

FACULTY OF ENGINEERING AND APPLIED SCIENCE
2017-2018 International Exchange Program



GENERAL QUEEN'S UNIVERSITY INFORMATION

Queen's University is one of Canada's oldest and most prestigious universities, and graduates from its engineering program have gone on to successful careers at some of the largest global corporations and provide a powerful network of alumni contacts.

Queen's University is consistently ranked as one of Canada's top universities. It is among Canada's oldest degree-granting institutions, established in 1841 by Royal Charter of Queen Victoria—26 years before Canada was founded as a country.

Today, the Queen's University community features tradition, academic excellence, research, and a beautiful waterfront campus with venerable, ivy covered, limestone buildings side by side with modern research and teaching facilities. Queen's students come from across Canada and more than 70 countries worldwide.

Since 1894, the Faculty of Engineering and Applied Science has been providing the best engineering education Canada has to offer, preparing students for leadership in a global society with top-quality, technically rigorous engineering programs.

Queen's Engineering admits fewer than 900 of the highest-calibre undergraduate students from Canada and abroad each year. Ninety-one per cent of Engineering's undergraduate students complete their degrees—the highest success rate of any engineering program in Canada.

Graduates leave Queen's with an outstanding, committed alumni network that will sustain them throughout their careers.

CONTACT INFORMATION

University Website:	http://www.queensu.ca/
Faculty Website:	http://engineering.queensu.ca/
Mailing Address :	Queen's University Faculty of Engineering and Applied Science Beamish Munro Hall 45 Union St, Room 300 Kingston, Ontario, Canada K7L 3N6
Telephone number :	613-533-2055

Fax number :	613-533-2721
Exchange Coordinator Incoming/Outgoing:	TBA engineering.committees@queensu.ca
Student Services Manager:	Stacy Shane, shanes@queensu.ca
Main Reception :	engineering.reception@queensu.ca

TERM DATES 2016-2017 (2017-2018 TBA)

Term	Dates	Expected Arrival Date
Fall 2016	Orientation Week : Sept 4-9 12 September – 21 December	Before 4 September (to attend Orientation)
Winter 2017	09 January – 27 April	Before 09 January

NOMINATION/APPLICATION INFORMATION

	Nomination	Application
Online Site:	http://queensu.ca/admission/exchange-nomination . The site is only open during submission acceptance periods.	Sent to each student individually upon acceptance of nomination
Fall 2017 Deadline	1 April 2017	30 April 2017
Winter 2018 Deadline	Early : April 1 September 1	Early deadline: 30 April 2017 Final: 30 September 2017*
Contact Information:	Maryann Severin Admission and Registration Coordinator, International Exchange E-Mail: intstudy@queensu.ca	

APPLICATION REQUIREMENTS FOR FACULTY OF ENGINEERING AND APPLIED SCIENCE

Requirement	Details
GPA	Incoming students must have GPA equivalent to a 2.7 (for information on Queen's grading scales, please see http://www.queensu.ca/registrar/transcripts/legends/current) but all applicants will receive individual consideration.
Supporting Documentation	<ul style="list-style-type: none"> • Completed Application • Confirmation of English Language Test (if required) • Official Academic Transcript • Academic Letter of Reference • Proposed Study Plan

