. Funded by the Department of History.

## MALCOLM AND EVELYN DOAK PRIZE IN HISTORY

(Established by family with love and in honour of the 50th wedding anniversary of Malcolm '24 and Evelyn '26 Doak.)
Awarded to the undergraduate who presents the best essay on one of four historical topics assigned at the beginning of the academic year.

## UNDERGRADUATE PRIZE IN HISTORY

Awarded to the top returning student in History. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN HISTORY

Awarded to the top graduating student in History. Funded by Bishop's University alumni and friends.

## BILL AND CATHERINE YOUNG PRIZE IN HISTORY

(Endowed in 1999 by former Bishop's staff members Dave and Mary Ellen Young, in memory of David's parents.)
Awarded for the best essay submitted for a History course by a first-year student in either a major or an honours History program, upon recommendation of the faculty in the Department.

## UNIVERSITY PRIZE IN LIBERAL ARTS

Awarded to the top graduating student in Liberal Arts. Funded by Bishop's University alumni and friends.

## Mathematics

## IRVING PRIZE

Awarded to the first-year student with the highest marks in Mathematics.

## UNDERGRADUATE PRIZE IN MATHEMATICS

Awarded to the top returning student in Mathematics. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN MATHEMATICS

Awarded to the top graduating student in Mathematics. Funded by Bishop's University alumni and friends.

## Modern Languages

## UNDERGRADUATE PRIZE IN MODERN LANGUAGES

Awarded to the top returning student in Modern Languages. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN MODERN LANGUAGES

Awarded to the top graduating student in Modern Languages. Funded by Bishop's University alumni and friends.

## PROFESSOR E.H. YARRILL PRIZE

(Endowed in 1989 by Professor Eric Yarrill, Professor Emeritus of Modern Languages, who taught at Bishop's from 1938-1977.)
Awarded to a graduating student for proficiency in French and at least one additional modern language other than English.

## Music

## HOWARD BROWN PRIZE

(Endowed in 1984 to honour the founding member of the Bishop's Music Department.)
Awarded by the Department to continuing full-time Music majors.

## M. GEORGINA MILLS PRIZE IN MUSIC

(Established in 1986 by G.H. Stanley Mills in memory of his mother, a Montreal pianist.)
Awarded to a full-time student finishing first year in the Music program with a $70 \%+$ average. Awarded by audition.

## UNDERGRADUATE PRIZE IN MUSIC

Awarded to the top returning student in Music. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN MUSIC

Awarded to the top graduating student in Music. Funded by Bishop's University alumni and friends.

## Liberal Arts

## UNDERGRADUATE PRIZE IN LIBERAL ARTS

Awarded to the top returning student in Liberal Arts. Funded by Bishop's University alumni and friends.

## Philosophy

## GEORGE ENGLEBRETSEN PRIZE IN PHILOSOPHY

(Endowed in 2008 by students, colleagues and friends of Professor George Englebretsen, in recognition of his many contributions to Philosophy and teaching at Bishop's University.)
Awarded to a graduating student who has written an outstanding honours thesis and who is going to attend graduate school.

## UNDERGRADUATE PRIZE IN PHILOSOPHY

Awarded to the top returning student in Philosophy. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN PHILOSOPHY

Awarded to the top graduating student in Philosophy. Funded by Bishop's University alumni and friends.

## Physics and Astronomy

## HUGH HAUGLAND PRIZE IN ASTRONOMY

(Endowed in 2010 by friends and family of Hugh Haugland, an avid amateur astronomer.)
Awarded to an undergraduate or graduate student who has shown high academic standing in his/her astronomy courses or has made a significant contribution to the operation of the Observatory. Selected by the Physics Department.

## T.S. NAGPAL PRIZE

Awarded for outstanding academic performance by a U0 student, preferably an international student. Selected by the members of the Department.

