



MEMORANDUM

To: Executive Committee of Faculty Council (September 23, 2016)
Faculty Council (October 25, 2016)

From: Professor Markus Bussmann
Vice-Dean, Graduate Studies

Date: July 22, 2016

Re: Closure of Master of Engineering in Design and Manufacturing

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 Master of Engineering program in Design and Manufacturing (MEng DM) has been offered since 2000 by a partnership of several southern Ontario universities. In 2014, the four current partners, McMaster, Queen's, Toronto and Western, decided to suspend enrolment and in early 2015, collectively agreed to wind down the program, as it is no longer sustainable. This proposal is a result of that decision.

ACADEMIC RATIONALE

The MEng DM program was directed at working engineers in the southern Ontario manufacturing sector. Courses were offered by any of the partner universities to students registered in the program at any one of the partner universities, at different locations within southern Ontario.

The program was very successful from 2000 until about 2008, when the global recession hit, and when many companies that had previously paid or subsidized employees' MEng DM tuition were no longer willing to do so. Many enrolled students stopped or slowed their participation in the program. New enrolments dried up, and as a result, the number of courses offered was scaled back. The program continued after 2008 with lower overall enrolment and fewer courses, but interest in the program never recovered to pre-2008 levels. At the same time, Ontario universities, including U of T, began to enhance their "regular" Master of Engineering programs, which became more attractive to working

engineers. By early 2014, the partner universities began to discuss winding down the program, as it was no longer sustainable. In the fall of 2014, they decided to close the program to new admissions, and in early 2015, they agreed to wind down the program in its current form.

IMPACT OF CLOSURE

Closure of the MEng DM will not affect other programs at FASE as MEng students with an interest in design and manufacturing can now enroll in the “regular” MEng program and pursue relevant emphases. All courses associated with the MEng DM program were unique, and will no longer be offered. Closure of the MEng DM will not affect faculty and staff at U of T, as local administration of the program was always done by MIE staff, and instructors for the program were always hired on an overload or contract basis.

PROCESS AND CONSULTATION

The engineering deans at McMaster, Queen’s, Toronto and Western (or their designates) met a number of times in 2014 and 2015 to come to the decision to wind down the program and put in place a plan to help all remaining students complete their programs in a fair and consistent manner. At U of T, MIE chair Jean Zu, and associate chair, graduate studies, Chi-Guhn Lee, were consulted. The decision to close the program was also carefully communicated to students, assuring them that plans would be put in place to allow them to complete the program in a reasonable timeframe.

GOVERNANCE PATH

FASE Dean and Vice-Provost, Academic Programs (sign-off) – August 2016

FASE Executive Committee of Council (endorsement) – September 23, 2016

FASE Council (approval) – October 25, 2016

U of T Committee on Academic Policy & Programs (approval) – January 23, 2017

U of T Academic Board (approval) – January 26, 2017

U of T Executive Committee of Governing Council (confirmation) – February 7, 2017

Ontario Universities Council on Quality Assurance (information) – Spring 2017

Ministry of Advanced Education and Skills Development (information) – Spring 2017

PROPOSAL/MOTION

THAT the proposed closure of the Master of Engineering in Design and Manufacturing, to which admissions have been suspended, as described in the attached proposal by the Vice-Dean, Graduate Studies dated July 22, 2016, be approved with an anticipated program closure date of April 30, 2017.



University of Toronto

Proposal for the Closure of an Existing Program: Master of Engineering in Design and Manufacturing

Closure Proposed: Please specify precisely what is being closed:	Master of Engineering in Design and Manufacturing (MEng DM) Graduate degree
Department:	Mechanical & Industrial Engineering
Faculty:	Applied Science & Engineering
Faculty contact:	Markus Bussmann, Vice-Dean, Graduate Studies
Department contact:	Jean Zu, Chair Chi-Guhn Lee, Associate Chair, Graduate Studies
Effective date program will be closed to new admissions:	October 1, 2014
Effective date of full closure of program: (date by which students currently in the program will be expected to graduate)	April 30, 2017
Version Date:	July 22, 2016

1 Summary

The Master of Engineering program in Design and Manufacturing (MEng DM) has been offered since 2000 by a partnership of several southern Ontario universities. In 2014, the four current partners, McMaster, Queen's, Toronto and Western, decided to suspend enrolment and in early 2015 they collectively agreed to wind down the program in its current form. This proposal, to officially close the MEng DM program at the University of Toronto, is a result of that decision. Queen's University and Western University have decided to re-launch the MEng DM program and will begin accepting applications beginning September 2016, and begin offering classes in January 2017. The Faculty of Applied Science & Engineering (FASE) at the University of Toronto has chosen not to join that initiative, and so is closing its MEng DM program.

This degree program is distinct and separate from the existing Master of Engineering degree programs. The closure of the MEng DM program will not affect these programs.

