SOC APPROVALS October 9, 2024

The following proposals were approved at the October 9, 2024 meeting of the Subcommittee on Undergraduate Academic Courses (SOC).

FACULTY OF ENGINEERING

DEPARTMENT OF MECHANICAL AND MATERIALS ENGINEERING

Course Revision – Effective September 1, 2024, the following change(s) be made:

MECHANICAL AND MATERIALS ENGINEERING 2202A/B MECHANICS OF MATERIALS

Course Description

Stress and strain, Mohr's stress circle, behaviour of structures, axial loading of columns and struts, torsion of shafts, bending of beams, buckling of columns and combined loading of components.

Antirequisite(s): CEE 2202A/B, MSE 2212A/B.

Prerequisite(s): Engineering Science 1022A/B/Y, NMM 1414A/B or the former Applied Mathematics 1414A/B. NMM 1412A/B or the former Applied Mathematics 1412A/B.

Extra Information: 3 lecture hours, 2 tutorial hours, 0.5 laboratory hour .

Course Weight: 0.50

MECHANICAL AND MATERIALS ENGINEERING 2221A/B COMPUTATIONAL METHODS FOR MECHANICAL ENGINEERS

MECHANICAL AND MATERIALS ENGINEERING 4453A/B CORROSION AND WEAR

Course Description

Corrosion principles, types of corrosion, corrosion protection. Surface characterization. Friction, lubrication and wear. Materials selection for tribological applications.

Prerequisite(s): Engineering Science 1021A/B.

FACULTY OF HEALTH SCIENCES

ARTHUR LABATT FAMILY SCHOOL OF NURSING

Course Revision – Effective September 1, 2024, the following change(s) be made:

NURSING 1335A/B HEALTH ASSESSMENT

Course Description

In this course application of clinical judgement models provide students a framework to convey information from health assessments as a foundational part of nursing practice. Conducting a focused examination of clients using a system based approach enables students to utilize theoretical components of health assessment in the laboratory environment.

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Course Withdrawal – Effective September 1, 2024, the following course be withdrawn:

BIOLOGY 1202B GENERAL BIOLOGY II

Course Description

This course provides an understanding of fundamental biological concepts with emphasis on function in and relevance to humans. Topics include molecular genetics, physiology, bioenergetics. This course is not available to students enrolled in the Faculty of Science (students registered in the Faculty of Science should select Biology 1002B).

Antirequisite(s): Biology 1002B, Biology 1225.

Prerequisite(s): Grade 12U (SB14U) Biology or Grade 11U (SB13UA) Biology and permission of the Department.

Extra Information: 2 lecture hours, 3 laboratory/tutorial hours. Note: The combination of Biology 1201A and Biology 1202B (with appropriate marks) can be a prerequisite for senior Biology courses and admission to modules offered by the Department of Biology and the BdiJn-0.0.*

BIOLOGY 2382A/B CELL BIOLOGY

Course Description

Molecular and structural organization of cells in relation to function. Composition and dynamics of the plasma membrane and membrane-bound compartments in cells. Synthesis and trafficking of proteins. Cytoskeleton and cell motility. Membrane receptors in signal and energy transduction, cell-cell adhesion and recognition. Excitable membranes.

Prerequisite(s): Either Biology 1001A or Biology 1201A (or the former Biology 1201A) and either Biology 1002B or Biology 1202B (or the former Biology 1202B) with a minimum of 60% in each; Chemistry 1301A/B and Chemistry 1302A/B. Integrated Science 1001X with a minimum mark of 60% can be used as a prerequisite in place of Biology 1002B and Chemistry 1302A/B.

Extra Information: 2 lecture hours, 1 lecture/tutorial hour. Mandatory course in most modules offered by the Department of Biology. Course Weight: 0.50

BIOLOGY 2483A/B ECOLOGY

Course Description

An introduction to ecology, the scientific study of the interactions that determine the distribution and abundance of plants, animals, and microorganisms. Ecological concepts at the organism, population and ecosystem levels will be considered, including tolerance limits, life history evolution, competition, predation, population growth and control, and ecosystem dynamics.