## DAVID SAVAGE PRIZE IN PHYSICS AND MATHEMATICS

(Endowed by family and friends in memory of David Savage ' 42 who had a distinguished career in Quebec teaching and school administration.)
Awarded to graduating students with high academic standing who are completing a double major or a major and minor in Physics and Mathematics.

## UNDERGRADUATE PRIZE IN PHYSICS AND ASTRONOMY

Awarded to the top returning student in Physics and Astronomy. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN PHYSICS AND ASTRONOMY

Awarded to the top graduating student in Physics and Astronomy. Funded by Bishop's University alumni and friends.

## Politics and International Studies

## ANDREW F. JOHNSON PRIZE IN INTERNATIONAL POLITICAL ECONOMY

(Endowed by colleagues of Dr. Andrew F. Johnson in recognition of his contributions to the development of the program/the University.) Awarded to the graduating student attaining the highest academic standing in the International Political Economy honours program. Selection by the Department.

## PROFESSOR T.W.L. MACDERMOT MEMORIAL PRIZE

(Endowed by former students and colleagues of Professor MacDermot, diplomat, scholar, and founding head of the Department.)
Awarded to a graduating student(s) majoring in Political Studies of high academic standing, who, in the opinion of the Department, has made a significant contribution to the life of the University.

## PROFESSOR E.A. PRINCE MEMORIAL PRIZE FOR HONOURS THESIS

(Endowed by a bequest in the Will of Professor E.A. Prince.) Awarded to a graduating honours student, who in the opinion of the Politics and International Studies Department, has written an outstanding honours thesis.

## GERALD THEODORE RAYNER PRIZE

(Endowed by the late Gerald Rayner '51.)
Awarded to a student graduating in honours Political Studies, who is a Canadian citizen, who has taken courses in comparative public policy, who is planning to pursue post-graduate work in political studies, public administration or related fields, and who has shown a strong commitment to Canada.

## UNDERGRADUATE PRIZE IN POLITICS AND INTERNATIONAL STUDIES

Awarded to the top returning student in Politics and International Studies. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN POLITICS AND INTERNATIONAL STUDIES

Awarded to the top graduating student in Politics and International Studies. Funded by Bishop's University alumni and friends.

## Psychology

## DR. SHANNON GADBOIS PRIZE FOR EXCELLENCE IN PSYCHOLOGICAL RESEARCH

(Endowed in 2002 by Dr. Shannon Gadbois, BA (Hons) '88, M.A., M.Ed., Ph.D. Queen's in honour of her parents Dalton and Shirley.) Awarded to two graduating students in Psychology who have written the best honours dissertations. Preference given to students applying to graduate school. Selected by members of the Department.

## UNDERGRADUATE PRIZE IN PSYCHOLOGY

Awarded to the top returning student in Psychology. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN PSYCHOLOGY

Awarded to the top graduating student in Psychology. Funded by Bishop's University alumni and friends.

## Religion, Society and Culture

## HARRISON PRIZE

Awarded to an outstanding first-year student having completed a minimum of 18 credits in Religion, Society and Culture in that year.

## LONG PRIZE

Awarded to an outstanding second-year student having completed a minimum of 18 credits in Religion, Society and Culture in that year.

## UNDERGRADUATE PRIZE IN RELIGION, SOCIETY AND CULTURE

Awarded to the top returning student in Religion, Society and Culture. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN RELIGION, SOCIETY AND CULTURE

Awarded to the top graduating student in Religion, Society and Culture. Funded by Bishop's University alumni and friends.

## HARVEY WHITE PRIZE IN RELIGION, SOCIETY AND CULTURE

(Established in 2021 in honour of Dr. Harvey White, professor at Bishop's University for over 40 years.) Awarded by the Department to a deserving returning student in Religion, Society and Culture.

## Sociology

## UNDERGRADUATE PRIZE IN SOCIOLOGY

Awarded to the top returning student in Sociology. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN SOCIOLOGY

Awarded to the top graduating student in Sociology. Funded by Bishop's University alumni and friends.

