

The following proposals, received on DAP between February 16-28, 2019, have been approved. For more information on the DAP process, [see the Secretariat's website](#).

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## FACULTY OF EDUCATION

Effective **September 1, 2019**, the following courses be revised to add another suffix option.

### **Education 5021Q/U Practicum 1**

Active observation within local schools. Teacher Candidates acquire a “big picture” understanding of schools, communities, students, and teachers as they observe in classrooms, participate in school life, and plan and teach their first lessons.

Extra Information: 4 weeks, .25 credit. Year one, completed outside of regular term.

### **Education 5022S/U Practicum 2**

An introduction to the duties and responsibilities of classroom teachers, in particular to the professional expectations of teachers and to the planning and teaching of lessons. Teacher Candidates develop instructional strategies and other skills, and demonstrate their potential for success as a teacher.

Extra Information: 4 weeks, .25 credit. Year one, completed outside of regular term.

### **Education 5023Y Practicum 3**

Active observation and assistance in schools and classrooms. Continued development of teaching skills and growth in independence with respect to lesson planning and teaching the curriculum.

Extra Information: 6 weeks, .50 credit. Year two, completed outside of regular term.

### **Education 5024Y Practicum 4**

Consolidate teaching skills, develop independence, plan and teach a unit, evaluate students, teach some full days during weeks 5 and 6, or demonstrate potential to do so.

Extra Information: 5-6 weeks, .50 credit. Year two, completed outside of regular term.

### **Education 5025Q/U Alternative Field Experience A**

A field placement or research or leadership project, in support of specialty courses.

Extra Information: 3 weeks, .25 credit. Year two, completed outside of regular term.

### **Education 5026S/U Alternative Field Experience B**

A second field placement or research or leadership project, in support of specialty courses, or, with approval, another aspect of teacher development.

Extra Information: 4 weeks, .25 credit. Year two, completed outside of regular term

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## FACULTY OF ENGINEERING

### **CIVIL AND ENVIRONMENTAL ENGINEERING**

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

### **Civil and Environmental Engineering 4459A/B – DESIGN OF LATERAL LOAD STRUCTURAL SYSTEMS**

This course covers the analysis and behaviour of high-rise buildings with different lateral load resisting systems; design of concrete shearwalls and rigid frames; analysis and design of light-framed wood shearwalls and diaphragms; design of masonry shearwalls under lateral loads. Several case studies developed for some worldwide famous high-rise buildings are discussed during the course. Three-dimensional computer modelling of high-rise buildings are covered.

**Prerequisite(s):** CEE 3343A/B and CEE 3347A/B.

**Extra Information:** 2 lecture hours, 2 laboratory hours, 0.5 course.

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

#### **A. STRUCTURAL ENGINEERING OPTION**

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##### **Fourth Year Program**

CEE 4441, CEE 4426A/B, CEE 4478A/B, ES 4498F/G, **the former** CEE 4490, three 0.5 technical electives, 1.0 non-technical elective.

Students who entered before September 2016 are required to take Business Administration 2299E.

\*Selection of the non-technical elective must be approved by the Department Counsellor to satisfy the CEAB requirements of subject matter that deals with central issues, methodologies and thought processes of the humanities and social sciences. An approved list can be found on the Engineering website.

##### **Technical Electives: Structural Engineering Option**

CEE 4440, CEE 3355A/B, CEE 4401A/B, CEE 4418A/B, CEE 4428A/B, CEE 4429A/B, CEE 4458A/B, CEE 4465A/B, CEE 4476A/B, ~~CEE 4477A/B~~, CEE 4480A/B, **CEE 4485A/B**, Earth Sciences 3340A/B, Earth Sciences 4440A/B.

**Some technical electives may not be offered in a given academic year.**

#### **B. ENVIRONMENTAL ENGINEERING OPTION**

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##### **Technical Electives: Environmental Engineering Option**

CEE 4440, CEE 4401A/B, CEE 4405A/B, CEE 4418A/B, CEE 4428A/B, CEE 4429A/B, CEE 4458A/B, ~~CEE 4477A/B~~, CEE 4479A/B, CEE 4480A/B, **CEE 4485A/B**, CBE 4463A/B, Earth Sciences 4440A/B.