Prerequisite(s): A minimum mark of 60% in either Biology 1001A-or Biology 1201A (or the former Biology 1201A) and a minimum mark of 60% in either Biology 1002B-or Biology 1202B or Integrated Science 1001X (or the former Biology 1202b).

Extra Information: 2 lecture hours, 1 lecture/tutorial hour. Mandatory course in

most modules offered by the Department of Biology.

Course Weight: 0.50

Course Revision – Effective September 1, 2024, the following changes be made:

BIOLOGY 2485A/B ENVIRONMENTAL BIOLOGY

Course Description

BIOLOGY 2601A/B ORGANISMAL PHYSIOLOGY

Course Description

This course provides a general background in the mechanisms and consequences of physiological processes in plants and animals. It will take an integrated approach and include a comparative context, wherever possible. It will include an overview of physiology in both plants and animals.

Prerequisite(s): A minimum mark of 60% in either Biology 1001A or Biology 1201A (or the former Biology 1201A) and a minimum mark of 60% in either Biology 1002B or Biology 1202B or Integrated Science 1001X (or the former Biology 1202B).

Extra Information: 2 lecture hours, 1 lecture/tutorial hour.

Course Weight: 0.50

Course Revision – Effective September 1, 2024, the following changes be made:

BIOLOGY 3222F/G SELECTED TOPICS

Course Description

Selected topics of current interest in Biology. The topics may vary each year. Specific topics will be available from the Department prior to registration.

Prerequisite(s): A minimum mark of 60% in Biology 1001A-or Biology 1201A (or the former Biology 1201A) and Biology 1002B-or Biology 1202B or Integrated Science 1001X, (or the former Biology 1202B), and at least one half course in Biology at the 2200 level or above, or permission of the Department.

Extra Information: 2 lecture hours, 1 tutorial/lecture hour.

Course Weight: 0.50

BIOLOGY 3224F/G SELECTED TOPICS

Course Description

Selected topics of current interest in Biology. The topics may vary each year. Specific topics will be available from the Department prior to registration.

Prerequisite(s): A minimum mark of 60% in Biology 1001A-or Biology 1201A (or the former Biology 1201A) and Biology 1002B-or Biology 1202B or Integrated Science 1001X, (or the former Biology 1202B), and at least one half course in Biology at the 2200 level or above, or permission of the Department.

Extra Information: 3 hours.

Course Weight: 0.50

Course Revision – Effective September 1, 2024, the following changes be made:

BIOLOGY 3230F/G FIELD RESEARCH IN BIOLOGY

Course Description

This field course provides a theoretical and hands-

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Psychology 3285F/G.

- 2.0 courses from: Biology 2601A/B, Biology 3435F/G, Biology 3442F/G, Biology 3446A/B, Biology 3475A/B, Biology 3484A/B, Biology 3601A/B, Biology 3602A/B, or the former Biology 2484A.
- 0.5 course from: Biology 3436F/G, Psychology 3221F/G.
- 0.5 course from: Biology 4259F/G, Psychology 3800F/G.
- 1.0 course* from: Biology 4436F/G, Biology 4441F/G, Biology 4611F/G, Biology 4999E (1.5 courses).
- 1.0 course from: Psychology 4190F/G, Psychology 4195F/G, Psychology 4222F/G, Psychology 4223F/G, Psychology 4224F/G, Psychology 4290F/G, Psychology 4295F/G, Psychology 4850E, Psychology 4851E.

Program Revision -

0.5 course from: Biology 3444A/B, Biology 3466A/B.

0.5 course from: Biology 3415F/G, Biology 4405A/B, Biology 4223F/G,

Geography 3343A/B.

0.5 course: Biology 4289A/B.

1.0 course: Biology 4412F/G, Biology 4410F/G.

1.0 course from: Biology 3435F/G, Biology 3436F/G, Biology 3446A/B, Biology 3475A/B, Biology 4200A/B, Biology 4230A/B, Biology 4259F/G, Biology 4944F/G Biology 4970F/G, Biology 4999E, Geography 2133A/B, Geography 3352A/B, Geography 3441F/G, Geography 3445F/G, the former Biology 4243F/G, or courses above if not already taken.

