Courses - New, Revised, Discontinued

FACULTY OF ARTS and HUMANITIES

LANGUAGES AND CULTURES

Effective September 1, 2022, the following course be introduced:

**GERMAN 3310F/G - GERMANY’S TV DETECTIVES: FROM ROSENHEIM TO HAMBURG**

Discover Germany through the eyes of its TV detectives. Study the popular genre of the German TV crime drama or Fernseh-Krimi ranging from the early evening short SOKO Krimis to the full-length Tatort series. Bring your command of German to the next level while sharpening your crime-solving skills.

**Pre-or Corequisite(s):** German 2200 or permission of the Department.

**Extra Information:** 3 hours.

**Course Weight:** 0.50

Effective September 1, 2022, the following course be revised:

**SPANISH 3551F/G - HUMAN RIGHTS AND THE HISPANIC WORLD: WAR, REVOLUTION AND RESISTANCE**

With a Transatlantic perspective, this course examines questions of the complex problems of representations of human rights issues and trauma in novels, films, and paintings other cultural artefacts. The main objective is to study how artists and writers help us understand the complex processes of resistance, resilience, and healing in and out periods of conflict (Spain and Latin America). effects of violence and trauma.

Effective September 1, 2022, the following course be introduced:

**SPANISH 3305A/B - FOREIGN ACCENT**

We will explore some of the linguistic, cognitive, individual, and social factors that may promote or hinder second language speech perception and production and lead to a foreign accent. We also identify characteristics of accented speech by discussing some of the social, psychological, educational, and legal ramifications of sounding “foreign.”

**Pre- or Co-requisite:** Spanish 2200.

**Extra Information:** 3 hours.

**Course weight:** 0.5
Effective **September 1, 2022**, the following course be introduced:

**SPANISH 3501F/G - SPANISH VARIETIES OF THE WORLD**

*Anti-Requisite:* Spanish 4412F/G.
*Pre- or Co- Requisite:* Spanish 2200.
*Extra Information:* 3 hours.
*Course weight:* 0.5

Effective **September 1, 2022**, the following course be introduced:

**SPANISH 3801F/G - ENVIRONMENT, SUSTAINABILITY, AND CULTURAL PRODUCTION IN THE HISPANIC WORLD**

This course explores key ideas within the environmental humanities and their articulations in creative texts produced across the Hispanic World. Tied to eco-criticism and matters concerning sustainability are considerations of class, gender, and ethnicity. These connections are examined in a wide range of case studies (literature, film, television, etc).

*Pre-requisite(s):* Spanish 2200 or permission of the Department.
*Pre-or Corequisite(s):* Spanish 3300.
*Extra Information:* 3 hours.
*Course Weight:* 0.50

Effective **September 1, 2022**, the following course be introduced:

**SPANISH 2221A/B - SPANISH PRONUNCIATION**

Pronunciation is an important aspect of communication. Your speech will become clearer, more fluent, and easier to understand. You will improve your enunciation of individual sounds, intonation, stress patterns, pace, and pausing.

*Pre-requisite:* Spanish 1030.
*Pre- or Co-requisite:* Spanish 2200.
*Extra Information:* 3 hours.
*Course weight:* 0.5

Effective **September 1, 2022**, the following course be introduced:

**DIGITAL HUMANITIES 3130A/B - THE METAVERSE**

The metaverse is being proposed as the new evolution of the Internet. This course examines the metaverse with a special emphasis on virtual reality from the viewpoint of various disciplines, including business, health, education, ethics, culture and behavioral science. The bulk of the learning will occur while immersed in VR.

*Pre-requisite(s):* Digital Humanities 2120F/G or special permission of the department.
Extra Information: 2 hours (1-hour lecture + 1-hour studio practice).
Course weight: 0.5

FACULTY OF ENGINEERING

ELECTRICAL AND COMPUTER ENGINEERING

Effective September 1, 2022, the following course be introduced:

ECE 3350A/B – CYBER-PHYSICAL SYSTEMS THEORY


Prerequisite(s): Numerical and Mathematic Methods 2270A/B, Numerical and Mathematical Methods 2276A/B or Numerical and Mathematical Methods 2277A/B, Physics 1202A/B or the former Physics 1302A/B or Physics 1402A/B.
Extra Information: 3 lecture hours/week, 2 lab hour/week, 0.5 course.

Effective September 1, 2022, the following course be introduced:

ECE 3351A/B – DIGITAL SYSTEMS AND SIGNAL PROCESSING
Short Title: DIGITAL SYS AND SIGNAL PROC


Antirequisite(s): ECE 3331A/B.
Prerequisite(s): ECE 3350A/B.
Extra Information: 3 lecture hours/week, 2 lab hour/week, 0.5 course.
Effective September 1, 2022, the following course be introduced:

**ECE 4450A/B – DATA DRIVEN CONTROL OF CYBER-PHYSICAL SYSTEMS**  
*Short Title:* DATA DRIVEN CONTROL OF CP SYS


**Prerequisite(s):** ECE 3351A/B, Data Science 3000A/B, AISE 3010A/B.  
**Extra Information:** 3 lecture hours/week, 2 lab hour/week, 0.5 course.

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**SOFTWARE ENGINEERING**

Effective September 1, 2022, the following course be introduced:

**SE 2251A/B – SOFTWARE DESIGN FOR SYSTEMS ENGINEERING**  
*Short Title:* SOFTWARE DESIGN FOR SYS ENG

SE 2251 is a group project illustrating the design and implementation the software engineering design concepts. It covers the integration with third-party applications and big data sources. Real-time and distributed systems, architectural design will be briefly covered.

**Antirequisite(s):** SE 2203A/B, Computer Science 2212A/B/Y.  
**Prerequisite(s):** ES 1036A/B or Computer Science 1026A/B, SE 2205A/B.  
**Extra Information:** 3 lecture hours/week, 3 lab hour/week, 0.5 course.

Effective September 1, 2022, the following course be introduced:

**SE 4430A/B – INTRODUCTION TO COMPUTER NETWORKING, SECURITY & IOT SYSTEMS**  
*Short Title:* INTRO TO NET, SEC & IOT SYS

SE 4430 covers the principle of computer networking, network architecture/layers and protocols, IoT networks & systems, IoT network/protocols and its connections, connections of things to cloud services, collecting data in an end-to-end- IoT systems, and network security. The course emphasizes the practical ability to interface and collect data from things and move the data collected securely through the Internet to process them in public and private data centers.

**Antirequisite(s):** ECE 4436A/B.  
**Prerequisite(s):** ES 1036A/B, SE 2205A/B.  
**Pre-or Corequisite(s):** Data Science 3100A/B can be taken as co-requisite.  
**Extra Information:** 3 lecture hours/week, 3 lab hour/week, 0.5 course
ARTIFICIAL INTELLIGENCE SYSTEMS ENGINEERING

Effective September 1, 2022, the following course be introduced:

**AISE 3010A/B – Data Engineering and Machine Learning:**

*Short Title:* Data Engineering and ML

The course covers: 1) Introduction to data pipelines, distributed data management, and streamline data processing; 2) Data manipulation and data structure for big data; and 3) Design and implementation of an engineering group project illustrating the machine learning and data engineering concepts being taught.

**Prerequisite(s):** Data Science 3000A/B, SE 3309A/B, SE 2205A/B, SE 2251A/B

**Extra Information:** 3 lecture hours/week, 2 lab hour/week, 0.5 course.

Effective September 1, 2022, the following course be introduced:

**AISE 3020A/B – AI: Ethics, bias and privacy**

This course explores the fundamental issues of fairness and bias in machine learning. In addition, the course explores many aspects of building ethical models while considering human bias and dataset awareness. Furthermore, the course will explore fundamental concepts involved in privacy and security of machine learning projects. Topics such as how to protect users from privacy violations while building useful transparent predictive models will be explored.

**Prerequisite(s):** Data Science 3000A/B.

**Extra Information:** 3 lecture hours/week, 2 lab hour/week, 0.5 course.

Effective September 1, 2022, the following course be introduced:

**AISE 4010A/B – Deep Learning for Time Series Data**

*Short Title:* DL for Time Series Data

This course introduces deep learning models for time series data. In this course, the students will become familiar with sequence models and their engineering applications. The students are introduced to Recurrent Neural Networks (RNNs) and commonly-used variants such as Gated Recurrent Units (GRUs) and Long Short-Term Memory (LSTMs). In addition, the course introduces transformer architectures and their engineering applications. Students will get hands-on experience with Deep Learning from a series of practical engineering case-studies.

**Prerequisite(s):** Data Science 3000A/B and AISE 3010A/B

**Extra Information:** 3 lecture hours/week, 2 lab hour/week, 0.5 course.
Effective September 1, 2022, the following course be introduced:

**AISE 4020A/B – Artificial Intelligence Systems Engineering Design I**

*Short Title:* AI Sys Engineering Design I

A large engineering project in the field of main engineering degree illustrating the machine learning and data engineering concepts through design and implementation. The course promotes team interaction in a professional setting.

**Prerequisite(s):** Data Science 3000A/B, AISE 3010A/B.

**Extra Information:** 1 lecture hour/week, 3 lab hours/week, 0.5 course.

Effective September 1, 2022, the following course be introduced:

**AISE 4050 – Artificial Intelligence Systems Engineering Design II**

*Short Title:* AI Sys Engineering Design II

Second large engineering project in the field of main engineering degree illustrating the machine learning and data engineering concepts through design and implementation. The course promotes team interaction in a professional setting. Individual students or project groups are carried out under the supervision of a faculty member. Progress reports and a final engineering report are prepared; each student must deliver a public lecture on the work performed.

**Antirequisite(s):** CBE 4497, CEE 4441, ECE 4416, MME 4499, Engineering Science 4499.

**Prerequisite(s):** Completion of fourth year of the Artificial Intelligence Systems Engineering program.

**Extra Information:** 6 lab hours/week, both terms, 1.0 course

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**CIVIL AND ENVIRONMENTAL ENGINEERING**

Effective September 1, 2022, the following course be introduced:

**CEE 4412A/B – INTELLIGENT TRANSPORTATION SYSTEMS**

Introduction to the ITS framework designed for planning, defining, and integrating intelligent transportation systems. ITS is the application of information and communications technologies to transportation to enhance safety, efficiency, reliability, and mobility. ITS applications, including but not limited to, Travel Demand Management (TDM), Traveler Information, Transit Management, and Connected and Automated Vehicles (CAVs).

**Prerequisite(s):** CEE 4401.

**Extra Information:** 2 lecture hours per week, 2 lab/tutorial hours per week, 0.5 course.
Effective **September 1, 2022**, the following course be introduced:

**CEE 4413A/B – BUILDING INFORMATION MODELLING**

Exploration of Building Information Modelling (BIM) technologies and processes using BIM-enabled software (Autodesk Revit). Provides essential knowledge required to manage and implement BIM technologies in construction processes. Students will identify the benefit of BIM, outline the criteria for developing a BIM implementation plan, and develop the skills to use BIM in the design and construction of facilities, with an emphasis on structural and civil roles.

**Prerequisite(s):** CEE 3348A/B.

**Extra Information:** 2 lecture hours per week, 2 lab/tutorial hours per week, 0.5 course.

Effective **September 1, 2022**, the following course be introduced:

**CEE 4415A/B – STRUCTURAL HEALTH MONITORING**

Introduction to the concepts of structural health monitoring (SHM) and smart infrastructure management systems. Topics include data acquisition systems and testing methods such as vibration testing, acoustic emission and image-based methods of structures using smart sensors; data mining using AI; structural condition assessment using operational modal analysis; damage identification and localization using time-series methods, time-frequency.

**Prerequisite(s):** AISE 3010A/B, CEE 3343A/B, CEE 4491A/B.

**Extra Information:** 2 lecture hours per week, 2 lab/tutorial hours per week, 0.5 course.

Effective **September 1, 2022**, the following course be introduced:

**CEE 4417A/B – SMART BUILDINGS**

Introduction to aspects of smart building design, construction, operation, and management. Data Analytics and Machine Learning application for integrated modeling of building system, environmental system, and occupants; Lighting/fire/energy/airflow control and monitoring; and heterogenous data analysis and anomaly detection.

**Prerequisite(s):** AISE 3010A/B, CEE 4413A/B.

**Extra Information:** 2 lecture hours per week, 2 lab/tutorial hours per week, 0.5 course.
Effective **September 1, 2022**, the following course be introduced:

**CEE 4420A/B – DATA SCIENCE FOR GEOTECHNICAL ENGINEERS**

Application of Python programming, learning algorithms, unsupervised algorithms, feature engineering, deep learning and generative adversarial networks in geotechnical engineering.

**Prerequisite(s):** CEE 2219A/B, CEE 3322A/B, DS 3000.

**Extra Information:** 2 lecture hours per week, 2 lab/tutorial hours per week, 0.5 course.

Effective **September 1, 2022**, the following course be introduced:

**CEE 4416A/B – DIGITAL WATER INFRASTRUCTURES**

Application of Data Analytics/Machine Learning in urban water including drinking water, wastewater and stormwater infrastructure design, operation and maintenance to achieve resilient, sustainable and cost-effective water management.

**Prerequisite(s):** CEE 3355A/B, CEE 3362A/B.

**Extra Information:** 2 lecture hours per week, 2 lab/tutorial hours per week, 0.5 course.

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**FACULTY OF SCIENCE**

**DATA SCIENCE**

Effective **September 1, 2022**, the following course be introduced:

**DATA SCIENCE 4999Z – DATA SCIENCE THESIS**

An individual research project on a specific data science problem supervised by a Western faculty member. A written thesis and an oral presentation will be required.


