The following proposals, received on DAP between April 1-15, 2019, have been approved. For more information on the DAP process, see the Secretariat’s website.

FACULTY OF ENGINEERING

CHEMICAL AND BIOCHEMICAL ENGINEERING

Effective September 1, 2019, the following courses be introduced.

Chemical and Biochemical Engineering 4405A/B – AIR POLLUTION CONTROL

The nature, effects and mitigation strategies for air pollution including the structure and physical behavior of the atmosphere, types and origins of air pollutants, chemical reactions in the atmosphere, atmospheric dispersion, techniques of pollutant evaluation, control, surveys and effects of air pollution on health and other aspects of urban and natural environments.

Antirequisite(s): CEE 4405A/B.

Prerequisite(s): CEE 2224 or CBE 2221A/B or MME 2273A/B.

Extra Information: 3.0 lecture hours, 1.0 tutorial hours, 0.5 course.

Chemical and Biochemical Engineering 4419A/B - THE ENGINEERING OF CHEMICAL REACTORS

Short title: ENG OF CHEMICAL REACTORS

An introduction to non-ideal chemical reacting systems, including multiple reactions, residence time distributions, diffusion effects, and multiple steady-states, with applications in reaction data analysis, multiphase reactor development, and multi-objective optimization.

Prerequisite(s): CBE 3315A/B or GPE 3315A/B; CBE 3324A/B.

Extra Information: 3.0 lecture hours, 1.0 tutorial hours, 0.5 course.

Chemical and Biochemical Engineering 4428A/B – INTRODUCTION TO NANOENGINEERING

Short title: INTRO TO NANOENGINEERING

An introduction to fundamental concepts in nanoengineering, emphasizing limitations of macroscale models and presenting alternative molecular approaches to the engineering of nanoscale systems.

Prerequisite(s): Applied Mathematics 2277A/B or Applied Mathematics 2276A/B; CBE 2214A/B or MME 2204A/B.

Extra Information: 3.0 lecture hours, 1.0 tutorial hours, 0.5 course.

FACULTY OF HEALTH SCIENCES

HEALTH SCIENCES

Effective September 1, 2019, the following courses be introduced.

Health Sciences 2110A/B – RESILIENCE AND THE CREATION OF WELLBEING

Short title: RESILIENCE AND WELLBEING

Personal resilience is widely recognized to be a cornerstone of wellbeing, and is considered essential to success in environments ranging from schools to workplaces. In this interdisciplinary course, we study “good vs poor” mental health, cultivation of resilience, creation and maintenance of wellbeing, and living well with compromised mental health.

Prerequisite(s): Registration in second-year or higher, or permission of the School of Health Studies.
Notes: This course may be used as a 2000-level elective course within any of the modular offerings within the School of Health Studies.
Extra Information: 3 contact hours.

**Health Sciences 3624A/B – SOCIAL DETERMINANTS OF MENTAL HEALTH**
**Short title:** SOC. DETERM. OF MENTAL HEALTH
In this course, we will discuss the interplay between social and personal determinants of mental health. We will also discuss the interrelatedness of mental disorder, social inequity, and both trauma and adversity in childhood.
Prerequisite(s): Health Sciences 1002A/B.
Extra Information: 3 contact hours.

Effective September 1, 2019, the following courses be revised.

**Health Sciences 2300A/B FUNCTIONAL HUMAN GROSS ANATOMY**
Antirequisite(s): Anatomy and Cell Biology 2200A/B, Anatomy and Cell Biology 2221, Anatomy and Cell Biology 3319, Kinesiology 2222A/B, and Health Sciences 2330A/B.
Prerequisite(s): Grade 12U Biology or equivalent is strongly recommended. Registration information: Students not in a Health Science program are limited to a 1.5 Health Science course load.

**Health Sciences 2330A/B FUNCTIONAL HUMAN GROSS ANATOMY FOR NURSING STUDENTS**
Antirequisite(s): Health Sciences 2300A/B, Anatomy and Cell Biology 2200A/B, Anatomy and Cell Biology 2221, Anatomy and Cell Biology 3319, Kinesiology 2222A/B.
Prerequisite(s): Grade 12U Biology or equivalent. Corequisite(s): Restricted to students registered in the School of Nursing.

**Health Sciences 2700A/B HEALTH ISSUES IN CHILDHOOD AND ADOLESCENCE**
Antirequisite(s): Psychology 2040A/B, Psychology 2410A/B, Psychology 2480E, Kinesiology 3347A/B, the former Psychology 2044.
Prerequisite(s): Minimum of 60% [mandatory] in each of Health Sciences 1001A/B and Health Sciences 1002A/B.

**Health Sciences 3300A/B ANATOMY OF THE HUMAN BODY: A DESCRIPTION OF SYSTEMIC STRUCTURE & FUNCTION - PART II**
Prerequisite(s): Health Sciences 2300A/B or Health Sciences 2330A/B, or Kinesiology 2222A/B.

**KINESIOLOGY**

Effective September 1, 2019, the following courses be introduced.

**Kinesiology 2991A/B - COACHING AND SPORT LEADERSHIP**
This student-centered movement class is an introduction to the knowledge and techniques essential in educating and assessing individuals in movement competency/proficiency. In this course students will explore the way people across the lifecycle learn and the knowledge and skills that practitioners need to support them to learn effectively.
Prerequisite(s): Completion of the first year Kinesiology program and registration in the School of Kinesiology.
Extra Information: 5 lecture/laboratory hours.
Course Weight: 0.50
Kinesiology 2994A/B - SPECIFIC POPULATIONS HEALTHY ENGAGEMENT REHABILITATION & EXERCISE

Short title: SPEC. POP. ENGAGE REHAB & EX.

This course is an introduction to the basic knowledge and techniques essential in designing exercise programs for specific populations. Students are expected to learn, and put into practice, techniques used to develop muscular strength/endurance, flexibility and cardiovascular fitness.

Prerequisite(s): Completion of the first year Kinesiology program and registration in the School of Kinesiology.

Antirequisite(s): Kinesiology 2962A/B.

Extra Information: 5 lecture/laboratory hours.

Course Weight: 0.50

FACULTY OF INFORMATION AND MEDIA STUDIES

MEDIA, INFORMATION AND TECHNOCULTURE

Effective September 1, 2019, the following course be revised.

Media, Information and Technoculture 3215F/G KILLER CULTURE: WAR AND THE MEDIATION OF REALITY IN THE 20TH-21ST CENTURIES

Prerequisite(s): At least 65% in MIT 1200F/G.

FACULTY OF SCIENCE and SCHULICH SCHOOL OF MEDICINE AND DENTISTRY

BIOCHEMISTRY

Effective September 1, 2019, the following course be revised.

Biochemistry 4463B – Biochemistry of Genetic Diseases MOLECULAR BASIS OF HUMAN DISEASE

This course applies knowledge of biochemistry and molecular biology, biochemistry, cytogenetics, and genomics to the understanding of human genetic diseases. Topics of current interest are used as examples to study the transition from mutations to clinical disorders, explore the molecular mechanisms by which disease states arise and how this knowledge can be used to design therapies.

Antirequisite(s): Biology 4560A/B.

Prerequisite(s): Biochemistry 3381A.

Effective September 1, 2019, the following module be revised.

HONORS SPECIALIZATION IN BIOCHEMISTRY AND CANCER BIOLOGY

Notes:

1. Biochemistry 3380G requires both Biochemistry 3381A and Biochemistry 3382A as prerequisite courses; Microbiology and Immunology 3620G requires Microbiology and Immunology 3300B as a pre-or corequisite course; the prerequisite for Physiology and Pharmacology 3000E includes a minimum average of 75% in the previous year. The inclusion of Physiology and Pharmacology 3000E will increase the module to 11.5 courses.

2. For the specific courses that must be completed before Year 4, see the Weighted Average Chart (MODULES OFFERED IN THE BMSc PROGRAM).
3. Microbiology and Immunology 4300A requires a minimum mark of 70% in Microbiology and Immunology 3300B as a prerequisite.

4. Anatomy and Cell Biology 4461B requires a minimum mark of 70% in either Anatomy and Cell Biology 3309 or Pathology 3500 as a prerequisite.

*Effective September 1, 2019, the following module requirements in the Weight Average Chart be revised.*

<table>
<thead>
<tr>
<th>Honors Specialization Module</th>
<th>Modular courses responsible for 1/3 of the Weighted Average</th>
<th>Modular courses responsible for 2/3 of the Weighted Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemistry and Cancer Biology</td>
<td>4.0 courses: Biochemistry 2280A; Biology 2382A/B and Biology 2581A/B; Chemistry 2213A/B or Chemistry 2273A; Chemistry 2223B or Chemistry 2283G; Biology 2244A/B or Statistical Sciences 2244A/B; Medical Biophysics 2582B; Microbiology and Immunology 2500A/B</td>
<td>3.5 courses: Biochemistry 3381A; Pharmacology 3620; Anatomy and Cell Biology 3309 or Pathology 3500 (or the former Pathology 3240A and the former Pathology 3245B); one of Biochemistry 3382A, Chemistry 3393A/B or Microbiology and Immunology 3300B; and one of Biochemistry 3380G, Microbiology and Immunology 3620G, Physiology and Pharmacology 3000E, or the former Pharmacology 3580Z. Note: If Physiology and Pharmacology 3000E is selected instead of one of the laboratory half courses, then 4.0 courses will be used toward the Weighted Average.</td>
</tr>
</tbody>
</table>

**EARTH SCIENCES**

*Effective September 1, 2019, the following courses be revised.*

**Earth Sciences 2123A/B F/G THE DYNAMIC EARTH**

**Earth Sciences 1023A/B PLANET EARTH: SHAKEN AND STIRRED**
Antirequisite(s): Earth Sciences 2123F/G or the former Earth Sciences 2123A/B.

**Earth Sciences 2281A/B GEOLOGY FOR ENGINEERS**
Antirequisite(s): Earth Sciences 1022A/B, Earth Sciences 1023A/B, Earth Sciences 1070A/B, Earth Sciences 1081A/B, Earth Sciences 2123A/B F/G. Prerequisite(s): Registration in second, third, or fourth year Civil and Environmental Engineering; or permission of the Department.
Effective September 1, 2019, the following program and modules be revised to reflect the suffix change for Earth Sciences 2123F/G.

HONORS GEOPHYSICS PROGRAM - For Professional Registration

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Notes:
1. If Earth Sciences 1023A/B has been taken, Earth Sciences 2123A/BF/G cannot be taken, and one additional 2000-level or above Earth Sciences course not otherwise required for the module must be taken as a substitute.

HONORS SPECIALIZATION IN GEOLOGY

Module
10.0 courses:


1.0 additional course in Earth Sciences at the 3000 level or above.

1.0 course: Earth Sciences 4490E.

Note: Earth Sciences 2123A/BF/G should be taken by the end of the second year. If Earth Sciences 1023A/B has been taken, Earth Sciences 2123A/BF/G cannot be taken, and one additional 2000-level or above Earth Sciences course not required for the module must be taken as a substitute.

MAJOR IN GEOLOGY

Module
6.0 courses:


0.5 course from: Earth Sciences 3313A/B, Earth Sciences 3314A/B, Earth Sciences 3315A/B.


1.5 additional courses in Earth sciences at the 2000 level or above.

Note: If Earth Sciences 1023A/B has been taken, Earth Sciences 2123A/BF/G cannot be taken. Students registered in an honors double major degree must complete a minimum of 1.0 courses at the 3000 level for each module.

SPECIALIZATION IN GEOLOGY

Module
9.0 courses:


1.0 additional course in Earth Sciences at the 3000 level or above.
**Note:** Earth Sciences 2123A/B/F/G should be taken by the end of second year. If Earth Sciences 1023A/B has been taken, Earth Sciences 2123A/B/F/G cannot be taken, and one additional 2000-level or above Earth Sciences course not required for the module must be taken as a substitute.

**MINOR IN GEOLOGY**

**Module**

4.0 courses:

1. **0 course:** Earth Sciences 2200A/B, Earth Sciences 2206A/B.


0. **5 course** from: Earth Sciences 3313A/B, Earth Sciences 3314A/B, Earth Sciences 3315A/B.

1. **0 additional course** in Earth Sciences at the 2000 level or above.

