

FIRST YEAR STUDIES

First Year Studies, B.A.Sc.

The first year of study in Smith Engineering is based on a common curriculum and serves as an introduction to all of the academic plans offered. The choice of academic plan the student intends to follow in the second and subsequent years is made in February in the Winter Term of the first year.

1st Year Curriculum

Code	Title	Units
APSC 101	Engineering Design & Practice	3.50
APSC 102	Experimentation	2.00
APSC 103	Engineering Client-based Design Project	3.50
APSC 199	English Proficiency for Engineers	0.20
APSC 111	Physics I	3.30
APSC 141 & APSC 142	Introduction to Computer Programming for Engineers 1 and Introduction to Computer Programming for Engineers 2	3.30
or APSC 143	Introduction to Computer Programming for Engineers	
APSC 131	Chemistry of Engineering Materials and Processes	3.30
APSC 151	Earth Systems Engineering	3.30
APSC 171	Calculus I	3.30
APSC 112	Physics II	3.30
or APSC 114	Electricity and Magnetism	
APSC 132	Chemistry of Natural and Engineered Systems	3.30
APSC 162	Engineering Graphics	2.50
APSC 172	Calculus II	3.30
APSC 174	Introduction To Linear Algebra	3.30
APSC 182	Applied Engineering Mechanics	1.70
Total Units		43.10

Electrical and Computer Engineering Innovation (ECEi) Stream

This program is intended for students with an interest in innovation and entrepreneurship who want to enter electrical or computer engineering in first year. The ECEi focuses on developing entrepreneurial skills alongside the technical and professional elements that are the hallmark of Queen's Engineering.

In the first year of the program students will take broad fundamental courses in math, science, and professional skills supplemented by an entrepreneurial design project specifically designed with for ECEi students. At the end of first year students choose between electrical or computer engineering, and

develop strong technical fundamentals and skills necessary for innovation including economics and business practices, design and creativity, and teamwork.

First Year Advice and Counseling

First Year students looking for academic advice and counseling are encouraged to contact the Program Associate, Student Services, Faculty of Engineering and Applied Science by phone at 533-2055 or by email at engineering.first.year@queensu.ca.

The Douglas Help Desk

A gift from Dr. James Douglas (Queen's BA, 1858) in 1910 made possible the establishment of a program by which First Year students are tutored by students selected from senior years. Details are available in the Faculty Office, and on the web at <https://englinks.ca/douglas-help-desk/>

The Engineering Society (EngSoc) Engvents

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The Engvents Committee's mandate is to connect engineering students of all years and disciplines through team based competitions and social events hosted throughout the year. Past events have included paintballing, dodgeball tournaments, bowling nights, amazing race style scavenger hunts, and even a Boat Cruise on Lake Ontario! So come on out, connect with fellow engineers, and have a great time with Engvents! If you have any questions or would like to get involved with Engvents, contact engvents@engsoc.queensu.ca.

The Engineering Society (EngSoc) 'EngLinks' Tutoring System

For help using the EngSoc 'EngLinks' Tutoring System, see <http://englinks.ca/>

The Extended Program

The Extended Program provides an opportunity for First Year students who experience difficulties with the introductory courses APSC 111 Physics I, APSC 131 Chemistry of Engineering Materials and Processes, and/or APSC 171 Calculus I in the fall semester to retake these courses in the winter semester. Registration in the Extended Program takes place in early January. The courses normally completed in December are reviewed, and final examinations are rewritten in February during Reading Week. Instruction in the second term courses in APSC 112 Physics II, APSC 132 Chemistry of



Natural and Engineered Systems, APSC 172 Calculus II and APSC 174 Introduction To Linear Algebra begins after Reading Week, is suspended when regular Winter term lectures end, and resumes after the normal examination period. These second term courses are completed in June. There is a special fee for each course in the Spring term (see the Section on Fees) *

Orientation Nights

In late January and early February each department holds an Orientation Night for first year students to introduce them to the department and to its academic plan(s). Students are encouraged to attend as many of these evening seminars as possible to help them make their plan choice. Help in reaching a decision regarding future studies can also be obtained in private discussions with upper year students, instructors, and the Program Associate, Student Services in the Faculty Office. Help is available on web pages maintained the departments in the Faculty (see <https://engineering.queensu.ca/programs/undergraduate/index.html> (<https://engineering.queensu.ca/programs/undergraduate/>)).

Choice of Program: Preregistration

First year students preregister in February to indicate the academic plan in which they intend to register in the academic year. A student will be admitted to the plan of their choice, provided the first year requirements have been met. Having preregistered in one plan, it may be possible to apply to transfer to another at a later date. However, such a change must be approved, in advance, by the department offering the academic plan in which the student wishes to register.

Admission to a Second Year Program

The rules governing the admission to the second year are given in the Faculty Regulations Section: in particular, Regulations 2f, 2g, and 10. Briefly, if a student has passed all of the courses in the First Year plan with marks of 1.6 ECGPA or better, admission to the second year will be unconditional. Otherwise, there may be constraints. Advice should be sought from the Faculty Office, or from the Chair of Undergraduate Studies in the program of choice.