**Prerequisite(s):** Registration in the Honors Specialization in Data Science. Data Science 3000A/B (or former Computer Science 4414A/B, the former Statistical Sciences 3850F/G, the former Software Engineering 4460A/B). 1.5 courses from Computer Science 3319A/B, Computer Science 3340A/B, Statistical Sciences 3843A/B, Statistical Sciences 3859A/B, Statistical Sciences 3860A/B, Statistical Sciences 4850F/G.

**Extra Information:** 0.5 course, starts in September of an academic year and ends in April of the same academic year.
FACULTY OF SCIENCE, SCHULICH SCHOOL OF MEDICINE & DENTISTRY

BIOCHEMISTRY

Effective **September 1, 2022**, the following course be introduced:

**BIOCHEMISTRY 4955E – COMMUNITY-ENGAGED LEARNING AND RESEARCH SKILLS IN TRANSLATIONAL CANCER BIOLOGY**
(Short title: CEL IN TRANSLAT CANCER BIO)

This capstone course focuses on translation of cancer research into clinical practice, emphasizing interdisciplinary approaches, critical thinking, research design, and evaluation of literature. A community-engaged learning component connects small groups of students with relevant community partners. Students engage independently and collaboratively in authentic learning experiences and practice critical reflection.

**Antirequisite(s):** Biochemistry 4483E, Biochemistry 4486E, Medical Sciences 4995E, the former Biochemistry 4455G.

**Prerequisite(s):** Biology 2581A/B, Biochemistry 3381A, and registration in Year 4 of the Honours Specialization in Biochemistry and Cancer Biology.

**Pre- or Corequisite(s):** Biochemistry 4450A.

**Extra Information:** 1 lecture hour or equivalent online delivery/week and 2 seminar hours/week, plus an average of ~4 independent hours/week working on a community-engaged learning project.

Effective **September 1, 2022**, the following course be withdrawn:

**BIOCHEMISTRY 4455G - TRANSLATIONAL CONCEPTS IN CANCER BIOLOGY**

MEDICAL BIOINFORMATICS

Effective **September 1, 2022**, the following course be introduced:

**MEDICAL BIOINFORMATICS 4650F/G – COMPUTATIONAL METHODS FOR EPIGENOME ANALYSIS**

*(Short title: COMPUTATIONAL EPIGENOMICS)*

Bioinformatic methods for processing, analyzing, and integrating epigenomic data, the additional gene regulatory information beyond gene sequences. Students are introduced to best practices for quality control, regression analyses, differential analysis, and methods for functional enrichment. Data analysis will primarily use the R statistical programming language.
Prerequisite(s): Biology 2581A/B; one of Biology 2244A/B Statistical Sciences 2244A/B, Statistical Sciences 2858A/B; and registration in Year 4 of BMSc, BHSc, or BSc degree.

Extra Information: 2 lecture hours, 2 laboratory hours per week

Course Weight: 0.5

**MEDICAL SCIENCES**

Effective September 1, 2022, the following course be withdrawn:

**MEDICAL SCIENCES 4300A/B**

Effective September 1, 2022, the following course be introduced:

**MEDICAL SCIENCES 4995E - COMMUNITY-ENGAGED LEARNING AND RESEARCH SKILLS IN INTERDISCIPLINARY MEDICAL SCIENCES**

Short Title: **CEL AND RESEARCH SKILLS IN IMS**

This capstone course focuses on science literacy, scientific communication, biological and societal influences on health, evidence-based approaches, identifying and meeting the needs of stakeholders, and interdisciplinary interventions. Students engage both independently and collaboratively in authentic learning experiences and practice critical ongoing reflection.

Antirequisite(s): Biochemistry 4955E, Medical Sciences 4990E, the former Medical Sciences 4300A/B.

Prerequisite(s): A course from Group 3 in the Honours Specialization in Interdisciplinary Medical Sciences (IMS) and registration in Year 4 of an Honours Specialization in IMS.

Pre- or Corequisite(s): Medical Sciences 4930F must be taken concurrently.

Extra Information: 2 lecture hours or equivalent online delivery/week and 4 seminar hours/week.

Course Weight: 1.0

Effective September 1, 2022, the following course be revised:

**MEDICAL SCIENCES 4930F INTERDISCIPLINARY THINKING AND RESEARCH LITERACY IN MEDICAL SCIENCES**

Antirequisite(s): Medical Sciences 4931F/G.

Prerequisite(s): A course from Group 3 in the Honours Specialization in Interdisciplinary Medical Sciences (IMS) and registration in Year 4 of an Honours Specialization in IMS.

Corequisite(s): One of Medical Sciences 4990E, Medical Sciences 4991F/G, Medical Sciences 4995E, or the former Medical Sciences 4900F/G/Z must be taken concurrently.

Extra Information: **Blended course**, 2 lecture hours per week, 2 tutorial hours or online equivalent.
Effective September 1, 2022, the following course be revised:

**MEDICAL SCIENCES 4990E LABORATORY SKILLS AND RESEARCH EXPERIENCES IN INTERDISCIPLINARY MEDICAL SCIENCES**

**Antirequisite(s):** Medical Sciences 4991F/G, Medical Sciences 4995E, the former Medical Sciences 4900F/G/Z.

**Prerequisite(s):** A course from Group 3 in the Honours Specialization in Interdisciplinary Medical Sciences (IMS) and registration in Year 4 of an Honours Specialization in IMS.

**Corequisite(s):** Medical Sciences 4930F must be taken concurrently.

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**NEUROSCIENCE**

Effective September 1, 2022, the following course be revised:

**NEUROSCIENCE 2000 - INTRODUCTION TO NEUROSCIENCE**

**Antirequisite(s):** Psychology 2220A/B and Psychology 2221A/B, if taken in 2013/14 or onward.

**Prerequisite(s):** Psychology 1002A/B and Psychology 1003A/B with a minimum mark of 60%, or Psychology 1000 with a minimum mark of 60%; either Biology 1001A or Biology 1201A with a minimum mark of 60%; and either Biology 1002B or Biology 1202B with a minimum mark of 60%.

Effective September 1, 2022, the following course be revised:

**NEUROSCIENCE 4000E - HONOURS THESIS**

**Prerequisite(s):** Neuroscience 3000F/G with a minimum mark of 75%; one of Biology 2244A/B; Statistical Sciences 2244A/B; or Psychology 2811A/B and Psychology 2812A/B, or the former Psychology 2810; Pharmacology 3620; Physiology 3140A; one of Medical Sciences 3991F, Communication Sciences and Disorders 3317A/B, Psychology 3996F or Psychology 3997G, or the former Medical Sciences 3900F/G/Z; and registration in Year 4 of an Honours Specialization in Neuroscience.

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**KING’S UNIVERSITY COLLEGE**

**HISTORY**

Effective September 1, 2022, the following course be introduced:

**HISTORY 3228F/G - WELCOME TO CANADA! CANADIAN IMMIGRATION: THE POLITICS, THE POLICIES AND THE PEOPLE.**
This course invites students to learn about the experiences of immigrants to Canada from the historical perspective. It will consider such varied themes as the politics of Immigrant Food-ways, Identity and Wartime, Black migration to Canada-Searching for More than Freedom, Religion and identity and the relationship between Immigration and Indigeneity.

**Antirequisite(s):** History 3296G if taken in 2020-2021 and History 3296F if taken in 2021-2022

**Prerequisite(s):** 1.0 course in History at the 2200 level or above.

**Extra Information:** 2 lecture hours.

**Course Weight:** 0.5

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**SOCIAL JUSTICE & PEACE STUDIES**

Effective **September 1, 2022**, the following course be revised:

**SOCIAL JUSTICE AND PEACE STUDIES 3385F/G - ADVANCED ALTERNATIVE DISPUTE RESOLUTION**

This course prepares students to facilitate inter-community dialogue in times of conflict. Students will focus on the ways power, individual and community identities, race, ethnicity, gender and sexuality, along with experiences of oppression, complicate social relations, communication and understanding. Simulations, case studies and contemporary disputes/events are integrated into the curriculum.

**Antirequisite(s):** Social Justice and Peace Studies 3378F/G if taken in 2020-21.

Revisions to Established Programs/Modules

FACULTY OF ARTS AND HUMANITIES and FACULTY OF SOCIAL SCIENCE

LINGUISTICS (Inter-Faculty Program)

Effective September 1, 2022, the following be revised:
HONOURS SPECIALIZATION IN LINGUISTICS

Admission Requirements
Completion of first year requirements with at least 75% average and a minimum mark of 60% in 3.0 principal courses including Anthropology 1027A/B and Linguistics 1028A/B. Students beginning Linguistics after first year may substitute Linguistics 2288A/B in place of Anthropology 1027A/B. Students must consult with one of the program Co-directors prior to admission. Enrolment in this module is limited. Meeting the minimum requirements does not guarantee admission.

Module
9.0 courses:

1.0 course: Linguistics 2247A/B and Linguistics 2248A/B or the former Anthropology 2247A/B and the former Anthropology 2248A/B. At least 75% in each course is required for progression in the module.
1.0 Language course(s) to be selected in consultation with one of the Linguistics Co-directors.
1.5 courses from Social aspects of language: Anthropology 2245F/G, Anthropology 2249F/G, Anthropology 2251A/B, Anthropology 2252A/B or the former Linguistics 2285F/G, Anthropology 3243F/G or the former Anthropology 2243F/G, French 3870A/B, French 4040A/B, French 4850F/G, Spanish 3314F/G, Spanish 4412F/G, Spanish 4413F/G and the former Linguistics 2286F/G.

Effective September 1, 2022, the following be revised:

MAJOR IN LINGUISTICS

Admission Requirements
Completion of first-year requirements, including Anthropology 1027A/B and Linguistics 1028A/B with a mark of at least 60%. Students beginning Linguistics after first year may substitute Linguistics 2288A/B in place of Anthropology 1027A/B and take it concurrently with their second-year courses.

Module
6.0 courses:

2.0 courses: Anthropology 3339F/G, Linguistics 2242A/B, Linguistics 2247A/B (or the former Anthropology 2247A/B), Linguistics 2248A/B (or the former Anthropology 2248A/B).


1.0 courses from Social aspects of language: Anthropology 2245F/G, Anthropology 2249F/G, Anthropology 2251A/B, Anthropology 2252A/B or the former Linguistics 2285F/G, Anthropology 3243F/G or the former Anthropology 2243F/G, French 3870A/B, French 4040A/B, French 4850F/G, Spanish 3314F/G, Spanish 4412F/G, Spanish 4413F/G and the former Linguistics 2286F/G.

2.0 additional courses from the following or any course from above not already taken: Anthropology 2246A/B, Anthropology 2250A/B, Anthropology 2253A/B, Anthropology 4412F/G, Classical Studies 2800A/B, English 3300, English 3310 (or the former English 3001, the former English 3012), French 4100F/G, Indigenous Studies 2253A/B,
Effective September 1, 2022, the following be revised:

**MINOR IN LINGUISTICS**

**Admission Requirements**
Completion of first-year requirements, including Anthropology 1027A/B and Linguistics 1028A/B with a mark of at least 60%. Students beginning Linguistics after first year may substitute Linguistics 2288A/B in place of Anthropology 1027A/B.

**Module**
4.0 courses

1.0 courses: Linguistics 2247A/B (or the former Anthropology 2247A/B), Linguistics 2248A/B (or the former Anthropology 2248A/B).

0.5 course: Anthropology 3339F/G or any 3000-level course from the categories “Formal approaches to language” or “Social aspects of language” not already taken.


0.5 courses from Social aspects of language: Anthropology 2245F/G, Anthropology 2246F/G, Anthropology 2247A/B, Anthropology 2251A/B, Anthropology 2252A/B or the former Linguistics 2285F/G, Anthropology 3243F/G or the former Anthropology 2243F/G, French 3870A/B, French 4040A/B, French 4850F/G, Spanish 3314F/G, Spanish 4412F/G, Spanish 4413F/G and the former Linguistics 2286F/G.

Spanish 2214A/B, Spanish 2956A/B-2960A/B, Spanish 3911A/B-3920A/B, Spanish 4921F/G-4925F/G, Spanish 4926A/B-4930A/B, the former Psychology 3142E, or other courses by permission of the Program.

HURON UNIVERSITY COLLEGE

ARTS & SOCIAL SCIENCE - CENTRE FOR GLOBAL STUDIES

Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN GLOBAL DEVELOPMENT STUDIES

Admission Requirements
Completion of first-year requirements with no failures. Students must have an average of at least 70% in 3.0 principal courses, including Centre for Global Studies 1023F/G at least 1.0 essay course, satisfied with either two half-year courses or one full-year course, plus 2.5 additional courses, with no mark in these principal courses below 60%. Students should note the language requirement for graduation in this module when selecting first year courses. Anthropology, Centre for Global Studies, Economics, English, Gender, Sexuality, and Women's Studies, Geography, History, Indigenous Studies, Media, Information and Technoculture, Philosophy, Political Science, Social Justice and Peace Studies, and Sociology are recommended as first year courses.

Module
9.0 courses:


0.5 course from: CGS 2003F/G, CGS 2004F/G.

1.0 course from: CGS 3509F/G, CGS 3512F/G, CGS 3518F/G, CGS 3527F/G, CGS 3532F/G.

1.0 course from: CGS 3521F/G, CGS 3524F/G, CGS 3526F/G, CGS 3531F/G, CGS 3533F/G.

