

ENGINEERING

Department Website: <https://smu.ca/academics/departments/engineering.html>

Department Email: engineering@smu.ca

Saint Mary's University offers the first two years of an Engineering degree program accredited by the Association of Professional Engineers of the Provinces through the Canadian Accreditation Board. These first two years of study constitute the Diploma in Engineering.

Completion of Degree at Dalhousie University

Upon completion of the Diploma in Engineering at Saint Mary's, students may choose to apply to Dalhousie University for the completion of their Bachelor of Engineering degree in their chosen discipline program. Required courses for the Diploma, as well as for each of the disciplines are listed below. Admission to the desired discipline program at Dalhousie University is not automatic and may depend on the applicant's academic standing and the number of available seats in the different programs. Students with low academic standings may be offered alternative disciplines. Dalhousie will treat students from the Associated University programs (of which Saint Mary's is a member) in the same manner as students who entered the program as freshmen at Dalhousie University. Academic merit will be the only deciding factor on admission to disciplines.

Completion of Degree at University of Windsor

With a Saint Mary's University Diploma in Engineering, students may be eligible for admission to the Bachelor of Applied Science (BASc) in Mechanical Engineering and to the Bachelor of Applied Science (BASc) in Civil Engineering programs at the University of Windsor. Students must have successfully completed their Diploma in Engineering and obtained a minimum grade of C- in each of their required courses for the Diploma. Available options within the BASc in Mechanical Engineering include:

- General,
- Aerospace,
- Automotive,
- Materials or
- Environmental.

Interested students should speak to the Engineering Academic Advisor.

Completion of Degree at Saint Mary's University

Diploma in Engineering students may also choose to continue their studies at Saint Mary's to obtain a Bachelor of Science with Diploma in Engineering. Two options are available: B.Sc. (General) with Diploma in Engineering; and B.Sc. with Major and Diploma in Engineering.

Programs

Completion of Degree at Saint Mary's University

Diploma in Engineering students may also choose to continue their studies at Saint Mary's to obtain a Bachelor of Science with Diploma in Engineering. Two options are available: B.Sc. (General) with Diploma in Engineering; and B.Sc. with Major and Diploma in Engineering. Detailed requirements for each of these degrees are listed below.

Diploma in Engineering Requirements

Course	Title	Credit Hours
First Year		
MATH 1210	Introductory Calculus I	3
MATH 1211	Introductory Calculus II	3
CHEM 1210	General Chemistry I	3
CHEM 1213	General Chemistry II for Engineering	3
PHYS 1210	University Physics I	3
PHYS 1211	University Physics II	3
EGNE 1203	Engineering Mechanics I: Statics	3
EGNE 1206	Technical Communications	3
EGNE 1210	Engineering Design I: Graphics	3
CSCI 1227	Computer Programming and Problem Solving	3
HIST 1301	Introduction to the History of Science and Technology	3
Select three credit hours in Humanities		3
		36
Second Year		
MATH 2301	Applied Linear Algebra	3
MATH 2303	Differential Equations I	3
MATH 2311	Intermediate Calculus	3
EGNE 2302	Engineering Economics	3
EGNE 2303	Thermodynamics	3
EGNE 2304	Mechanics of Materials	3
EGNE 2307	Engineering Design II	3
EGNE 2308	Electric Circuits I	3
EGNE 2309	Probability and Statistics for Engineers	3
Select nine credits of the following discipline-specific courses: ¹		9
CHEM 2344	Organic Chemistry I	
EGNE 2301	Engineering Mechanics II: Dynamics	
EGNE 2305	Digital Logic	
EGNE 2306	Fluid Dynamics	
EGNE 2311	Electric Circuits II	
EGNE 2330	Data Structures and Algorithms for Engineers	
EGNE 2325	Modelling and Optimization for Engineers	
EGNE 2401	Fundamentals of Process Engineering	
GEOL 2201	Geology for Engineers	
		36
Credit Hours		
Total Credit Hours		72

- 1 Discipline specific course requirements are communicated to student annually by the Division in Winter. Students must meet with the Engineering Advisor or Science Advisor to select their discipline-specific courses from among the list below.

Students must follow the instructions given by the Division to declare their discipline by the end of year one.

Disciplines

- Environmental Engineering
- Chemical Engineering
- Civil Engineering
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering
- Mineral Resources Engineering

Note: To qualify for the Diploma in Engineering, a student is required to achieve a minimum DGPA of 2.00.

Bachelor of Science (General) with Diploma in Engineering Requirements

Students must complete the requirements for the Diploma in Engineering plus:

- six (6) credit hours of discipline-specific Other Science courses at 2000 level or above, approved by the Engineering Academic Advisor
- three (3) credit hours of Other Science electives which may be used to satisfy any prerequisite courses for the approved 6 credit hours in Other Science.
- six (6) credit hours in Arts
- three (3) credit hours of elective courses in Science or Arts

Students must meet with the Engineering Academic Advisor to select any Science Electives.

Bachelor of Science with Major and Diploma in Engineering

Students who wish to pursue this dual credential program should consult with the Science Advising Office or the Engineering Academic Advisor as early as possible in their studies to chart and approve their courses.