

The following proposals, received on DAP between the dates listed below, have been approved.

**DAP Submission Period:** September 16-30, 2020 **DAP Approval Date:** October 16, 2020

For more information on the DAP process, see the Secretariat's website.

Approval Route: DAP

# **Faculty of Engineering**

# CIVIL AND ENVIRONMENTAL ENGINEERING

Effective September 1, 2021, the following change(s) be made: Revision to Technical Electives List.

#### A. STRUCTURAL ENGINEERING OPTION

#### **Second Year Program**

Applied Mathematics 2270A/B, Applied Mathematics 2277A/B, CEE 2202A/B, CEE 2217A/B, CEE 2219A/B, CEE 2220A/B, CEE 2221A/B, CEE 2224, Earth Sciences 2281A/B, Statistical Sciences 2141A/B\*, Writing 2130F/G (or the former ES 2211F/G)

\*Note: A student may, with the permission of the department counsellor, substitute Statistical Sciences 2143A/B for Statistical Sciences 2141A/B.

Note: CEE 3324A/B (Surveying). This course is available each summer (15 days) and must be completed before a student may graduate from the Civil Engineering program.

#### **Third Year Program**

CEE 3321A/B, CEE 3322A/B, CEE 3340A/B, CEE 3343A/B, CEE 3344A/B, CEE 3346A/B, CEE 3347A/B, CEE 3348A/B, CEE 3358A/B, CEE 3369A/B, 0.5 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.

## **Fourth Year Program**

CEE 4441, CEE 4424A/B, CEE 4426A/B, CEE 4478A/B, ES 4498F/G, CEE 4491A/B, 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 4438A/B, CEE 4458A/B, CEE 4459A/B, CEE 4465A/B, CEE 4476A/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.

Effective September 1, 2021, the following change(s) be made: Revision to Technical Electives List.

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

#### **Second Year Program**

Applied Mathematics 2270A/B, Applied Mathematics 2277A/B, CEE 2202A/B, CEE

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2217A/B, CEE 2219A/B, CEE 2220A/B, CEE 2221A/B, CEE 2224, Earth Sciences 2281A/B, Statistical Sciences 2141A/B\*, Writing 2130F/G (or the former ES 2211F/G)

\*Note: A student may, with the permission of the department counsellor, substitute Statistical Sciences 2143A/B for Statistical Sciences 2141A/B.

Note: CEE 3324A/B (Surveying). This course is available each summer (15 days) and must be completed before a student may graduate from the Civil Engineering program.

#### **Third Year Program**

CEE 3321A/B, CEE 3322A/B, CEE 3348A/B, CEE 3355A/B, CEE 3362A/B, CEE 3369A/B, CEE 3386A/B, CBE 4409A/B, CEE 4476A/B, Earth Sciences 3340A/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.

#### **Fourth Year Program**

CEE 4424A/B, CEE 4426A/B, CEE 4441, CEE 4465A/B, CEE 4478A/B, ES 4498F/G, 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: Environmental Engineering Option**

CEE 4440, CEE 4401A/B, CEE 4405A/B, CEE 4418A/B, CEE 4428A/B, CEE 4429A/B, CEE 4438A/B, CEE 4458A/B, CEE 4463A/B, CEE 4476A/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.

Effective September 1, 2021, the following change(s) be made: Revision to Technical Electives List.

#### F. ENVIRONMENTAL ENGINEERING WITH INTERNATIONAL DEVELOPMENT

#### **Third Year Program**

CEE 3321A/B, CEE 3322A/B, CEE 3327A/B, CEE 3328A/B, CEE 3348A/B, CEE 3355A/B, CEE 3362A/B, CEE 3369A/B, CEE 4476A/B, CBE 4409A/B, Earth Sciences 3340A/B, 0.5 non-technical elective\*.

#### **Fourth Year Program**

CEE 4441, CEE 3386A/B, CEE 4404A/B, CEE 4426A/B, CEE 4465A/B, CEE 4478A/B, ES 4498F/G, two 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.

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# Technical Electives: Environmental Engineering with International Development Option

CEE 4401A/B, CEE 4405A/B, CEE 4418A/B, CEE 4424A/B, CEE 4427A/B, CEE 4428A/B, CEE 4429A/B, CEE 4438A/B, CEE 4463A/B, CEE 4476A/B, CEE 4479A/B, CEE 4440, CEE 4480A/B, CEE 4485A/B, Geography 2030A/B, Centre for Global Studies 2002F/G, the former Centre for Global Studies 3004A/B, the former Geography 2020A/B, the former Geography 2040A/B.

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

It is recommended that students register for ES 3390 (Summer Community Development Placement) between their third and fourth years, although this is not a mandatory component of the program.

Effective September 1, 2021, the following change(s) be made: Revision to Technical Electives List.

#### G. STRUCTURAL ENGINEERING WITH INTERNATIONAL DEVELOPMENT

#### **Third-Year Program**

CEE 3321A/B, CEE 3322A/B, CEE 3327A/B, CEE 3328A/B, CEE 3340A/B, CEE 3343A/B, CEE 3344A/B, CEE 3346A/B, CEE 3347A/B, CEE 3348A/B, CEE 3358A/B, CEE 3369A/B.

#### Fourth-Year Program (effective September 2015)

CEE 4441, CEE 4404A/B, CEE 4424A/B, CEE 4426A/B, CEE 4478A/B, CEE 4491A/B, ES 4498F/G, two 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 with International Development Option: CEE 4401A/B, CEE 4405A/B, CEE 4418A/B, CEE 4427A/B, CEE 4428A/B, CEE 4429A/B, CEE 4438A/B, CEE 4458A/B, CEE 4459A/B, CEE 4476A/B, CEE 4440, CEE 4480A/B, CEE 4485A/B, Geography 2030A/B, Centre for Global Studies 2002F/G, the former Centre for Global Studies 3004A/B, the former Geography 2020A/B, the former Geography 2040A/B.

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

#### **ELECTRICAL AND COMPUTER ENGINEERING**

Effective September 1, 2021, the following change(s) be made: Revision to Technical Electives List.

SOFTWARE ENGINEERING PROGRAM

# **Second Year Program**

Applied Mathematics 2270A/B, Applied Mathematics 2276A/B, ECE 2277A/B, ECE 2238A/B, SE 2202A/B, SE 2203A/B, SE 2205A/B, SE 2250A/B, Mathematics 2151A/B, Statistical Sciences 2141A/B, Writing 2130F/G (or the former ES 2211F/G), one 0.5 non-technical elective from the approved list.

#### **Third Year Program**

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ECE 3375A/B, ECE 4436A/B, SE 3309A/B, SE 3310A/B, SE 3313A/B, SE 3314A/B, SE 3316A/B, SE 3350A/B, SE 3351A/B, SE 3352A/B, SE 3353A/B.

#### **Fourth Year Program**

SE 4450, SE 4452A/B, SE 4455A/B, SE 4472A/B, ES 4498F/G, four 0.5 technical electives from the list below, 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: Software Engineering** 

ECE 3389A/B, ECE 3390A/B, ECE 4460A/B, SE 4460A/B, SE 4470A/B, SE 4471A/B, Computer Science 2034A/B, Computer Science 2101A/B, Computer Science 3342A/B, Computer Science 3346A/B, Computer Science 4442A/B, Computer Science 4483A/B.

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