2.5 courses from: CGS 3000-4999 level; or up to 2.0 non-CGS courses at the 2200 level or higher from Arts and Humanities, Social Science, or Information and Media Studies that engage directly with Global Development Studies content, as approved by the Centre for Global Studies.

1.0 course from: CGS 4000-4999 level.

Language Requirement (no change)
Effective September 1, 2022, the following be revised:

SPECIALIZATION IN GLOBAL DEVELOPMENT STUDIES

Admission Requirements
Completion of first-year requirements, including Centre for Global Studies 1023F/G at least 1.0 essay course, satisfied with either two half–year courses or one full–year course, with a mark of at least 60%. Anthropology, Centre for Global Studies, Economics, English, Gender, Sexuality, and Women's Studies, Geography, History, Indigenous Studies, Media, Information and Technoculture, Philosophy, Political Science, Social Justice and Peace Studies, and Sociology are recommended as first year courses. Students should note the language requirement for graduation in this module when selecting first year courses.

Module
9.0 courses:

0.5 course from: CGS 2003F/G, CGS 2004F/G.
1.0 course from: CGS 3509F/G, CGS 3512F/G, CGS 3518F/G, CGS 3527F/G, CGS 3532F/G.
1.0 course from: CGS 3521F/G, CGS 3524F/G, CGS 3526F/G, CGS 3531F/G, CGS 3533F/G.
3.5 courses from: CGS 3000-4999 level; or up to 2.0 non–CGS courses at the 2200 level or higher from Arts and Humanities, Social Science, or Information and Media Studies that engage directly with Global Development Studies content, as approved by the Centre for Global Studies.

Language Requirement (no change)

Effective September 1, 2022, the following be revised:

MAJOR IN GLOBAL DEVELOPMENT STUDIES

Admission Requirements
Completion of first-year requirements, including Centre for Global Studies 1023F/G at least 1.0 essay course, satisfied with either two half–year courses or one full–year course, with a mark of at least 60%. Anthropology, Centre for Global Studies, Economics, English, Gender, Sexuality, and Women's Studies, Geography, History, Indigenous Studies, Media, Information and Technoculture, Philosophy, Political Science, Social Justice and Peace Studies, and Sociology are recommended as first year courses.

Module
6.0 courses:

0.5 course from: CGS 2003F/G, CGS 2004F/G
Effective **September 1, 2022**, the following be revised:

**MINOR IN GLOBAL DEVELOPMENT STUDIES**

**Admission Requirements**
Completion of first-year requirements, including Centre for Global Studies 1023F/G at least 1.0 essay course, satisfied with either two half-year courses or one full-year course, with a mark of at least 60%.

**Module**
4.0 courses:
- **2.5 courses:** CGS 2002F/G, CGS 3006F/G, CGS 3516F/G, CGS 3519F/G, CGS 3520F/G.
- **0.5 course** from: CGS 2003F/G, CGS 2004F/G.

Effective **September 1, 2022**, the following be revised:

**HONOURS SPECIALIZATION IN GLOBALIZATION STUDIES**

**Admission Requirements**
Completion of first-year requirements with no failures. Students must have an average of at least 70% in 3.0 principal courses, including at least 0.5 course from Centre for Global Studies 1021F/G, Centre for Global Studies 1022F/G, Centre for Global Studies 1023F/G or the former Centre for Global Studies 1000E, 1.0 essay course, satisfied with either two half-year courses or one full-year course, plus 2.0 additional courses, with no mark in these principal courses below 60%. Students should note the language requirement for graduation in this module when selecting first year courses. Anthropology, Centre for Global Studies, English, Gender, Sexuality, and Women's Studies, Geography, History, Indigenous Studies, Media, Information and Technoculture, Philosophy, Political Science, Social Justice and Peace Studies, and Sociology are recommended as first year courses.
Effective September 1, 2022, the following be revised:

SPECIALIZATION IN GLOBALIZATION STUDIES

Admission Requirements
Completion of first-year requirements, including at least 0.5 course from Centre for Global Studies 1021F/G, Centre for Global Studies 1022F/G, Centre for Global Studies 1023F/G or the former Centre for Global Studies 1000E 1.0 essay course, satisfied with either two half–year courses or one full–year course, with a mark of at least 60%. Students should note the language requirement for graduation in this module when selecting first year courses. Anthropology, Centre for Global Studies, English, Gender, Sexuality, and Women's Studies, Geography, History, Indigenous Studies, Media, Information and Technoculture, Philosophy, Political Science, Social Justice and Peace Studies, and Sociology are recommended first year courses.

Effective September 1, 2022, the following be revised:

MAJOR IN GLOBALIZATION STUDIES

Admission Requirements
Completion of first-year requirements, including at least 0.5 course from Centre for Global Studies 1021F/G, Centre for Global Studies 1022F/G, Centre for Global Studies 1023F/G or the former Centre for Global Studies 1000E 1.0 essay course, satisfied with either two half–year courses or one full–year course, with a mark of at least 60%. Anthropology, Centre for Global Studies, English, Gender, Sexuality, and Women's Studies, Geography, History, Indigenous Studies, Media, Information and Technoculture, Philosophy, Political Science, Social Justice and Peace Studies, and Sociology are recommended first year courses.

Effective September 1, 2022, the following be revised:

MINOR IN GLOBALIZATION STUDIES

Admission Requirements
Completion of first-year requirements, including at least 0.5 course from Centre for Global Studies 1021F/G, Centre for Global Studies 1022F/G, Centre for Global Studies 1023F/G or the former Centre for Global Studies 1000E 1.0 essay course, satisfied with either two half–year courses or one full–year course, with a mark of at least 60%.
Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN GLOBAL CULTURE STUDIES

Admission Requirements
Completion of first-year requirements with no failures. Students must have an average of at least 70% in 3.0 principal courses, including at least 0.5 course from Centre for Global Studies 1021F/G, Centre for Global Studies 1022F/G, Centre for Global Studies 1023F/G or the former Centre for Global Studies 1000E 1.0 essay course, satisfied with either two half-year courses or one full-year course, plus 2.5 additional courses, with no mark in these principal courses below 60%. Students should note the language requirement for graduation in this module when selecting first year courses. Anthropology, Centre for Global Studies, English, Gender, Sexuality, and Women's Studies, Geography, History, Indigenous Studies, Media Information and Technoculture, Philosophy, Political Science, Psychology, Social Justice and Peace Studies, and Sociology are recommended as first year courses.

Effective September 1, 2022, the following be revised:

SPECIALIZATION IN GLOBAL CULTURE STUDIES

Admission Requirements
Completion of first-year requirements, including at least 0.5 course from Centre for Global Studies 1021F/G, Centre for Global Studies 1022F/G, Centre for Global Studies 1023F/G or the former Centre for Global Studies 1000E 1.0 essay course, satisfied with either two half-year courses or one full-year course, with a mark of at least 60%. Anthropology, Centre for Global Studies, English, Gender, Sexuality, and Women's Studies, Geography, History, Indigenous Studies, Media, Information and Technoculture, Philosophy, Political Science, Psychology, Social Justice and Peace Studies, and Sociology are recommended as first year courses. Students should note the language requirement for graduation in this module when selecting first year courses.

Effective September 1, 2022, the following be revised:

MAJOR IN GLOBAL CULTURE STUDIES

Admission Requirements
Completion of first-year requirements, including at least 0.5 course from Centre for Global Studies 1021F/G, Centre for Global Studies 1022F/G, Centre for Global Studies 1023F/G or the former Centre for Global Studies 1000E 1.0 essay course, satisfied with either two half-year courses or one full-year course, with a mark of at least 60%. Anthropology, Centre for Global Studies, English, Gender, Sexuality, and Women's Studies, Geography, History, Indigenous Studies, Media, Information and Technoculture, Philosophy, Political Science, Psychology, Social Justice and Peace Studies, Sociology are recommended as first year courses.
Effective September 1, 2022, the following be revised:

MINOR IN GLOBAL CULTURE STUDIES

Admission Requirements
Completion of first-year requirements, including at least **0.5 course from Centre for Global Studies 1021F/G, Centre for Global Studies 1022F/G, Centre for Global Studies 1023F/G or the former Centre for Global Studies 1000E**, **1.0 essay course**, satisfied with either two half-year courses or one full-year course, with a mark of at least 60%.

Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN GLOBAL GENDER STUDIES

Admission Requirements
Completion of first-year requirements with no failures. Students must have an average of at least 70% in 3.0 principal courses:

- **1.0 course from GSWS 1020E, GSWS 1021F/G, GSWS 1022F/G, GSWS 1024F/G, GWS 1030F/G;**
- **1.0 course from Centre for Global Studies 1021F/G, Centre for Global Studies 1022F/G, Centre for Global Studies 1023F/G;** plus
- **1.0 2.0 additional courses**, with no mark in these principal courses below 60%. Anthropology, Centre for Global Studies, English, Geography, History, Indigenous Studies, Media, Information and Technoculture, Philosophy, Political Science, Psychology, Social Justice and Peace Studies, and Sociology are recommended as first year courses.

**Note:** Students beginning this module after first year may substitute GSWS 2240F/G in place of GSWS 1020E and take it concurrently with their second-year courses. Students should note the language requirement for graduation in this module when selecting first year courses.

Module
9.0 courses

- **1.0 1.5 courses:** GSWS 2220E; GSWS 3320F/G.
- **1.0 course from:** CGS 2002F/G, CGS 2003F/G, CGS 2004F/G.
- **0.5 course from:** GSWS 3321F/G, GSWS 3322F/G.
- **0.5 course from:** CGS 3001F/G, CGS 3005F/G.
- **1.0 course:** CGS 3515F/G, CGS 3519F/G.
- **0.5 course from:** CGS 3514F/G, CGS 3529F/G, CGS 4014F/G; with special permission: CGS 3990–3999.
1.0 course from: Gender, Sexuality, and Women's Studies 2200 and above.
1.0 course from: CGS 3000 and above.
1.0 course from: 0.5 course from Gender, Sexuality, and Women's Studies 4000-level (permission required for course selection); and 0.5 course from CGS 4000-level (permission required for course selection) or from: GSWS 4455E (pending availability of supervisor), CGS 4500E (pending availability of supervisor).

Language Requirement *(no change)*

Effective September 1, 2022, the following be revised:

SPECIALIZATION IN GLOBAL GENDER STUDIES

Admission Requirements
Completion of first-year requirements, including 1.0 course from Centre for Global Studies 1021F/G, Centre for Global Studies 1022F/G, Centre for Global Studies 1023F/G and 1.0 course from GSWS 1020E, GSWS 1021F/G, GSWS 1022F/G, GSWS 1024F/G, GSWS 1030F/G and 2.0 additional courses with marks of at least 60%. Anthropology, Centre for Global Studies, English, Geography, History, Indigenous Studies, Media, Information and Technoculture, Philosophy, Political Science, Psychology, Social Justice and Peace Studies, and Sociology are recommended as first year courses.

Note: Students beginning this module after first year may substitute GSWS 2240F/G in place of GSWS 1020E and take it concurrently with their second-year courses. Students should note the language requirement for graduation in this module when selecting first year courses.

Module
9.0 courses:

1.0 **1.5 courses**: GSWS 2220E, GSWS 3320F/G.
1.0 course from: Centre for Global Studies 2002F/G, Centre for Global Studies 2003F/G, Centre for Global Studies 2004F/G.
0.5 course from: GSWS 3321F/G, GSWS 3322F/G.
0.5 course from: Centre for Global Studies 3001F/G, Centre for Global Studies 3005F/G.
1.0 course: CGS 3515F/G, CGS 3519F/G.
0.5 course from: CGS 3514F/G, CGS 3529F/G, CGS 4014F/G; with special permission: CGS 3990–3999.
1.5 course from: Gender, Sexuality, and Women's Studies 2200 and above.
1.5 course from: Centre for Global Studies 3000 and above.
Language Requirement (no change)

Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN GLOBAL HEALTH STUDIES

Admission Requirements
Completion of first-year requirements with no failures.
Students must take 3.0 principal courses, achieving an average of at least 70% across them and with no final grade of less than 60% in any of them. These principal courses must include the following 2.0 courses:

0.5 course: Centre for Global Studies 1023F/G;
1.0 course: Health Sciences 1001A/B, Health Sciences 1002A/B with a minimum of 70% in each of these two courses;
0.5 course from: CGS 1021F/G, CGS 1022F/G
1.0 essay course, satisfied with either two half-year courses or one full-year course.

The remaining 1.0 principal course and the other 2.0 first-year courses may be taken from across the Humanities, Social Sciences, and Sciences. Geography 1400F/G, Geography 1500F/G, and Sociology 1020 are recommended to satisfy prerequisites needed in the module. Anthropology, Centre for Global Studies, History, Indigenous Studies, Political Science, and Social Justice and Peace Studies are also recommended as first year courses.

Students should note the language requirement for graduation in this module when selecting first-year courses.

