



**Department of
Civil Engineering**

ACCELERATED M.A.SC. PROGRAM

BRIGHTER WORLD | eng.mcmaster.ca/civil/



OVERVIEW OF ACCELERATED PROGRAM

Civil Engineering now has an accelerated M.A.Sc. degree option! Available to eligible undergraduate students currently enrolled at McMaster University in the Civil Engineering department, you can complete your degree in as little as 16 months. In exceptional circumstances, students from other departments may apply to our accelerated M.A.Sc. degree option by contacting the Civil Engineering Department's Associate Chair (Graduate Studies). This new option requires students to take one 600-level course during their final year of undergraduate studies. This course will be counted towards both your undergraduate and graduate degree. In addition, undergraduate students must complete at least one term of summer research with a supervisor and/or complete CIVENG 4Z04 prior to the completion of their undergraduate studies. The supervisor must be a faculty member in the Department of Civil Engineering. For students enrolled in our accelerated degree option, research conducted over the course of a summer research term, or in CIVENG 4Z04, may count towards the accelerated option and therefore towards a partial fulfilment of the graduate M.A.Sc. thesis work. Acceptance into the M.A.Sc. degree via the Accelerated Option requires students to meet the same admission requirements as other candidates.



**COMPLETE
DEGREE IN
AS LITTLE
AS 16
MONTHS!**

**UG RESEARCH
COUNTS
TOWARDS
M.A.SC.
DEGREE!**

**1 CLASS
COUNTS
FOR BOTH
B.ENG. AND
M.A.SC.!**

ELIGIBILITY

To be eligible for the Accelerated Option, current undergraduate students must have a minimum cumulative GPA of 9.5 **AND** a minimum sessional GPA of 10 in their last year of studies. They must also have identified a faculty member from the Department of Civil Engineering who has agreed to supervise the student for the summer research work and/or for CIVENG 4Z04.

HOW TO APPLY

Current Civil Engineering undergraduate students can apply for the Accelerated Option in the first or second term of their penultimate year. This would be the 3rd year for 4-year programs and the 4th year for 5-year programs. Final year students will also be considered on a case-by-case basis. Interested students should contact the department's graduate administrative assistant for forms and instructions.

Submitted applications will be reviewed (for grades, prior research experience, publications, etc.) by the Associate Chair – Graduate Studies and the supervisor. The student will be notified if approved to conduct research towards potential future acceptance under the Accelerated M.A.Sc. option prior to their first research work term, or prior to completing CIVENG 4Z04.

Students are also highly encouraged to apply for the NSERC USRA program (more details on this further down in the document). Students may decide to discontinue their involvement with the Accelerated Option at any time prior to entering the Master of Applied Science degree without any effect to their undergraduate degree.

Students should be aware that the permission to follow the Accelerated Option as an undergraduate student does not guarantee acceptance into Graduate Studies. Students will still be required to apply to the M.A.Sc. program and undergo application assessment, and should understand that meeting the minimum requirements does not guarantee acceptance. Acceptance will be based on the needs of the potential supervisor and available funding.

WHAT COURSES COUNT AS 600-LEVEL?

The following courses can be credited as a 600-level course after completion of additional coursework over and above the undergraduate requirements. Each instructor reserves the right to determine what additional coursework may be required. Please note that these elective courses are not necessarily offered each academic year, pending faculty availability:

- 1) CIVENG4G04 – Pavement Materials and Design
- 2) CIVENG4CA4 – Construction Management and Automation
- 3) CIVENG 4K04 – Modern Methods of Structural Analysis
- 4) CIVENG4L04 – Design of Water Resource Systems
- 5) CIVENG4SM4 – Stormwater Management Modelling
- 6) CIVENG4T04 – Transportation Engineering II – Model Transits

- 7) CIVENG4TA4 – Traffic Analysis: Theory and Simulation
- 8) CIVENG4V04 – Biological Wastewater Engineering
- 9) EARTHSC4W03 – Hydrologic Modelling
 - a. Note, EARTHSC4W03 is cross listed with EARTHSC6W03, which is cross listed with CIVENG6M03

QUICK FACTS

Minimum
cumulative
average of 9.5

Minimum
sessional
average of 10
in last year of
studies

Must have
faculty
supervisor to
oversee
undergraduate
research with
intention of
also
supervising
subsequent
Master's
research

Apply for
Accelerated
Option
through
Associate
Chair -
Graduate
Studies

Register for
Accelerated
Option before
final year

Consider
applying for
NSERC URSA
scholarship

PROGRAM REQUIREMENTS

COURSE REQUIREMENTS

Students in the accelerated M.A.Sc. Option will be required to meet the same course requirements as current master's students. The current requirement is the completion of four half-courses (equivalent to 3 units each or 12 units total). Fifty percent of these courses must be taken from the Department of Civil Engineering.