**Some technical electives may not be offered in a given academic year.**

#### **F. ENVIRONMENTAL ENGINEERING WITH INTERNATIONAL DEVELOPMENT**

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##### **Technical Electives: Environmental Engineering with International Development Option**

CEE 4401A/B, CEE 4405A/B, CEE 4418A/B, CEE 4427A/B, CEE 4428A/B, CEE 4429A/B, CEE 4479A/B, CEE 4440, CEE 4480A/B, **CEE 4485A/B**, Geography 2020A/B, Geography 2030A/B, Geography 2040A/B, Centre for Global Studies 2002F/G, the former Centre for Global Studies 3004A/B.

**Some technical electives may not be offered in a given academic year.**

#### **G. STRUCTURAL ENGINEERING WITH INTERNATIONAL DEVELOPMENT**

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##### **Technical Electives: Structural Engineering with International Development Option:**

CEE 4401A/B, CEE 4405A/B, CEE 4418A/B, CEE 4427A/B, CEE 4428A/B, CEE 4429A/B, CEE 4458A/B, CEE 4476A/B, CEE 4440, CEE 4480A/B, **CEE 4485A/B**, Geography 2020A/B, Geography 2030A/B, Geography 2040A/B, Centre for Global Studies 2002F/G, the former Centre for Global Studies 3004A/B.

**Some technical electives may not be offered in a given academic year.**

## **INTEGRATED ENGINEERING**

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

### **INTEGRATED ENGINEERING PROGRAM**

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#### **Second Year Program**

Applied Mathematics 2270A/B, Applied Mathematics 2276A/B, CBE 2221A/B, CBE 2291A/B, ~~CEE 2202A/B~~ **CEE 2220A/B**, ECE 2238A/B, ECE 2277A/B, MME 2259A/B, MSE 2214A/B, Statistical Sciences 2143A/B, 1.0 non-technical elective.

\*Selection of the non-technical elective must be approved by the Department Counsellor to satisfy the CEAB requirements of subject matter that deals with central issues, methodologies and thought processes of the humanities and social sciences. An approved list can be found on the Engineering website.

#### **Third Year Program**

ES 3330A/B, ES 3331A/B, CBE 2220A/B, CBE 3322A/B, ~~CEE 2220A/B~~, **CEE 2202A/B**, CEE 2221A/B, ECE 3374A/B, MME 2285A/B, MSE 2213A/B, MSE 3301A/B, MSE 3360A/B, ES 4498F/G.

#### **Fourth Year Program**

ES 4499, ES 4480A/B, ES 4481A/B, six 0.5 technical electives\*\*.

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## **FACULTY OF SCIENCE AND SCHULICH SCHOOL OF MEDICINE & DENTISTRY**

### **BIOCHEMISTRY**

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

#### **BIOCHEMISTRY 3392F/G SYNTHETIC BIOLOGY: PRINCIPLES AND PRACTICE**

An introduction to the principles of synthetic biology. Students learn to retrieve and apply information from databases to design and model regulated biological circuits using standard components (Biobricks). Teams of students create, communicate, and defend original synthetic biology proposals.

Prerequisite(s): Biochemistry 2280A, Biology 2290F/G, Biology 2382A/B and Biology 2581A/B.

Extra Information: 2 lecture hours, 1 tutorial hour.

Note: it is recommended that Science 3377A/B be taken either prior to or concurrently with Biochemistry 3392F/G.

Course Weight: 0.50

### **PHYSICS**

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

#### **Physics 3200A/B QUANTUM MECHANICS I**

Antirequisite(s): Chemistry 3374A/B.

Prerequisite(s): **Mathematics 1600A/B**, Physics 2101A/B and Physics 2102A/B; ~~or Physics 2128A/B and Physics 2129A/B~~ Physics 2110A/B.