**Note:** If Earth Sciences 1023A/B has been taken, Earth Sciences 2123A/B/F/G cannot be taken.

**MINOR IN GEOPHYSICS**

**Module**

4.0 courses:


**INTEGRATED SCIENCE**

*Effective September 1, 2019, the following module be revised to reflect the suffix change for Earth Sciences 2123F/G.*

**HONORS SPECIALIZATION IN INTEGRATED SCIENCE WITH EARTH SCIENCES**

**Module**

13.0 courses:


0. **5 course** from**: Philosophy 2320F/G (preferred), Philosophy 2033A/B, Philosophy 2035F/G, Philosophy 2078F/G, Philosophy 2370F/G.

0. **5 course:** Science 3377A/B****.

1. **5 course:** Integrated Science 4999E****.


0. **5 course** from: Earth Sciences 3313A/B, Earth Sciences 3314A/B, Earth Sciences 3315A/B.


1. **5 additional courses** in Earth Sciences at the 2000 level or above.

2. **0 additional courses** in Earth Sciences at the 3000 level or above.

*If Earth Sciences 1023A/B has been taken, Earth Sciences 2123A/B/F/G cannot be taken.*
INTERDISCIPLINARY MEDICAL SCIENCES

Effective September 1, 2019, the following modules be revised.

HONORS SPECIALIZATION IN INTERDISCIPLINARY MEDICAL SCIENCES (IMS)

Module
10.0 courses:

0.5 course: Biochemistry 2280A.
1.5 courses: Biology 2290F/G, Biology 2382A/B, Biology 2581A/B.
0.5 course: Chemistry 2213A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
0.5 course from: Chemistry numbered 2100-3999 (2223B is recommended) or 0.5 course from Group 1 or 2 – see Note # 1.
3.0 courses from: Groups 1 and 2 (see below), with a minimum of 2.5 courses selected from Group 1. A maximum of 2.0 courses from one subject area (e.g. a maximum of 2.0 courses in Biochemistry) can be used towards the Group requirement.

2.0 courses from Group 1 – see Note #2.
1.0 course from: Group 1 or (0.5 from Group 1 and 0.5 from Group 2) – see Note #2.
0.5 course from Group 3 or Physiology and Pharmacology 3000E. See Note # 3 (see notes below).
1.0 course: Medical Sciences 4900F/G, Medical Sciences 4930F/G.

2.0 additional courses at the 4000-level from at least two of the following subject areas: Anatomy and Cell Biology, Biochemistry, Biostatistics, Epidemiology, Medical Biophysics, Medical Sciences, Microbiology and Immunology, Pathology, Pharmacology, Physiology. Note: a maximum of 1.5 of these 4000-level courses can be selected from one subject area.

Group 1: Anatomy and Cell Biology 2200A/B, Anatomy and Cell Biology 3309, Biochemistry 3381A, Biochemistry 3382A, Biostatistics 3100A, Biostatistics 3110B, Epidemiology 2200A/B, Epidemiology 3200A, Medical Biophysics 3330F/G, 3336F/G, Medical Biophysics 3501A, Medical Biophysics 3503G, Medical Biophysics 3505F, Medical Biophysics 3507G, Microbiology and Immunology 2500A/B, Microbiology and Immunology 2300A, Microbiology and Immunology 3100A, Microbiology and Immunology 3300B, Pathology 3500, Pharmacology 3620, Physiology 3120, Physiology 3140A, any of the former courses: the former Epidemiology and Biostatistics 2200A/B, the former Microbiology and Immunology 2100A, the former Microbiology and Immunology 3400B, the former Pathology 3240A, the former Pathology 3245B.


Group 3: Biochemistry 3380G, Medical Biophysics 3970Z, Medical Sciences 3900F/G, Microbiology and Immunology 3610F, Microbiology and Immunology 3620G, Pharmacology 3500E, one of the former Biochemistry 3387G, the former Microbiology and Immunology 3600G, the former Pharmacology 3580Z or the former Physiology 3130Z.

Notes:
1. Chemistry 2223B is a prerequisite for the following Group 1 and 3 courses: Biochemistry 3381A, Biochemistry 3382A and Microbiology and Immunology 3620G.
2. Of these 3.0 specific courses from Groups 1-2, a maximum of 2.0 courses can be from one subject area (e.g. a maximum of 2.0 can be Biochemistry courses). It is not mandatory to complete any Group 2 courses in the Honors Specialization in IMS. If the former Anatomy and Cell Biology 3319 was taken as a Group 2 course, then the total number of courses required for the module will increase by 0.5 course.
1. If Physiology and Pharmacology 3000E is selected for the Group 3 requirement, then the total number of courses required for the module will increase by 0.5 course will comprise 10.5 courses.

2. As stated in the Weighted Average Chart, at MODULES OFFERED IN THE BMSc PROGRAM, the following 3.0-3.5 courses must be completed prior to Year 4: either 0.5 course from Group 3 or Physiology and Pharmacology 3000E, and 2.5 courses from Groups 1 and 2 (including a minimum of 2.0 courses from Group 1).

3. It is not mandatory to complete any Group 2 courses in the Honors Specialization in IMS. If Anatomy and Cell Biology 3319 is taken as a Group 2 course, then the total number of courses required for the module will increase by 0.5 course.

4. For the specific courses that must be completed before Year 4, see the Weighted Average Chart (MODULES OFFERED IN THE BMSc PROGRAM).

5. See UNDERGRADUATE COURSE INFORMATION for course requisites and the BMSc website for information about constraints (priority and restricted access) for all basic medical science courses.

SPECIALIZATION IN INTERDISCIPLINARY MEDICAL SCIENCES (IMS)

Module
9.5 courses:

0.5 course: Biochemistry 2280A.
1.5 courses: Biology 2290F/G, Biology 2382A/B, Biology 2581A/B.
0.5 course: Chemistry 2213A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
0.5 course from: Chemistry numbered 2100-3999 (2223B is recommended) or 0.5 course from Group 1 or 2 – see Note #1.
3.0 courses from: Groups 1 and 2 (see below), with a minimum of 2.5 courses selected from Group 1. A maximum of 2.0 courses from one subject area (e.g. a maximum of 2.0 courses in Biochemistry) can be used towards the Group requirement.
2.0 courses from Group 1 – see Note #2.
1.0 course from: Group 1 or (0.5 from Group 1 and 0.5 from Group 2) – see Note #2.
0.5 course from Group 3 or Physiology and Pharmacology 3000E. See Note #3 (see notes below).

0.5 course: Medical Sciences 4931F/G.

2.0 additional courses at the 4000-level from at least two of the following subject areas: Anatomy and Cell Biology, Biochemistry, Biostatistics, Epidemiology, Medical Biophysics, Medical Sciences, Microbiology and Immunology, Pathology, Pharmacology, Physiology. Note: a maximum of 1.5 of these 4000-level courses can be selected from one subject area.

Group 1: Anatomy and Cell Biology 2200A/B, Anatomy and Cell Biology 3309, Biochemistry 3381A, Biochemistry 3382A, Biostatistics 3100A, Biostatistics 3110B, Epidemiology 2200A/B, Epidemiology 3200A, Medical Biophysics 3330F/G, 3336F/G, Medical Biophysics 3501A, Medical Biophysics 3503G, Medical Biophysics 3505F, Medical Biophysics 3507G, Microbiology and Immunology 2500A/B, Microbiology and Immunology 3100A, Microbiology and Immunology 3300B, Pathology 3500, Pharmacology 3620, Physiology 3120, Physiology 3140A, any of the former courses: the former Epidemiology and Biostatistics 2200A/B, the former Microbiology and Immunology 3100A, the former Microbiology and Immunology 3400B, the former Pathology 3240A, the former Pathology 3245B.

Group 3: Biochemistry 3380G, Medical Biophysics 3970Z, Medical Sciences 3900F/G, Microbiology and Immunology 3610F, Microbiology and Immunology 3620G, Physiology and Pharmacology 3000E, one of the former Biochemistry 3387G, the former Microbiology and Immunology 3600G, the former Pharmacology 3580Z, the former Physiology 3130Z.

Notes:
1. Chemistry 2223B is a prerequisite for the following Group 1 and 3 courses: Biochemistry 3381A, Biochemistry 3382A and Microbiology and Immunology 3620G.
2. Of these 3.0 specific courses from Groups 1-2, a maximum of 2.0 courses can be from one subject area (e.g. a maximum of 2.0 can be Biochemistry courses). It is not mandatory to complete any Group 2 courses in the Specialization in IMS. If the former Anatomy and Cell Biology 3319 was taken as a Group 2 course, then the total number of courses required for the module will increase by 0.5 course.
3. If Physiology and Pharmacology 3000E is selected to satisfy the Group 3 requirement, then the total number of courses required for the module will increase by 0.5 course comprise 10.0 courses.
4. It is not mandatory to complete any Group 2 courses in the Specialization in IMS. If Anatomy and Cell Biology 3319 is taken as a Group 2 course, then the total number of courses required for the module will increase by 0.5 course.
5. See UNDERGRADUATE COURSE INFORMATION for course requisites and the BMSc website for information about constraints (priority and restricted access) for all basic medical science courses.

MAJOR IN INTERDISCIPLINARY MEDICAL SCIENCES (IMS)

Module
6.0 courses:

0.5 course: Biochemistry 2280A.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
0.5 course: Biology 2290F/G.
0.5 course from: Biology 2382A/B, Biology 2581A/B.
0.5 course: Chemistry 2213A/B.
2.5 courses from: Groups 1 and 2 with a minimum of 1.5 courses selected from Group 1 (see Note #1 below). A maximum of 2.0 courses from one subject area (e.g. a maximum of 2.0 courses in Biochemistry) can be used towards the Group requirement.
0.5 course: Medical Sciences 4931F/G.
0.5 course at the 4000-level from any of the following subject areas: Anatomy and Cell Biology, Biochemistry, Biostatistics, Epidemiology, Medical Biophysics, Medical Sciences, Microbiology and Immunology, Pathology, Pharmacology, Physiology.

Group 1: Anatomy and Cell Biology 2200A/B, Anatomy and Cell Biology 3309, Biochemistry 3381A, Biochemistry 3382A, Biostatistics 3100A, Biostatistics 3110B, Epidemiology 2200A/B, Epidemiology 3200A, Medical Biophysics 3330F/G, 3336F/G, Medical Biophysics 3501A, Medical Biophysics 3503G, Medical Biophysics 3505F, Medical Biophysics 3507G, Microbiology and Immunology 2500A/B, Microbiology and Immunology 3100A, Microbiology and Immunology 3300B, Pathology 3500, Pharmacology 3620, Physiology 3120, Physiology 3140A, any of the former courses: the former Epidemiology and Biostatistics 2200A/B, the former Microbiology and Immunology 2100A, the former Microbiology and Immunology 3400B, the former Pathology 3240A, the former Pathology 3245B.

Notes:
1. Of these 2.5 courses from Groups 1-2, a maximum of 2.0 courses can be from one subject area (e.g. a maximum of 2.0 can be Biochemistry courses). It is not mandatory to complete any Group 2 courses in the Major in IMS. A maximum of one half course from the courses listed in Group 3 of the Honors Specialization in IMS may be used in place of a half course from Group 2 in the Major in IMS. See the IMS website for more information about the Major in IMS.
2. A maximum of 1.0 "common course" can be double-counted toward two modules in a BMSc degree. See the IMS website for more information about the Common Course Policy as it relates to the Major in IMS.
3. A maximum of 1.0 "common course" can be double-counted toward two modules in a BMSc degree. See Completing Two Modules on the BMSc website for more information.
4. See UNDERGRADUATE COURSE INFORMATION for course requisites and the BMSc website for information about constraints (priority and restricted access) for all basic medical science courses.

Effective September 1, 2019, the following module requirements in the **Weight Average Chart** be revised.

<table>
<thead>
<tr>
<th>Honors Specialization Module</th>
<th>Modular courses responsible for 1/3 of the Weighted Average</th>
<th>Modular courses responsible for 2/3 of the Weighted Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS (Interdisciplinary Medical Sciences)</td>
<td>3.0 courses: Biochemistry 2280A; Biology 2581A/B, Biology 2382A/B and Biology 2290F/G; Chemistry 2213A/B or Chemistry 2273A; Biology 2244A/B or Statistical Sciences 2244A/B.</td>
<td>3.0 or 3.5* courses: <strong>2.0 courses from Group 1</strong>; <strong>0.5 course from either Group 1 or 2</strong>; <strong>0.5 course from Group 3</strong> (*if, however, Physiology and Pharmacology 3000E is selected for the Group 3 requirement, then the number of courses used toward the Weighted Average becomes 3.5 courses). See Weighted Averages on the IMS website for more details.</td>
</tr>
</tbody>
</table>

**MEDICAL HEALTH INFORMATICS**

Effective September 1, 2019, the following module be revised.

