

# ENGINEERING (ENG)

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## **ENG 7010 The Engineering Design Process 3 cr**

Consideration of the Engineering Design process and the logic upon which it is based. Explores both the history and possible future directions of the process from technical, social and environmental points of view.

## **ENG 7020 Topics in Engineering Practice 3 cr**

This course will cover topics relating to the practice of professional engineering. The specific topics and a detailed outline will be available prior to the start of the registration period for the session in which the course will be offered. Students can earn multiple credits for this course only when the topic subtitle is different.

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisite: Permission of the Director of the Centre for Engineering Professional Practice and Engineering Education.

## **ENG 7030 The Discipline of Engineering Education 3 cr**

An in-depth examination of the discipline of engineering education, including its evolution, its characteristics, application, and theoretical developments.

## **ENG 7040 Foundations of Engineering Education Research 3 cr**

Engineering education research conceptual and theoretical frameworks, methodologies and methods in both qualitative and quantitative paradigms, and the scholarship of teaching & learning in engineering education.

## **ENG 7510 Operational Excellence 3 cr**

This course will provide students with a solid understanding of the fundamentals of operational excellence through the methodical application of engineering principles and theory to address real industry problems, grounded in the Plan-Do-Study-Act system. May not be held with either MCG 7600 or MECH 4342 where the topic was Operational Excellence. Good knowledge of Statistics is recommended.

**Mutually Exclusive:** MCG 7600, MECH 4342

## **ENG 7800 Biosystems M.Eng. Co-op/IIP Work Term 0 cr**

Work term in business, industry or government for Master of Engineering students accepted into the Biosystems Engineering M.Eng. Co-op/IIP Graduate Option. At the conclusion of the four-month work term, students are required to submit a written report describing and/or reflecting upon the engineering work experience. This course is graded on a pass/fail basis.