# Regulations for the
# M.Eng. in Software Engineering
## Master's Program in the Department of Computing and Software at McMaster University

**CAS-2014-05**

# 1 Master of Engineering (M.Eng.) in Software Engineering

This program is intended for those interested in a career as a practicing professional in Software Engineering. Students must:

1. Successfully complete six half (one-term) graduate courses.

2. Complete an independent software development project, including professional oral and written reports, demonstrating the ability to apply the material studied and carry out independent study and reach a satisfactory conclusion in an area of Software Engineering.

## 1.1 Admission Policy and Standards

Students can be admitted to the M.Eng. program in Software Engineering if they have a recognized Bachelor's degree in Engineering, Computer Science, or Mathematics. Students with a degree in another field and substantial background in computer science or engineering may also be considered. Admissions are on a competitive basis.

1. The admission requirements are as given in the General Regulations of the Graduate School.

2. The admission committee may restrict a student's course choices in order to ensure appropriate depth and breadth in Software Engineering.

3. Students should have completed the following courses:

- *Basic Mathematics*
  - Three courses in calculus
    * Calculus 1
    * Calculus 2
    * Calculus 3
  - One course in scientific computation
  - One course in linear algebra
  - One course in discrete mathematics and predicate logic
- *Basic Computer Science including*
  - Introduction to programming
  - Data structures

## 1.2   Funding

Funding is normally the responsibility of the candidate. Funds may be available in the form of teaching assistantships, entrance scholarships and funding to support the project (see Section 1.5). Students may also enter the program on a part-time basis. In most instances, part-time students will have external employment while participating in the program.

## 1.3   Supervisor

All students will have a supervisor in CAS to guide them through the program. The supervisor will be assigned in the offer of admission and in particular serves as the project supervisor (see Section 1.5).

## 1.4   Course Requirements

All students in the Software Engineering M. Eng. program must complete six half (one-term) graduate courses. Students must complete:

1. One of CAS 701, 702. Students are encouraged to consider taking both 701 and 702.

2. Two of: CAS 703, 704, 707.

3. For the three emaining courses, at least two must be from the Department of Computing and Software. One may be from another department in the Faculty of Engineering or from Mathematics. At most two courses may be at 600 level.

## 1.5   The Project

The project provides an opportunity for students to demonstrate that they can apply what has been learned in the program.

1. The project should be a software development project to be utilized by users other than the developer.

2. Projects will be specified by the supervisor in CAS, possibly in collaboration with industry.

3. The duration of a project is typically four months. A project could be completed at a company, but it must be conducted under the supervision of a faculty member who can supervise students within the program.

4. An Examination Committee is formed, consisting of the supervisor(s) and at least one faculty member in CAS. The student and the supervisor(s) nominate the Examination Committee. The committee is appointed by the Chair or delegate.

5. Students must submit the project, including all documentation, to the Examination Committee for evaluation.

6. The project will be judged on more than its functionality.

7. The documentation must include an "executive level" description of the product and its structure.

8. The Examination Committee decides on the outcome: pass or fail. If the decision is fail, comments must be provided to aid in a revision. The decision must be made within three weeks of receipt of the project.

9. If the initial decision was fail, the student may resubmit the project after addressing the committee's concerns. If the subsequent decision is fail, the student is dismissed from the program.

## 1.6   Program Timing

1. All courses should be completed within 16 months of entry into the program.

2. The software development project should be completed within 20 months of entry into the program.