Module
9.0 courses:

3.5 4.5 courses: CGS 2002F/G, CGS 3519F/G, CGS 3520F/G, CGS 3532F/G, CGS 3533F/G; Geography 2411F/G or Indigenous Studies 2601F/G; Health Sciences 2244 or GSWS 2244; Health Sciences 2250A/B.
0.5 course from: CGS 2003F/G, CGS 2004F/G.
0.5 course from: CGS 3001F/G, CGS 3006F/G.
1.0 0.5 course from: Geography 2430A/B, Geography 3431A/B, Geography 3432A/B.
1.0 course from: Health Sciences 3010F/G, Health Sciences 3025A/B, Health Sciences 3042A/B, Health Sciences 3071A/B, Health Sciences 3262F/G, Health Sciences 3624A/B, Health Sciences 3630F/G, Health Sciences 3704A/B, Law 3101A/B, and with permission: Health Sciences 3090A/B, Health Sciences 3091A/B, Health Sciences 3092A/B, Health Sciences 3093F/G, the former Health Sciences 3290A/B, Sociology 3370F/G, Sociology 3371F/G.
0.5 course from: Centre for Global Studies 4000-level.
0.5 course from: Health Sciences 4044A/B, Health Sciences 4200F/G, Health Sciences 4205A/B,
Health Sciences 4220F/G, Health Sciences 4250A/B, Health Sciences 4505F/G, and with permission: Health Sciences 4090A/B, Health Sciences 4091A/B, Health Sciences 4092F/G, Sociology 4472F/G.

Language Requirement (no change)

Effective September 1, 2022, the following be revised:

SPECIALIZATION IN GLOBAL HEALTH STUDIES

Admission Requirements
Completion of first-year requirements including a minimum cumulative average of 65% in the following 3.0 principal courses with no grade lower than 60%. These principal courses must include:

1.5 courses: Centre for Global Studies 1023F/G, Health Sciences 1001A/B, Health Sciences 1002A/B
0.5 course from: Centre for Global Studies 1021F/G, Centre for Global Studies 1022F/G
1.0 1000-level essay course, satisfied with either two half-year courses or one full-year course.
2.0 first-year courses may be taken from across the Humanities, Social Sciences, and Sciences. Geography 1400F/G, Geography 1500F/G, and Sociology 1020 are recommended to satisfy prerequisites needed in the module. Anthropology, Centre for Global Studies, History, Indigenous Studies, Political Science, and Social Justice and Peace Studies are also recommended as first year courses.

Students should note the language requirement for graduation in this module when selecting first-year courses.

Module
9.0 courses:

3.5 courses: CGS 2002F/G, CGS 3519F/G, CGS 3520F/G, CGS 3532F/G, CGS 3533F/G; Geography 2411F/G or Indigenous Studies 2601F/G; Health Sciences 2244 or GSWS 2244; Health Sciences 2250A/B.
0.5 course from: CGS 2003F/G, CGS 2004F/G.
0.5 course from: CGS 3001F/G, CGS 3006F/G.
1.5 courses from: Health Sciences 3010F/G, Health Sciences 3025A/B, Health Sciences 3042A/B, Health Sciences 3071A/B, Health Sciences 3262F/G, Health Sciences 3624A/B, Health Sciences 3630F/G, Health Sciences 3704A/B, Law 3101A/B, and with permission: Health Sciences 3090A/B, Health Sciences 3091A/B, Health Sciences 3092A/B, Health Sciences 3093F/G, the former Health Sciences 3290A/B, Sociology 3370F/G, Sociology 3371F/G.
1.0 course from: Geography 2430A/B, Geography 3431A/B, Geography 3432A/B.

Language Requirement (no change)
Effective September 1, 2022, the following be revised:

**HONOURS SPECIALIZATION IN GLOBAL RIGHTS STUDIES**

**Admission Requirements**

Completion of first–year requirements with no failures. Students must take 3.0 principal courses, achieving an average of at least 70% across them and with no final grade of less than 60% in any of them. These principal courses must include at least 0.5 course from Centre for Global Studies 1021F/G, Centre for Global Studies 1022F/G, Centre for Global Studies 1023F/G and 1.0 course from GSWS 1021F/G, GSWS 1022F/G, GSWS 1024F/G, GSWS 1030F/G.

It is recommended that the remaining first–year courses may be taken from Anthropology, English, History, Human Rights Studies, Indigenous Studies, Media, Information and Technoculture, Philosophy, Political Science or Sociology. It is particularly recommended that students take both Philosophy 1250F/G and Political Science 1020E.

**Module**

10.0 courses:

- **3.5 courses:** Centre for Global Studies 2003F/G, Centre for Global Studies 3005F/G, Centre for Global Studies 3006F/G, Centre for Global Studies 3512F/G, Centre for Global Studies 3523F/G, GSWS 2220E.
- **0.5 course** from: Centre for Global Studies 3201F/G, Centre for Global Studies 3203F/G.
- **1.0 course** from: Centre for Global Studies 3509F/G, Centre for Global Studies 3517F/G, Centre for Global Studies 3518F/G, Centre for Global Studies 3524F/G, Centre for Global Studies 3532F/G.
- **1.0 course** from: Centre for Global Studies 3514F/G, Centre for Global Studies 3515F/G, Centre for Global Studies 3522F/G, Centre for Global Studies 3526F/G, Centre for Global Studies 3533F/G.
- **1.0 course** from: Philosophy 2760F/G, Philosophy 2810F/G, Philosophy 2812F/G, Philosophy 2821F/G, Philosophy 3820F/G; Political Science 2219E, Political Science 2270E.
- **1.0 courses** from: Centre for Global Studies 3515F/G; GSWS 2240F/G, GSWS 2270A/B, GSWS 3305F/G, GSWS 3324F/G, GSWS 3350F/G.
- **1.0 course** from: Centre for Global Studies 4010F/G, Centre for Global Studies 4012F/G, Centre for Global Studies 4015F/G, Centre for Global Studies 4018F/G, Centre for Global Studies 4500E.
- **1.0 course** from: Anthropology 2283A/B; Childhood and Social Institutions 2251F/G, Childhood and Social Institutions 3335F/G; Disability Studies 2201F/G, Disability Studies 3325F/G; Indigenous Studies 3722F/G, History 2709F/G, History 2813F/G, History 3313F/G; Philosophy 2800F/G, Philosophy 2801F/G; Sociology 3360F/G, Sociology 3371F/G, the former English 2264E, the former First Nations Studies 4722F/G.

**Language Requirement** *no change*
Effective September 1, 2022, the following be revised:

**SPECIALIZATION IN GLOBAL RIGHTS STUDIES**

**Admission Requirements**
Completion of first–year requirements, including at least 0.5 course from Centre for Global Studies 1021F/G, Centre for Global Studies 1022F/G, Centre for Global Studies 1023F/G and 1.0 course from GSWS 1021F/G, GSWS 1022F/G, GSWS 1024F/G, GSWS 1030F/G with marks of at least 60%.

It is recommended that the remaining first–year courses be taken from Anthropology, English, History, Human Rights Studies, Indigenous Studies, Media, Information and Technoculture, Philosophy, Political Science, or Sociology. It is particularly recommended that students take both Philosophy 1250F/G and Political Science 1020E.

**Module**
10.0 courses

- **4.0 courses:** Centre for Global Studies 2003F/G, Centre for Global Studies 3005F/G, Centre for Global Studies 3006F/G, Centre for Global Studies 3512F/G, Centre for Global Studies 3515F/G, Centre for Global Studies 3523F/G, GSWS 2220E.
- **1.0 course** from: Centre for Global Studies 3509F/G, Centre for Global Studies 3517F/G, Centre for Global Studies 3518F/G, Centre for Global Studies 3524F/G, Centre for Global Studies 3532F/G.
- **1.0 course** from: Centre for Global Studies 3514F/G, Centre for Global Studies 3522F/G, Centre for Global Studies 3526F/G, Centre for Global Studies 3533F/G.
- **1.5 courses** from: Centre for Global Studies 4012F/G; Philosophy 2760F/G, Philosophy 2810F/G, Philosophy 2812F/G, Philosophy 2821F/G, Philosophy 3820F/G; Political Science 2219E, Political Science 2270E.
- **1.5 courses** from: GSWS 2240F/G, GSWS 2270A/B, GSWS 3305F/G, GSWS 3324F/G, GSWS 3350F/G.
- **1.0 course** from: Anthropology 2283A/B; Childhood and Social Institutions 2251F/G, Childhood and Social Institutions 3335F/G; Disability Studies 2201F/G, Disability Studies 3325F/G; Indigenous Studies 3722F/G; History 2709F/G, History 2813F/G, History 3313F/G; Philosophy 2800F/G, Philosophy 2801F/G; Sociology 3360F/G, Sociology 3371F/G, the former English 2264E, the former First Nations Studies 4722F/G.

**Language Requirement (no change)**
Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN GLOBAL DEVELOPMENT STUDIES/HBA
HBA/HONOURS SPECIALIZATION IN GLOBAL DEVELOPMENT STUDIES

Module/Program Information

Year 1

**0.5 course:** Centre for Global Studies 1023F/G. (This 0.5 credit is not applied to the degree requirements, but it is required for entry into the degree module.)

**4.0 courses** from the Social Sciences, Humanities, Health Sciences, or Information and Media, including at least 1.0 essay course, satisfied with either two half-year courses or one full-year course. Anthropology, Centre for Global Studies, Economics, English, Gender, Sexuality, and Women's Studies, Geography, History, Indigenous Studies, Media, Information and Technoculture, Philosophy, Political Science, Social Justice and Peace Studies, and Sociology are recommended as first year courses.

**1.0 course** from: language other than English. See Centre for Global Studies language requirement (not part of the 9.0 for Honours Specialization, but a requirement for Centre for Global Studies degree). And please note that this requirement may be waived, if competency in a language other than English is already achieved by other means and recognised by the Director of the Centre for Global Studies.

**3.5 courses** to make up full course load. Anthropology, Economics, English, Gender, Sexuality, and Women's Studies, Geography, History, Philosophy, Political Science, Sociology are recommended as first year courses.

**Note:** Students enter the Honours Specialization in Global Development Studies in the 2nd year. To be admitted to this Honours Specialization students must have: completion of first year requirements with no failures; students must have an average of at least 70% across 5.0 first year courses which will consist of the 3.0 principal courses, including the **0.5 CGS 1.0 essay** course, with no mark in these principal courses below 60%.

Years 2, 4 and 5: Honours Specialization in Global Development Studies

**3.0 courses:** CGS 2002F/G, CGS 3001F/G, CGS 3006F/G, CGS 3516F/G, CGS 3519F/G, CGS 3520F/G.

**0.5 course** from: CGS 2003F/G, CGS 2004F/G.

**1.0 courses** from: CGS 3509F/G, CGS 3512F/G, CGS 3518F/G, CGS 3527F/G, CGS 3532F/G.

**1.0 course** from: CGS 3521F/G, CGS 3524F/G, CGS 3526F/G, CGS 3531F/G, CGS 3533F/G.

**2.5 courses** from: CGS 3000-4999 level; or up to 2.0 non–CGS courses at the 2200 level or higher from Arts and Humanities, Social Science, or Information and Media Studies that engage directly with Global Development Studies content, as approved by the Centre for Global Studies.

**1.0 course** from: CGS 4000-4999 level.

**1.0 course** from: language other than English, either in progression from language studied in Year 1, or in a language different from that studied in Year 1. See Centre for Global Studies.
language requirement. (Not part of the 9.0 for Honours Specialization, but a requirement for Centre for Global Studies degree). And please note that this requirement may be waived, if competency in a language other than English is already achieved by other means and recognised by the Director of the Centre for Global Studies.

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Effective **September 1, 2022**, the following be revised:

**HONOURS SPECIALIZATION IN GLOBAL CULTURE STUDIES/HBA**

**HBA/HONOURS SPECIALIZATION IN GLOBAL CULTURE STUDIES**

**Module/Program Information**

**Year 1**

**0.5 course from:** Centre for Global Studies 1000-level. (This 0.5 credit is not applied to the degree requirements, but it is required for entry into the degree module.)

**4.0 courses** from the Social Sciences, Humanities, Health Sciences, or Information and Media, including at least 1.0 essay course, satisfied with either two half-year courses or one full-year course. Anthropology, Centre for Global Studies, Economics, English, Gender, Sexuality, and Women's Studies, Geography, History, Indigenous Studies, Media, Information and Technoculture, Philosophy, Political Science, Social Justice and Peace Studies, and Sociology are recommended as first year courses.

**1.0 course from:** language other than English. See CGS language requirement (not part of the 9.0 for Honours Specialization, but a requirement for CGS degree). And please note that this requirement may be waived, if competency in a language other than English is already achieved by other means and recognised by the Director of the Centre for Global Studies.

**3.5 courses** to make up full course load. Anthropology, English, Gender, Sexuality, and Women's Studies, Geography, History, Media, Information and Technoculture, Philosophy, Political Science, Psychology, and Sociology are recommended for first year courses.

**Note:** Students enter the Honours Specialization in Global Culture Studies in the 2nd year. To be admitted to this Honours Specialization students must have: completion of first year requirements with no failures; students must have an average of at least 70% across 5.0 first year courses which will consist of the 3.0 principal courses, including the **0.5 CGS 1.0 essay** course, with no mark in these principal courses below 60%.

**ARTS & SOCIAL SCIENCE - MANAGEMENT AND ORGANIZATIONAL STUDIES**

Effective **September 1, 2022**, the following be revised:

**SPECIALIZATION IN FINANCE AND ADMINISTRATION**

**Admission Requirements**

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**4.0 first-year courses:**

**1.0 course:** Business Administration 1220E.

**1.0 course from:** Mathematics 1225A/B, Mathematics 1229A/B, Calculus 1000A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.

**1.0 course:** Economics 1021A/B and Economics 1022A/B.

**0.5 course from:** Computer Science numbered 1020-1099, (or elective), MOS 1033A/B, Computer Science 1032A/B

**0.5 course from:** designated essay course numbered 1000-1999E or F/G.

...
Effective September 1, 2022, the following be revised:

**SPECIALIZATION IN ACCOUNTING**

**Admission Requirements**

... 