**HONORS SPECIALIZATION IN MEDICAL HEALTH INFORMATICS**

Module
11.0 courses:
0.5 course: Biochemistry 2280A.
1.0 course from: Biology 2290F/G, Biology 2382A/B, Biology 2581A/B.
0.5 course: Chemistry 2213A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
1.0 course: Pathology 3500, or the former Pathology 3240A and the former Pathology 3245B.
1.0 course: Computer Science 2120A/B, Computer Science 2121A/B.
1.0 course: Computer Science 3120A/B, Computer Science 3121A/B.
1.0 course: Physiology 3120.
1.0 course from: Anatomy and Cell Biology 2200A/B, Anatomy and Cell Biology 3309, Anatomy and Cell Biology 3319, Biochemistry 3385A, Biochemistry 3386B, Epidemiology 2200A/B, Medical Biophysics 3503G, Microbiology and Immunology 2500A/B, Microbiology and Immunology 4750F/G, Pharmacology 3620, the former Anatomy and Cell Biology 3319.
1.0 course: Medical Health Informatics 4100F. Medical Health Informatics 4110G.
1.5 courses: Medical Health Informatics 4980E (Research Project = 1.5 courses).

Notes:
1. The prerequisite for both Biochemistry 3385A and Biochemistry 3386B is a mark of at least 65% in either Biochemistry 2280A or Biochemistry 2288A.
2. For the specific courses that must be completed before Year 4, see the Weighted Average Chart (MODULES OFFERED IN THE BPMSc PROGRAM).

MEDICAL SCIENCES

Effective September 1, 2019, the following modules be revised.

MAJOR IN MEDICAL SCIENCES

Admission Requirements
Completion of first-year requirements, including a mark of at least 60% in each of the 3.0 (full or half) principal courses below:

1.0 course: Biology 1001A and Biology 1002B*.
1.0 course: Chemistry 1301A/B and Chemistry 1302A/B, or the former Chemistry 1100A/B and the former Chemistry 1200B.

The following must be completed by the end of second year, with a mark of at least 60% in each half course:

0.5 course from: Physics 1028A/B, Physics 1301A/B or Physics 1501A/B.
0.5 course from: Physics 1029A/B, Physics 1302A/B or Physics 1502A/B.
It is recommended that the two half courses in Physics be taken in the Fall and Winter terms of the same academic year.

* Biology 1201A with a mark of at least 70% may be used in place of Biology 1001A, and Biology 1202B with a mark of at least 70% may be used in place of Biology 1002B.

Module
6.0 courses:
0.5 course: Biochemistry 2280A.
0.5 course from: Chemistry 2213A/B or Chemistry 2273A.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
1.0 course from: Biology 2290F/G, Biology 2382A/B, Biology 2581A/B.
3.0 courses from: Groups 1 and 2 with a minimum of 1.0 course selected from Group 1. A maximum of 2.0 courses from one subject area (e.g. a maximum of 2.0 courses in Biochemistry) can be used towards the this Group requirement.
0.5 course from: Chemistry numbered 2100-3999 or an additional 0.5 course from Group 1 or 2.

Group 1: Anatomy and Cell Biology 2200A/B, Anatomy and Cell Biology 3309, Biochemistry 3381A, Biochemistry 3382A, Biostatistics 3100A, Biostatistics 3110B, Epidemiology 2200A/B, Epidemiology 3200A, Medical Biophysics 3330F/G, Medical Biophysics 3336F/G, Medical Biophysics 3501A, Medical Biophysics 3503G, Medical Biophysics 3505F, Medical Biophysics 3507G, Microbiology and Immunology 2500A/B, Microbiology and Immunology 3100A, Microbiology and Immunology 3300B, Pathology 3500, Pharmacology 3620, Physiology 3120, Physiology 3140A, or any of these former courses: the former Epidemiology and Biostatistics 2200A/B, the former Microbiology and Immunology 2100A, the former Microbiology and Immunology 3400B, the former Pathology 3240A, the former Pathology 3245B.


Notes:
1. It is not mandatory to complete any Group 2 courses in the Major in Medical Sciences. A maximum of 1.0 of the following courses may be used in place of up to 1.0 course from Group 2: 4000-level half courses from the basic medical sciences (Anatomy and Cell Biology, Biochemistry, Biostatistics, Epidemiology, Medical Biophysics, Medical Sciences, Microbiology and Immunology, Pathology, Pharmacology, Physiology) and courses listed in Group 3 of the Honors Specialization in IMS (a maximum of 0.5 course from Group 3 may be substituted for a 0.5 course from Group 2).
2. See UNDERGRADUATE COURSE INFORMATION for the course requisites and the BMSc website for information about constraints (priority and restricted access) for all basic medical science courses (www.schulich.uwo.ca/bmsc).
3. 3000-level courses from the subject areas in Groups 1 and 2 that do not appear in the lists above may be included in the Major only with permission of the Medical Sciences counsellor.
4. 4000-level courses from the subject areas in Groups 1 and 2 may be included in the Major only with permission of the Medical Sciences counsellor (a maximum of 1.0 4000-level course will be permitted).

MINOR IN MEDICAL SCIENCES

Admission Requirements
Completion of first-year requirements, including the following courses with a mark of at least 60% in each (full or half) course:
1.0 course: Biology 1001A and Biology 1002B.
1.0 course: Chemistry 1301A/B and Chemistry 1302A/B, or the former Chemistry 1100A/B and the former Chemistry 1200B.

Note for Admission Requirements:
Biology 1201A with a mark of at least 70% may be used in place of Biology 1001A, and Biology 1202B with a mark of at least 70% may be used in place of Biology 1002B.
Module

4.0 courses:

0.5 course: Biochemistry 2280A.
0.5 course: Chemistry 2213A/B.
1.0 course from: Biology 2290F/G, Biology 2382A/B, Biology 2581A/B.
2.0 courses from: Groups 1 and 2 (see below), with at least 1.0 course selected from Group 1 and no more than 1.5 courses from one subject area.

Group 1: Anatomy and Cell Biology 2200A/B, Anatomy and Cell Biology 3309, Biochemistry 3381A, Biochemistry 3382A, Biostatistics 3100A, Biostatistics 3110B, Epidemiology 2200A/B, Epidemiology 3200A, Medical Biophysics 3330F/G, Medical Biophysics 3336F/G, Medical Biophysics 3501A, Medical Biophysics 3503G, Medical Biophysics 3505F, Medical Biophysics 3507G, Microbiology and Immunology 2500A/B, Microbiology and Immunology 3100A, Microbiology and Immunology 3300B, Pathology 3500, Pharmacology 3620, Physiology 3120, Physiology 3140A, the former Microbiology and Immunology 2100A, the former Microbiology and Immunology 3400B, the former Pathology 3240A, the former Pathology 3245B.


Notes:
1. See UNDERGRADUATE COURSE INFORMATION for the course requisites and the BMSc website for information about constraints (priority and restricted access) for all basic medical science courses.
2. 3000 level courses from the subject areas in Groups 1 and 2 that do not appear in the lists above may be included in the Minor only with permission of the Medical Sciences counsellor. A maximum of 0.5 course from Group 3 in the Honors Specialization in IMS may be used in place of a half course from Group 2 in the Minor in Medical Sciences.

ONE HEALTH

Effective September 1, 2019, the following courses be introduced.

ONE HEALTH 3300A/B – FOUNDATIONS IN ONE HEALTH
The history, core concepts and foundational approaches fundamental to this multi-sectoral and collaborative discipline are presented in lectures and in-depth case studies of the three pillars of One Health (human health, animal health and environmental health).
Prerequisite(s): Biology 1001A or Biology 1201A; Biology 1002B or Biology 1202B; either Biology 2244A/B or Statistical Sciences 2244A/B; and registration in third or fourth year of a BMSc or BSc degree.
Extra Information: 3 lecture/seminar hours.
Course Weight: 0.5

ONE HEALTH 3600A/B – ONE HEALTH IN ACTION
Key research designs and methodologic approaches fundamental to the multi-sectoral and collaborative discipline of One Health are presented in both lectures and in-depth case studies. Topics include study design and methods, data surveillance systems, engaging stakeholders, and implementing the One Health approach into action and policy change.
Prerequisite(s): One Health 3300A/B with a minimum mark of 70%.
Extra Information: 3 lecture/seminar hours.
Course Weight: 0.5
Effective September 1, 2019, the following modules be revised.

**HONORS SPECIALIZATION IN ONE HEALTH**

**Module**

11.0 courses:

- **0.5 course:** Biochemistry 2280A.
- **0.5 course:** Biology 2382A/B.
- **1.0 course:** Chemistry 2213A/B and Chemistry 2210A/B.
- **0.5 course** from: Biology 2244A/B or Statistical Sciences 2244A/B.
- **0.5 course** Biology 2483A/B.
- **1.0 course** from: Geography 2133A/B, Geography 2153A/B, Sociology 2179A/B, Sociology 2180A/B, Sociology 2246A/B, Sociology 2247A/B, Sociology 2281A/B.
- **0.5 course:** Environmental Science 3300F/G.
- **1.5 courses** from: Anatomy and Cell Biology 3319, Anatomy and Cell Biology 2200A/B, Biology 3316A/B or Physiology 3140A, Epidemiology 2200A/B, Microbiology and Immunology 2500A/B, Pharmacology 3620, Physiology 3120, the former Anatomy and Cell Biology 3319.
- **0.5 course** from: Geography 3431A/B, Geography 3432A/B, Geography 3445F/G, Sociology 3308F/G.
- **1.5 courses:** Pathology 3500 with a minimum mark of 70% (or the former Pathology 3240A and the former Pathology 3245B with marks of at least 70% in each), Pathology 4400A/B.
- **0.5 course:** One Health 3300A/B with a minimum mark of 70%.
- **0.5 1.0 course:** One Health 3600A/B, One Health 4100F/G.
- **1.0 0.5 course** from: Biology 4230A/B, Biostatistics 3100A, Environmental Science 3350F/G, Medical Health Informatics 4100F, Medical Health Informatics 4110G, Pathology 3700F/G, Pathology 4200A/B.
- **1.5 courses:** One Health 4980E (Research Project = 1.5 courses).

**Note:** See the Weighted Average Chart (MODULES OFFERED IN THE BMSc PROGRAM) for information about admission to the Honors Specialization modules in Year 4, including which modular courses must be completed prior to Year 4.
**Effective September 1, 2019, the following module requirements in the Weight Average Chart be revised.**

<table>
<thead>
<tr>
<th>Honors Specialization Module</th>
<th>Modular courses responsible for 1/3 of the Weighted Average</th>
<th>Modular courses responsible for 2/3 of the Weighted Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Health</td>
<td>3.0 courses:Biochemistry 2280A; Biology 2382A/B, Biology 2483A/B; Chemistry 2213A/B, Chemistry 2210A/B; Biology 2244A/B or Statistical Sciences 2244A/B.</td>
<td>3.5 4.0 courses:Environmental Science 3300F/G; One Health 3300A/B; One Health 3600A/B; Pathology 3500 or the former Pathology 3240A and the former Pathology 3245; 1.5 1.0 courses from: Anatomy and Cell Biology 2200A/B, Biology 3316A/B or Physiology 3140A, Epidemiology 2200A/B, Microbiology and Immunology 2500A/B, Pharmacology 3620, Physiology 3120, the former Anatomy and Cell Biology 3319; and 0.5 course from Geography 3431A/B, Geography 3432A/B, Geography 3445F/G, Sociology 3308F/G.</td>
</tr>
</tbody>
</table>

**PATHOLOGY**

*Effective September 1, 2019, the following module be revised.*

**HONORS SPECIALIZATION IN PATHOLOGY**

**Module**

11.0 courses:

- **0.5 course**: Biochemistry 2280A.
- **0.5 course**: Biology 2382A/B.
- **0.5 course** from Biology 2290F/G, Biology 2581A/B.
- **0.5 course**: Chemistry 2213A/B.
- **0.5 course** from Chemistry 2211A/B, Chemistry 2214A/B, Chemistry 2223B.
- **0.5 course** from Biology 2244A/B or Statistical Sciences 2244A/B.
- **1.0 course**: Pharmacology 3620.
- **1.0 course** from: Anatomy and Cell Biology 3309, or (Anatomy and Cell Biology 2200A/B and one of Anatomy and Cell Biology 3200A/B or Microbiology and Immunology 2500A/B), or the former Anatomy and Cell Biology 3319.
- **1.0 course**: Physiology 3120.
- **1.0 course**: Pathology 3500 with a mark of at least 70%, or the former Pathology 3240A and the former Pathology 3245B with marks of at least 70% in each.
- **0.5 course** from: Biology 3316A/B, Chemistry 2272F, Epidemiology 2200A/B, Physiology 3140A,
Medical Health Informatics 4100F, Medical Health Informatics 4110G.