ACADEMIC PROGRAMS IN ENGINEERING AND APPLIED SCIENCE

LEARNING EXPECTATIONS

Language of Instruction:	English																														
Course Load:	Exchange students are recommended to take a minimum of 15 credits (CR) per term; 30 CR for the full year. As an example, 60 ECTS credits is usually considered a full course load in most European institutions and is equivalent to 30.0 Queen's units. Please note: Queen's Undergraduate degree seeking Engineering students take more than 15 credits per term – course load is to be determined by the home university and visiting student, should both feel that more than 15 credits is required for their home program																														
Course Weight:	Course weights in Engineering and Applied Science varies. 1 credit = one 50 minute lecture) and to laboratory assignments, tutorial, and significant project work (0.5 credits =one hour).																														
Course Types:	LECT – Lecture; LAB – Laboratory; TUT – Tutorial																														
Grading:	<table border="1"> <thead> <tr> <th>Letter Grade</th> <th>Grade Points</th> <th>Numeric Equivalent</th> </tr> </thead> <tbody> <tr> <td>A+</td> <td>4.3</td> <td>90-100%</td> </tr> <tr> <td>A</td> <td>4.0</td> <td>85-89%</td> </tr> <tr> <td>A-</td> <td>3.7</td> <td>80-84%</td> </tr> <tr> <td>B+</td> <td>3.3</td> <td>77-79%</td> </tr> <tr> <td>B</td> <td>3.0</td> <td>73-76%</td> </tr> <tr> <td>B-</td> <td>2.7</td> <td>70-72%</td> </tr> <tr> <td>C+</td> <td>2.3</td> <td>67-69%</td> </tr> <tr> <td>C</td> <td>2.0</td> <td>63-66%</td> </tr> <tr> <td>C-</td> <td>1.7</td> <td>60-62%</td> </tr> </tbody> </table>	Letter Grade	Grade Points	Numeric Equivalent	A+	4.3	90-100%	A	4.0	85-89%	A-	3.7	80-84%	B+	3.3	77-79%	B	3.0	73-76%	B-	2.7	70-72%	C+	2.3	67-69%	C	2.0	63-66%	C-	1.7	60-62%
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	D+	1.3	57-59%
	D	1.0	53-56%
	D-	0.7	50-52%
	FR	0.0	40-49%
	F	0.0	0-39%
Course Choices:	Most Engineering and Applied Science courses are open to exchange students provided that they have all the appropriate prerequisite courses. Please note that availability in some courses may be limited in the event that there is limited spacing and/or the course is core for degree-seeking students. Please see the course suggestions at the end of this document.		
Examinations:	Requirements vary for each course.		

The Faculty of Engineering and Applied Science offers degree programs in ten disciplines. The codes for these programs and for the courses in those disciplines are given below. Students may also wish to consult the Faculty of Engineering and Applied Science Calendar, which lists all courses offered in the last five years (<http://calendar.engineering.queensu.ca/>)

Discipline Specific Academic Advice

For **academic advice**, exchange students are advised to contact the Undergraduate Assistant in his/her host department.

<i>Program</i>	Program Code	Undergraduate Departmental Program Assistant
Chemical Engineering	CHEE	Liann Joannette, liann.joannette@queensu.ca
Civil Engineering	CIVL	Angelina Gencarelli, angelina.gencarelli@queensu.ca
Computer Engineering	CMPE	Irina Pavich, irina.pavich@queensu.ca
Electrical Engineering	ELEC	Irina Pavich, irina.pavich@queensu.ca
Engineering Chemistry	ENCH	Liann Joannette, liann.joannette@queensu.ca
Engineering Physics	ENPH	Melissa Balson, 4mjb5@queensu.ca
Geological Engineering	GEOE	Larke Zarichny, zarichny@queensu.ca
Mathematics and Engineering	MTHE	Johana Ng, jn@queensu.ca
Mechanical Engineering	MECH	Jacque Brown, mme.advisor@queensu.ca

Mining Engineering	MINE	Tina McKenna, tina.mckenna@queensu.ca
Faculty Courses	APSC	TBA engineering.committees@queensu.ca
Multi-department Courses	MDEP	Jacque Brown, mme.advisor@queensu.ca

GENERAL STUDENT SERVICES

For general information on coming to Queen's as an Exchange student, including general information on Kingston and Queen's University, approximate living costs, accommodations study permits, transportation, and housing, please see the following site:

<http://queensu.ca/international/incoming/exchanges>

Queen's International Centre

The QUIC is a support service for all members of the Queen's community and through its activities promotes an internationally informed and cross-culturally sensitive learning environment. For more information, please access their website: <http://quic.queensu.ca/>

The Integrated Learning Centre

The Integrated Learning Centre (ILC) is located in Beamish-Munro Hall and is a part of the Faculty of Engineering and Applied Science. It comprises staff, spaces and equipment that contribute significantly to the quality of undergraduate education in that Faculty, and is among the leading facilities for engineering education worldwide. The fundamental role of the ILC is to create a multidisciplinary learning environment which integrates theory with practice, develops team skills, the capability of life-long learning and open-ended program solving abilities. The ILC provides both the staff and the infrastructure necessary to improve learning effectiveness and to develop markedly enhanced professional skills. Its physical features include active learning spaces, student meeting rooms, computer labs, prototyping and fabrication facilities, teleconferencing and presentation resources, and industrial space housing competitive teams such as Fuel Cell, Aero Design and Concrete Canoe teams.