4.0 first-year courses:

1.0 course: Business Administration 1220E.

1.0 course from: Calculus 1000A/B, Calculus 1301A/B, Calculus 1501A/B; Mathematics 1225A/B, Mathematics 1228A/B, Mathematics 1229A/B, Mathematics 1600A/B.

1.0 course: Economics 1021A/B and Economics 1022A/B.

0.5 course from: MOS 1033A/B, Computer Science 1032A/B

0.5 course from: designated essay courses numbered 1000-1999E or F/G.

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Effective September 1, 2022, the following be revised:

**SPECIALIZATION IN BUSINESS INTELLIGENCE**

**Admission Requirements**

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5.0 first-year courses taken in Fall/Winter term:

1.0 course: Business Administration 1220E.

1.0 course: Economics 1021A/B and Economics 1022A/B.

0.5 course from: MOS 1033A/B, Computer Science 1032A/B or one other half-course in Computer Science numbered 1020-1099.

1.0 course from: Calculus 1000A/B, Calculus 1301A/B, Calculus 1501A/B; Mathematics 1225A/B, Mathematics 1228A/B, Mathematics 1229A/B, and Mathematics 1600A/B.

1.5 courses from: courses numbered 1000-1999

...

Effective September 1, 2022, the following be revised:

**HONOURS SPECIALIZATION IN FINANCE AND ADMINISTRATION**

**Admission Requirements**

... 

4.0 principal courses:

1.0 course: Business Administration 1220E.

1.0 course: 0.5 from Mathematics 1225A/B or Calculus 1000A/B, AND 0.5 from Mathematics 1229A/B, Calculus 1301A/B, Calculus 1501A/B, or Mathematics 1600A/B.

1.0 course: Economics 1021A/B and Economics 1022A/B.

0.5 course from: Computer Science numbered 1020-1099 (or elective), MOS 1033A/B, Computer Science 1032A/B
Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN ACCOUNTING

Admission Requirements

4.0 principal courses:

1.0 course: Business Administration 1220E.
1.0 course from: Calculus 1000A/B, Calculus 1301A/B, Calculus 1501A/B; Mathematics 1225A/B, Mathematics 1228A/B, Mathematics 1229A/B, Mathematics 1600A/B.
1.0 course: Economics 1021A/B and Economics 1022A/B.
0.5 course from: Computer Science numbered 1020-1099 or elective, MOS 1033A/B, Computer Science 1032A/B
0.5 designated essay course numbered 1000-1999E or F/G.

Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN BUSINESS INTELLIGENCE

Admission Requirements

5.0 first-year courses taken in Fall/Winter term:
Students must have an average of at least 73% on, and no grade less than 60% in, the following 3.0 principal courses:
1.0 course: Business Administration 1220E.
1.0 course: Economics 1021A/B and Economics 1022A/B.

0.5 course from: MOS 1033A/B, Computer Science 1032A/B or one other half-course in Computer Science numbered 1020-1099.
1.5 courses from: courses numbered 1000-1999
Effective September 1, 2022, the following be revised:

MAJOR IN ACCOUNTING

Admission Requirements

...  
4.0 principal courses: 
1.0 course: Business Administration 1220E. 
1.0 course: Economics 1021A/B, Economics 1022A/B. 
1.0 course from: Calculus 1000A/B, Calculus 1301A/B, Calculus 1501A/B; Mathematics 1225A/B, Mathematics 1228A/B, Mathematics 1229A/B, Mathematics 1600A/B
0.5 course designated essay course numbered 1000-1999E or F/G.
0.5 course: elective recommended MOS 1033A/B or Computer Science 1032A/B. 
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KING’S UNIVERSITY COLLEGE

DISABILITY STUDIES

Effective September 1, 2022, the following be revised: 

MAJOR IN DISABILITY STUDIES

Module

6.0 courses: 
1.0 course: Disability Studies 2201F/G (or the former Disability Studies 2201A/B) and Disability Studies 2202A/B, or the former Interdisciplinary Studies 2246. 
0.5 course from: Disability Studies 2272F/G, Disability Studies 2214A/B Disability Studies 2214F/G (or the former Disability Studies 2214A/B), Disability Studies 2224A/B, Interdisciplinary Studies 2252F/G. 
0.5 course from: Disability Studies 3311F/G, Disability Studies 3312F/G, Disability Studies 3325F/G, Disability Studies 3326F/G. 
4.0 courses: from Groups A and B as listed below. Students must take at least 1.5 courses from Group A, and must complete a total of 1.0 course at the 3000- level in the module. 
Group A: Any Disability Studies course level 2000 or above. 
Effective September 1, 2022, the following be revised:

**MINOR IN DISABILITY STUDIES**

**Module**

4.0 courses:

1. **0.0 course:** Disability Studies 2201F/G (or the former Disability Studies 2201A/B) and Disability Studies 2202A/B, or the former Interdisciplinary Studies 2246.

2. **3.0 courses** from Groups A and B as listed below. Students must take at least 1.5 from Group A, up to 1.5 can be taken from Group B.

   **Group A:** Any Disability Studies Course level 2000 or above.


**SOCIAL JUSTICE & PEACE STUDIES**

Effective September 1, 2022, the following be revised:

**HONOURS SPECIALIZATION IN SOCIAL JUSTICE AND PEACE STUDIES**

**Module**

9.0 courses:


1.0 course(s) from: Social Justice and Peace Studies 3373F/G, Social Justice and Peace Studies 3400F/G, Political Science 3324F/G, Sociology 2206A/B, Social Work 2206A/B, the former Political Science 4422F/G.

2.0 courses from: the Social Justice and Peace Studies Approved List, at least 1.0 of which must be at the 3000-level or above.

*Note: It is highly recommended that you take Social Justice and Peace Studies 2304F/G in year two.

Effective September 1, 2022, the following be revised:

**MAJOR IN SOCIAL JUSTICE AND PEACE STUDIES**

**Module**

6.0 courses:


0.5 course from the Social Justice and Peace Studies Approved List.

*Note: It is highly recommended that you take Social Justice and Peace Studies 2304F/G in year two.
Effective September 1, 2022, the following be revised:

**SPECIALIZATION IN SOCIAL JUSTICE AND PEACE STUDIES**

**Module**

9.0 courses:


- **3.0 courses** from: the Social Justice and Peace Studies Approved List, at least 1.0 of which must be at the 3000-level or above.

*Note: It is highly recommended that you take Social Justice and Peace Studies 2304F/G in year two.

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**FACULTY OF SCIENCE**

**STATISTICAL AND ACTUARIAL SCIENCES**

Effective September 1, 2022, the following be revised:

**HONOURS SPECIALIZATION IN DATA SCIENCE**

**Admission Requirements**

Completion of first-year requirements with no failures. Students must have an average of at least 70% in 3.0 principal courses, including (Calculus 1000A/B or Calculus 1500A/B) and (Calculus 1501A/B or (Calculus 1301A/B with a mark of at least 85%)), Mathematics 1600A/B, Computer Science 1026A/B or Data Science 1200A/B (either with a mark of at least 65%), Computer Science 1027A/B (with a mark of at least 65%) plus 0.5 additional principal courses, with no mark less than 60% in any of the 3.0 principal courses.

Recommended course: Data Science 1000A/B or Statistical Sciences 1023A/B.

**Please note**: Numerical and Mathematical Methods 1412A/B or the former Applied
Mathematics 1412A/B and Numerical and Mathematical Methods 1414A/B or the former Applied Mathematics 1414A/B (or the former Applied Mathematics 1413) may be substituted for the 1.0 Calculus requirement. Numerical and Mathematical Methods 1411A/B or the former Applied Mathematics 1411A/B may be substituted for Mathematics 1600A/B. If not taken in the first year, Mathematics 1600A/B or Numerical and Mathematical Methods 1411A/B must be completed prior to the second term of second year.

Module
10 courses:


0.5 course from: Computer Science 2214A/B, Mathematics 2151A/B, Mathematics 2155F/G.

4.0 courses: Data Science 3000A/B (or former Computer Science 4414A/B, the former Statistical Sciences 3850F/G, the former Software Engineering 4460A/B), Computer Science 3319A/B, Computer Science 3340A/B, Statistical Sciences 3843A/B, Statistical Sciences 3859A/B, Statistical Sciences 3860A/B, Statistical Sciences 4850F/G, Data Science 49992.


0.5 course from any 4000-level course in Computer Science, Statistical Sciences, or Data Science.

FACULTY OF SCIENCE, SCHULICH SCHOOL OF MEDICINE & DENTISTRY

ANATOMY AND CELL BIOLOGY

Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN MEDICAL CELL BIOLOGY

Admission Requirements
Admission to this Honours Specialization module occurs in Year 3 and requires admission to Year 3 of the Bachelor of Medical Sciences (BMSc) Program. Students will usually complete MEDICAL SCIENCES FIRST ENTRY (Medical Sciences 1 and 2) prior to admission to the Honours Specialization module. Enrolment in this Honours Specialization module is limited and meeting the minimum requirements does not guarantee admission.
The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*.
1.0 course: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

Effective September 1, 2022, the following be revised:

MAJOR IN MEDICAL CELL BIOLOGY

Admission Requirements for students pursuing this Major module in a Bachelor of Medical Sciences (BMSc) degree:

Admission to this Major module occurs in Year 3 and requires admission to Year 3 of the Bachelor of Medical Sciences (BMSc) Program. Students will usually complete MEDICAL SCIENCES FIRST ENTRY (Medical Sciences 1 and 2) prior to admission to a BMSc degree.

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*.
1.0 course: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

The courses below must be completed with a minimum mark of 60% in each prior to admission to the Major module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).
0.5 course: Biochemistry 2280A.
0.5 course: Chemistry 2213A/B.
0.5 course: Biology 2382A/B.
0.5 course from: Biology 2290F/G, Biology 2581A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.

Admission Requirements for students pursuing this Major module in a degree other than a Bachelor of Medical Sciences (BMSc) degree:
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.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
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 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.
* 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.

BIOCHEMISTRY
Effective September 1, 2022, the following be revised:
HONOURS SPECIALIZATION IN BIOCHEMISTRY

Admission Requirements:
The 1000-level half courses listed below must each be completed with a mark of at least 60%:
1.0 course: Biology 1001A* and Biology 1002B*.
1.0 course: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.
* 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**

9.5 courses:

- 0.5 course: Biochemistry 2280A with a mark of at least 65%.
- 0.5 course: Biology 2581A/B.
- 0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
- 0.5 course from: Chemistry 2213A/B or Chemistry 2273A.
- 0.5 course from: Chemistry 2223B or Chemistry 2283G.
- 1.0 course from: Biology 2290F/G, Biology 2382A/B, Chemistry 2211A/B, Chemistry 2214A/B, Chemistry 2374A, Chemistry 2384B.
- 1.5 courses: Biochemistry 3380G, Biochemistry 3381A and Biochemistry 3382A with marks of at least 70% in each.
- 0.5 course: Biochemistry 3390B.
- 2.0 1.0 courses from: Biochemistry 4410A, Biochemistry 4415B, Biochemistry 4420A, and Biochemistry 4425B.
- 0.5 1.5 additional courses from: Biochemistry 3385B, Biochemistry 3392F/G, Biochemistry 4320F/G, Biochemistry 4410A, Biochemistry 4415B, Biochemistry 4420A, Biochemistry 4425B, Biochemistry 4450A, the former Biochemistry 4455G, the former Biochemistry 4463B.
- 1.5 courses: Biochemistry 4483E (Research Project = 1.5 courses).

**Notes** *(no changes)*

Effective September 1, 2022, the following be revised:

**HONOURS BMSC BIOCHEMISTRY/HBA**

**HBA/HONOURS BMSC BIOCHEMISTRY**

**Program**

Year 3: HBA 1 *(no change)*

Years 4 and 5: HBA2 requirements *(no change)*

**Years 4 and 5: BMSc requirements for the Honours Specialization in Biochemistry**

**Year 4**

1.5 courses: Biochemistry 3380G, Biochemistry 3381A and Biochemistry 3382A with marks of at least 70% in each.

0.5 course: Biochemistry 3390B.

**Year 5**

2.0 1.0 courses from: Biochemistry 4410A, Biochemistry 4415B, Biochemistry 4420A, Biochemistry 4425B.
**MAJOR IN BIOCHEMISTRY**

**Admission Requirements:**

**ADMISSION REQUIREMENTS FOR STUDENTS PURSUING THIS MAJOR MODULE IN A BACHELOR OF MEDICAL SCIENCES (BMSC) DEGREE:**

Admission to this Major module occurs in Year 3 and requires admission to Year 3 of the Bachelor of Medical Sciences (BMSc) Program. Students will usually complete MEDICAL SCIENCES FIRST ENTRY (Medical Sciences 1 and 2) prior to admission to a BMSc degree.

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

- 1.0 course: Biology 1001A* and Biology 1002B*.
- 1.0 course: Chemistry 1301A/B and Chemistry 1302A/B.
- 0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
- 0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
- 0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
- 0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

**ADMISSION REQUIREMENTS FOR STUDENTS PURSUING THIS MAJOR MODULE IN A DEGREE OTHER THAN A BACHELOR OF MEDICAL SCIENCES (BMSC) DEGREE:**

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.
- 0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
- 0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.