600-Level Course

A student following the Accelerated M.A.Sc. Option will be allowed to take one 600-level course (from Civil Engineering Department) required for the M.A.Sc. program during their final year of undergraduate studies. 600-level courses are co-taught as simultaneous undergraduate (400-level) and graduate (600-level) versions, with the 600-level version requiring additional work to complete.

The student will be required to complete a form that indicates the chosen course and confirms the approval from the instructor of the course. The instructor will be responsible for keeping a record of the

student's performance and will be required to tabulate both a 400-level grade and a 600-level grade. At a later date, when the student has been admitted and enrolled in the M.A.Sc. program, the student will need to submit paperwork to the School of Graduate Studies to request that the 600-level grade be entered into the M.A.Sc. transcripts and therefore counted toward degree requirements. A student cannot use a 400-level course taken prior to obtaining approval for the Accelerated Option towards this 600-level course requirement as they will not have completed the extra workload.

RESEARCH PROJECT

A M.A.Sc. student pursuing the Accelerated Option must complete all M.A.Sc. requirements including a minimum number of months of work towards their M.A.Sc. thesis. The Accelerated Option will require students complete a minimum of two months of work towards that thesis prior to being admitted into Graduate Studies. A maximum of eight months of work completed prior to being admitted into Graduate Studies may be credited towards the M.A.Sc. program. Therefore, the M.A.Sc. degree can be completed in as little as 16 months after receiving the B.Eng. degree.

Typically, undergraduate students will complete at least one 4-month undergraduate research term with their supervisor in the summer before their final year as a part of the Accelerated Option. Students also may have the option to enroll in CIVENG 4Z04 (Independent Study) to conduct their research project under the same supervisor, however, CIVENG 4Z04 will be credited as 1-month per term (i.e. two months total).

OTHER DEGREE REQUIREMENTS

M.A.Sc. students are required to complete the following in order to receive their degree:

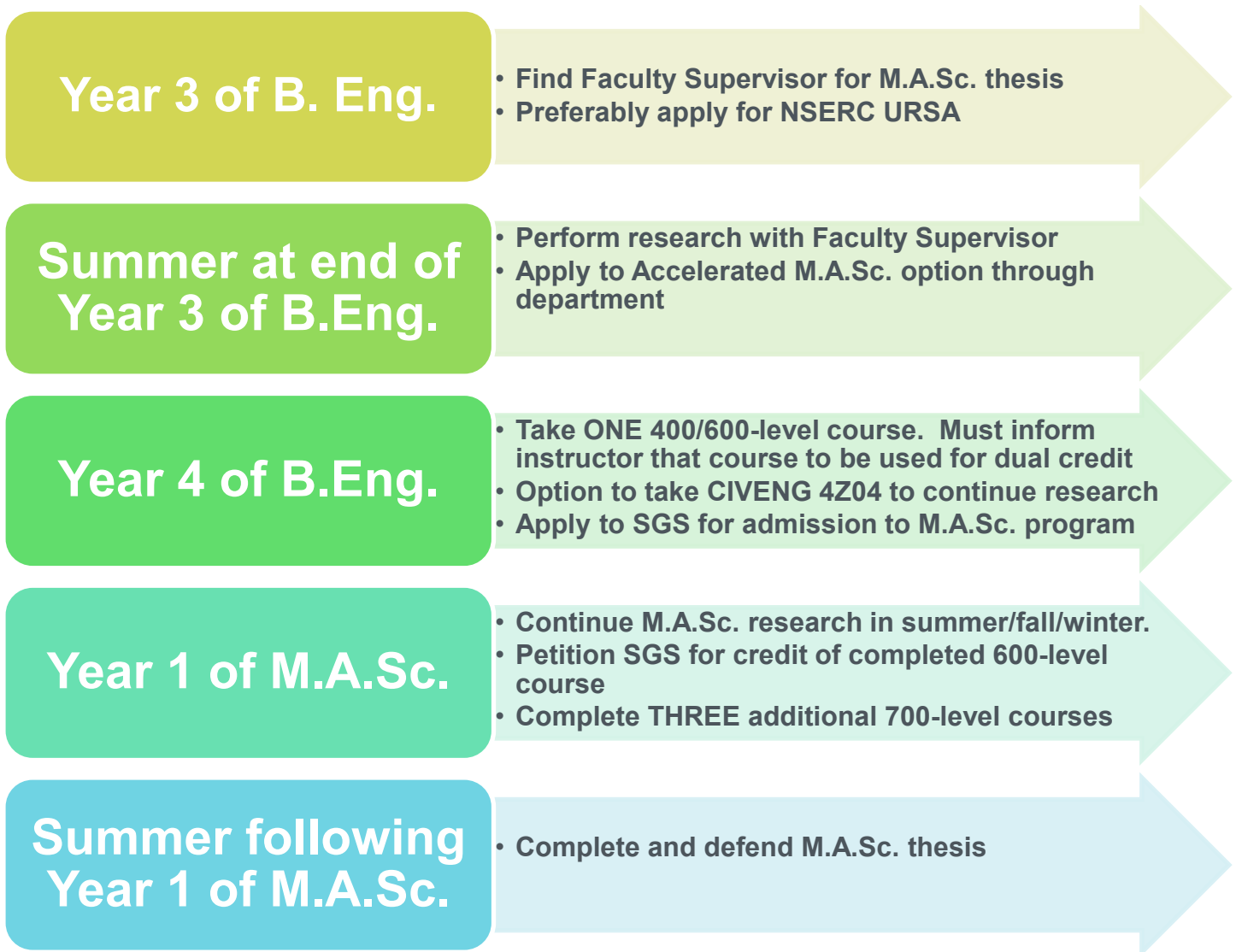
- 1) SGS 101 and SGS 2021 (mandatory online courses) – incoming students must register and complete both courses by the end of their first month in the program.
- 2) Career Planning Milestone – incoming graduate students are required to complete a career planning report within the first term of their study. Students will first need to attend a career planning session hosted by the faculty's Graduate Career and Coop advisors before submitting the report. The report must be submitted to the department's Graduate Administrative Assistant for evaluation by the Associate Chair (Graduate).

ADDITIONAL REQUIREMENTS

- 1) Annual Graduate Student Seminar Day – all full-time civil graduate students must attend and participate in Seminar Day. Students will be required to make a 3-minute presentation with question period afterwards.
- 2) Job Hazard Analysis form: Must complete a job hazard analysis form with your supervisor. You will be required to read, understand, and follow the appropriate Standard Operating Procedures (SOPs).

- 3) Core Health and Safety courses: Students must successfully complete and abide by the following core health and safety courses (available here https://hr.mcmaster.ca/employees/health_safety_well-being/our-safety/health-and-safety-training/):
- a. Health and Safety Orientation
 - b. SAFE (covers asbestos awareness, ergonomics, fire safety, and slips, trips and falls)
 - c. WHMIS 2015
 - d. Violence and Harassment Prevention

TIMELINE





URSA Scholarship

The Natural Sciences and Engineering Research Council of Canada (NSERC) is one of Canada's three national research granting agencies. Faculty, graduate students, and undergraduate students alike will apply to this agency for funds to support their research/research studies.

One such award that undergraduate students will apply to is the Undergraduate Student Research Awards (URSA). This award, worth \$6000, is intended to stimulate interest in research in the natural sciences and engineering. It is also meant to encourage students to undertake graduate studies and pursue a research career in these fields.

OTHER FACTS ABOUT SCHOLARSHIP

Internal Deadline to Apply for Students: Early February of each year

Value of Award: \$6000

Duration of Award: 14-16 consecutive weeks (full time basis)

Eligibility:

- must be a Canadian Citizen or permanent resident of Canada
- must be registered, at time of application, in bachelor's program at eligible university (McMaster)
- must have obtain, over previous years of study, a cumulative GPA of at least 2nd class (a grade of B or B-) as defined by your university

HOW TO APPLY

Undergraduate students will receive detailed instructions in January each year. Please watch for an email from the Department.

CONTACT US

For Information/Questions about the Accelerated MASC Degree

Amelia Brook
Graduate Administrative Assistant
brookam2@mcmaster.ca

For Information/Questions about the NSERC URSA Scholarship

Olivia Pare
Undergraduate Administrative Assistant
pareok@mcmaster.ca