



## MEMORANDUM

**To:** Executive Committee of Faculty Council (April 4, 2023)  
Faculty Council (April 26, 2023)

**From:** Professor Evan Bentz  
Chair, Undergraduate Curriculum Committee

**Date:** March 28, 2023

**Re:** Major Curriculum Changes for the 2023-2024 Academic Year

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### REPORT CLASSIFICATION

This is a major policy matter that will be considered by the Executive Committee for endorsing and forwarding to Faculty Council for vote as a regular motion (requiring a simple majority of members present and voting to carry).

### SUMMARY

The Undergraduate Curriculum Committee is tasked with managing the curriculum change process for the Faculty. This report summarizes course changes proposed for the 2023-2024 academic year.

### PROCESS AND CONSULTATION

These changes have been reviewed and approved by the Undergraduate Curriculum Committee, which is comprised of teaching staff representatives from the Faculty's departments and institutes; undergraduate student representatives; the Vice-Dean, Undergraduate; the Vice-Dean, First Year; the Director, First Year Curriculum; the Associate Dean, Cross-Disciplinary Programs; the Assistant Dean and Director, Diversity, Inclusion and Professionalism; and the Faculty Registrar. The Committee meets regularly to review and approve proposed changes to the undergraduate curriculum. The impact of these changes on students in the relevant programs has been considered.

### RECOMMENDATION FOR FACULTY COUNCIL

THAT the proposed curriculum changes for the 2023-2024 academic year, as described in Report 3743, be approved.

## PROPOSED CURRICULUM CHANGES

### 1. CROSS DISCIPLINARY PROGRAMS

#### 1.1. Update calendar description for **APS330H1 S: Interdisciplinary Studies for Sustainability & Innovation: How to Change the World**

CURRENT calendar description: This is an interdisciplinary and multi-university project-based course focused on positively impacting the complex sustainability challenges faced by real-world communities around the world. Throughout this course, students work in small (three to five person) interdisciplinary and multi-university teams in order to (1) identify and understand a well-defined sustainability (social and/or environmental) problem faced by a real-world community, and then (2) devise, design and propose an implementable idea for positively impacting that problem. During the course, students are provided with multiple facilitated and structured opportunities to: engage directly with local stakeholders from the community their team is focused on; receive mentorship from a global network of experienced sustainability and innovation experts; and collaborate with a diverse array of students from other disciplines and institutions working on similar sustainability problems with other communities around the world.

PROPOSED calendar description: This is an interdisciplinary and multi-university project-based course focused on positively impacting the complex sustainability challenges faced by real-world communities around the world. Throughout this course, students work in small (three to five person) interdisciplinary and multi-university teams in order to (1) identify and understand a well-defined sustainability (social and/or environmental) problem faced by a real-world community, and then (2) devise, design and propose an implementable idea for positively impacting that problem. During the course, students are provided with multiple facilitated and structured opportunities to: engage directly with local stakeholders from the community their team is focused on; receive mentorship from a global network of experienced sustainability and innovation experts; and collaborate with a diverse array of students from other disciplines and institutions working on similar sustainability problems with other communities around the world. Admission to this course will be by application conducted in the Fall. The schedule for this course will be determined in the Fall in consultation with the participating universities. Students will be able to select the section that best fits their schedule after they have been accepted to the course.

- *This addition is to provide better information for students while they are planning their course enrolment. This is a fully online, multi-university course, coordinated by the How to Change the World organization in the UK. There will be 25 spaces available for U of T engineering students. Schedules will be dependent on the participating universities but will provide multiple options for students to select from.*

## 1.2. Create new course **GLB401Y1 Y: Global Leadership Capstone Project**

PROPOSED calendar description: is culminating capstone course draws students together in a studio course to work on a group project with an external partner organization. Students will work in multidisciplinary teams, mentored by a faculty expert, to draw on content and experiences from their previous coursework and experience. The goal is for students to demonstrate leadership in addressing an issue that is active, real, and seen as having global reach, relevance, or implications. This course will challenge students to draw on their own learning to date, analogize to other fields where relevant, and to collaborate with peers to address complex questions. In addition to submitting a final capstone report, students will present their projects at an annual capstone event. This course will be delivered primarily online through synchronous/asynchronous delivery with specific in-person activities scheduled throughout the course.

- *This course is the 3rd core course in the Tri-Campus Global Leadership Minor. At the time of approval of the Engineering version of the minor, this course was planned to be offered by the Faculty of Arts & Science. Development of the course has now moved to FASE. This course will be first offered in the 2025-26 academic year, but needs to be created now to allow for student program planning in Degree Explorer, etc.*

## 2. ENGINEERING SCIENCE

### 2.1. Update course calendar to reflect the following course scheduling changes made in 2021:

Move **ESC470: Energy Systems Capstone Design** to the Fall semester

Move **CIV401: Design and Optimization of Hydro and Wind Electric Plants** to the Winter semester

- *Make calendar consistent with modified course alignment.*

### 2.2. Remove **ECE352: Computer Organization** from Robotics Major elective list for 2024-2025 calendar onwards

- ***ECE352: Computer Organization is an exclusion to core course MIE438: Microprocessors and Embedded Microcontrollers***