1.0 course: Pathology 4400A/B, Pathology 4500B.

1.0 course from: Medical Sciences 4100F/G, Pathology 3700F/G, Pathology 4200A/B.

1.5 courses: Pathology 4980E (Research Project = 1.5 courses).

**Note:** For the specific courses that must be completed before Year 4, see the Weighted Average Chart (MODULES OFFERED IN THE BMSc PROGRAM).

**MAJOR IN PATHOLOGY**

**Module**

6.0 courses:

- **0.5 course:** Biochemistry 2280A.
- **0.5 course:** Biology 2382A/B.
- **0.5 course** from: Chemistry 2213A/B, Biology 2244A/B or Statistical Sciences 2244A/B.
- **1.0 course** from: Anatomy and Cell Biology 3309, or (Anatomy and Cell Biology 2200A/B and one of Anatomy and Cell Biology 3200A/B or Microbiology and Immunology 2500A/B), or the former Anatomy and Cell Biology 3319.
- **1.0 course:** Physiology 3120.
- **1.5 courses:** Pathology 3500 with a minimum mark of 70% (or the former Pathology 3240A and the former Pathology 3245B with minimum marks of 70% in each), Pathology 4400A/B.
- **1.0 course** from: Medical Health Informatics 4100F, Medical Health Informatics 4110G, Medical Sciences 4100F/G, Microbiology and Immunology 2500A/B, Pathology 3700F/G, Pathology 4200A/B, Pathology 4500B, Physiology 3140A.

**Note:** A maximum of 1.0 “common course” can be double-counted towards two Major modules in a BMSc degree. See the Common Course Policy on the BMSc website for more information.

*Effective September 1, 2019, the following module requirements in the Weight Average Chart be revised.*

<table>
<thead>
<tr>
<th>Honors Specialization Module</th>
<th>Modular courses responsible for 1/3 of the Weighted Average</th>
<th>Modular courses responsible for 2/3 of the Weighted Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pathology — for students registering in Year 4 in 2016/17 and onward</td>
<td>2.5 courses: Biochemistry 2280A; Biology 2382A/B; Biology 2290F/G or Biology 2581A/B; Chemistry 2213A/B; Biology 2244A/B or Statistical Sciences 2244A/B.</td>
<td>4.0 courses: 1.0 course from Anatomy and Cell Biology 3309 or (Anatomy and Cell Biology 2200A/B and one of Anatomy and Cell Biology 3200A/B or Microbiology and Immunology 2500A/B) or the former Anatomy and Cell Biology 3319; Pathology 3500 or the former Pathology 3240A and the former Pathology 3245B; Pharmacology 3620; Physiology 3120.</td>
</tr>
</tbody>
</table>
Pathology and Toxicology - for students registered in Year 4 in 2015/16

<table>
<thead>
<tr>
<th>2.5 courses:</th>
<th>4.0 courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemistry 2280A; Biology 2382A/B; Biology 2290F/G or Biology 2581A/B; Chemistry 2213A/B; Biology 2244A/B or Statistical Sciences 2244A/B.</td>
<td>1.0 course from Anatomy and Cell Biology 3309 or Anatomy and Cell Biology 3319; Pathology 3500 or the former Pathology 3240A and the former Pathology 3245B; Pharmacology 3620; Physiology 3120.</td>
</tr>
</tbody>
</table>

**PHYSIOLOGY AND PHARMACOLOGY**

*Effective September 1, 2019, the following course be revised.*

**Physiology 4630A/B MOTOR NEUROPHYSIOLOGY**

Prerequisite(s): Physiology 3120, Physiology 3140A and either Physiology and Pharmacology 3000E or the former Physiology 3130Z; or (Neuroscience 2000, Physiology 3140A and registration in Year 4 of an Honors Specialization in Neuroscience).

*Effective September 1, 2019, the following module be revised.*

**HONORS SPECIALIZATION IN PHYSIOLOGY***

**Module**

10.0 courses:

- **0.5 course:** Biochemistry 2280A.
- **1.5 courses:** Biology 2290F/G, Biology 2382A/B, Biology 2581A/B.
- **0.5 course:** Chemistry 2213A/B.
- **0.5 course from:** Biology 2244A/B or Statistical Sciences 2244A/B.
- **1.5 courses:** Physiology 3120 and Physiology 3140A.
- **1.0 course:** Physiology and Pharmacology 3000E (see Notes).
- **1.0 course from:** Anatomy and Cell Biology 2200A/B, Anatomy and Cell Biology 3200A/B, Anatomy and Cell Biology 3309, Anatomy and Cell Biology 3319, Biology 2471A/B, Biology 2601A/B, Biology 3338A/B, Biology 3592A/B, Biology 3595A/B, Chemistry 2223B, Medical Biophysics 3501A, Medical Biophysics 3503G, Medical Biophysics 3505F, Medical Biophysics 3507G, Microbiology and Immunology 2500A/B, Microbiology and Immunology 3100A, Microbiology and Immunology 3300B, Pathology 3500, Pharmacology 3620, the former Anatomy and Cell Biology 3319.
- **1.5 courses:** Physiology and Pharmacology 4980E (Seminar and Research Project = 1.5 courses) or the former Physiology 4980E.
- **2.0 additional courses** in Physiology at the 4000-level.

**STATISTICAL AND ACTUARIAL SCIENCES**

*Effective September 1, 2019, the following courses be revised.*

**Statistical Sciences 2141A/B APPLIED PROBABILITY AND STATISTICS FOR ENGINEERS**

An introduction to statistics with emphasis on the applied probability models used in Electrical and Civil Engineering and elsewhere. Topics covered include samples, probability, probability distributions, estimation (including comparison of means), correlation and regression. Cannot be taken for credit in any 3-year or honors program or in any module in Statistics, Actuarial Science, or Financial Modelling. This course cannot be taken for credit in any module in Data Science.
Statistics, Actuarial Science, or Financial Modelling, other than the Minor in Applied Statistics or the Minor in Applied Financial Modeling.

Statistical Sciences 2143A/B APPLIED STATISTICS AND DATA ANALYSIS FOR ENGINEERS
A data-driven introduction to statistics intended primarily for students in Chemical and Mechanical Engineering. Exploratory data analysis, probability, the Binomial, Poisson, Normal, Chi-Square and F distributions. Estimation, correlation and regression (model building and parameter estimation), analysis of variance, design of experiments. Cannot be taken for credit in any module in Statistics, Actuarial Science, or Financial Modelling. This course cannot be taken for credit in any module in Data Science, Statistics, Actuarial Science, or Financial Modelling, other than the Minor in Applied Statistics or the Minor in Applied Financial Modeling.

Statistical Sciences 2244A/B STATISTICS FOR SCIENCE
An introductory course in the application of statistical methods, intended for honors students in departments other than Statistical and Actuarial Sciences, Applied Mathematics, Mathematics, or students in the Faculty of Engineering. Topics include sampling, confidence intervals, analysis of variance, regression and correlation. Cannot be taken for credit in any module in Data Science, Statistics, Actuarial Science, or Financial Modelling other than the Minor in Applied Statistics.

Statistical Sciences 4844A/B STATISTICAL CONSULTING
Prerequisite(s): Statistical Sciences 3859A/B with at least 60%. Registration in fourth year of the Honors Specialization in Data Science or Honors Specialization in Statistics modules. Extra Information: 3 lecture hours. Note: This course is restricted to students enrolled in the Honors Specialization module in Data Science.

Effective September 1, 2019, the following modules be revised.

HONORS SPECIALIZATION IN STATISTICS

Module
9.0 courses:


0.5 courses: Calculus 2402A/B.

1.5 courses from: Actuarial Science 3424A/B, Actuarial Science 4824A/B, Actuarial Science 4823A/B, one of Statistical Sciences 4844A/B, Statistical Sciences 4846A/B, or Statistical Sciences 4853A/B, Statistical Sciences 4860A/B, Statistical Sciences 4864A/B.

1.0 courses from: Actuarial Science 3424A/B, Actuarial Science 4824A/B, Actuarial Science 4823A/B, Financial Modelling 3520A/B (or the former Statistical Sciences 3520A/B), Financial Modelling 3613A/B (or the former Applied Mathematics 3613A/B), Financial Modelling 3817A/B (or the former Applied Mathematics 3817A/B), Financial Modelling 4521A/B, Applied Mathematics 3815A/B, any Statistical Sciences course at the 4000 level, or any course at the 4000 level approved by the Department of Statistical and Actuarial Sciences.

Calculus 2402A/B may be replaced by either (Calculus 2502A/B and Calculus 2503A/B) or (Calculus 2502A/B and the former Mathematics 2123A/B). When such a replacement occurs, the module will include 9.5 courses.
MAJOR IN APPLIED STATISTICS

Module
6.0 courses:

0.5 course: Calculus 2402A/B*.
0.5 course from: Biology 2290F/G, Sociology 2206A/B, Psychology 2800E**.
0.5 course: Epidemiology 2200A/B or the former Epidemiology and Biostatistics 3330B.
1.0 course from: Applied Mathematics 2402A, Applied Mathematics 3615A/B, Financial Modelling 3817A/B (or the former Applied Mathematics 3817A/B); Psychology 3800F/G, Psychology 3840F/G; Sociology 2236A/B, Sociology 4441A/B; Statistical Sciences 4846A/B, Statistical Sciences 4850F/G, Statistical Sciences 4853A/B, or any approved Statistics course at the 3000-level or higher.
0.5 course from: Statistical Sciences 4846A/B, Statistical Sciences 4853A/B.

* Calculus 2402A/B may be replaced by either (Calculus 2502A/B and Calculus 2503A/B), or Calculus 2502A/B and the former Mathematics 2123A/B. When such a replacement occurs, the module will include 6.5 courses increase by 0.5 course.

** Psychology 2800E may be used to fulfill this 0.5 course requirement and in these cases the module will consist of 6.5 courses increase by 0.5 course.

This module can only be completed in a four-year (honors or non-honors) degree.

FACULTY OF SCIENCE and SCHULICH SCHOOL OF MEDICINE AND DENTISTRY and the RICHARD IVEY SCHOOL OF BUSINESS

Effective September 1, 2019, the following program be revised.

HBA/HONORS BMSc INTERDISCIPLINARY MEDICAL SCIENCES

... Year 4
3.0 courses from: Groups 1 and 2 (see below) with a minimum of 2.5 courses selected from Group 1. A maximum of 2.0 courses from one subject area (e.g. a maximum of 2.0 courses in Biochemistry) can be used towards the Group requirements.
2.0 courses from Group 1 – see Note #1.
1.0 course from: Group 1 or (0.5 from Group 1 and 0.5 from Group 2) – see Note #1.
0.5 course from: Group 3 or Physiology and Pharmacology 3000E. See Note # 2.

Group 1: Anatomy and Cell Biology 2200A/B, Anatomy and Cell Biology 3309, Biochemistry 3381A, Biochemistry 3382A, Biostatistics 3100A, Biostatistics 3110B, Epidemiology 2200A/B, Epidemiology 3200A, Medical Biophysics 3330F/G, Medical Biophysics 3336F/G, Medical Biophysics 3501A, Medical Biophysics 3503G, Medical Biophysics 3505F, Medical Biophysics 3507G, Microbiology and Immunology 2500A/B, Microbiology and Immunology 3100A, Microbiology and Immunology 3300B, Pathology 3500, Pharmacology 3620, Physiology 3120, Physiology 3140A, any of the former courses: Epidemiology and Biostatistics 2200A/B, Microbiology and Immunology 2100A, Microbiology and Immunology 3400B, Pathology 3240A,
Pathology 3245B.


Group 3: Biochemistry 3380G, Medical Biophysics 3970Z, Medical Sciences 3900F/G, Microbiology and Immunology 3610F, Microbiology and Immunology 3620G, Physiology and Pharmacology 3000E, one of the former Biochemistry 3387G, the former Microbiology and Immunology 3600G, the former Pharmacology 3580Z, the former Physiology 3130Z.