2 Rationale

The Master of Engineering program in Design and Manufacturing (MEng DM) was approved through governance at the University of Toronto on April 6, 2000 and received Ontario Council on Graduate Studies approval to commence on July 21, 2000. The degree program has always been a joint offering. The original collaborating institutions in the original memorandum of agreement of late 1999 were: McMaster University, the University of Toronto, the University of Waterloo, and the University of Western Ontario. The program was directed at working engineers in the southern Ontario manufacturing sector. Courses were offered by any of the partner universities to students registered in the program at any one of the partner universities, at different locations within southern Ontario. To accommodate the students, each course was offered in two four-day segments, each Thursday to Sunday, usually about six weeks apart. The program required students to complete ten courses, including at least five technical courses related to design and manufacturing, and at least two courses on management and business.

In 2000, the four universities hired a program director, Mr. David Heaslip, to manage who managed the program on their behalf until June 30, 2015. In early 2000, the first students were admitted and courses began to be offered. Tuition was initially \$2,500/course, or \$25,000 for the ten-course program and was only increased once, in 2011, to \$2,700/course. The program was run on a cost-recovery basis.

In 2004, a revised memorandum of agreement was signed to reflect that Queen's University had joined the program the year before. The University of Waterloo left the program around 2011, although that was never reflected in an updated memorandum of agreement.

The program was very successful from 2000 until about 2008, when the global recession hit, and when many companies that had previously paid or subsidized employees' MEng DM tuition were no longer willing to do so. Many enrolled students stopped or slowed their participation in the program. New enrolments dried up, and as a result, the number of courses offered was scaled back.

The program continued after 2008 with lower overall enrolment and fewer courses, but interest in the program never recovered to pre-2008 levels. At the same time, Ontario universities, including the University of Toronto, began to enhance their “regular” Master of Engineering programs, which became more attractive to working engineers. For example, at the University of Toronto, the graduate units in FASE that offer MEng programs have all added technical graduate courses in the past few years specifically for MEng students, and FASE has developed an Emphasis in Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE) that offers MEng students a large selection of courses that are complementary to their technical courses, some very similar to the management and business courses offered to MEng DM students.

By early 2014, the deans of engineering at the four remaining universities, McMaster, Queen’s, Toronto and Western, began to discuss winding down the program, as it was no longer sustainable. In the fall of 2014, a decision was made to close the program to new admissions, and in early 2015, the four universities collectively agreed to wind down the program in its current form (the memorandum of agreement does not contain provisions for closing the program). This proposal to officially close the MEng DM program at the University of Toronto is a result of that decision.

3 Impact on Other Programs

The deans of engineering (or their representatives) of McMaster, Queen’s, Toronto and Western met a number of times in 2014 and 2015 to come to the decision to wind down the program and put in place a plan to accommodate the remaining students at the four universities to help them complete their programs, and to ensure that they are treated both fairly and consistently. At the University of Toronto, the chair of MIE, Professor Jean Zu, and the associate chair, graduate studies, Professor Chi-Guhn Lee, were consulted. The decision to close the program was also carefully communicated to students, assuring them that plans would be put in place to allow them to complete the program in a reasonable timeframe.

Closure of the MEng DM program will not affect other programs in the Faculty. MEng students with an interest in design and manufacturing can now enroll in the “regular” MEng program and pursue, for example, an emphasis in Advanced Manufacturing. Students with an interest in the business and management courses that comprised part of the MEng DM course requirements can find similar courses in the emphasis in Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE). All courses associated with the MEng DM program were unique, and will no longer be offered.

4 Student Accommodation

Table 1: Graduate Breakdown

	June 2015	June 2016	April 2017
Enrolment in MEng DM at U of T	9	3	0

In June 2015, all remaining students at the four universities were officially notified of the decision to wind down the program. At that time, nine students remained in the program at the University of Toronto: two had five courses left to complete, two had three courses left to complete, and the other five had only one or two courses left to complete their programs. As of July 2016, five of the nine students have graduated, one has chosen to withdraw, and three students remain in the program. One student has one course left to complete, one has two courses left, and one has three courses left. All three are on track to complete the program by April 2017 by taking courses at the University of Toronto, and in one case, by taking his final courses at another university, with permission to transfer those course credits into the MEng DM program.

5 Faculty / Staff Accommodation

Closure of the MEng DM will not affect faculty and staff at the University of Toronto. Local administration of the program was always done by staff in the graduate studies office in the department of Mechanical & Industrial Engineering, and instructors for the program were always hired on an overload or contract basis.

The contract of the program director, Mr. David Heaslip, who was hired by the four participating universities, ended on June 30, 2015.

6 Governance Process

Process	Date
Sign-off by FASE Dean and Provost	August 2016
Approval by FASE Council	October 25, 2016
Submission by FASE to Provost's Office	October 25, 2016
Approval by Committee on Academic Policy & Programs (AP&P)	January 23, 2017
Approval by Academic Board	January 26, 2017
Confirmation by Executive Committee of Governing Council	February 7, 2017
Inclusion by Provost's Office in annual report to Quality Council	Spring 2017
Inclusion by Provost's Office in annual report to Ministry of Advanced Education and Skills Development (formerly Ministry of Training, Colleges & Universities)	Spring 2017

This template has been developed in line with the University of Toronto's Quality Assurance Process.