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 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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 with a mark of at least 65%.
0.5 course from: Chemistry 2213A/B or Chemistry 2273A with a mark of at least 60% in the course taken.
0.5 course from: Chemistry 2223B or Chemistry 2283G with a mark of at least 60% in the course taken.
0.5 course: Biology 2581A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.

2-5 1.5 courses: Biochemistry 3380G, Biochemistry 3381A, Biochemistry 3382A, Biochemistry 4410A, Biochemistry 4420A.

1.0 course from: Biochemistry 4410A, Biochemistry 4420A, Biochemistry 4415B, Biochemistry 4425B


Note: (no change)

Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN BIOCHEMISTRY AND CANCER BIOLOGY

Admission Requirements:
The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*.
1.0 course: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.
1.0 course at the 1000-level from either Category A or B must be completed with a passing grade.

**Module**

1.0 **10.5** courses:

- 0.5 course: Biochemistry 2280A with a mark of at least 65%.
- 1.0 course: Biology 2382A/B, Biology 2581A/B.
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B.
- 0.5 course from: Chemistry 2213A/B, Chemistry 2273A.
- 0.5 course from: Chemistry 2223B, Chemistry 2283G.
- 0.5 course: Microbiology and Immunology 2500A/B.
- 0.5 course: Medical Biophysics 3518B or the former Medical Biophysics 2582B.

**1.5 1.0 courses:** Biochemistry 3381A, Biochemistry 4450A, **Biochemistry 4455G**.

- 1.0 course: Pharmacology 3620.
- 0.5 course from: Biochemistry 3382A, Chemistry 3393A/B, Microbiology and Immunology 3300B (see notes 1 below).
- 1.0 course from: Anatomy and Cell Biology 3309, Pathology 3500 (or the former Pathology 3240A and the former Pathology 3245B).
- 0.5 course from: Biochemistry 3380G, Microbiology and Immunology 3620G, Physiology and Pharmacology 3000E (see notes 1 below), the former Pharmacology 3580Z. A mark of at least 70% is required in the course taken.

**1.0 1.5 courses** from: Anatomy and Cell Biology 4461B, **Medical Biophysics 4720B**, Microbiology and Immunology 4300A, Pharmacology 4360A/B, the former Biochemistry 4455G. See notes below.

- 1.0 course (or 1.5 courses) from: Biochemistry 4955E (CEL Course = 1.0 course) or Biochemistry 4486E (Research Project = 1.5 courses). See notes below.

**Notes:**

1. Biochemistry 4486E will be offered for the last time in 2022/23. The inclusion of Biochemistry 4486E will increase the module by 0.5 course.
2. 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** by 0.5 course.
3. For the specific courses that must be completed before Year 4, see the Weighted Average Chart (MODULES OFFERED IN THE BMSc PROGRAM).
4. Microbiology and Immunology 4300A requires a minimum mark of 70% in Microbiology and Immunology 3300B as a prerequisite.
5. 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, 2022, the following be revised:

**HONOURS SPECIALIZATION IN BIOCHEMISTRY AND CELL BIOLOGY**  
*(offered by the Department of Biochemistry and the Department of Anatomy and Cell Biology)*

**Admission Requirements:**
The 1000-level half courses listed below must each be completed with a mark of at least 60%:
- 1.0 course: Biology 1001A* and Biology 1002B*.
- 1.0 course: Chemistry 1301A/B and Chemistry 1302A/B.
- 0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
- 0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
- 0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
- 0.5 course from: **Computer Science 1026A/B**, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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**
10.5 courses:
- 0.5 course: Biochemistry 2280A with a mark of at least 65%.
- 0.5 course from: Chemistry 2213A/B or Chemistry 2273A.
- 0.5 course from: Chemistry 2223B or Chemistry 2283G.
- 0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
- 1.5 courses: Biology 2290F/G, Biology 2382A/B, Biology 2581A/B.
- 0.5 course: Biochemistry 3380G.
- 1.0 course: Biochemistry 3381A and Biochemistry 3382A with marks of at least 70% in each.
- 0.5 course from: Biology 3316A/B, Physiology 3140A with a mark of at least 70%.
- 0.5 course from: **Anatomy and Cell Biology 3700F/G**, Biochemistry 3390B, Biology 3326F/G.
- 1.5 courses: Anatomy and Cell Biology 3309, Anatomy and Cell Biology 3329A/B or the former Anatomy and Cell Biology 4429A.
- 1.0 course from: Biochemistry 4410A, **Biochemistry 4415B**, Biochemistry 4420A, Biochemistry 4425B.
- 0.5 additional course from: Anatomy and Cell Biology 4425A/B, Anatomy and Cell Biology 4451F/G, Anatomy and Cell Biology 4461B, Biochemistry 4410A, Biochemistry 4415B, **Biochemistry 4420A**, or Biochemistry 4425B.
- 1.5 courses from: Biochemistry 4483E or Anatomy and Cell Biology 4480E (Research project = 1.5 courses).

**Notes:**
1. For the specific courses that must be completed before Year 4, see the Weighted Average Chart (MODULES OFFERED IN THE BMSc PROGRAM).
2. The prerequisite for Anatomy and Cell Biology 4480E includes a mark of at least 70% in one of Anatomy and Cell Biology 3700F/G, Biochemistry 3380G, Biochemistry 3390B or Biology 3326F/G. The prerequisite for Biochemistry 4483E includes a mark of at least 70% in Biochemistry 3380G.

Effective September 1, 2022, the following be revised:

**HONOURS SPECIALIZATION IN BIOCHEMISTRY OF INFECTION AND IMMUNITY**
*(offered jointly by the Department of Biochemistry and the Department of Microbiology and Immunology)*

**Admission Requirements:**
The 1000-level half courses listed below must each be completed with a mark of at least 60%:

- 1.0 course: Biology 1001A* and Biology 1002B*.
- 1.0 course: Chemistry 1301A/B and Chemistry 1302A/B.
- 0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
- 0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
- 0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
- 0.5 course from: **Computer Science 1026A/B**, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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**
10.5 courses:

- 0.5 course: Biochemistry 2280A with a mark of at least 65%.
- 0.5 course from: Chemistry 2213A/B or Chemistry 2273A.
- 0.5 course from: Chemistry 2223B or Chemistry 2283G.
- 1.5 courses: Biology 2290F/G, Biology 2382A/B, Biology 2581A/B.
- 0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
- 1.5 courses: Microbiology and Immunology 2500A/B, Microbiology and Immunology 3100A and Microbiology and Immunology 3300B, with marks of at least 70% in each.
- 1.0 course: Biochemistry 3381A and Biochemistry 3382A with marks of at least 70% in each.
- 0.5 course from: Biochemistry 3380G, Microbiology and Immunology 3610F, Microbiology and Immunology 3620G with a mark of at least 70%.
- 0.5 course **from: Anatomy and Cell Biology 3700F/G**, Biochemistry 3390B.
- 1.0 course from: Microbiology and Immunology 4100A, Microbiology and Immunology 4200B, Microbiology and Immunology 4300A.
1.0 course from: Biochemistry 3385B, Biochemistry 4410A, Biochemistry 4415B, Biochemistry 4420A, Biochemistry 4425B.
1.5 courses from: Biochemistry 4483E (Research Project = 1.5 courses) or Microbiology and Immunology 4970E (Research Project = 1.5 courses)

**Note:** (no change)

Effective **September 1, 2022** the following be revised:

**HONOURS SPECIALIZATION IN BIOCHEMISTRY AND PATHOLOGY OF HUMAN DISEASE**
*(offered by the Department of Biochemistry and the Department of Pathology and Laboratory Medicine)*

**Admission Requirements:**
The 1000-level half courses listed below must each be completed with a mark of at least 60%:

- 1.0 course: Biology 1001A* and Biology 1002B*.
- 1.0 course: Chemistry 1301A/B and Chemistry 1302A/B.
- 0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
- 0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
- 0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
- 0.5 course from: **Computer Science 1026A/B**, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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**

10.5 courses:

- 0.5 course: Biochemistry 2280A with a mark of at least 65%.
- 1.0 course: Biology 2382A/B, Biology 2581A/B.
- 0.5 course from: Chemistry 2213A/B or Chemistry 2273A.
- 0.5 course from: Chemistry 2223B or Chemistry 2283G.
- 0.5 course from: Biology 2290F/G, Chemistry 2211A/B, Chemistry 2214A/B, Chemistry 2374A, Chemistry 2384B, Microbiology and Immunology 2500A/B, Biochemistry 3390B.
- 0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
- 1.0 course: Pathology 3500 with a mark of at least 70% or the former Pathology 3240A and the former Pathology 3245B with a mark of at least 70% in each.
- 1.5 courses: Biochemistry 3381A, Biochemistry 3382A and Biochemistry 3380G, with marks of at least 70% in each.
0.5 course from: Biochemistry 4450A, Pathology 4450A, the former Biochemistry 4463B.
0.5 course from: Pathology 4200A/B, Pathology 4400A/B.
1.5 courses from: Biochemistry 4483E or Pathology 4980E (Research Project = 1.5 courses).

Notes:
1. For the specific courses that must be completed before Year 4, see the Weighted Average Chart (MODULES OFFERED IN THE BMSc PROGRAM).
2. A course in Physiology (e.g., one of Physiology 2130, Physiology and Pharmacology 2000 or Physiology 3120) is recommended.

Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN CHEMICAL BIOLOGY

Admission Requirements:
...

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*.
1.0 course: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B or Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B or Calculus 1501A/B, Mathematics 1600A/B.
0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.
Effective September 1, 2022, the following be revised:

**HONOURS SPECIALIZATION IN COMPUTATIONAL BIOCHEMISTRY**

**Admission Requirements:**
The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*.
1.0 course: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

The courses below must be completed with a minimum mark of 60% in each (unless otherwise indicated) prior to admission to the Honours Specialization module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for additional average, course load requirements, etc. and MODULES OFFERED IN THE BMSc PROGRAM for specific information about Honours Specialization modules, including the Weighted Average Chart.

0.5 course from: Computer Science 1025A/B or Computer Science 1026A/B.
0.5 course: Computer Science 1027A/B.
0.5 course: Biochemistry 2280A with a mark of at least 65%.
0.5 course: Biology 2581A/B.
0.5 course from: Biology 2244A/B, or Statistical Sciences 2244A/B.
0.5 course from: Chemistry 2213A/B or Chemistry 2273A.
0.5 course from: Chemistry 2223B or Chemistry 2283G.

**Module**

10.5 10.0 courses:

0.5 course from: Computer Science 1025A/B or Computer Science 1026A/B.
0.5 course: Computer Science 1027A/B.
0.5 course: Biochemistry 2280A with a mark of at least 65%.
0.5 course: Biology 2581A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
0.5 course from: Chemistry 2213A/B or Chemistry 2273A.
0.5 course from: Chemistry 2223B or Chemistry 2283G.
1.0 course: Computer Science 2210A/B, Computer Science 2211A/B.
1.5 courses: Biochemistry 3381A and Biochemistry 3382A, Biochemistry 3383F/G with marks of at least 70% in each.
0.5 course: Biochemistry 3390B.
0.5 course from: Medical Health Informatics 4850G, Microbiology and Immunology 4750F/G (see notes).
1.0 course: Biochemistry 4410A, Biochemistry 4420A.
1.0 course 2.0 courses from: Biochemistry 3385B, Biochemistry 3392F/G, Biochemistry 4410A, Biochemistry 4415B, Biochemistry 4420A, Biochemistry 4425B.
1.5 courses: Biochemistry 4483E (Research Project = 1.5 courses).

Notes: (no change)

EPIDEMIOLOGY AND BIOSTATISTICS

Effective September 1, 2022, the following be revised:
HONOURS SPECIALIZATION IN EPIDEMIOLOGY AND BIOSTATISTICS

Admission Requirements
The 1000-level half courses listed below must each be completed with a mark of at least 60%:
1.0 course: Biology 1001A* and Biology 1002B*.
1.0 course: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.
* 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.
Effective September 1, 2022, the following be revised:

MAJOR IN EPIDEMIOLOGY AND BIOSTATISTICS

Admission Requirements
Admission Requirements for students pursuing this Major module in a Bachelor of Medical Sciences (BMSc) degree:
Admission to this Major module occurs in Year 3 upon admission to Year 3 of the Bachelor of Medical Sciences (BMSc) Program. Students will usually complete MEDICAL SCIENCES FIRST ENTRY (Medical Sciences 1 and 2) prior to admission to a BMSc degree.

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*.
1.0 course: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

The courses below must be completed with a minimum mark of 60% in each (unless otherwise indicated) prior to admission to the Major module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course: Biochemistry 2280A.
0.5 course from: Biology 2382A/B, Biology 2581A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B, with a mark of at least 75%.
0.5 course: Epidemiology 2200A/B with a mark of at least 75%.

Admission Requirements for students pursuing this Major module in a degree other than a Bachelor of Medical Sciences (BMSc) degree:
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.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
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 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

INTERDISCIPLINARY MEDICAL SCIENCES

Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN INTERDISCIPLINARY MEDICAL SCIENCES (IMS)

Admission Requirements

Admission to this Honours Specialization module occurs in Year 3 and requires admission to the Year 3 of the Bachelor of Medical Sciences (BMSc) Program. Students will usually complete MEDICAL SCIENCES FIRST ENTRY (Medical Sciences 1 and 2) prior to admission to the Honours Specialization module. Enrolment in this Honours Specialization module is limited and meeting the minimum requirements does not guarantee admission.