Year 5

1.0 course: Medical Sciences 4900F/G, Medical Sciences 4930F/G.
2.0 additional courses at the 4000-level from at least two of the following subject areas: Anatomy and Cell Biology, Biochemistry, Biostatistics, Epidemiology, Medical Biophysics, Medical Sciences, Microbiology and Immunology, Pathology, Pharmacology, Physiology. Note: a maximum of 1.5 of these 4000-level courses can be selected from one subject area.

Notes:
1. Of these 3.0 specific courses from Groups 1-2, a maximum of 2.0 courses can be from one subject area (e.g. a maximum of 2.0 can be Biochemistry courses). It is not mandatory to complete any Group 2 courses. If the former Anatomy and Cell Biology 3319 was taken as a Group 2 course, then the total number of courses required for the module will increase by 0.5 course.
2. If Physiology and Pharmacology 3000E is selected to satisfy the Group 3 requirement, then the total number of courses required for the Honors Specialization in IMS will increase by 0.5 course.
3. It is not mandatory to complete any Group 2 courses in the Honors Specialization in IMS. If Anatomy and Cell Biology 3319 is taken as a Group 2 course, then the total number of courses required for the module will increase by 0.5 course.
4. See UNDERGRADUATE COURSE INFORMATION for the requisites for 3000- and 4000-level courses, and the BMSc website for information about constraints (priority and restricted access) for all basic medical science courses.
5. Both the breadth and essay requirements of a BMSc degree must be satisfied. See “Graduation Requirements for Honors Bachelor degrees”.

FACULTY OF SOCIAL SCIENCE

Effective March 1, 2019, the following course be revised.

Social Science 3990A/B SOCIAL SCIENCE INTERNSHIP

Effective September 1, 2019, the following course be introduced.

Social Science 3895E SOCIAL SCIENCE IN THE COMMUNITY
In this project-based course, social science students, working in interdisciplinary teams, apply their scholarship to help community agencies address their self-identified needs, developing transferable skills in the process.
Prerequisite(s): Registration in third or fourth year in any social science module. By special permission from the course instructor in the Spring/Summer before the course begins in the Fall term.
Antirequisite(s): Psychology 3895E.
Extra Information: 2 seminar hours, 4-5 hours on community placement/project. (This course has a service learning component). The course is held off campus (at Innovation Works), so allow for travel time.

COURSE WEIGHT: 1.0

ANTHROPOLOGY

Effective September 1, 2019, the following course be introduced.

Anthropology 4409F/G ANTHROPOLOGY OF ETHICS AND MORALITY

Short title: ANTHRO OF ETHICS AND MORALITY
Through an anthropological approach to the study of ethics and morality, the course explores how value and meaning are socially, culturally, and historically produced. It covers a range of ethnographic case studies that explore how ethical and moral values operate in various contexts, from everyday talk to international humanitarian intervention.

Prerequisite(s): Fourth-year in an Anthropology module and by application (see Department website).

Extra Information: 3 lecture hours, 0.5 course.

Effective September 1, 2019, the following course be revised.

Anthropology 4412F/G Language and Power

This course examines linkages between linguistic practices and relations of power, drawing primarily on techniques of discourse analysis tools and methodologies of Linguistic Anthropology and Discourse Analysis. Topics such as racism, disability, migration will be addressed.

Prerequisite(s): Fourth year standing in Anthropology or Linguistics or permission from the department. Fourth-year in an Anthropology or Linguistic module and by application (see Department website).

Effective September 1, 2019, the list of ANTHROPOLOGY COURSES BY SUBFIELD be revised.

Sociocultural Anthropology:

Archaeology and Biological Anthropology:


Linguistic Anthropology:
Anthropology 1020 (formerly Anthropology 1020E), Anthropology 1027A/B, Anthropology 2151A/B, Anthropology 2152A/B, Anthropology 2245F/G, Anthropology 2246F/G, Anthropology 2249F/G, Anthropology 2250F/G, Anthropology 2251F/G, Anthropology 2252F/G, Anthropology 3237A/B, Anthropology 3243F/G, Anthropology 3339F/G, Anthropology 3343A/B, Anthropology 4412F/G, the former Anthropology 2247A/B, the former Anthropology 2248A/B, the former Anthropology 2243F/G, the former Anthropology 3305F/G, the former Anthropology 3337F/G.

FIRST NATIONS STUDIES

Effective September 1, 2019, the following courses be withdrawn.

First Nations Studies 2101E IROQUOIAN PERSPECTIVE AND TRADITION
First Nations Studies 2112 IROQUOIAN LANGUAGE AND CULTURE

Effective September 1, 2019, the following courses be introduced.

First Nations Studies 2104 INTRODUCTORY MOHAWK LANGUAGE
In this unique introductory course, students will learn the basic structural framework of the Mohawk language and, through that process -- standing (metaphorically) at the “edge of the woods” -- will transform how they view an Indigenous culture and its traditions in a collaborative, supportive learning environment.
Antirequisite(s): The former Anthropology 2112, the former First Nations Studies 2112.
Extra Information: 3 hour lecture.
Course Weight: 1.0

First Nations Studies 2700A/B MOHAWK METAPHOR: WHAT WE SAY – WHAT WE MEAN Short title: MOHAWK METAPHOR
This course, designed for a general audience, explores the Mohawk vocabulary in everyday situations. Students will learn to deconstruct the vocabulary to discover its underlying cultural references and how this reflects the values and world view of its speakers, as well as explore how the vocabulary has changed over time.
Prerequisite(s): Completion of 3.0 courses.
Extra Information: 3 hour lecture
Course Weight: 0.5

First Nations Studies 3104 INTERMEDIATE MOHAWK LANGUAGE
Your introduction to Iroquoian culture and tradition through the Mohawk language began when you arrived at the “edge of the woods.” Now, having acquired the consent of the village, you may head towards it by “crossing the fields” and continuing on your learning journey of Mohawk language, culture, and tradition.
Antirequisite(s): The former Anthropology 2220E, the former First Nations Studies 2101E.
Prerequisite(s): First Nations Studies 2104.
Extra Information: 3 hour lecture.
Course Weight: 1.0
Effective September 1, 2019, the following modules be revised.

HONORS SPECIALIZATION IN FIRST NATIONS STUDIES

Module
9.0 courses:

1.0 course from: First Nations Studies 2112, First Nations Studies 2213F/G, First Nations Studies 2218F/G, the former Anthropology 2217F/G, the former Anthropology 2218F/G, the former First Nations Studies 2112, the former First Nations Studies 2217F/G.


1.0 course: First Nations Studies 4022E, First Nations Studies 4023F/G, First Nations Studies 4903F/G, Geography 3001F/G, the former Anthropology 4402F/G, the former First Nations Studies 4141F/G, the former First Nations Studies 4402F/G, the former First Nations Studies 4901F/G.


MAJOR IN FIRST NATIONS STUDIES

Module
6.0 courses:

1.0 course from: First Nations Studies 2112, First Nations Studies 2213F/G, First Nations Studies 2218F/G, the former Anthropology 2217F/G, the former Anthropology 2218F/G, the former First Nations Studies 2112, the former First Nations Studies 2217F/G.


MINOR IN FIRST NATIONS STUDIES

Module

4.0 courses:

1.0 course from: First Nations Studies 2112, First Nations Studies 2213F/G, First Nations Studies 2218F/G, the former Anthropology 2217F/G, the former Anthropology 2218F/G, the former First Nations Studies 2112, the former First Nations Studies 2217F/G.


DAN MANAGEMENT & ORGANIZATIONAL STUDIES

Effective September 1, 2019, the following course be introduced.

Management and Organizational Studies 4424A/B – CONSUMER BRAND MANAGEMENT

Consumer-Brand Management provides a consumer psychology-based framework for developing and fostering brand equity. The course provides students with a nuanced understanding and application of the underlying consumer processes that influence factors such as brand image, identification, and loyalty and provides the opportunity to execute this framework to develop brand strategy.

Antirequisite(s): MOS 3395A/B if taken in 2018-2019.
Prerequisite(s): MOS 3321F/G and enrolment in 3rd or 4th year of BMOS.
Extra Information: 3 lecture hours, 0.5 course.

Effective September 1, 2019, the following module be revised.

SPECIALIZATION IN CONSUMER BEHAVIOR

Module

9.0 9.5 courses:

1.0 course normally taken in second year: Business Administration 2257.
0.5 course normally taken in second or third year: MOS 2320A/B*
1.0 course normally taken in second year from: MOS 2242A/B and 0.5 MOS 2000-level or above: Psychology 2820E; Sociology 2205A/B and Sociology 2206A/B; Statistical Sciences 2035.
1.0 course normally taken in second year from: MOS 2181A/B or Psychology 2061A/B, and MOS 2275A/B.
1.5 courses normally taken in third year: MOS 2310A/B*, MOS 3321F/G, MOS 3330A/B.
0.5 **1.0 course** normally taken in third year from: MOS 3322F/G, MOS 3420F/G.


**GEOGRAPHY**

*Effective September 1, 2019, the following courses are withdrawn.*

- Geography 2020A/B LATIN AMERICA AND THE CARIBBEAN: LANDSCAPES OF INEQUALITY
- Geography 2040A/B GEOGRAPHY OF EAST AND SOUTHEAST ASIA
- Geography 2045A/B RUSSIA AND THE FORMER SOVIET UNION: THE LEGACY
- Geography 2050A/B WESTERN EUROPE
- Geography 2450F/G INTRODUCTION TO RESOURCE AND ENVIRONMENTAL MANAGEMENT
- Geography 3415A/B GEOGRAPHIC PERSPECTIVES ON LAW AND SOCIETY
- Geography 3422A/B GEOGRAPHY OF INTERNATIONAL BUSINESS

*Effective September 1, 2019, the following courses are revised.*

**Geography 2142A/B GEOPOLITICS**

An exploration of the geographical setting in which political decisions are taken. The history of the rise and fall of centres of power, the rise of supranational entities, ethnic wars, and the impermanence of international boundaries will be discussed.

Explores geographical dimensions of political rivalries and conflicts in the modern world system, from the onset of European imperialism to the present. A central focus is on struggles over land, resource frontiers, and labour, and the pivotal role of military force in establishing and bracing global inequalities.

**Geography 2210A/B INTRODUCTION TO SPATIAL ANALYSIS**


Prerequisite(s): 1.0 course from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, Geography 2153A/B, Environmental Science 1021F/G; or enrolment in the Major in Physical Geography or in an Honors Earth Science Program for Professional Registration.
Geography 2220A/B GEOGRAPHIC INFORMATION SCIENCE I
Prerequisite(s): 1.0 from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, Geography 2153A/B, Environmental Science 1021F/G; or registration in a module in Science or in Engineering, in the Major in Physical Geography, or in the Commercial Aviation Management program in MOS.

Geography 2220A/B REMOTE SENSING
Prerequisite(s): 1.0 from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, Geography 2153A/B, Environmental Science 1021F/G; or registration in a module in Science or in Engineering, in the Major in Physical Geography, or in the Commercial Aviation Management program in MOS.

Geography 2240A/B INTRODUCTORY CARTOGRAPHY
Prerequisite(s): 1.0 course from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2153A/B, Environmental Science 1021F/G; or enrolment in the Major in Physical Geography; or registration in the Commercial Aviation Management program in MOS.

Geography 2230A/B WEATHER AND CLIMATE
Prerequisite(s): 1.0 course from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, Geography 2153A/B; or 0.5 course from Mathematics, Applied Mathematics, Calculus, Environmental Science or Physics at 1000-1999 level; or enrolment in the Major in Physical Geography or in an Honors Earth Science Program for Professional Registration.

Geography 2320A/B INTRODUCTORY BIOGEOGRAPHY
Prerequisite(s): 1.0 course from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, Geography 2153A/B, Environmental Science 1021F/G; or enrolment in the Major in Physical Geography.

Geography 2330A/B GEOMORPHOLOGY AND HYDROLOGY
Prerequisite(s): 1.0 course from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, Geography 2153A/B (taken after September 2012); or 0.5 course from Earth Sciences 1022A/B, Earth Sciences 1070A/B, Earth Sciences 1081A/B, or Environmental Science 1021F/G; or enrolment in the Major in Physical Geography or in an Honors Earth Science Program for Professional Registration.

Geography 2340A/B SOCIAL GEOGRAPHY
Prerequisite(s): 1.0 course from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, Geography 2153A/B, Environmental Science 1021F/G, or enrolment in any of the Global Culture Studies modules.