Notes:

1. If student takes Biology 4999E, this module becomes 11.0 courses.

Some module courses require prerequisite offerings that are not themselves part of the module.

1.5 courses from any 4000-level Biology course.

0.5 courses from the following: Biology 4920F/G, Biology 4944F/G, the former Biology 4930F/G, the former Biology 4931F/G (Students registered in Biology 4999E can satisfy this 0.5 credit with any 4000-level Biology course). Basic Medical Sciences Disciplines: Anatomy and Cell Biology, Biochemistry, Epidemiology and Biostatistics, Medical Biophysics, Microbiology and Immunology, Pathology, Physiology, and Pharmacology.

Courses in History of Science are not included.

*The former Microbiology and Immunology 2100A and/or Pharmacology 2060A/B may be taken to satisfy this requirement.

Notes:

- 1. Many 4000-level Biology courses require the completion of 1.5 Biology courses at the 3000-level or above.
- 2. Students with spe4c 0 Tw 0.83 w 0.83 w 0.83 wc -0.002 Tw d ()Tj 0.ntsae012 Tw -5.29

SPECIALIZATION IN BIOLOGY

Admission Requirements

Completion of first year requirements including a minimum mark of 60% in each of Biology 1001A or Biology 1201A (or the former Biology 1201A) and Biology 1002B or Biology 1202B (or the former Biology 1202B).

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

0.5 course from: Physics 1201A/B, Physics 1401A/B, Physics 1501A/B; the former Physics 1028A/B, the former Physics 1301A/B.

1.0 course from: Calculus 1000A/B or Calculus 1500A/B, Calculus 1301A/B or Calculus 1501A/B, Mathematics 1225A/B, Mathematics 1228A/B, Mathematics 1229A/B or Mathematics 1600A/B, Data Science 1000A/B, Applied Mathematics 1201A/B, Numerical and Mathematical Methods 1411A/B, Numerical and Mathematical Methods 1412A/B, Numerical and Mathematical Methods 1414A/B; the former Applied Mathematics 1411A/B, the former Applied Mathematics 1414A/B, the former Applied Mathematics 1413, the former Statistical Sciences 1024A/B.

Note: If not completed in Year 1, the Mathematics requirement must be completed by the end of Year 2.

Note: If not completed in Year 1, the Physics requirement must be completed by the end of Year 2.

Note: Physics 1101A/B with a minimum mark of 65% can be used to replace Physics 1201A/B.

Module

9.0 courses:

2.5 courses: Biochemistry 2280A, Biology 2290F/G, Biology 2382A/B, Biology 2483A/B, Biology 2581A/B.

0.5 course: Chemistry 2213A/B.

0.5 course: Biology 2601A/B.

0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B.

5.0 courses at the 2200 level or above*, chosen from the Department of Biology and Basic Medical Sciences disciplines (see below), of which at least 4.0 courses must be chosen from the Department of Biology. A maximum of 1.0 course may be at the 2200-2999 level and at least 1.5 of these courses must have a laboratory component. Basic Medical Sciences Disciplines: Anatomy and Cell Biology, Biochemistry, Epidemiology and Biostatistics, Medical Biophysics, Microbiology and Immunology, Pathology, Physiology, and Pharmacology.

Courses in the History of Science are not acceptable.

* The former Microbiology and Immunology 2100A and/or Pharmacology 2060A/B may be taken to satisfy this requirement.

MAJOR IN BIOLOGY

Admission Requirements

Completion of first year requirements with no failures including a minimum mark of 60% in each of Biology 1001A-or Biology 1201A (or the former Biology 1202B) and Biology 1002B-or Biology 1202B (or the former Biology 1202B)

- 1.0 course: Chemistry 1301A/B and Chemistry 1302A/B.
- 0.5 course from: Physics 1201A/B, Physics 1401A/B, Physics 1501A/B; the former Physics 1028A/B, the former Physics 1301A/B.
- 1.0 course from: Calculus 1000A/B or Calculus 1500A/B, Calculus 1301A/B or Calculus 1501A/B, Mathematics 1225A/B, Mathematics 1229A/B or Mathematics 1600A/B, Data Science 1000A/B, Applied Mathematics 1201A/B, Numerical and Mathematical Methods 1411A/B, Numerical and

Courses in the History of Science are not included.

