



MEMORANDUM

To: Executive Committee of Faculty Council

From: Professor Chris Damaren
Chair, Engineering Graduate Education Committee

Date: January 18, 2013 for February 14, 2013 Faculty Council Meeting

Re: Report of the Engineering Graduate Education Committee

REPORT CLASSIFICATION

This is a routine matter that will be considered by the Executive Committee for approving and forwarding to Faculty Council for information.

New Courses Approved

AER1315H	Sustainable Aviation
ECE1092H	Smart Grid Case Studies
ECE1395H	Power Semiconductor Devices and Applications
ECE1656H	Nonlinear Modeling and Analysis of Biological Systems
ECE1780H	Advanced Mobile User Interfaces
MIE1214H	Applied CFD
MIE1514H	Systems Design and Engineering: A Product Perspective
MIE1622H	Computational Finance and Risk Management
MIE1742H	Composite Materials Design

Course Renamed

	<i>From</i>	<i>To</i>
MIE1512H	Research Topics in XML	Data Analytics

Course Requirements Reduced

Department of Mechanical and Industrial Engineering
The department has reduced the course requirements for the MASc, transfer-from-master's, and direct-entry PhD as follows: MASc from 2.5 FCEs to 2.0 FCEs, and transfer-from-master's and direct-entry PhD from 4.0 FCEs to 3.5 FCEs.

Rationale

There are several reasons for the proposed change to the MASc course requirement, detailed in the next paragraph. The changes to the transfer-from-master's and direct-entry PhD requirements follow from the MASc change: it has been customary to allow students who transfer from the MASc to the PhD program to take two fewer courses than the sum of courses required by each program, and that same course requirement has also always been applied to direct-entry PhD students (who MIE rarely admits as such; it's much more common to allow the transfer-from-master's).

MIE reduced the MASc course requirement from 2.5 to 2.0 FCEs for the following reasons:

- Two years ago, they introduced a new seminar requirement: MASc students are expected to attend 70% of MIE Seminars during their first year of study; this amounts to a commitment of about 18 hours.
- Based on data from a few years ago, almost $\frac{1}{4}$ of MASc students are still in the program after two years (six terms); reducing the course requirement by one half course will help reduce that number.
- Many professors in MIE feel that requiring MASc and PhD students to complete the same number of courses (2.5 FCEs each) disadvantages MASc students when it comes to research productivity.
- Finally, reducing the MIE MASc course requirement to 2.0 FCEs will simply bring the requirement in line with the Faculty median, as FCE (separate from seminar) requirements in other graduate units are as follows: CHE – 1.5, MSE – 1.5, BME – 2.0, AER – 2.0, ECE – 2.5, CIV – 2.5.

Extended Full-Time Option Added to the Master of Engineering program

Institute for Aerospace Studies Department of Chemical Engineering and Applied Chemistry Department of Civil Engineering Department of Electrical and Computer Engineering Department of Materials Science and Engineering Department of Mechanical and Industrial Engineering
The Extended Full-Time Option has been added to the Master of Engineering program in the above six graduate units.