Geography 2341F/G INDIGENOUS ENVIRONMENTS
Antirequisite(s): First Nations Studies 2601F/G.
Prerequisite(s): 1.0 course from Environmental Science 1021F/G, First Nations Studies 1020E, Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, Geography 2153A/B, Environmental Science 1021F/G or First Nations Studies 1020E; Women's Studies 1020E, Health Sciences 1001A/B and Health Sciences 1002A/B; Sociology 1020, Sociology 1021E, Sociology 1025A/B, Sociology 1026F/G, Sociology 1027A/B or enrolment in the Major in Ecosystem Health or in any of the Globalization Studies modules, or permission from the Instructor.
Geography 2420A/B ECONOMIC GEOGRAPHY
Prerequisite(s): 1.0 course from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, Geography 2153A/B, Environmental Science 1021F/G; Economics 1021A/B, Economics 1022A/B; MOS 1021A/B, MOS 1023A/B, or enrolment in any of the Globalization Studies modules.

Geography 2430A/B PUBLIC HEALTH AND ENVIRONMENT
Prerequisite(s): 1.0 course from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, Geography 2153A/B, Environmental Science 1021F/G; Health Sciences 1001A/B and Health Sciences 1002A/B; Sociology 1020, Sociology 1021E, 1025A/B, 1026F/G, 1027A/B or enrolment in the Major in Ecosystem Health or in any of the Global Development Studies modules, or permission of the instructor.

Geography 2460F/G INTRODUCTION TO URBAN DEVELOPMENT
Prerequisite(s): 1.0 course from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, Geography 2153A/B, Environmental Science 1021F/G, or Economics 1021A/B or Economics 1022A/B, or enrolment in any of the Global Development Studies or Globalization Studies modules.

Geography 3441F/G CONSERVATION AND DEVELOPMENT
Examines struggles between conservation and economic development in a North-South context, setting the transformation of natural ecosystems and impoverishment of biodiversity in a political economic context that includes disparities in wealth, consumption, and 'ecological footprints'.
Examines struggles over conservation and development in a global context. A central aim is to consider the transformation of ecosystems, loss of biodiversity, and struggles for alternatives in relation to the vast and growing inequalities in wealth, power, and resource consumption that exist within and between countries.
Prerequisite(s): Third or fourth year status at the University. Two full courses in Geography or equivalent, or enrolment in the Minor in Environment and Culture, in any of the Global Development Studies modules, or permission of the instructor.
Extra Information: 2 3 lecture hours, 1 tutorial hours.

Geography 3445F/G GLOBAL AGRICULTURE AND FOOD SYSTEMS
Food is a basic human need and agriculture is one of the most fundamental ways that societies interact with their habitats. This course examines the diversity of world agriculture and the rise of a dominant industrial system, focusing on both the social and environmental dimensions of agrarian change and their interrelation.
Extra Information: 2 3 lecture hours, 1 tutorial hours.

Effective September 1, 2019, the following modules be revised.

HONORS SPECIALIZATION IN GEOGRAPHY BA

Admission Requirements
Completion of first-year requirements with no failures. Students must have an average of at least 70% and no mark below 60% in 3.0 principal courses, including 1.0 course* from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Environmental Science 1021F/G, plus 2.0 additional courses numbered 1000-1999.

* Senior students may also use Geography 2131A/B and/or Geography 2153A/B. If upper-year students have not completed 1.0 courses listed above, they may select one or two courses from: Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, and/or Geography 2153A/B in making up the 1.0 admission requirement,
as long as they were completed with a grade of at least 60%. Senior qualifying entry course(s) cannot be counted for subsequent program credit.

Module
9.0 courses:

0.5 course: Geography 2210A/B* (normally taken in Year 2).

1.5 courses: Geography 2220A/B, Geography 2240A/B, Geography 3250A/B or the former Geography 2250A/B.

1.0 course from: Geography 2410A/B, Geography 2411F/G, Geography 2420A/B, Geography 2430A/B, Geography 2450F/G, Geography 2460F/G, the former Geography 2450F/G.

1.0 course from: Geography 2310A/B, Geography 2320A/B, Geography 2330A/B, the former Geography 2340A/B.

1.0 courses: Geography 3210A/B, Geography 4000A/B.

0.5 course from: Geography courses numbered 2000 to 2099.

3.5 courses in Geography at the 2200 level or above, at least 2.0 of which must be at 3000 level or above, with Geography 3000Y or Geography 3001F/G strongly recommended. (Students wishing to pursue Graduate Studies are encouraged to take Geography 4900E or Geography 4901E.) * In cases where an antirequisite statistics course has been taken instead, then an additional 0.5 course numbered 2200 or above in Geography must be taken to make up the 9.0 courses required for the module.

HONORS SPECIALIZATION IN GEOGRAPHY BSc

Admission Requirements
Completion of first year requirements with no failures. Students must have an average of at least 70% and no mark less than 60% in the 3.0 principal courses.

Principal Courses:
1.0 course* from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, or Environmental Science 1021F/G, (with Geography 1300A/B recommended). 2.0 courses numbered 1000-1999 from the Faculty of Science (which may include Environmental Science 1021F/G if not used above) but may not include Astronomy 1011A/B, Astronomy 1021, Biology 1225, Biology 129A/B, Biology 1290B, Chemistry 1027A/B, Computer Science 1011A/B, Computer Science 1032A/B, Computer Science 1033A/B, Earth Sciences 1086F/G, Earth Sciences 1089F/G, Mathematics 0110A/B, Physics 1021, the former Earth Sciences 1088F/G.

Additional Requirements:
1.0 additional course numbered 1000-1999 from the Faculty of Science (which may include Environmental Science 1021F/G if not used above) but may not include Astronomy 1011A/B, Astronomy 1021, Biology 1225, Biology 129A/B, Biology 1290B, Chemistry 1027A/B, Computer Science 1011A/B, Computer Science 1032A/B, Computer Science 1033A/B, Earth Sciences 1086F/G, Earth Sciences 1089F/G, Mathematics 0110A/B, Physics 1021, the former Earth Sciences 1088F/G.

1.0 course numbered 1000-1999

* Senior students may also use Geography 2131A/B and/or Geography 2153A/B. If upper-year students have not completed 1.0 courses listed above, they may select one or two courses from: Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, and/or Geography 2153A/B in making up the 1.0 admission requirement, as long as they were completed with a grade of at least 60%. Senior qualifying entry course(s) cannot be counted for subsequent program credit.
Module
10.0 courses:

0.5 course: Geography 2210A/B* (normally taken in Year 2).
1.5 courses from: Geography 2220A/B, Geography 2230A/B, Geography 2240A/B, Geography 3250A/B or the former Geography 2250A/B.
1.0 course from: Geography 2410A/B, Geography 2411F/G, Geography 2420A/B, Geography 2430A/B, Geography 2450F/G, Geography 2460F/G, the former Geography 2450F/G.
1.0 course from: Geography 2310A/B, Geography 2320A/B, Geography 2330A/B, the former Geography 2340A/B.
1.0 courses: Geography 3210A/B, Geography 4000A/B.
0.5 course from: Geography courses numbered 2000 to 2099.
4.5 courses in Geography at the 2200 level or above, at least 3.0 of which must be at 3000 level or above, with Geography 3000Y or Geography 3001F/G strongly recommended, and where 2.0 courses must be taken from the following list of Science-equivalent courses. (Students wishing to pursue Graduate Studies are encouraged to take Geography 4901E). * If an antirequisite statistics course has been taken instead, then the module will be 9.5 courses.

HONORS SPECIALIZATION IN GEOGRAPHIC INFORMATION SCIENCE BA

Admission Requirements
Completion of first-year requirements with no failures. Students must have an average of at least 70% and no mark below 60% in the 3.0 principal courses, including 1.0 course* from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Environmental Science 1021F/G, plus 2.0 additional courses numbered 1000-1999.

* Senior students may also use Geography 2131A/B and/or Geography 2153A/B. If upper-year students have not completed 1.0 courses listed above, they may select one or two courses from: Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, and/or Geography 2153A/B in making up the 1.0 admission requirement, as long as they were completed with a grade of at least 60%. Senior qualifying entry course(s) cannot be counted for subsequent program credit.

Module
10.0 courses:

0.5 course: Geography 2210A/B* (normally taken in Year 2).
1.5 courses: Geography 2220A/B, Geography 2230A/B, Geography 2240A/B.
1.0 course from: Geography 2310A/B, Geography 2320A/B, Geography 2330A/B, Geography 2410A/B, Geography 2411F/G, Geography 2420A/B, Geography 2430A/B, Geography 2450F/G, Geography 2460F/G, Geography 3250A/B, the former Geography 2450F/G.
1.5 courses normally taken in Year 3: Geography 3210A/B, Geography 3211A/B, Geography 3222A/B.
1.5 courses from: Computer Science 2034A/B, Computer Science 2120A/B, Geography 3221A/B, Geography 3223A/B, Geography 3231A/B, Geography 3260A/B, Geography 3421A/B, Geography 4220A/B.
0.5 course: Geography 4000A/B.
3.5 additional courses in Geography at the 3000 level or above, with Geography 3000Y or 3001F/G strongly recommended. (Students wishing to pursue graduate studies are encouraged to take Geography 4900E or Geography 4901E.)

HONORS SPECIALIZATION IN GEOGRAPHIC INFORMATION SCIENCE BSc

Admission Requirements
Completion of first-year requirements with no failures. Students must have an average of at least 70% and no mark less than 60% in the 3.0 principal courses.
Principal Courses:
1.0 course* from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, or Environmental Science 1021F/G, (with Geography 1300A/B recommended). 2.0 courses numbered 1000-1999 from the Faculty of Science (which may include Environmental Science 1021F/G if not used above) but may not include Astronomy 1011A/B, Astronomy 1021, Biology 1225, Biology 1229A/B, Biology 1290B, Chemistry 1027A/B, Computer Science 1011A/B, Computer Science 1032A/B, Computer Science 1033A/B, Earth Sciences 1086F/G, Earth Sciences 1089F/G, Mathematics 0110A/B, Physics 1021, the former Earth Sciences 1088F/G.

Additional Requirements:
1.0 additional course numbered 1000-1999 from the Faculty of Science (which may include Environmental Science 1021F/G if not used above) but may not include Astronomy 1011A/B, Astronomy 1021, Biology 1225, Biology 1229A/B, Biology 1290B, Chemistry 1027A/B, Computer Science 1011A/B, Computer Science 1032A/B, Computer Science 1033A/B, Earth Sciences 1086F/G, Earth Sciences 1089F/G, Mathematics 0110A/B, Physics 1021, the former Earth Sciences 1088F/G.
1.0 course numbered 1000-1999

* Senior students may also use Geography 2131A/B and/or Geography 2153A/B. If upper-year students have not completed 1.0 courses listed above, they may select one or two courses from: Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, and/or Geography 2153A/B in making up the 1.0 admission requirement, as long as they were completed with a grade of at least 60%. Senior qualifying entry course(s) cannot be counted for subsequent program credit.

Module
10.0 courses:

0.5 course: Geography 2210A/B* (normally taken in Year 2).
1.5 courses: Geography 2220A/B, Geography 2230A/B, Geography 2240A/B.
1.0 course from: Geography 2310A/B, Geography 2320A/B, Geography 2330A/B, Geography 2410A/B, Geography 2411F/G, Geography 2420A/B, Geography 2430A/B, Geography 2450F/G, Geography 2460F/G, Geography 3250A/B, the former Geography 2450F/G.
1.5 courses normally taken in Year 3: Geography 3210A/B, Geography 3211A/B, Geography 3222A/B.
1.5 courses from: Computer Science 2034A/B, Computer Science 2120A/B, Geography 3221A/B, Geography 3223A/B, Geography 3231A/B, Geography 3260A/B, Geography 3421A/B, Geography 4220A/B.
0.5 course: Geography 4000A/B.
3.5 additional courses in Geography at the 3000 level or above, with Geography 3000Y or 3001F/G strongly recommended. (Students wishing to pursue graduate studies are encouraged to take Geography 4900E or Geography 4901E.)

HONORS SPECIALIZATION IN GEOGRAPHY AND COMMERCIAL AVIATION MANAGEMENT BA

Admission Requirements
Completion of first-year requirements with no failures. Students must have an average of at least 73% and no mark below 60% in 3.0 principal courses, including 1.0 course from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, Geography 2153A/B, Environmental Science 1021F/G, 0.5 course from Computer Science 1025A/B, Computer Science 1026A/B, Computer Science 1032A/B, plus 1.5 additional courses.
All students applying to this program must submit a supplementary application form to the Department of Geography.