Computing Resources

Computers in Beamish-Munro Hall are available during ILC open hours (Monday - Thursday: 7:30 am to 11 pm; Friday: 7:30 am to 5:30 pm; Saturday: 11:30 am to 7 pm; Sunday: 11:30 am to 11 pm). Software includes Solid Edge, Lab View, MATLAB, Microsoft Office, ADS, Altera Quartus, OrCAD, and others.

Student Wellness Services

The Student Wellness Services department supports the personal, academic, and social development of students at Queen's University by providing a range of programs and services appropriate to their needs. <http://www.queensu.ca/studentwellness/home>

The Faculty of Engineering also has an embedded counsellor available to students, in our main Student Services office.

Learning Strategies Development

Learning Strategies Development is a learning support service for students. Several options are available for students to enhance both their learning and study skills and their academic confidence: on-line resources, group workshops, individual consultations, and peer mentoring. For more information about available services, please visit <http://sass.queensu.ca/learningstrategies/>

More information on coming to Queen's Engineering:

<http://prospective.appsci.queensu.ca/Top-10-Reasons.html>

Faculty of Engineering and Applied Science – Queen’s University, Kingston, Ontario, Canada

Incoming Exchange Student Course Selection Considerations

The Queen’s University Faculty of Engineering and Applied Science offers degree programs in ten disciplines. Students find specific courses information at the Faculty of Engineering and Applied Science Calendar, which lists all courses offered in the last five years (<http://engineering.queensu.ca/Calendar/CurrentYear/>).

Many of our core courses are only open for general enrollment after our undergraduate students have completed their enrollment selections. Project courses are often problematic for exchange students and should only be considered if the student is extremely proficient at English for report writing and presentation requirements.

Below you will find some very specific recommendations regarding some of our more popular courses.

APSC COURSES

APSC 100 level courses

First year courses are open, dependent on enrollment numbers. For the past several years, we have had full enrollment capacity in these courses, therefore they generally are not viable option for exchange students.

APSC 200/221/293

APSC 221 is open to exchange students who have a standard 1st year math course and English Proficiency.

APSC 200 and APSC 293 must be taken together (due to integrated delivery and assignments).

Application to the Course Administrator Gillian Woodruff gillian.woodruff@queensu.ca; please first request a detailed list of application requirements. Requirements will include e.g. summary of academic background, along with a description of team based design and technical writing skills. Students must provide the syllabus for course(s) that model the communication, design and team based work of APSC 100. Applications must be received one month before course begins.

APSC 381

Enrollment in this course will only be considered after all 3rd year Queen’s students have completed enrollment, as this course is a pre-requisite for APSC 480. Application to the Course Instructor, Professor David Strong strongd@queensu.ca and Administrator, Myriam Beaulne myriam.beaulne@queensu.ca must include a letter of request, transcript and syllabus of course(s) similar to learning objectives from APSC 200/293. Applications must be received at least one month prior to start of course. Strong English verbal and written skills will be required for this course.

APSC 480

Enrollment in this course will only be considered if space is available. Please note: this is a full year course and requires students to attend BOTH semesters. Application to the Course Instructor, Professor David Strong strongd@queensu.ca must include a letter of request and transcript, supporting proof of a strong academic and design background. Applications must be received at least one month prior to start of course. Strong English verbal and written skills will be required for this course.

CIVL COURSES

Exchange students are not eligible to take either CIVL 200, CIVL 300, CIVL 360, CIVL 400 or CIVL 460

CHEE/ENCH COURSES

All courses are open to exchange students, dependent upon their academic background. Queen's enrollment may have priority, but if there is room in the class and students are eligible, they are welcome to attend.

ELEC AND CMPE COURSES

Enrollment of exchange students in the following 2nd year ELEC courses will only be considered if space is available:

ELEC 221, ELEC 271, ELEC 278, ELEC 252, ELEC 273, ELEC 274, ELEC 280, ELEC 299

Unavailable to Exchange Students:

ELEC 390 - this course prepares the student for ELEC49x, the 4th-year capstone design project course

ELEC 490/ ELEC 498 – final 4th year capstone design project course

ELEC 491/ ELEC 492 – 4+1 program project courses

Subject to Department approval:

ELEC 497 – The student registered in this course works on a research project under the supervision of ECE faculty member. The project is designed for completion in one session, with a project proposal describing the research submitted at the beginning, and a major report and presentation of the work at the end of the session.