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 courses: Biology 1001A* and Biology 1002B*.
1.0 courses: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

The 2000-level courses below must be completed with a minimum mark of 60% in each prior to admission to the Honours Specialization module in Year 3. These 2000-level courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for additional average, course load requirements, etc. and MODULES OFFERED IN THE BMSc PROGRAM for specific information about Honours Specialization modules, including the Weighted Average Chart.

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.

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.

2.0 courses from Group 1.
(these 2.0 Group 1 courses cannot all be from the same subject area, e.g., these 2.0
Group 1 courses cannot all be Anatomy and Cell Biology courses).

2.0 additional courses from: courses from Groups 1-3 and courses numbered 2100 -
3999 in Chemistry. These 2.0 courses must include 0.5 – 1.0 course from Group 3. A
maximum of 1.0 course from Group 3 and a maximum of 0.5 course in Chemistry can be
included within these 2.0 courses.

1.0 course from: Medical Sciences 4990E or Medical Sciences 4995E (or the former
Medical Sciences 4900F/G/Z and 0.5 4000-level course from the basic medical science
subject areas listed below).

0.5 course: Medical Sciences 4930F.

0.5 course from: Medical Sciences 4200A/B, the former Medical Sciences 4300A/B
(students registered in Year 4 in 2021/22 may replace this half course with an additional
4000-level half course from the basic medical science subject areas below).

1.0 additional courses at the 4000-level from the following basic medical science
subject areas: Anatomy and Cell Biology, Biochemistry, Biostatistics, Epidemiology,
Medical Bioinformatics, Medical Biophysics, Medical Sciences (Medical Sciences
4100F/G), Microbiology and Immunology, Pathology, Pharmacology, Physiology,
Physiology and Pharmacology.

No further changes

Notes: (no change)

Effective September 1, 2022 the following be revised:
SPECIALIZATION IN INTERDISCIPLINARY MEDICAL SCIENCES (IMS)

Admission Requirements
Admission to this Specialization module occurs in Year 3 and requires admission to Year 3 of the
Bachelor of Medical Sciences (BMSc) Program. Students will usually complete MEDICAL
SCIENCES FIRST ENTRY (Medical Sciences 1 and 2) prior to admission to the Specialization module.

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 courses: Biology 1001A* and Biology 1002B*.
1.0 courses: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

The courses below must be completed with a minimum mark of 60% in each prior to admission to the Specialization module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

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.

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.
2.0 courses from Group 1. (these 2.0 Group 1 courses cannot all be from the same subject area, e.g., these 2.0 Group 1 courses cannot all be Anatomy and Cell Biology courses).
2.0 additional courses from: courses from Groups 1-3 and courses numbered 2100 - 3999 in Chemistry. These 2.0 courses must include 0.5 – 1.0 course from Group 3. A maximum of 1.0 course from Group 3 and a maximum of 0.5 course in Chemistry can be included within these 2.0 courses.
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
Bioinformatics, Medical Biophysics, Medical Sciences, Microbiology and Immunology, Pathology, Pharmacology, Physiology, Physiology and Pharmacology. 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 3200A/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 3100B, Physiology 3120, Physiology 3140A, any of the former courses: the former Epidemiology and Biostatistics 2200A/B, the former Medical Biophysics 3336F/G, the former Pathology 3240A, the former Pathology 3245B.

**Group 2** (see Notes #4 below): Anatomy and Cell Biology 3329A/B, Biochemistry 3385B, Biochemistry 3386B, Biochemistry 3390B, Epidemiology 3210B, Epidemiology 3315B, Epidemiology 3330F/G, Medical Biophysics 3518B, Medical Biophysics 3645A/B, Microbiology and Immunology 3500B, Neuroscience 2000, One Health 3300A/B, One Health 3600A/B, Pharmacology 2060A/B, the former Anatomy and Cell Biology 3319.

**Group 3:** Biochemistry 3380G, Medical Biophysics 3970Z, Medical Sciences 3990E, Microbiology and Immunology 3610F, Microbiology and Immunology 3620G, Physiology and Pharmacology 3000E, one of the former Medical Sciences 3900F/G/Z, the former Pharmacology 3580Z, the former Physiology 3130Z.

**Notes:** (no change)

Effective **September 1, 2022** the following be revised:

**MAJOR IN INTERDISCIPLINARY MEDICAL SCIENCES (IMS)**

... Admission Requirements

Admission to this Major module occurs in Year 3 and requires admission to Year 3 of the Bachelor of Medical Sciences (BMSc) Program. Students will usually complete MEDICAL SCIENCES FIRST ENTRY (Medical Sciences 1 and 2) prior to admission to the Major module.

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 courses: Biology 1001A* and Biology 1002B*.
1.0 courses: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

The courses below must be completed with a minimum mark of 60% in each prior to admission to the Major module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course: Biochemistry 2280A.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
1.0 courses from: Biology 2290F/G, Biology 2382A/B, Biology 2581A/B.
0.5 course from: Chemistry 2213A/B.

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 (see below) with a minimum of 1.5 courses selected from Group 1 (see Note #1 below).
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 Bioinformatics, Medical Biophysics, Medical Sciences, Microbiology and Immunology, Pathology, Pharmacology, Physiology, Physiology and Pharmacology.

Group 1: Anatomy and Cell Biology 2200A/B, Anatomy and Cell Biology 3200A/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 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 Medical Biophysics 3336F/G, the former Pathology 3240A, the former Pathology 3245B.

**Group 2:** Anatomy and Cell Biology 3329A/B, Biochemistry 3385B, Biochemistry 3386B, Biochemistry 3390B, Epidemiology 3210B, Epidemiology 3315B, Epidemiology 3330F/G, Medical Biophysics 3518B, Medical Biophysics 3645A/B, Microbiology and Immunology 3500B, Neuroscience 2000, One Health 3300A/B, One Health 3600A/B, Pharmacology 2060A/B, the former Anatomy and Cell Biology 3319.

**Notes:** *(no change)*

Effective **September 1, 2022** the following be revised:

**HONOURS BMSc INTERDISCIPLINARY MEDICAL SCIENCES/HBA HBA/HONOURS BMSc INTERDISCIPLINARY MEDICAL SCIENCES**

...  
**Years 4 and 5:** BMSc requirements for the Honours Specialization in Interdisciplinary Medical Sciences (IMS)

**Year 4** *(no changes)*

**Year 5**

**1.0 course** from: Medical Sciences 4990E or Medical Sciences 4995E (or the former Medical Sciences 4900F/G/Z and 0.5 4000-level course from the basic medical science subject areas listed below). Students participating in the Ivey exchange will take Medical Sciences 4991F/G and an additional half course at the 4000-level from the basic medical science subject areas below in place of Medical Sciences 4990E

**0.5 course:** Medical Sciences 4930F.

**0.5 course** from: Medical Sciences 4200A/B, the former Medical Sciences 4300A/B (students registered in Year 5 in 2021/22 may replace this half course with an additional 4000-level half course from the basic medical science subject areas below). Students participating in the Ivey exchange will take Medical Sciences 4200A/B, if offered in first term, or an additional half course at the 4000-level from the basic medical science subject areas below if Medical Sciences 4200A/B is offered in second term, only.

**1.0 additional courses** at the 4000-level from the following basic medical science subject areas: Anatomy and Cell Biology, Biochemistry, Biostatistics, Epidemiology, Medical Biophysics, Medical Sciences (Medical Sciences 4100F/G), Microbiology and Immunology, Pathology, Pharmacology, Physiology, Physiology and Pharmacology.

**Notes:** *(no changes)*
MEDICAL SCIENCES

Effective September 1, 2022 the following 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.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.

The following must also be completed by as an Admission Requirement, with a mark of at least 60% in each half course:

0.5 course in physics with a minimum mark of 60% from: Physics 1201A/B***, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

Note: ** the former Applied Mathematics 1413 may be used in place of the 1.0 mathematics course listed above.

*** Physics 1101A/B with a mark of at least 80% may be used in place of Physics 1201A/B. A substitution of Physics 1102A/B for Physics 1202A/B will not be permitted for admission to the Major in Medical Sciences. Note that admission to all other modules offered by the basic medical science departments requires Physics 1201A/B, and Computer Science 1026A/B or Physics 1202A/B, and substitutions will be not permitted.

...
Effective September 1, 2022, the following be revised:

MINOR IN MEDICAL SCIENCES

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 3200A/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 Medical Biophysics 3336F/G, the former Pathology 3240A, the former Pathology 3245B.


MICROBIOLOGY & IMMUNOLOGY

Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN MICROBIOLOGY AND IMMUNOLOGY

and

HONOURS SPECIALIZATION IN MICROBIOLOGY AND IMMUNOLOGY WITH PATHOLOGY

Admission Requirements
The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 courses: Biology 1001A* and Biology 1002B*.
1.0 courses: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: **Computer Science 1026A/B**, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

Effective **September 1, 2022**, the following be revised:

**MAJOR IN MICROBIOLOGY AND IMMUNOLOGY**

**Admission Requirements**
Admission to this Major module occurs in Year 3 and requires admission to Year 3 of the Bachelor of Medical Sciences (BMSc) Program. Students will usually complete MEDICAL SCIENCES FIRST ENTRY (Medical Sciences 1 and 2) prior to admission to in a BMSc degree.

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 courses: Biology 1001A* and Biology 1002B*.
1.0 courses: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: **Computer Science 1026A/B**, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

The courses listed below must be completed with a minimum mark of 60% in each (unless otherwise indicated) prior to admission to the Major module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course: Biochemistry 2280A with a mark of at least 65%.
1.0 courses: Chemistry 2213A/B and Chemistry 2223B.
1.0 courses: Biology 2382A/B, Biology 2581A/B.
0.5 course: Microbiology and Immunology 2500A/B.
Admission Requirements for students pursuing this Major module in a degree other than a Bachelor of Medical Sciences (BMSc) degree:
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 courses: Biology 1001A* and Biology 1002B*.
- 1.0 courses: Chemistry 1301A/B and Chemistry 1302A/B.
- 0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
- 0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.

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 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
- 0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

PATHOLOGY AND LABORATORY MEDICINE - MEDICAL BIOINFORMATICS

Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN MEDICAL BIOINFORMATICS

Admission Requirements
Admission to this Honours Specialization module occurs in Year 3 and requires admission to Year 3 of the Bachelor of Medical Sciences (BMSc) Program. Students will usually complete MEDICAL SCIENCES FIRST ENTRY (Medical Sciences 1 and 2) prior to admission to the Honours Specialization module. Enrolment in this Honours Specialization module is limited and meeting the minimum requirements does not guarantee admission.

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

- 1.0 course: Biology 1001A* and Biology 1002B*.
- 1.0 course: Chemistry 1301A/B and Chemistry 1302A/B.
- 0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
- 0.5 course from: Calculus 1301A/B, Calculus 1501A/B.
- 0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
- 0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.
1.0 course at the 1000-level from either Category A or B must be completed with a passing grade.

* 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.

The courses below must be completed with a minimum mark of 60% in each prior to admission to the Honours Specialization module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for additional average and course load requirements, etc. and MODULES OFFERED IN THE BMSc PROGRAM for specific information about admission to Honours Specialization modules

- 0.5 course: Biochemistry 2280A.
- 1.0 course: Biology 2382A/B, Biology 2581A/B.
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, Statistical Sciences 2858A/B.

Notes

1. Statistical Sciences 2857A/B with a mark of at least 60% is the prerequisite for Statistical Sciences 2858A/B.

2. Computer Science 2121A/B requires either (Computer Science 2120A/B) or (Computer Science 1026A/B with a minimum mark of 60% and registration in Medical Sciences First Entry) as the prerequisite.

Module

11.0 courses:

- 0.5 course: Biochemistry 2280A.
- 1.0 course: Biology 2382A/B, Biology 2581A/B.
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, Statistical Sciences 2858A/B.

1.0 course: Computer Science 2120A/B, Computer Science 2121A/B.

0.5 course: Computer Science 2120A/B. If Computer Science 1026A/B was taken, an additional half course must be taken from the picklists of modular courses numbered 2000 and above to replace Computer Science 2120A/B.

0.5 course: Computer Science 2121A/B

0.5 course from: Mathematics 1229A/B, Mathematics 1600A/B.

0.5 course from: Data Science 2000A/B, Statistical Sciences 2857A/B.

0.5 course from: Computer Science 3120A/B, Computer Science 3121A/B.

0.5 course: Medical Bioinformatics 3100A/B.

1.0 course: Pathology 3500, or the former Pathology 3240A and the former Pathology 3245B.

1.0 course: Physiology 3120.
1.0 course from: Anatomy and Cell Biology 2200A/B, Anatomy and Cell Biology 3309, Biochemistry 3385B, Epidemiology 2200A/B, Medical Biophysics 3503G, Medical Biophysics 3505F, Microbiology and Immunology 2500A/B, Pharmacology 3620.
0.5 course from: Computer Science 4411A/B, Data Science 3000A/B, Biology 4289A/B, One Health 4100F/G, the former Computer Science 4414A/B.
1.0 course from: Medical Bioinformatics 4750F/G or Microbiology and Immunology 4750F/G, Medical Bioinformatics 4850G.
1.5 courses: Medical Bioinformatics 4980E (Research Project = 1.5 courses)

Notes: *(no changes)*

PATHOLOGY AND LABORATORY MEDICINE – ONE HEALTH

Effective September 1, 2022 the following be revised:

HONOURS SPECIALIZATION IN ONE HEALTH

Admission Requirements

... The 1000-level half courses listed below must each be completed with a mark of at least 60%:
  1.0 courses: Biology 1001A* and Biology 1002B*.
  1.0 courses: Chemistry 1301A/B and Chemistry 1302A/B.
  0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
  0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
  0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
  0.5 course from: **Computer Science 1026A/B**, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.
1.0 course at the 1000-level from either Category A or B must be completed with a passing grade. 1.0 of the following first-year courses is recommended but not required: Sociology 1020 or Sociology 1021E, Geography 1400F/G, Geography 1500F/G, Health Sciences 1001A/B, Health Sciences 1002A/B.
...
Effective September 1, 2022 the following be revised:

MAJOR IN ONE HEALTH

... 