After first year, students may apply for admission to the GEOGRAPHY AND COMMERCIAL AVIATION MANAGEMENT HONORS SPECIALIZATION upon completion of first-year requirements with no failures. Students must have an average of at least 73% on, and no grade less than 60% in any of the 3.0 principal courses:

1.0 course from: Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Environmental Science 1021F/G
0.5 course from: Computer Science 1025A/B, Computer Science 1026A/B, Computer Science 1032A/B
1.5 course numbered 1000-1999

**Year 1**
5.0 courses:
1.0 course* from: Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Environmental Science 1021F/G.
0.5 course from: Computer Science 1025A/B, Computer Science 1026A/B, Computer Science 1032A/B.
0.5 course from: Category B or C.
3.0 courses numbered 1000-1999.

**Notes:**
* Senior students may also use Geography 2131A/B and/or Geography 2153A/B. If upper-year students have not completed 1.0 courses listed above, they may select one or two courses from: Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, and/or Geography 2153A/B in making up the 1.0 admission requirement, as long as they were completed with a grade of at least 60%. Senior qualifying entry course(s) cannot be counted for subsequent program credit.

**Module**
11.0 courses:

0.5 course: Geography 2210A/B (must be taken in Year 2).

2.0 courses*: Geography 2220A/B, Geography 2230A/B, Geography 2240A/B, Geography 2310A/B.

3.0 courses: MOS 1022F/G, MOS 3305A/B, MOS 3306A/B, MOS 4405F/G, MOS 4406F/G, MOS 4409F/G.

1.0 course from: Geography 2330A/B, Geography 2410A/B, Geography 2411F/G, Geography 2420A/B, Geography 2430A/B, Geography 2450F/G, Geography 2460F/G, the former Geography 2450F/G.

0.5 course from: Geography 3210A/B, Geography 3211A/B, Geography 3221A/B, Geography 3222A/B, Geography 3223A/B, Geography 3231A/B, Geography 3250A/B, Geography 3260A/B, Geography 3421A/B, Geography 4220A/B.

1.0 course from: Geography 2132A/B, Geography 2133A/B, Geography 3311A/B, Geography 3333A/B, Geography 3341A/B, Geography 3342A/B, Geography 3350A/B, Geography 3352A/B, the former Geography 3312A/B.

1.0 course from: Geography 2000-2999, History 2814F/G or the former History 2215F/G, or MOS 2199Y.

2.0 courses from: Geography 2200-4999, MOS 3199Y, MOS 4199Y.

**HONORS SPECIALIZATION IN URBAN DEVELOPMENT BA**

**Admission Requirements**
Completion of 5.0 first-year courses with no failures. Students must have an average of at least 70% and no mark less than 60% in the 3.0 principal courses.

**Principal Courses:**
1.0 course* from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Environmental Science 1021F/G, (with Geography 1400F/G recommended).
1.0 course from Economics 1021A/B and Economics 1022A/B.
1.0 course numbered 1000-1999.

* Senior students may also use Geography 2131A/B and/or Geography 2153A/B. If upper-year students have not completed 1.0 courses listed above, they may select one or two courses from: Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, and/or Geography 2153A/B in making up the 1.0 admission requirement, as long as they were completed with a grade of at least 60%. Senior qualifying entry course(s) cannot be counted for subsequent program credit.

Module
15.0 courses:

0.5 course: Geography 2210A/B (normally taken in Year 2).
1.5 courses from: Geography 2230A/B, Geography 2240A/B, Geography 2310A/B, Geography 2320A/B, Geography 2330A/B, Geography 2410A/B, Geography 2411F/G, Geography 2430A/B, Geography 2450F/G, Geography 3000Y or Geography 3001F/G, Geography 3221A/B, Geography 3222A/B, Geography 3223A/B, Geography 3250A/B, Geography 3311A/B, Geography 3416F/G, Geography 3421A/B, Geography 3465F/G, Geography 3466F/G, the former Geography 2250A/B, the former Geography 2340A/B, the former Geography 2450F/G, with Geography 3000Y or Geography 3001F/G strongly recommended.
1.0 course: Business Administration 2257.
1.0 course: Political Science 2246E.
1.5 courses from: Economics 2129A/B, Economics 2150A/B, Economics 2157F/G, MOS 2310A/B, Sociology 2151A/B, Sociology 2152A/B, Political Science 2211E, Political Science 3363F/G.
1.5 courses: MOS 2275A/B, MOS 3370A/B, MOS 4471A/B.

SPECIALIZATION IN GEOGRAPHY

Admission Requirements
Completion of first-year requirements, including 1.0 course from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Environmental Science 1021F/G, with a mark of at least 60% in each of these courses.
Senior students may also use Geography 2131A/B and/or Geography 2153A/B. If upper-year students have not completed 1.0 courses listed above, they may select one or two courses from: Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, and/or Geography 2153A/B in making up the 1.0 admission requirement, as long as they were completed with a grade of at least 60%. Senior qualifying entry course(s) cannot be counted for subsequent program credit.

Module
9.0 courses:

0.5 course: Geography 2210A/B* (normally taken in Year 2).
2.0 courses: Geography 2220A/B, Geography 2240A/B, Geography 3250A/B, Geography 4000A/B.
1.0 course from: Geography 2410A/B, Geography 2411F/G, Geography 2420A/B, Geography 2430A/B, Geography 2450F/G, Geography 2460F/G, the former Geography 2450F/G.
1.0 course from: Geography 2310A/B, Geography 2320A/B, Geography 2330A/B, the former Geography 2340A/B.
1.0 course from: Geography courses numbered 2000 to 2199
3.5 courses from: Geography at the 2200 level or above, at least 2.0 of which must be at the 3000 level or above.

SPECIALIZATION IN GEOGRAPHY AND COMMERCIAL AVIATION MANAGEMENT BA

Admission Requirements
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Year 1
5.0 courses:
1.0 course* from: Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Environmental Science 1021F/G
0.5 course from: Computer Science 1025A/B, Computer Science 1026A/B, Computer Science 1032A/B
0.5 course from: Category B or C
3.0 courses numbered 1000-1999

Notes:
* Senior students may also use Geography 2131A/B and/or Geography 2153A/B. If upper-year students have not completed 1.0 courses listed above, they may select one or two courses from: Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, and/or Geography 2153A/B in making up the 1.0 admission requirement, as long as they were completed with a grade of at least 60%. Senior qualifying entry course(s) cannot be counted for subsequent program credit.

Module
9.5 courses:

0.5 course: Geography 2210A/B (must be taken in Year 2).
2.0 courses: Geography 2220A/B, Geography 2230A/B, Geography 2240A/B, Geography 2310A/B.
3.0 courses: MOS 1022F/G, MOS 3305A/B, MOS 3306A/B, MOS 4405F/G, MOS 4406F/G, MOS 4409F/G.
0.5 course from: Geography 2310A/B, Geography 2410A/B, Geography 2411F/G, Geography 2420A/B, Geography 2430A/B, Geography 2450F/G, Geography 2460F/G, the former Geography 2450F/G.
0.5 course from: Geography 3210A/B, Geography 3211A/B, Geography 3221A/B, Geography 3222A/B, Geography 3233A/B, Geography 3231A/B, Geography 3250A/B, Geography 3260A/B, Geography 3421A/B, Geography 4220A/B.
0.5 course from: Geography 2132A/B, Geography 2133A/B, Geography 3311A/B, Geography 3333A/B, Geography 3344A/B, Geography 3341A/B, Geography 3342A/B, Geography 3350A/B, Geography 3352A/B, the former Geography 3312A/B.

1.0 course from: Geography 2000-2999, History 2814F/G or the former History 2215F/G, MOS 2199Y.

1.5 courses from: Geography 2100-4899, MOS 3199Y, MOS 4199Y.

**MAJOR IN ENVIRONMENT AND HEALTH**

**Admission Requirements**

Completion of first-year requirements, including 1.0 course from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Environmental Science 1021F/G, with a mark of at least 60% in each of these courses.

Senior students may also use Geography 2131A/B and/or Geography 2153A/B. If upper-year students have not completed 1.0 courses listed above, they may select one or two courses from: Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, and/or Geography 2153A/B in making up the 1.0 admission requirement, as long as they were completed with a grade of at least 60%. Senior qualifying entry course(s) cannot be counted for subsequent program credit.

**Module**

6.0 courses:

2.0 courses: Geography 2411F/G, Geography 2430A/B, Geography 3431A/B, Geography 3432A/B.

1.0 course from: Geography 2210A/B, Geography 2220A/B, Geography 2230A/B, Geography 2240A/B, Geography 3250A/B.

0.5 course from: Geography 2152F/G, Geography 2153A/B, Geography 2162A/B, Geography 2410A/B, Geography 2420A/B, Geography 2450F/G, Geography 2460F/G, Sociology 2180A/B, Psychology 2036A/B, the former Geography 2450F/G.

0.5 course from: Geography 2131A/B, Geography 2133A/B, Geography 2310A/B, Geography 2320A/B, Geography 2330A/B.


1.0 course in Geography at the 3000 level or above

**MAJOR IN GEOGRAPHY**

**Admission Requirements**

Completion of first-year requirements, including 1.0 course from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Environmental Science 1021F/G, with a mark of at least 60% in each of these courses.

Senior students may also use Geography 2131A/B and/or Geography 2153A/B. If upper-year students have not completed 1.0 courses listed above, they may select one or two courses from: Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, and/or Geography 2153A/B in making up the 1.0 admission requirement, as long as they were completed with a grade of at least 60%. Senior qualifying entry course(s) cannot be counted for subsequent program credit.

**Module**

6.0 courses:
0.5 course: Geography 2210A/B* (normally taken in Year 2).
1.0 courses from: Geography 2220A/B, Geography 2230A/B, Geography 2240A/B, Geography 3250A/B or the former Geography 2250A/B.
1.5 courses from: Geography 2310A/B, Geography 2320A/B, Geography 2330A/B, Geography 2410A/B, Geography 2411F/G, Geography 2420A/B, Geography 2430A/B, Geography 2450F/G, Geography 2460F/G, the former Geography 2340A/B, the former Geography 2450F/G.
0.5 course from: Geography courses numbered 2000 or above.
2.5 additional courses in Geography numbered 3000 or above.

MAJOR IN GEOGRAPHIC INFORMATION SCIENCE

Admission Requirements
Completion of first-year requirements, including 1.0 course from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Environmental Science 1021F/G, with a mark of at least 60% in each of these courses.

Senior students may also use Geography 2131A/B and/or Geography 2153A/B. If upper-year students have not completed 1.0 courses listed above, they may select one or two courses from: Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, and/or Geography 2153A/B in making up the 1.0 admission requirement, as long as they were completed with a grade of at least 60%. Senior qualifying entry course(s) cannot be counted for subsequent program credit.

Module
6.0 courses:

0.5 or 1.0* course from: Geography 2210A/B or any university-level statistics course at the 2000 level or above* (normally taken in Year 2).
1.5 courses from: Geography 2310A/B, Geography 2320A/B, Geography 2330A/B, Geography 2410A/B, Geography 2411F/G, Geography 2420A/B, Geography 2430A/B, Geography 2450F/G, Geography 2460F/G, the former Geography 2450F/G.
1.0 course from: Geography 3211A/B, Geography 3222A/B (normally taken in Year 3).
2.0 courses from: Computer Science 2034A/B, Computer Science 2120A/B, Geography 3210A/B, Geography 3223A/B, Geography 3231A/B, Geography 3260A/B, Geography 3421A/B, Geography 4220A/B, the former Geography 3241A/B, the former Geography 3321A/B.

MAJOR IN PHYSICAL GEOGRAPHY

Admission Requirements
Completion of first-year requirements, including 1.0 course from the following with a minimum mark of 60% in the courses taken: Geography 1100, Geography 1300A/B, Geography 1400F/G or Geography 1500F/G, Earth Sciences 1022A/B, Earth Sciences 1023A/B, Earth Sciences 1070A/B, Earth Sciences 1081A/B, Environmental Science 1021F/G, Biology 1001A, Biology 1002B, Biology 1201A, Biology 1202B.