ELEC 421, 431, 443, 444, 448, 474, 486, 483 – the department has limited lab components to accommodate a larger number of students in these courses. Enrollment into these courses will be considered only with the course instructor's approval.

ENPH COURSES

The following courses are NOT available to exchange students:

ENPH 455, ENPH 456, ENPH 457

The capstone thesis project courses are not available to exchange students as we don't have enough supervisors to offer one-on-one supervision to students from other universities.

GEOE COURSES

All courses are open to exchange students, dependent upon their academic background. Queen's enrollment may have priority, but if there is room in the class and students are eligible, they are welcome to attend.

MECH COURSES

The courses with the MECH prefix that are typically not suitable for most exchange student's follow. (Note that some courses are core to our program, others are technical electives, as noted):

MECH 213 – Not available due to resources and machine shop space, and this course is core to all of our 2nd year enrolled MECH students.

MECH 230 – Only available if the 2nd year enrolment allows as this course is core to all of our 2nd year enrolled students along with that of other programs in engineering.

MECH 270 – Lack of laboratory resources, and this course is core to all of our 2nd year enrolled students.

MECH 323 – Lack of project resources, and this course is core to all of our 3rd year enrolled students.

MECH 361 – Not a suitable course as it is only available to Queen's students who are actively involved and participating in one of our student teams, i.e. Queen's Formula, Mini Baja, etc.

MECH 396 – Only available if students take MECH 370 at the same time as a co-requisite.

MECH 397 – Only available if students take MECH 371 at the same time as a co-requisite.

MECH 452 – Students must email and receive permission of the course instructor, as it is up to the instructor as to whether they are put into the course or not. Important to note that enrolment is very limited.

MECH 460 – Lack of project resources meaning this is typically not a suitable course for exchange students. This is the final year project course for all of our 4th year MECH students.

MECH 462 – Typically not a suitable course as it requires the pre-requisite of a course typically not available, MECH 460 (above).

MECH 463 – This is actually not a course. This is solely a mark/completion holder for summer research students visiting the department sponsored by an MME faculty member in

collaboration with their homeschool research supervisor. Typically not available to exchange students.

MECH 464 – Typically not a suitable course. It is the co-requisite course that must be taken with a course not available, MECH 460 (above).

MECH 465 – Students must email and receive permission from the course instructor. It is up to the instructor as to whether they are put into the course, or not, as it is by application.

Other Important Factors to Note:

- Students must ensure they use the up-to-date course listings from the new academic course calendar for the year of their exchange. Course offerings vary from year to year.
- Students must ensure they have the necessary pre-requisite background material previously covered to be successful in the Queen's course(s) they are registered or plan to take. (The best way to do this is to briefly meet with the course instructor on arrival to be sure. Note that students have the first two weeks of term to add/change their courses).
- When viewing courses in the academic course calendar it is important to understand the details in the listing:

MECH 452 Mechatronics Engineering F 2-2.5-.5 5 This course is offered in the Fall term only, W means Winter term only, FW means Fall and Winter and F/W means Fall or Winter

PREREQUISITES: ELEC 252 or ELEC 310 or ENPH 333 or ENPH 334, and MECH 350 or MTHE 332, and permission of the instructor (the instructor should typically be met with/emailed prior to course registration, or a Pre-req/Co-req waiver signed within the first two weeks of the term. Forms are to be submitted to Jacquie Brown for processing).

~COURSE NOT OFFERED IN 2015-2016~ (Not available this academic year).

MINE COURSES

Most course are open to Exchange students, if they have the necessary pre-requisite knowledge. It is often best to speak directly to the instructor to obtain final approval.

The courses with the MINE prefix that are not suitable for most exchange students are:

MINE 445 – Not a suitable course as it is the final-year project course for all final year mine-mine students and most exchange students will not have the necessary design software experience to complete this course.

MINE 471 – Not a suitable course as it is the final-year project course for all final year mine-mech students and most exchange students will not have the necessary mechanical engineering background to complete this course.

MINE 448 – Not a suitable course as it is the final-year project course for all final year mine-mine students as few exchange students will have all the pre-requisites.

MTHE COURSES

Most course are open to Exchange students, if there is room in the course and they have the necessary pre-requisite knowledge. It is often best to speak directly to the instructor to obtain final approval. Exchange students are not eligible to take either MTHE 493 or 494