

**McMaster University**  
**W Booth School of Engineering Practice and Technology**  
**MASTER OF ENGINEERING DESIGN**

**Graduate Student Course Selection 2022–2023**

Date Form Completed	
Student Name	
Student ID	
Student Email	
Full-time/Part-time	
Date Enrolled	

Course Name	Course Code	Units	Term	Add (A) or Drop (D)?
<b>MANDATORY COURSES</b>				
Academic Research Integrity and Ethics	SGS 101	0	F22	A
Accessibility for Ontarians with Disabilities Act (AODA)	SGS 201	0	F22	A
M.Eng Project in Engineering Design <b>Part I</b>	SEP 700	3	W23	A
M.Eng Project in Engineering Design <b>Part II</b>	SEP700	3	S23	A
Design Thinking	SEP 760	3	F22	A
Design Thinking II	SEP 761	3	W23	A
Leadership for Innovation <b>OR</b> Leading Innovation	SEP773 <b>or</b> SEP6EL3	3	F22	A
W Booth SEPT Practitioner’s forum, Part I <i>(only for full time students. “Add it” if you are one)</i>	SEP 771	0	F22	A
W Booth SEPT Practitioner’s forum, part II <i>(only for full time students. “Add it” if you are one)</i>	SEP 771	0	W23	A
<b>TECHNICAL ELECTIVE COURSES</b>				
<b>Four such courses are needed. Each course is 3 units (12 units total)</b>				
<b>CROSS – DISCIPLINARY ELECTIVE COURSES</b>				
<b>1 course is required. Course is 3 units selected from approved cross-disciplinary elective list.</b>				
<b>CAREFUL, choose course from approved cross-disciplinary elective list!</b>				

**“PLACEHOLDER” COURSE**

**Add the course below if you are not taking any other courses during a term (i.e. taking a break from studies)**

Research/Writing	SGS 711	0		
<b>TOTAL UNITS</b> <b>Sum up the total units you have added (do if you are taking the Project Pathway, the two project courses.)</b> <b>30 units are required to graduate. You can take more, but that will increase your tuition.</b>				

**Term code guide:**

W23 = Winter 2023

S23 = Spring/Summer 2023

F22 = Fall 2022

**\*\*SGS 711 must be added when the student is not enrolled in any courses for the term.**

Graduate students must register for courses online via Mosaic. **Students must consult with the program advisor regarding course selection.** It is the responsibility of the student to ensure that the courses meet the program requirements, and that their course selections are recorded correctly on mosaic. Any addition or deletion of courses should be approved by the program lead. Once an agreement is reached with the Program Advisor, **students must upload this document to [this link](#)** and department staff will gather the faculty member’s signature.

I approve these course selections

\_\_\_\_\_  
Faculty Member

\_\_\_\_\_  
Date

## MASTER OF ENGINEERING DESIGN

### Curriculum

**The curriculum has three main components:**

- 1. Professional Development** courses that will enable M.Eng. Design graduates to deal with complex situations in the work environment, to lead teams, and to manage projects.
- 2. Courses Relevant to the selected stream:** some courses are mandatory for a given stream while others are elective.
- 3. An M.Eng. project** that requires synthesis of knowledge from various disciplines.

#### Product Design

Candidates are required to take the following five half mandatory courses (15 units):

SEP 700/ M.Eng. Project in Engineering Design Part I  
SEP 700/ M.Eng. Project in Engineering Design Part II  
SEP 760/ Design Thinking

SEP 773 / Leadership for Innovation **OR** SEP 6EL3 / Leading Innovation

**OR**  
SEP6EL3 /Leading Innovation

SEP 771/ W Booth School of Engineering Practice and Technology: Practitioner's Forum Part I  
(Full-time students only)

SEP 771/ W Booth School of Engineering Practice and Technology: Practitioner's Forum Part II  
(Full-time students only)

**Electives:** Candidates are required to **take four courses (12 units)** which should be selected from graduate courses offered by departments within the Faculty of Engineering. Candidates are required to have their elective course selection approved by the program advisor.

#### **Strongly recommended:**

SEP 757/ Hardware Prototyping Tools and Methods **OR** SEP 758/ Prototyping Tools (Mobile Applications)

Other recommended electives include:

SEP 6CG3 / Fundamentals of computer graphics and animation development  
SEP 6VE3 / Visual effects and animation production technology  
SEP 714 / Workflow Management for Animated Prototypes  
SEP 715 / Rendering techniques  
SEP 791 / Augmented Reality, Virtual Reality and Mixed Reality  
SEP 792 / GPU Intensive applications for real-time projects

#### **Cross – Disciplinary Electives**

Candidates are required to take one half course (3 units) selected from the following approved cross-disciplinary courses:

SEP 6X03 / Livable Cities, The Built and Natural Environment  
SEP 709 / Emerging Issues, Technology and Public Policy  
SEP 710 / International Governance and Environmental Sustainability  
SEP 729 / Manufacturing Systems  
SEP 731 / Lean Six Sigma for Engineering  
SEP 770 / Total Sustainability Management  
SEP 777/ Cyber-Physical Systems and Industry 4.0  
SEP 790/ Emerging Technologies for Engineering Enterprise Innovation

## SEP / 793 Entrepreneurial Opportunity Identification

All graduate students, including part-time students, must complete the course SGS 101- Academic Research Integrity and Ethics and SGS 201- AODA within the first month after their admission to graduate studies at McMaster. A graduate student may not obtain a graduate degree at McMaster without having passed these courses. In the event that a student fails these courses, they must retake it at the earliest opportunity. The course description for SGS 101 and SGS 201 may be found in the School of Graduate Studies Calendar.