## Sports Studies

## UNDERGRADUATE PRIZE IN SPORTS STUDIES

Awarded to the top returning student in Sports Studies. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN SPORTS STUDIES

Awarded to the top graduating student in Sports Studies. Funded by Bishop's University alumni and friends.

## Internships

Bishop's offers several internships that have been established over time by generous alumni and friends of the University. Additional internships funded on a sporadic basis may also be available for the current year. To find out more about them, please visit:
http://www.ubishops.ca/future-current-students/money-matters/ scholarships-awards-bursaries/.

## ELIZABETH HARVEY MEMORIAL SUSTAINABLE DEVELOPMENT INTERNSHIP

(Endowed in 2007 by family and friends of the late Elizabeth Harvey '96, a loving daughter, mother, partner, dedicated friend, courageous student leader, environmentalist, and global citizen who was taken too early from the earth she cared for so deeply.)
Awarded to a returning student leader who will develop, direct, and maintain student programs on campus which support the efforts of the University to achieve its strategic goal to "operate in an environmentally responsible manner as to promote the wellness of individuals, the community, and the natural world". Possibility of renewal.

## KRUGER INC. SUMMER SUSTAINABLE DEVELOPMENT INTERNSHIP

(Endowed in 2011 by Kruger Inc.)
An annual summer internship, mandated by the Sustainable Development and Land Use Committee, to offer a full-time student a hands-on, practical experience working on real-time sustainable development initiatives on the Bishop's University campus.

## MCCAIG INTERNSHIP FUND

(Endowed in 2008 through an anonymous bequest in memory of Leslie McCaig '35.)
This Internship Fund is used for projects that foster student innovation, initiative and self-reliance, by providing students with financial support to pursue for-credit internships in practical research and job-related experiences. Selection by the Experiential Learning Committee.

## NICHOLAS BACHAND CANADIAN CIVIL SOCIETY INTERNSHIP

(Endowed in 2007 by the family of the late Nicholas Bachand ' 93. Nicholas was a socially and politically engaged individual who enjoyed professional success in politics and communications. A great Canadian citizen, Nicholas had a positive impact on all those who knew him.) Awarded to a final year student in Political Studies (associated with the course POL 353) to provide a practical work-experience related to the Political Studies programs. The internship aims to enable students to contribute to the well-being of Canadian society by participating in voluntary and non-profit NGOs. Selected by the Department Chair.

## OLNEY FAMILY INTERNSHIP AT ROCKY MOUNTAIN ADAPTIVE (RMA)

(Established in 2021 by the Olney Family, proud Bishop's alumni.) This internship provides a unique opportunity to work at RMA in Canmore, AB for 3 months ( 280 hours) during the summer, followed by six credits of Experiential Learning courses at Bishop's over the Fall and Winter semesters. RMA is a non-profit, adaptive sport organization which allows individuals with physical or neurodivergent disABILITIES to participate in sporting and adventure activities the Bow Valley/ Canadian Rockies. Funding can be applied against tuition, fees, books and a stipend for the internship/ independent study project, as well as the summer work experience. Selection by application and interview. Possibility of renewal. Check ubishops.ca for details.

## TOMLINSON INTERNSHIP PROGRAM

(Endowed in 1999 by the late Richard Tomlinson '43, DCL '89.)
The Tomlinson Internship program provides students with experiential learning opportunities related to their academic program, while earning money to offset their educational costs through various internship positions on campus. Directors, Managers, Coordinators and Department Chairpersons can apply. The call for applications is sent each spring from the Student Affairs Office. Students can then apply to the internship positions.

## Student Relief Funds

Funds are available to full-time students of Bishop's University who demonstrate urgent financial need due to exceptional circumstances. The amount to be distributed will be dependent on each circumstance. Applications/inquiries should be made to the University Bursrar (studentaccounts@ubishops.ca) .

## HARDY FAMILY EMERGENCY BURSARY <br> (Endowed in 2007 by Roger V. Hardy '93.)

## Student Enrichment Funds

Additional Student Enrichment Funds may also be available on a sporadic basis for the current year. To find out more about them, please visit:
http://www.ubishops.ca/future-current-students/money-matters/ scholarships-awards-bursaries/.

