



MEMORANDUM

To: Executive Committee of Faculty Council

From: Professor Chris Damaren
Chair, Engineering Graduate Education Committee (EGEC)

Date: March 14, 2013 for April 18, 2013 Faculty Council Meeting

Re: **EGEC Information Report**

Report Classification

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

New Courses Approved

APS1022H (MIE)	Financial Engineering 2
ECE1550H	Physics of Information
ECE1781H	Dependable Software Systems

New Emphasis Approved

A new emphasis in Advanced Water Technologies and Process Design will be offered in the Departments of Chemical Engineering & Applied Chemistry, Civil Engineering, and Materials Science & Engineering. This emphasis will be administered by the existing departments, and will include minor modifications to two existing courses, and the creation of one new course.

The emphasis will leverage an expressed demand from the private sector for MEng-level students with stronger backgrounds in water treatment technologies. By consolidating existing strengths in this area among the partner departments within one readily-identifiable emphasis, it is anticipated that greater student enrolment will follow, as well as greater industry participation and support for academic activities (guest lectures, equipment donations for labs, etc.).

Program Requirements Changed

Materials Science & Engineering (PhD Program)

A general Qualifying Examination must be scheduled and taken within 12 months of initial registration. In case of failure, one further attempt within three months is allowed, no later than within 15 months of registration. No further attempts are permitted.

The Examination consists of:

- a report (25-30 pages) of research to date, in the form of a dossier
- a presentation (20-25 min.) summarizing research, with particular emphasis on providing a critical assessment of the literature in the field, a central hypothesis of thesis, proposed methodology and recent experimental progress
- an oral examination, immediately following the presentation, by the qualifying exam committee who will ask the candidate questions pertaining to either the presented material, or related questions in materials science. The student is expected to have a working level knowledge of the fundamentals of materials science as it pertains to the proposed area of research, and on a broader basis, at the level of a 2nd year undergraduate student in Materials Science.

All required coursework, Graduate Seminar excepted, must be completed in order to take this examination.

Note: students wishing to bypass (transfer) to PhD, no later than 12 months after initial registration in MASC, must also fulfill these Qualifying Examination requirements.