* The former Microbiology and Immunology 2100A or Pharmacology 2060A/B may be taken to satisfy this requirement.

Notes:

- 1. Students registered in an honours double major degree must complete a minimum of 1.0 at the 3000 level for each module.
- Physiology 2130 or Physiology and Pharmacology 2000 can be taken instead of Biology 2601A/B to satisfy the physiology requirement for the module. However, students must make up the 0.5 course represented by Biology 2601A/B with an alternate Biology course from the 2200 level or above.
- 3. Physiology 2130 or Physiology and Pharmacology 2000 can replace Biology 2601A/B in the Major in Biology but are not sufficient prerequisites for any courses that require Biology 2601A/B as a prerequisite.

0.5 course from: Any of the 3000-level Biology courses listed above and not already taken.

2.0 courses from: Biology 4260A/B, Biology 4289A/B, Biology 4355F/G, Biology 4510F/G, Biology 4515A/B, Biology 4540F/G, Biology 4560A/B, Biology 4561F/G, Biology 4562A/B, Biology 4563F/G, Biology 4970F/G, Biology 4999E.

Notes:

- 1. For progression into third year of this module, students must obtain a minimum mark of 70% in each of Biology 2581A/B, and Biology 2290F/G.
- 2. For progression into fourth year of this module, students must obtain a minimum 70% in each of Biology 3596A/B and 1.0 of the 3000 level Biology courses listed above.

MAJOR IN GENETICS

Admission Requirements

Completion of first year requirements with no failures including a minimum mark of 60% in each of Biology 1001A-or Biology 1201A (or the former Biology 1201A) and Biology 1002B or Biology 1202B (or the former Biology 1202B). Chemistry 1301A/B and Chemistry 1302A/B.

0.5 course from: Physics 1201A/B, Physics 1401A/B, Physics 1501A/B; the former Physics 1028A/B or the former Physics 1301A/B.

1.0 course from: Calculus 1000A/B or Calculus 1500A/B, Calculus 1301A/B or Calculus 1501A/B, Mathematics 1225A/B, Mathematics 1228A/B, Mathematics 1229A/B or Mathematics 1600A/B, Data Science 1000A/B, Applied Mathematics 1201A/B, Numerical and Mathematical Methods 1411A/B, Numerical and Mathematical Methods 1412A/B, Numerical and Mathematical Methods 1414A/B; the former Applied Mathematics 1411A/B, the former Applied Mathematics 1414A/B, the former Applied Mathematics 1414A/B, the former Applied Mathematics 1413, the former Statistical Sciences 1024A/B.

Note: If not completed in Year 1, the Mathematics requirement must be completed by the end of Year 2.

Note: If not completed in Year 1, the Physics requirement must be completed by the end of Year 2.

Note: Physics 1101A/B with a minimum mark of 65% can be used to replace Physics 1201A/B.

Module

6.0 courses:

0.5 course: Biochemistry 2280A.

1.5 courses: Biology 2290F/G, Biology 2382A/B, Biology 2581A/B.

0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B.

0.5 course: Biology 3596A/B.

0.5 courses from: Biology 3594A/B, Biology 3595A/B, Biology 3597A/B.

1.5 courses (not already taken above) from: Biology 3466A/B, Biology 3592A/B,

2. For progression in this module, students must obtain a minimum of 70% in Biology 3596A/B.

A degree containing this module normally requires 4 years to complete.

Program Revision – Effective September 1, 2024, the following changes be made:

MINOR IN GENETICS

3598A/B.

0.5 course from: Biology 3466A/B, Biology 3592A/B, Biology 3593A/B.
1.5 courses from: Biology 4289A/B, Biology 4510F/G, Biology 4540F/G, Biology 4560A/B, Biology 4561F/G, Biology 4562A/B, Biology 4970F/G.
1.0 course: Biochemistry 4410A and Biochemistry 4420A.
0.5 course from: Biochemistry 3385B, Biochemistry 3390B, Biochemistry 3392F/G, Biochemistry 4415B, Biochemistry 4450A, the former Biochemistry 4463B.