#### **Physics 3300A/B ELECTROMAGNETIC THEORY I**

Prerequisite(s): Physics 2101A/B and Physics 2102A/B; ~~or the former Physics 2128A/B and Physics 2129A/B~~ **Calculus 2302A/B or Calculus 2502A/B**.

## FACULTY OF SOCIAL SCIENCE

### HISTORY

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

#### **History 2886F/G: FAKES, FRAUDS AND FAIRS: THE HISTORY OF MUSEUMS**

This course examines the history of museums and exhibitions and their changing role in society across the globe from the ancient world to the 21st century. Themes include the rise of anthropology and natural sciences; looting; professionalization; colonialism; representation of the 'other'; museums as political and cultural tools; and repatriation.

Antirequisite(s): Museum and Curatorial Studies 2612F/G.

Extra Information: two lecture hours weekly, 0.5 course.

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## BRESCIA UNIVERSITY COLLEGE

### HISTORY

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

#### **History 1830F/G: FIRST-YEAR HISTORY SEMINAR**

This course will explore a different theme year, reflecting faculty research interests. Weekly seminar meetings will feature intensive discussion of assigned readings. Students will gain experience critically examining both primary and secondary sources. Written assignments will develop Brescia competencies. The curriculum may include guest lecturers and/or field trips.

**Extra Information:** 2 hours, 0.5 course

(Brescia)

### RELIGIOUS STUDIES

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

#### **Religious Studies 0014A/B CONTEMPORARY RELIGIOUS QUESTS: RELIGION AND THE CONTEMPORARY WORLD**

An introduction to Religious Studies that incorporates autobiographies and/or biographies of contemporary people representing different religious perspectives and walks of life. The course introduces students to the theory of religion and focuses particularly on the tension between religious traditions and contemporary realities.

Antirequisite(s): Religious Studies 0011, Religious Studies 1031E, and Religious Studies 1034F/G.

Extra Information: 3 hours, 0.5 course.

(Brescia)

#### **Religious Studies 0015A/B CONTEMPORARY RELIGIOUS QUESTS: RELIGION, CULTURE, VIOLENCE, AND IDENTITY**

An introduction to Religious Studies that incorporates the autobiographies and/or biographies of contemporary people representing different religious perspectives and walks of life. The course focuses particularly on religion's meaning and function in culture and such identity-shaping experiences as violence and persecution.

Antirequisite(s): Religious Studies 0011, Religious Studies 1031E and Religious Studies 1035F/G.

Extra Information: 3 hours, 0.5 course.

(Brescia)

**Religious Studies 1034F/G CONTEMPORARY RELIGIOUS QUESTS: RELIGION AND THE CONTEMPORARY WORLD**

An introduction to Religious Studies that incorporates autobiographies and/or biographies of contemporary people representing different religious perspectives and walks of life. The course introduces students to the theory of religion and focuses particularly on the tension between religious traditions and contemporary realities.

Antirequisite(s): Religious Studies 0011, Religious Studies 0014A/B and Religious Studies 1031E.

Extra Information: 3 hours, 0.5 course.

(Brescia)

**Religious Studies 1035F/G CONTEMPORARY RELIGIOUS QUESTS: RELIGION, CULTURE, VIOLENCE, AND IDENTITY**

An introduction to Religious Studies that incorporates the autobiographies and/or biographies of contemporary people representing different religious perspectives and walks of life. The course focuses particularly on religion's meaning and function in culture and such identity-shaping experiences as violence and persecution.

Antirequisite(s): Religious Studies 0011, Religious Studies 0015A/B and Religious Studies 1031E.

Extra Information: 3 hours, 0.5 course.

(Brescia)

**Religious Studies 2710F/G RELIGION AND REASON**

An examination of issues in philosophy of religion, focusing on arguments concerning the existence of God, the immortality of the soul, the occurrence of miracles, the validity of religious experience, and the place of religion in morality. Independent critical thinking is stressed, and no particular religious views are presupposed.

Antirequisite(s): Philosophy 2063E, Philosophy 2660E, Philosophy 2661F/G.

Extra Information: 3 hours, .5 course.

(Brescia)