## ACADEMIC ENRICHMENT FUND

(Endowed through the Learning for Life campaign, 1987-1992.) The purpose of the fund is to provide funding for various academic projects and research proposed by faculty and students and to enable students in the Fine Arts, Music, Drama and English Departments to receive inspiration and guidance in their creative efforts from some of Canada's finest artists through the Artist-in-Residence program.

## B.E.S.T. (Bishop's Exceptional Student Talent) PROJECTS FUND

(Endowed in 2009 by an anonymous donor with a strong belief in Bishop's and a desire to help the most promising students achieve their full potential.)
The fund will provide valuable assistance to students, while also providing important support to University-wide objectives and will be the premiere experiential learning support at Bishop's.

## DOUGLAS F. BROWN OPPORTUNITY FUND FOR STUDENT PROJECTS (EXPERIENTIAL LEARNING)

(Endowed in 2019 by Dr. Douglas F. Brown, Bishop's Biology Professor Emeritus.)
This fund will encourage and enhance the scholarly and professional development of Arts \& Science students by supporting study and supervised research at the undergraduate and graduate levels. Funds may be used to purchase or rent materials, equipment, or services not available at Bishop's, and to finance travel for purposes of study or investigation, or to meetings or conferences for the purpose of presenting research results. Administered by the AVP Academic.

## JOAN E. STADELMAN SUCCESS FUND

(Endowed in 2019 by Joan E. Stadelman '66.)
This fund supports mentorship programs related to student success, such as internships at the Student Success Centre organized by the Students' Representative Council and the Teaching and Learning Centre at Bishop's.

## LUXTON FAMILY OPPORTUNITY FUND

(Endowed in 2018 by John '67 and Sylvia Luxton in memory of their son, Simon E. Luxton; their daughter, Amy Luxton; and Sylvia's late brother, Deryck J. Scarrott who died in WW2.)
This fund will enhance the educational experience for students of English, Biology and the Sciences - making possible opportunities that might not otherwise occur or would be unlikely because of lack of funding. The aim is to challenge, excite and motivate students to pursue their studies with enthusiasm and build devotion to their subjects, or alternately take a course outside their major field of study. Funds are awarded on the recommendation of Faculty and at the discretion of the Deans of Arts \& Science. Students should consult their Faculty in these disciplines about the criteria for receiving funding. Preference will be given to those who enrol in ENG 225-Shakesperience, and to Science students who enrol in CLA 309 - Archeological Fieldschool in Greece.

## MCCONNELL STUDENT OPPORTUNITY FUND

(Endowed by the McConnell Foundation through the Partners in Learning campaign, 1998-2003.)
The purpose of the fund is to encourage projects that foster student innovation, initiative, and self-reliance, by providing students with financial support to pursue practical research and most particularly, job-related skills complementary to those taught in the academic programs.

## MCPHAIL OPPORTUNITY FUND

(Endowed in 2007 in recognition of Pam McPhail's lasting impact over a 20-year career at Bishop's, 1987-2007.)
The fund will provide funding for special projects of educational benefit to students and/or faculty. Candidates should submit a brief description of their project and its expected outcomes to the University Advancement Office.

## RIESE EXPERIENTIAL LEARNING FUND

(Endowed in 2009 through a bequest in the Will of Monique Riese '47.)
The fund will provide support to experiential learning projects within academic programs.

## ROBERTA AND ALEX CAMERON FUND

(Endowed in 2017 through the generous legacy of the late Dr. Roberta Cameron, BA '78, MA '88.)
This fund will be used, at the discretion of the Dean of Arts, to enrich the education of students in Humanities (preferably Religious Studies, Philosophy, Liberal Arts or Classics), through field trips, participation in academic conferences and competitions, invitations to guest speakers and artists, and other opportunities that will enhance classroom education.