ADMISSION REQUIREMENTS FOR STUDENTS PURSUING THIS MAJOR MODULE IN AN HONOURS BACHELOR OF MEDICAL SCIENCES (BMSC) DEGREE (DOUBLE MAJORS):

Admission to this Major module occurs in Year 3 and requires admission to Year 3 of the Bachelor of Medical Sciences (BMSc) Program. Students will usually complete MEDICAL SCIENCES FIRST ENTRY (Medical Sciences 1 and 2) prior to admission to a BMSc degree.

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*.
1.0 course: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

The courses below must be completed with a minimum mark of 60% in each prior to admission to the Major module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course: Biochemistry 2280A
0.5 course: Biology 2382A/B
0.5 course: Chemistry 2213A/B
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.

ADMISSION REQUIREMENTS FOR STUDENTS PURSUING THIS MAJOR MODULE IN AN HONOURS DEGREE (DOUBLE MAJORS) OTHER THAN A BACHELOR OF MEDICAL SCIENCES (BMSC) DEGREE:

Completion of first year requirements with no failures. Students must have an average of at least 70% in the 3.0 principal courses, listed below, with no mark in these principal courses below 60%.

1.0 course: Biology 1001A* and Biology 1002B*.
1.0 course: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.

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 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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/Program Information

PATHOLOGY AND LABORATORY MEDICINE - PATHOLOGY

Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN PATHOLOGY

Admission Requirements

... The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 courses: Biology 1001A* and Biology 1002B*.
1.0 courses: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

...
Effective September 1, 2022, the following be revised:

**MAJOR IN PATHOLOGY**

Admission Requirements

... 

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

- 1.0 courses: Biology 1001A* and Biology 1002B*.
- 1.0 courses: Chemistry 1301A/B and Chemistry 1302A/B.
- 0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
- 0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.
- 0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
- 0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

...

**MEDICAL BIOPHYSICS**

Effective September 1, 2022, the following be revised:

**HONOURS SPECIALIZATION IN MEDICAL BIOPHYSICS (Biological Science Concentration)**

**Module**

10.0 courses:

- **0.5 course**: Biochemistry 2280A.
- **1.0 course** from: Biology 2290F/G, Biology 2382A/B, Biology 2581A/B.
- **0.5 course** from: Biology 2244A/B, Statistical Sciences 2244A/B.
- **0.5 course**: Chemistry 2213A/B.
- **0.5 course**: Computer Science 2035A/B.
- **3.0 courses**: Medical Biophysics 3330F/G, Medical Biophysics 3501A, Medical Biophysics 3503G, Medical Biophysics 3505F, Medical Biophysics 3507G, Medical Biophysics 3970Z.
- **1.0 course** from: Physiology 2130 or Physiology and Pharmacology 2000.
- **1.5 courses** from: Medical Biophysics 4455A/B, Medical Biophysics 4467A/B, Medical Biophysics 4475A/B, Medical Biophysics 4535A/B, Medical Biophysics 4700B, Medical Biophysics 4710A/B.
- **1.5 courses**: Medical Biophysics 4970E (Research Project = 1.5 courses).
Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN MEDICAL BIOPHYSICS (Clinical Physics Concentration)*

Module
11.5 courses:

0.5 course from: Calculus 2302A/B, Calculus 2502A/B.
0.5 course from: Calculus 2303A/B, Calculus 2503A/B.
0.5 course: Mathematics 1600A/B.
1.5 courses: Physics 2101A/B, Physics 2102A/B, Physics 2110A/B.
1.0 course from: Physiology 2130 or Physiology 3120 or Physiology and Pharmacology 2000.
3.0 courses: Medical Biophysics 3330F/G, Medical Biophysics 3501A, Medical Biophysics 3503G, Medical Biophysics 3505F, Medical Biophysics 3507G, Medical Biophysics 3970Z.
2.0 courses from: Physics 3151A/B, Physics 3200A/B, Physics 3300A/B, Physics 3380A/B, Physics 3400A/B.
1.0 course from: Medical Biophysics 4467A/B, Medical Biophysics 4475A/B, Medical Biophysics 4710A/B.
1.5 courses: Medical Biophysics 4971E. (Research Project = 1.5 courses)

Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN MEDICAL BIOPHYSICS (Medical Science Concentration)*

Module
10.0 courses:

0.5 course: Biochemistry 2280A.
0.5 course: Chemistry 2213A/B.
0.5 course: Computer Science 2035A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
0.5 course from: Biology 2290F/G, Biology 2382A/B, Biology 2581A/B, Chemistry 2214A/B, Medical Biophysics 3336F/G.
1.0 course from: Physics 2101A/B and Physics 2102A/B, or Physiology 2130 or Physiology 3120 or Physiology and Pharmacology 2000.
3.5 courses: Medical Biophysics 3330F/G, Medical Biophysics 3501A, Medical Biophysics 3503G, Medical Biophysics 3505F, Medical Biophysics 3507G, Medical Biophysics 3645A/B, Medical Biophysics 3970Z.
1.5 courses from: Medical Biophysics 4445A/B, Medical Biophysics 4455A/B, Medical Biophysics 4467A/B, Medical Biophysics 4475A/B, Medical Biophysics 4535A/B, Medical Biophysics 4700B, Medical Biophysics 4710A/B.
1.5 courses: Medical Biophysics 4970E (Research Project = 1.5 courses).
Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN MEDICAL BIOPHYSICS (Physical Science Concentration)

Module
10.0 courses:

1.0 course from: Physics 2101A/B and Physics 2102A/B.
0.5 course from: Calculus 2302A/B, Calculus 2502A/B.
0.5 course from: Calculus 2303A/B, Calculus 2503A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
0.5 course: Computer Science 2035A/B.
3.5 courses: Medical Biophysics 3330F/G, Medical Biophysics 3501A, Medical Biophysics 3503G, Medical Biophysics 3505F, Medical Biophysics 3507G, Medical Biophysics 3645A/B and Medical Biophysics 3970Z.
1.5 courses: Medical Biophysics 4970E (Research Project = 1.5 courses).
1.0 course from: Medical Biophysics 4445A/B, Medical Biophysics 4455A/B, Medical Biophysics 4467A/B, Medical Biophysics 4475A/B, Medical Biophysics 4535A/B, Medical Biophysics 4710A/B.
1.0 course from: Applied Mathematics 2402A/B, Applied Mathematics 2811A/B, Applied Mathematics 3615A/B, Chemistry 2213A/B, Chemistry 2214A/B, Chemistry 2223B, Engineering Science 1036A/B, Mathematics 1600A/B, Physics 2110A/B, an additional one or two half courses in Medical Biophysics at the 3000- or 4000-level, the former Applied Mathematics 2813B, the former Physics 2600A/B.

Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN MEDICAL BIOPHYSICS AND BIOCHEMISTRY*

Module
10.5 courses:

0.5 course: Biochemistry 2280A.
0.5 course: Biology 2581A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
0.5 course from: Chemistry 2213A/B or Chemistry 2273A.
0.5 course from: Chemistry 2223B or Chemistry 2283G.
0.5 course: Computer Science 2035A/B.
0.5 course: Medical Biophysics 3518B or the former Medical Biophysics 2582B.
1.0 course from: Physiology 2130 or Physiology and Pharmacology 2000.
1.0 course: Biochemistry 3381A, Biochemistry 3382A.
1.0 course: Medical Biophysics 3501A, Medical Biophysics 3507G.
0.5 course from: Biochemistry 3380G or Medical Biophysics 3970Z.
1.0 course: Biochemistry 4410A, Biochemistry 4420A.
0.5 course: Medical Biophysics 4518B.
0.5 course from: Medical Biophysics 3645A/B, Medical Biophysics 4467A/B, Medical Biophysics 4710A/B.
1.5 courses from: Biochemistry 4483E or Medical Biophysics 4970E.

Effective September 1, 2022, the following be revised:

MAJOR IN MEDICAL BIOPHYSICS

Module
6.0 courses:

0.5 course: Computer Science 2035A/B.
1.0 course from: Physics 2101A/B and Physics 2102A/B, or Physiology 2130 or Physiology and Pharmacology 2000.
3.5 courses: Medical Biophysics 3330F/G, Medical Biophysics 3501A, Medical Biophysics 3503G, Medical Biophysics 3505F, Medical Biophysics 3507G, Medical Biophysics 3645A/B, Medical Biophysics 3970Z.
1.0 course from: Medical Biophysics 4445A/B, Medical Biophysics 4455A/B, Medical Biophysics 4467A/B, Medical Biophysics 4475A/B, Medical Biophysics 4535A/B, Medical Biophysics 4710A/B.

NEUROSCIENCE
(Offered jointly by Departments of Anatomy and Cell Biology/Physiology and Pharmacology in the School of Medicine & Dentistry, and the Department of Psychology in the Faculty of Social Science)

Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN NEUROSCIENCE

Admission Requirements
Completion of first-year requirements with no failures. Students must have a minimum average of 75% in the following 4.0 principal courses, with no mark below 60% in any of these (full or half) courses:

1.0 courses from: Biology 1001A or Biology 1201A and Biology 1002B or Biology 1202B.
1.0 course: Psychology 1000, or Psychology 1002A/B and Psychology 1003A/B.
1.0 courses: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course: Data Science 1000A/B.

1.0 0.5 course in physics with a minimum mark of 60% must be completed prior to Year 3 from:
Whether taken in first or second year, a minimum mark of 60% must be achieved in each of two courses in physics, as follows:

0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

Module (no changes)

Notes:
1. For students admitted to the Honours Specialization in Neuroscience in September 2018 and prior, please refer to the 2018-19 Academic Calendar.
2. Psychology 2802F/G and Psychology 2812A/B require a minimum mark of 70% in their prerequisite courses, Psychology 2810F/G and Psychology 2811A/B, respectively.

PHYSIOLOGY & PHARMACOLOGY

Effective September 1, 2022, the following be revised:

HONOURS SPECIALIZATION IN PHARMACOLOGY
and
HONOURS SPECIALIZATION IN PHYSIOLOGY
and
HONOURS SPECIALIZATION IN PHYSIOLOGY AND PHARMACOLOGY

Admission Requirements
...

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 courses: Biology 1001A* and Biology 1002B*.
1.0 courses: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B, Calculus 1501A/B, Mathematics 1600A/B.
0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: **Computer Science 1026A/B**, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

…

Effective **September 1, 2022**, the following be revised:

**MAJOR IN PHARMACOLOGY**

and

**MAJOR IN PHYSIOLOGY**

**Admission Requirements**

…

**Admission Requirements for students pursuing this Major module in a Bachelor of Medical Sciences (BMSc) degree:**

Admission to this Major module occurs in Year 3 and requires admission to Year 3 of the Bachelor of Medical Sciences (BMSc) Program. Students will usually complete MEDICAL SCIENCES FIRST ENTRY (Medical Sciences 1 and 2) prior to admission to a BMSc degree.

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 courses: Biology 1001A* and Biology 1002B*.

1.0 courses: Chemistry 1301A/B and Chemistry 1302A/B.

0.5 course from: Calculus 1000A/B, Calculus 1500A/B.

0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.

0.5 course from: Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.

0.5 course from: **Computer Science 1026A/B**, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

…

No further changes until “Admission Requirements for students pursuing this Major module in a degree other than a Bachelor of Medical Sciences (BMSc) degree” section.

…

**Admission Requirements for students pursuing this Major module in a degree other than a Bachelor of Medical Sciences (BMSc) degree:**
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 courses: Biology 1001A* and Biology 1002B*.
1.0 courses: Chemistry 1301A/B and Chemistry 1302A/B.
0.5 course from: Calculus 1000A/B, Calculus 1500A/B.
0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1600A/B.

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 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.
0.5 course from: Computer Science 1026A/B, Physics 1202A/B, Physics 1502A/B, the former Physics 1029A/B, the former Physics 1302A/B.

* 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.

Effective September 1, 2022, the following be revised:

**MINOR IN PHARMACOLOGY**

**Module**

4.0 courses:

0.5 course: Biochemistry 2280A.
0.5 course: Chemistry 2213A/B.
0.5 course: Biology 2382A/B.
1.0 course from: Physiology 2130, or Physiology 3120, Physiology and Pharmacology 2000.
1.0 course: Pharmacology 3620.
0.5 course: in Pharmacology, Physiology and Pharmacology, at the 4000-level.

**Notes for the Module:** *(no changes)*
Effective **September 1, 2022**, the following course hours be revised:

**BIOCHEMISTRY 3390B: ADVANCED METHODS FOR BIOCHEMISTRY**

Extra Information: 3 lecture hours, 1 seminar hour.

Effective **September 1, 2022**, the following suffix be revised:

**CREATIVE ARTS 3210F/GA/B**

The February 16, 2022 DAP noted an effective date of September 1, 2022 for **ANTHROPOLOGY 3370A/B - RESEARCH PRACTICUM**. This effective date has been revised to **March 1st, 2022** so the course could be offered in the Summer 2022 term.