UNIVERSITY OF TORONTO
FACULTY OF APPLIED SCIENCE & ENGINEERING

Report No: 3267

To: **Faculty Council**

From: **Dr. Graeme Norval**
Chair, Undergraduate Curriculum Committee

Date: **October 25, 2010**

Item: **Proposed Engineering Business Minor**

BACKGROUND:

An Engineering Business Minor is proposed. The proposed minor is best seen as a collaboration between the Faculty of Applied and Engineering and the Rotman School of Management. It will be led by Engineering and the collaboration is significant because it is both workable and brings an academic authority to the engineering-business connection. Also, it couples well with our three highly successful minors in engineering.

PROCESS:

This is the outcome of numerous discussions within Engineering and between Engineering and various alumni, business interests and management programs across the University.

STRUCTURE:

The proposed Engineering Business Minor would require the current Engineering Economics course from the home program, plus the three JRE courses, plus two additional half course equivalents (HCEs) from a list of approved courses (including an appropriate thesis); this is similar to current Minors. It is expected that most students will need to complete at least one extra course to complete the minor.

PROGRAMS/COURSES:

Three new courses are proposed (as Complementary Studies electives):

JRE 3xx: Fundamentals of Accounting and Finance
This course introduces a brief overview of essential concepts in accounting and corporate finance. The first part of the course covers the fundamentals of accounting. We start by exploring the basic language of accounting and the fundamental concepts of financial reporting. Students learn to read and analyze basic financial statements including the statements of financial position, comprehensive income, changes in equity, and cash flows. We then introduce key management accounting concepts and explore various methods of costing for decision-making.

The second part of the course covers the fundamentals of corporate finance. In the second half, students will learn how to make financial projections and how to value complex investment opportunities. Following this, students learn various techniques for controlling risk and how to determine the appropriate cost of capital. Finally, the course considers issues in cash flow management and overviews project valuation as it relates to corporate mergers. Prerequisite: Any engineering economics course.

JRE 4xx Markets and Competitive Strategy

This course introduces the basic concepts, frameworks and methodologies useful to managers in crafting and executing entrepreneurial business strategies in technology-based companies. In the first part of the course, students gain an understanding of the external, internal, and dynamic environments of a business and the elements of a superior competitive position. In the second part, we focus on designing and delivering customer value, which involves strategic decisions about segmentation, targeting and positioning, and tactical decisions related to product introductions, marketing communications, distribution channels and pricing. In the third part of the course, we build on these fundamentals and examine challenges related to innovation and industry dynamics, such as industry life cycles, disruptive technologies, product renewal, and the relationship between R&D and commercialization. Prerequisite: JRE 3XX.

JRE 4xx People Management and Organization Behaviour

This course provides students with the theory and practice of managing people in organizations. People management is the art of getting things done in organizations through people. Organizational behaviour is the study of the attitudes and behaviours of people and groups in organizations and has as an objective, effective prediction and management of behaviours that occur in organizations. Students learn about: managerial roles and agendas; work motivation theory and practice; decision making, power and ethics; the behaviour of assigned leaders; and contemporary management issues such as: diversity (global and local); employee-organization relations; focus on quality, speed and flexibility; and employee recruitment and retention. In addition to traditional lectures, case studies will be used throughout. Prerequisite: JRE 3XX.

It is recognized that the courses indicated above may need to run in the evenings, Saturdays and/or during the summer to allow for students in all programs to select the courses.

PROPOSAL/MOTION:

Recommendation and Motion for Faculty Council:

“THAT the Faculty establishes a Minor in Engineering Business and that its associated JRE 300- and 400-level courses be approved.”