## THE GUILD OF THE VENERABLE BEDE FUND

(Endowed in 2011 by The Rev. Dr. Ronald ' 62 and Andrea Hunt to establish a fund in thanksgiving for Faculty of Divinity staff, students, professors and graduate members of The Guild of the Venerable Bede serving the church.)
The fund recognizes former Chaplain Rev. Bradley Hicks. It celebrates the 20 years of ministry of The Ven. Heather Thomson, and exists to provide support for Campus Ministry activities.

## Travel Funds

Additional Travel Funds may also be available on a sporadic basis for the current year. To find out more about them, please visit:
http://www.ubishops.ca/future-current-students/money-matters/ scholarships-awards-bursaries/.

## CAHILL STUDY ABROAD AWARD

(Endowed in 2017 by Michael ' 72 and Tania Cahill in memory of Mr. Cahill's mother, Laurice Mallouk Salhany, who inspired him to attend Bishop's University, for which he is forever grateful.)
Awarded to students who seek to broaden their horizons by studying abroad for one or two semesters. Recipients must fulfill the requirements of the program, maintain full-time status and keep a minimum average of $80 \%$ throughout the course of their exchange. Preference to those with demonstrated financial need. Information available through the Manager of Bishop's International.

## CAMSO BURSARY

(Endowed in 1994 by Camoplast Inc. of Sherbrooke, QC.)
Awarded to a Canadian student in the Williams School of Business participating in the International Exchange Program who demonstrates high academic standing and financial need. Recipient selected by the Manager of Bishop's International in consultation with the Williams School of Business.

## DAPHNE ATCHISON MCMULLAN INTERNATIONAL STUDY FUND

(Endowed in 2017 by Daphne Atchison McMullan ' 53 to support students participating in the University's international study program.) Awarded to encourage more students to broaden their horizons by studying abroad and enhance the value of their Bishop's degree and subsequent career path. Information is available through the Manager of Bishop's International.

## GAVIN ROSS MEMORIAL TRAVEL BURSARY

(Endowed in 2010 through a bequest in the Will of Gavin Ross '56, a proud Bishop's graduate who strongly believed that travel forms an important part of one's educational experience.)
A travel bursary to encourage full-time students to participate in a university approved exchange program. Information available through the Manager of Bishop's International.

## HASLETT TRAVEL BURSARY

(Endowed in 2002 through a bequest in the Will of Robert Haslett '57.) Travel bursary to encourage full-time students to participate in a University approved exchange program. Information available through the Manager of Bishop's International.

## REV. RAY JENSEN TRAVEL BURSARY

(Endowed in 2009 by Ray Jensen '50.)
Travel bursaries to help support full-time students participating in a university-approved exchange program. Information available through the Manager of Bishop's International.

## WILLIAM L. SHURTLEFF BURSARY

(Endowed in 1955 through a bequest in the Will of William L. Shurtleff.)
Awarded to students in the B.Ed. program to assist in covering costs associated with travel to their practicum. Information available from the Dean of the School of Education.

## YOUNG TRAVEL BURSARY

(Endowed in 2015 by former Bishop's employees Dave and Mary Ellen Young.)
Available for any upper-level history student wanting to travel outside of Sherbrooke to conduct archival research or present a research paper at a conference. Awarded by application to the History department.

## Administration and Librarians

## Administrative Organization

Bishop's University operates under the terms of an act of incorporation passed in 1843, and amended in 1852, 1927, and 1947, by the legislature of Quebec, and under the terms specified in the Statutes of Bishop's University.

The management of the affairs of the University is vested in a Board of Governors which is responsible for general oversight and policymaking. The Principal and Vice-Chancellor and the University's Officers are responsible for the day-to-day administration of the University as specified in the University Statues.

The Board of Governors respects the responsibility of the University Senate to adopt policies on academic matters, subject to the approval of the Board of Governors.

The Bishop's Council serves as an advisory body to the Board of Governors through the Principal and Vice-Chancellor. It may consider and advise on any questions affecting the well-being and prosperity of the University.