Note:

1. Biochemistry 3381A and Biochemistry 3382A requires a minimum mark of 65% in Biochemistry 2280A, and a minimum mark of 60% in each of Chemistry 2213A/B and Chemistry 2223B.

For progression into third year of this module, students must obtain a minimum

HONOURS SPECIALIZATION IN SYNTHETIC BIOLOGY

Admission Requirements

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

1.0 course from: Biology 1001A or Biology 1201A (or the former Biology 1201A) and Biology 1002B or Biology 1202B (or the former Biology 1202B) ...

1.0 course: Chemistry 1301A/B and Chemistry 1302A/B, and.

1.0 course from: Calculus 1000A/B or Calculus 1500A/B, Calculus 1301A/B or Calculus 1501A/B, Mathematics 1225A/B, Mathematics 1228A/B, Mathematics 1229A/B or Mathematics 1600A/B, Applied Mathematics 1201A/B, Numerical and Mathematical Methods 1411A/B, Numerical and Mathematical Methods 1412A/B, Numerical and Mathematical Methods 1414A/B; the former Applied Mathematics 1411A/B, the former Applied Mathematics 1412A/B, the former Applied Mathematics 1413.

A minimum mark of 60% is also required in one of the following half courses which is not included in the principal courses:

0.5 course from: Physics 1201A/B, Physics 1401A/B, Physics 1501A/B; the former Physics 1028A/B, the former Physics 1301A/B.

Note: If not completed in Year 1, the Physics requirement must be completed by the end of Year 2.

Note: Physics 1101A/B with a minimum mark of 65% can be used to replace Physics 1201A/B.

Module

10.5 courses:

0.5 course: Biochemistry 2280A with a mark of at least 65%.

1.0 course: Biology 2290F/G, Biology 2581A/B, with a mark of at least 70% in each.

0.5 course: Biology 2382A/B.

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1.0 course: Biology 3593A/B, Biology 3596A/B.

0.5 course: Science 3377A/B.

0.5 course from: Business Administration 2295F/G, or one of Business Administration 1220E or Business Administration 2257 (see note).

0.5 course from: Philosophy 2035F/G, Philosophy 2300F/G, Philosophy 2320F/G, Philosophy 2370F/G, Philosophy 2350F/G, Philosophy 3341F/G.

0.5 course: Biology 4260A/B. 0.5 course: Biochemistry 4415B.

1.5 courses: Biology 4998E (Research Project = 1.5 courses).

Note: the module will be comprised of 11.0 courses if either Business Administration 1220E or Business Administration 2257 is taken. Business Administration 1220E cannot be used towards both First Year Requirements and modular requirements.

*If students take Pathology 3500, the module becomes 6.5 courses.

Note: At least 3.5 courses taken in the module must be from the Faculty of Science.

DEPARTMENT OF CHEMISTRY

Course Revision – Effective September 1, 2024, the following change(s) be made:

CHEMISTRY 2214A/B
PHYSICAL CHEMISTRY FOR LIFE SCIENCES

Course Description

Basic thermodynamic concepts and relations and illustration of their relevance and applications to biological systems. In addition, some aspects of

CHEMISTRY 3364A/B MATERIALS CHEMISTRY

Course Description

Introduction to the structure, properties, and functionalities of societally relevant materials including metals, semiconductors, soft materials, and nanostructures. Modern characterization techniques and applications of materials are also discussed.

Prerequisite(s): Prerequisite(s): Chemistry 2214A/B or Chemistry 2274A or the former Chemistry 2384B.

Extra Information: 3 lecture hours.

Course Weight: 0.50

Course Revision – Effective September 1, 2024, the following change(s) be made:

CHEMISTRY 4494A/B BIOPHYSICAL CHEMISTRY

Course Description

An overview of the physical principles underlying the structure, function, and dynamics of biological systems, with focus on proteins and biomembranes. Topics to be covered include: Selected applications of thermodynamics and statistical mechanics; inter- and intramolecular (noncovalent) interactions; protein folding; spectroscopic properties of biopolymers.