Senior students may also use Geography 2131A/B and/or Geography 2153A/B. If upper-year students have not completed 1.0 courses listed above, they may select one or two courses from: Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, and/or Geography 2153A/B in making up the 1.0 Geography admission requirement, as long as they were completed with a grade of at least 60%. Senior qualifying entry course(s) cannot be counted for subsequent program credit.
MINOR IN GEOGRAPHY

Admission Requirements
Completion of first-year requirements, including 1.0 course from Geography 1100, Geography 1300/A/B, Geography 1400/F/G, Geography 1500/F/G, Environmental Science 1021/F/G, with a mark of at least 60% in each of these courses.

Senior students may also use Geography 2131A/B and/or Geography 2153A/B. If upper-year students have not completed 1.0 courses listed above, they may select one or two courses from: Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, and/or Geography 2153A/B in making up the 1.0 admission requirement, as long as they were completed with a grade of at least 60%. Senior qualifying entry course(s) cannot be counted for subsequent program credit.

POLITICAL SCIENCE

Effective September 1, 2019, the following course be introduced.

Political Science 4215F/G: GLOBAL WELFARE STATES
This seminar explores the welfare state as a multifaceted phenomenon, which has assumed qualitatively different forms in different places. More recently, welfare states around the world have been subjected to significant pressure, and the causes, extent, and character of change will be subject to detailed debate.
Antirequisite(s): Political Science 4406F/G.
Prerequisite(s): Political Science 2231E, Political Science 2245E, or International Relations 2702E, or the former International Relations 2701E or permission of the instructor.
2 hours, 0.5 course.

SOCIOLOGY

Effective September 1, 2019, the following courses be introduced.

Sociology 3368F/G: MARRIAGE MARKETS
This course examines shifts in marriage market conditions due to the increasing inequality and transition into a service economy. It further investigates how the resulting changes in marriage market conditions affect dating, union formation, family structure; and the wellbeing of couples and their offspring.
Prerequisite(s): Third or fourth year standing in any module in the Department of Sociology.
Extra Information: 3 lecture hours, 0.5 course.

Sociology 4466F/G PROFESSIONS, PROFESSIONALS AND THEIR WORK
Short title: PROFESSIONALS AND THEIR WORK
Examines the nature of professions and professional work in Canadian society and elsewhere in the world. Attention will be paid to the structure of professional work, and workers experiences within professions, as well as inequalities within and across professions.
Prerequisite(s): Enrolment in fourth year of a Sociology or Criminology module.
Extra Information: 3 seminar hours, 0.5 course.

FACULTY OF SOCIAL SCIENCE and the RICHARD IVEY SCHOOL OF BUSINESS

Effective September 1, 2019, the following programs be revised.

HONORS SPECIALIZATION IN GEOGRAPHY/HBA
Year 1
Completion of 5.0 first-year courses with no failures. Students must have an average of at least 75% and no mark below 60% in the 3.0 principal courses.

Principal Courses:
1.0 course* from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Environmental Science 1021F/G, (with Geography 1400F/G recommended).
2.0 courses numbered 1000-1999

* Senior students may also use Geography 2131A/B and/or Geography 2153A/B If upper-year students have not completed 1.0 courses listed above, they may select one or two courses from: Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, and/or Geography 2153A/B in making up the 1.0 admission requirement, as long as they were completed with a grade of at least 60%. Senior qualifying entry course(s) cannot be counted for subsequent program credit.

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Year 2
5.0 courses:

0.5 course: Geography 2210A/B* (must be taken in Year 2)
2.5 courses from the following 3.5 geography courses:

1.0 course: Geography 2220A/B, Geography 2240A/B
1.0 course from: Geography 2410A/B, Geography 2411F/G, Geography 2420A/B, Geography 2430A/B, Geography 2450F/G, Geography 2460F/G, the former Geography 2450F/G
1.0 course from: Geography 2310A/B, Geography 2320A/B, Geography 2330A/B, the former Geography 2340A/B
0.5 course from: Geography courses numbered 2000 to 2099

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Years 4 and 5 (Geography)
6.0 courses:

The remaining 1.0 course from the following 3.5 geography courses:

1.0 course: Geography 2220A/B, Geography 2240A/B
1.0 course from: Geography 2410A/B, Geography 2411F/G, Geography 2420A/B, Geography 2430A/B, Geography 2450F/G, Geography 2460F/G, the former Geography 2450F/G
1.0 course from: Geography 2310A/B, Geography 2320A/B, Geography 2330A/B, the former Geography 2340A/B
0.5 course from: Geography courses numbered 2000 to 2099

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HONORS SPECIALIZATION IN URBAN DEVELOPMENT/HBA

Year 1
Completion of 5.0 first-year courses with no failures. Students must have an average of at least 75% and no mark below 60% in the 3.0 principal courses.

Principal Courses:
1.0 course* from Geography 1100, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Environmental Science 1021F/G, (with Geography 1400F/G recommended).
1.0 course from Economics 1021A/B and Economics 1022A/B.
1.0 course numbered 1000-1999.
* Senior students may also use Geography 2131A/B and/or Geography 2153A/B If upper-year students have not completed 1.0 courses listed above, they may select one or two courses from: Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, and/or Geography 2153A/B in making up the 1.0 admission requirement, as long as they were completed with a grade of at least 60%. Senior qualifying entry course(s) cannot be counted for subsequent program credit.

... Year 2
5.0 courses:

1.0 course: Business Administration 2257.

2.0 courses: Geography 2210A/B*, Geography 2220A/B, Geography 2420A/B, Geography 2460F/G.

1.0 course from: Geography 2230A/B, Geography 2240A/B, Geography 2310A/B, Geography 2320A/B, Geography 2330A/B, Geography 2410A/B, Geography 2411F/G, Geography 2430A/B, Geography 2450F/G, the former Geography 2340A/B, Geography 2450F/G.

1.0 course from: Anthropology 2201F/G; Comparative Literature and Culture 2129A/B, Digital Humanities 2220A/B; Economics 2150A/B, Economics 2151A/B, Economics 2157F/G, Economics 2184A/B; MOS 2275A/B**; Political Science 2211E, Political Science 2236E, Political Science 2246E; Sociology 2151A/B, Sociology 2152A/B, Sociology 2281A/B; Writing 2101F/G.

1.0 additional course from Category B or C (if not already completed in Year 1).

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**FACULTY OF SCIENCE and SCHULICH SCHOOL OF MEDICINE AND DENTISTRY, HURON UNIVERSITY COLLEGE and KING’S UNIVERSITY COLLEGE**

**STATISTICAL SCIENCES**

*Effective September 1, 2019,* the following course be revised.

**Statistical Sciences 1024A/B INTRODUCTION TO STATISTICS**

Extra Information: Offered in two formats: 3 lecture hours, or weekly online lectures and 2 in-class lab hours (Main); 3 lecture hours (Huron, King's) Note also that Statistical Sciences 1024A/B cannot be taken concurrently with any Introductory Statistics course. **For a full list of Introductory Statistics courses please see:**

[http://www.westerncalendar.uwo.ca/Departments.cfm?DepartmentID=55&SelectedCalendar=Live &ArchiveID=6.](http://www.westerncalendar.uwo.ca/Departments.cfm?DepartmentID=55&SelectedCalendar=Live &ArchiveID=6.)

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**FACULTY OF SCIENCE and SCHULICH SCHOOL OF MEDICINE AND DENTISTRY and KING’S UNIVERSITY COLLEGE**

**ACTUARIAL AND STATISTICAL SCIENCES**

*Effective September 1, 2019,* the following courses be revised.

**Actuarial Science 2053 MATHEMATICS FOR FINANCIAL ANALYSIS**

Simple and compound interest, annuities, amortization, sinking funds, bonds, bond duration, depreciation, capital budgeting, probability, mortality tables, life annuities, life insurance, net premiums and expenses. Cannot be taken for credit in any module in Statistics or Actuarial Science, Financial Modelling or Statistics, other than the minor in Applied Financial Modeling.
**Statistical Sciences 2035 STATISTICS FOR BUSINESS AND SOCIAL SCIENCES**

Descriptive statistics and graphs, probability and distributions. Sampling, hypothesis testing, and confidence intervals. Experimental design and analysis of variance. Regression and correlation, including multiple regression. Applications emphasized. This course cannot be taken for credit in any module in Data Science, Statistics, Actuarial Science, or Financial Modelling, other than the Minor in Applied Statistics.


Prerequisite(s): One full course or equivalent from: Applied Mathematics 1201A/B, Applied Mathematics 1413, Statistical Sciences 1024A/B, Calculus 1000A/B or the former Calculus 1100A/B or Calculus 1500A/B, Calculus 1301A/B or Calculus 1501A/B, Mathematics 1600A/B or the former Linear Algebra 1600A/B, Mathematics 1225A/B, Mathematics 1228A/B, Mathematics 1229A/B, Mathematics 1230A/B.

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**BRESCIA UNIVERSITY COLLEGE**

**SOCIOLOGY**

*Effective September 1, 2019, the following courses be introduced.*

**Sociology 3388F/G SPECIAL TOPICS**

Topic and course description will be available at time of registration.

Prerequisite(s): Enrolment in third or fourth year Sociology.

Extra Information:

Course Weight: 0.50

**Sociology 3389F/G SPECIAL TOPICS**

Topic and course description will be available at time of registration.

Prerequisite(s): Enrolment in third or fourth year Sociology.

Extra Information:

Course Weight: 0.50

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**DAP UPDATE: MINOR CHANGES**

**FACULTY OF ARTS AND HUMANITIES**

*Effective March 1, 2019, the following courses be revised to correct an oversight in a previous DAP submission.*

*Arts and Humanities 3000A/B/Y - Internship*
MODERN LANGUAGES AND LITERATURES

Effective September 1, 2019, the following course be revised to correct a typo following the changes to the module at the April 2019 meeting of Senate.

MAJOR IN SPANISH

Module
6.0 courses:

3.5 courses from: Spanish 2200 or Spanish 2200W/X, Spanish 2214A/B, Spanish 2215F/G, Spanish 2220A/B or Spanish 3327A/B and Spanish 3300 or Spanish 3310E. Spanish 3301E.
1.5 courses from: Spanish 2100 level or above or Intercultural Communications 2200F/G.
1.0 course(s) from: Spanish 3000 level or above.

THEATRE STUDIES

Effective March 1, 2019, the following course be revised.

Theatre Studies 3206F/G SHAKESPEARE AND IN PERFORMANCE
An historical, theoretical, and analytical introduction to Shakespeare's plays in performance. This course focuses on specific problems related to past productions and to those in the current Stratford Festival season. Class meets for three hours a day, five afternoons a week, and includes attendance at Shakespeare productions. Summer Day Intersession only.

Theatre Studies 3207F/G VOICE AND TEXT IN THE THEATRE
A workshop in which students will experience, with simple, practical exercises, the ways in which Festival actors develop and maintain their voices and explore various aspects of the text they are performing. The class meets for three hours, four mornings a week. Taught by Stratford Festival staff. Summer Day Intersession only.

FACULTY OF HEALTH SCIENCES

NURSING

Effective March 1, 2019, the following course be revised.

Nursing 3920A/B HEALTH PROMOTION & CARING: CLIENTS WITH HEALTH CHALLENGES II
This course provides students with the opportunity to deepen and apply their understanding of health promotion to the care of adults and children experiencing more complex mental health challenges from a strengths-based perspective.
Extra Information: 3 lecture hours, 2 simulated clinical hours (every other week).

FACULTY OF INFORMATION AND MEDIA STUDIES

Effective March 1, 2019, the following courses be revised to correct an oversight in a previous DAP submission.

Faculty of Information and Media Studies 3999A/B/Y INTERNSHIP

Media, Information and Technoculture 3090F/G/Z MIT ACADEMIC INTERNSHIP I

BRESCIA UNIVERSITY COLLEGE
**FOODS AND NUTRITION**

*Effective September 1, 2019,* the following course be revised to correct course suffixes following the introduction of the module at the April 2019 meeting of Senate.

**HONORS SPECIALIZATION IN FOODS AND NUTRITION**

**Module**

9.0 courses:

**3.5 courses:** Foods and Nutrition 2266F/G, Foods and Nutrition 2232, Foods and Nutrition 2230A/B, Foods and Nutrition 2449A/B, Foods and Nutrition 3390W/X.

**0.5 course:** Human Ecology 2222A/B.

**0.5 course** from: Chemistry 2003A/B (recommended) or Chemistry 2213A/B.

**0.5 course** from: Biochemistry 2288A (recommended) or Biochemistry 2280A.


**2.0 courses** from: Foods and Nutrition or Human Ecology at the 3000 or 4000-level.