Upon the recommendation of Bishop's Council, the Chancellor is appointed by the Board of Governors. The Chancellor is installed at a meeting of Convocation convened for the purpose. The Chancellor presides at all meetings of Convocation and confers all degrees in the name of and on behalf of the University. The Chancellor acts as Chair of the Degree Committee of Convocation. The Chancellor counsels and advises the Board of Governors, the University's Officers and the University community as a whole, as appropriate.

The Convocation confers degrees in course upon the recommendation of the Senate, and honorary degrees upon the recommendation of a Degree Committee.

The Principal, the Vice-Principals, the Academic Deans, the University Librarian, the Vice-Principal of Student Affairs and the Secretary-General are appointed by the Board of Governors. The Principal is the Vice-Chancellor and the Chief Executive Officer of the University.
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The Convocation confers degrees in course upon the recommendation of the Senate, and honorary degrees upon the recommendation of a Degree Committee.

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Former Chancellors of the University
    1853-56
    The Hon. W. Walker, M.L.C.
    1856-58 The Hon. Edward Bowen, D.C.L.
    1858-65 The Hon. J.S. Mc Cord, D.C.L.
    1865-75 The Hon. Edward Hale, D.C.L.
    1875-78 The Hon. George Irvine, D.C.L.
    1878-1900 R.W. Heneker D.C.L., LL.D.
    1900-26 John Hamilton, M.A., D.C.L.
    1926-32 F.E. Meredith, K.C., LL.D., D.C.L.
    1932-42 The Hon. R.A.E. Greenshields,
    D.C.L., LL.D.
    1942-50 G.H. Montgomery, K.C., M.A., D.C.L.,
    LL.D.
    1950-58 John Bassett, D.C.L., LL.D.
    1958-68 The Hon. Mr Justice D.C. Abbott,
    P.C., B.C.L., D.C.L., LL.D.
    1968-74 John H. Price, O.C., O.B.E., M.C., D.C.L.
    1974-81 The Hon. Mr. Justice W. Mitchell,
    B.A., B.C.L., D.C.L.
    1981-87 Robert A. Bandeen,
    O.C., B.A., Ph.D., LL.D., D.C.L.
    1987-95 William I.M. Turner, Jr.,
        C.M., B.A.Sc., M.B.A., LL.D., D.C.L.
    1995-2005
    2005-2013
    2013-2020 Brian M. Levitt, O.C., B.A.Sc, LL.B
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Former Principals of the University
1845-77
1878-85
1885-99
1900-05
1905-06
1906-07
1907-19
1920-22
1922-47
1948-60
1960-69
1969-70
1970-76
1976-86

Rev. J.H. Nicolls, M.A., D.D., Queen's College, Oxford Rev. J.A. Lobley, M.A., D.C.L., Trinity College, Cambridge1885-99

1900-05
1905-06
1906-07
1907-19

1920-22
1922-47

1969-70

1970-76

1976-86
Rev. Thomas Adams,
M.A., D.C.L., St. John's College,
Cambridge
M.A., D.C.L., Trinity College, Cambridge
200-05 Rev. J.P. Whitney,
M.A., D.C.L., King's College, Cambridge
Rev. T.B. Waitt,
M.A., Lincoln College, Oxford
Rev. H. de B. Gibbins,
M.A., Litt. D., Wadham College, Oxford
Rev. R.A. Parrock,
M.A., LL.D., D.C.L., Pembroke College,
Cambridge
O.B.E., M.C., M.A., Toronto; M.A.,
Queen's College, Oxford: D.C.L., LL.D.,
D.D.
A.R. Jewitt,
B.A., Dalhousie; M.A., Corpus Christi
College, Oxford; Ph.D. Cornell; LL.D.
Dalhousie; D.C.L., Bishop's
C.L.O. Glass,
B.A., Bishop's; M.A., St. John's College,
Oxford; D.C.L. Bishop's; D.d'U.,
Sherbrooke
1969-70 A.W. Preston,
M.A., Edinburgh, M.A., Oxon, D.C.L.,
Bishop's
1970-76 D.M. Healy,
B.A., Alberta; L. ès L. Docteur de l'Uni-
versité de Paris; D.C.L., Bishop's; D.d'U.,
Sherbrooke
C.I.H. Nicholl,
B.Sc., Queen's, M.A.,Sc., Ph.D. Toronto,
Ph.D., Cantab., D.C.L., Bishop's