Prerequisite(s): Chemistry 2274A or the former Chemistry 2374A.

Extra Information: 3 lecture hours.

Course Weight: 0.50

FACULTY OF SOCIAL SCIENCE

DEPARTMENT OF HISTORY

Course Revision – Effective September 1, 2024, the following change(s) be made:

HISTORY 3440E THE VIRGIN QUEEN

Course Description

The Virgin Queen or Gloriana, Elizabeth I is the most studied Briton of the early modern period. Using primary and secondary sources including literature and film, this research seminar examines Elizabeth's role as a leader, woman, and queen, exploring her self-representation and later use of her image and memory.

Antirequisite(s): History 3441F/G, History 4496F/G if taken on Main Campus in 2024-25.

Prerequisite(s): Registration in third year or above, any module.

Extra Information: 3 hours.

Course Weight: 1.00

Course Revision – Effective September 1, 2024, the following change(s) be made:

HISTORY 3441F/G GLORIANA IN HISTORY, LITERATURE, PORTRAITURE AND FILM

Course Description

Elizabeth I, or Gloriana, fascinated scholars for centuries, reaching new heights with developments in women's and gender history, but more recently with studies of "Queenship and Power." Using primary sources, this seminar will explore the historiography, history, literature, portraiture and films that surround the myth and memory of Gloriana.

Antirequisite(s): History 3440E, History 4496F/G if taken on Main Campus in 2024-25.

Prerequisite(s): Registration in third year or above, any module.

Extra Information: 3 seminar hours.

Course Weight: 0.50

INDIGENOUS STUDIES PROGRAM

Course Withdrawal -

Course Withdrawal – Effective September 1, 2024, the following course be withdrawn:

INDIGENOUS STUDIES 2212F/G CULTURES OF THE PACIFIC

Course Description

Focusing on the cultures of Melanesia, Micronesia and Polynesia, this course reveals how people often understood as peripheral are at the centre of global processes. The course addresses topics including social structure, gender, politics, economies, ecologies, cosmologies, and the representation of Pacific peoples.

Antirequisite(s): Anthropology 2212F/G.

Extra Information: 3 lecture hours.

Course Weight: 0.50

Course Withdrawal – Effective September 1, 2024, the following course be withdrawn:

INDIGENOUS STUDIES 2213F/G
HISTORICAL ISSUES: FROM PRE -CONTACT TO THE 1969 WHITE PAPER

Course Description

This course examines key issues related to the history of Indigenous peoples in Canada. The time frame covers pre-contact era to the 1969 White Paper. Topics may include: Aboriginal rights and title; treaty-making; colonial policy development; residential schools; relocation and centralization; child welfare; and the 1969 White Paper.

Antirequisite(s): The former First Nations Studies 2217F/G, the former Anthropology 2217F/G.

Extra Information: 3 lecture hours.

Course Weight: 0.50

Course Withdrawal – Effective September 1, 2024, the following course be withdrawn:

INDIGENOUS STUDIES 2700A/B
MOHAWK METAPHOR: WHAT WE SAY – WHAT WE MEAN

Course Description

This course, designed for a general audience, explores the Mohawk vocabulary in everyday situations. Students will learn to deconstruct the vocabulary to discover its underlying cultural references and how this reflects the values and world view of its speakers, as well as explore how the vocabulary has changed over time.

Prerequisite(s): Completion of 3.0 courses.

Extra Information: 3 hour lecture.

Course Weight: 0.50

Course Withdrawal – Effective September 1, 2024, the following course be withdrawn:

INDIGENOUS STUDIES 3104
INTERMEDIATE MOHAWK LANGUAGE

Course Description

Your introduction to Iroquoian culture and tradition through Mohawk language began when you arrived at the "edge of the woods." Now, having acquired the consent of the village, you may head towards it by "crossing the fields" and continuing on your learning journey of Mohawk language, culture, and tradition.

Antirequisite(s): The former A havn.

HURON UNIVERSITY COLLEGE