1986-95 H.M. Scott, M.A., M.D., Queen's; F.R.C.P.(C); D.C.L.

1995-2004
2004-2007 Janyne M. Hodder, B.A., M.A., McGill, D.C.L.

Robert Poupart, B.A., B.Ph., M.Ps., D.Ps.

2007-2008 Jonathan Rittenhouse (Interim Principal)
B.A. Loyola, M.A., Ph.D. Toronto

## Officers of the University

Chancellor
Daniel Fournier, B.A. (Princeton), B.A. Jurisprudence (Oxford)

## Principal

Michael Goldbloom, C.M., A.B. (Harvard),
B.C.L., LL.B. (McGill)

## Vice-Principal Academic \& Research

Andrew Webster, B.A. (Harvard), M.A. (Cambridge),
Ph D. (Cambridge)
Vice-Principal Finance and Administration
Isabelle Goyette, B.B.A. (HEC Montreal),
CPA-CMA (Sherbrooke)

## Vice-Principal, Students Affairs

Stine Linden-Andersen, B.A., M.A., Ph. D. (Concordia)

## Interim Secretary General

Denise Lauzière, LL.B. (Sherbrooke)

## Dean, Arts

Michele Murray, B.A. (Trinity Western),
M.A. (Hebrew University), Ph.D. (Toronto)

## Dean, Science

Kerry Hull, B.Sc., Ph.D. (Alberta)

## Dean, School of Education

Julie Desjardins, B.Sc., M.A., Ph.D. (Montréal), M.B.A. (Laval)
Dean, Williams School of Business
Reena Atanasiadis, B.Com., M.B.A. (Concordia)
University Libraria
Catherine Lavallée-Welch, B.A. (UQAM) and
M.L.I.S. (Montréal)

## The Board of Governors

## 2022-23 Membership

Abel Bosum, C.M., D.C.L.
Jane Brydges, B.A. (Bishop's), M.A. (MIT)
Mark Caduc, B.A. Hons, Computer Science \& Geography (Queen's)
Kent Carson, B.B.M. (Ryerson), M.B.A. (Dalhousie), C.P.A.
Nanci Chagnon, B.A.(Royal Military College of Canada), LL.B. (Sherbrooke)
Pierre Cossette, M.D. (Montréal), M.Sc. (McGill), FRCPC
Michael Goldbloom, C.M., A.B. (Harvard), B.C.L., LL.B. (McGill)
Robert Hall, B.A. (Bishop's), LL.B. (Sherbrooke)
Michel Marleau, B.B.A. (Bishop's), C.P.A., M.A. (McGill)
Heather McKeen-Edwards, B.A. (Manitoba), M.A., Ph.D. (McMaster)
Samia Mihoub (replaced by Nanci Chagnon in March 2023)
Jessica Riddell, B.A. (St. Mary's), M.A., Ph.D. (Queen's)
Camilla Rizzi, Students' Representative Council President

Calin Valsan, B.Sc. (Bucharest), Ph.D. (Virginia Tech)
Tova White, B.A. (Bishop's), M.A. (LSE)

## The Senate

## 2022-23 Membership

The Principal and Vice-Chancellor (Chair)
The Vice-Principal Academic and Research
The Dean of Arts
The Dean of Science (non-voting)
The Dean of the School of Education
The Dean of the Williams School of Business
The University Librarian
The Secretary General (Secretary)
The Registrar (non-voting)
The Associate Vice-Principal Academic (non-voting)
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