M.Eng. Projects

October 30, 2014
Overview

- Project Descriptions
- Types of Projects and the Requirements
- Faculty Supervised Project
- Mitacs Internship Project
- Industrial Internship Project
• Primary objective of the M.Eng. program is technical and professional advancement beyond the bachelor’s level so as to prepare candidates for an engineering career in industrial research and development.

• The project is intended as the research or development component related to a particular academic field of interest.

• Each student’s project in the M.Eng. program must be approved and completed under the guidance of a faculty advisor.
Project Description

• While a project need not involve the discovery or creation of new knowledge, it must demonstrate the application of theoretical concepts and disciplinary skills to engineering problems and constitutes an in-depth study and investigation.

• The project typically involves
  – (i) further development and testing of a functioning device or system
  – (ii) optimization of a device or processes,
  – (iii) resolution of specific technical problems,
  – (iv) improvement of specified function(s).
Acquired skills that must include some of the following:

• Accurately discerning and defining the essential and true elements of the real-world problem;
• Searching out, learning and making appropriate use of available theory and tools;
• Seeking additional expertise and data as needed;
• Evaluating and obtaining a solution to an advanced engineering problem;
• Applying analytical, numerical and/or experimental engineering techniques;
• Synthesizing technical data to reach a viable solution;
The following types of projects would not qualify:

• Translating
• Purely literature surveys
• Purely testing known methods by crunching data etc.
Three (or Four) Types of Projects

• Faculty supervised university project (4 months), ELEC 898
• Mitacs project (4 months), ELEC 898
• Industrial Internship
  – Option I: 4 months, ELEC 895
  – Option II: 8 months, ELEC 895 + ELEC 896
The proposed project must be technically equivalent to two term length graduate courses or one term length graduate course

- ELEC 898: two term length ELEC graduate courses (Faculty supervised project and Mitacs Internship)
- ELEC 895: one term length ELEC graduate course (4 months industrial internship)
- ELEC 895 + ELEC 896: two term length ELEC graduate courses (8 months industrial internship)
Project Requirements

Faculty Supervised Project
(i) Must successfully complete all course work required for Degree completion by May 1, 2015

Mitacs Internship Project
(i)+ (ii) Must have an 80%/A-/3.7 overall average for courses taken in the Fall term

Industrial Internship Project
(i) + (ii) + (iii) Must pay the $35 fee to enroll with Career Services + (iv) Must attend workshops offered by Career Services
Outlines of Faculty Supervised Project

• Contact a potential faculty supervisor as early as possible, e.g., in Jan
• Duration: from May to Aug (4 months)
• Status: Full time student
• Location: campus
• No financial support
• International students: no work permit needed
• Must submit the report by the end of Aug
Outlines of Mitacs Internship Project

• Will know your eligibility by mid Jan; if eligible, contact Debie and Grier ASAP
• Duration: from May to Aug (4 months)
• Status: Full-time student
• Location: 50% on campus and 50% in industry (but, this is flexible)
• Must submit an application (or proposal); this is a competition, no guarantee
• $10,000 stipend (from supervisor’s Mitacs grant), no tax
• International students: for the issue of work permit, ask Mitacs
• Must submit the report by the end of Aug
• Attend Mitacs information session on Tuesday, Nov 4th, 2014 – 6:30 pm in WLH 302
Outlines of Industrial Internship Project

- Will know your eligibility by mid Jan
- Duration: from May to Aug (4 months) or May to Dec (8 months)
- Status: switch to part-time status in May and pay part-time tuition (50%) and no student activity fees
- Location: 100% in industry
- Industrial salary, taxable
- International students: must apply for co-op work permit (Workshop in beginning of February to help apply)
- On the transcript, it appears as “MEng in ECE with Industrial Internship”
- Must submit the report by the end of Aug (4 months) or end of Dec (8 months)
Some Important Points (Mitacs and Industrial Internship)

• You must **NOT** to contact employers independently.

• If you have a company in mind, please talk to the M.Eng. Coordinator first. If it is a viable company, this information will be passed onto either Grier Owens or Jenny Lee.
### Timeline – Fall Term

| By Friday, Nov 14, 2014 | Meet with Grier Owens in ECE to discuss internship fit. Then enroll with Career Services by filling out Agreement Form and pay the non-refundable $35 fee.  
*Please note that enrolling in the Industrial Internship Program does NOT mean automatic eligibility – you must still attain departmental approval before being to be able to apply and interview for internship positions.* |
|------------------------|-------------------------------------------------------------------------------------------------|
| Nov to Dec 2014        | - Meet with Career Services Internship Coordinator.  
- Attend Résumé & Cover Letter and Interview Workshops with Career Services. This is mandatory. |
### Timeline – Winter Term

| By mid January, 2015 | Students will know if attained Departmental approval.  
Graduate Program Assistant will inform Career Services if you are eligible for the Industrial Internship. Career Services M.Eng. Internship Coordinator will then contact you.  
Starting in January, student should seek academic supervisor. Failure to obtain an academic supervisor means withdrawal from the internship program.  
Students should have résumé and cover letter ready for application process. |
## Timeline – Winter Term

<table>
<thead>
<tr>
<th>February and March 2015</th>
<th>Students apply for positions posted on MyCareer board. Interviews will be organized by Career Services M.Eng. Internship Coordinator.</th>
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<tbody>
<tr>
<td></td>
<td>If offered a job, you must make decision within 48 hours. <strong>IMPORTANT:</strong> If you accept a position either verbally or in writing, you are bound by this agreement. If for any reason you decide to renege on this acceptance, you will be removed from the internship program.</td>
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<tr>
<td>February 2015</td>
<td><strong>International students</strong> will attend workshop held by Justin Kerr (QUIC International Student Advisor) for the process to apply for Co-op Work Permit with Immigration Canada. Must submit application within two weeks of workshop. Failure to obtain the Co-op Work Permit by mid April will mean removal from the internship program.</td>
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## Timeline – Winter Term

<table>
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<tr>
<th>Date Range</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>End of March 2015</td>
<td>If unsuccessful in securing internship, students let Career Services M.Eng. Internship Coordinator know of intention to either cease internship process and seek Faculty project. Student will also inform Graduate Assistant of their current status/process.</td>
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<td>By end of March 2015</td>
<td>Students must complete online Off Campus Activity Safety Policy (OCASP) forms.</td>
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<tr>
<td>By end of April 2015</td>
<td>Students must successfully complete remaining degree course requirements. If you have failed a course you are automatically removed from the internship program. Students submit Academic Change Form to Graduate Program Assistant to add internship project course(s) and change status to Part-time Off-Campus during internship. Must be signed by academic supervisor.</td>
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</table>
## Timeline – Winter Term

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<th>Beginning of May 2015</th>
<th>Students start internships. Since your status will change to Part-time Off-Campus your tuition fees will reflect this change in status. You will pay half of the tuition fees and no Student Activity Fees.</th>
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<tr>
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<td>During your internship, you will be paid a salary by the company. This salary will be determined during the interviewing process.</td>
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<td></td>
<td>During the internship, you and your employer will <strong>complete two Performance Evaluations</strong>. These forms will be sent to you via email for the 2 and 4 month mark (for 4 month internship) OR at the 4 and 8 month mark (for 8 month internship). These completed forms should be scanned and emailed to the Career Services M.Eng. Coordinator.</td>
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Notes

• All correspondence to do with the Industrial Internship Program will be directed to your Queen’s email account, including interview request and job offer notifications.

• As a participant in the Industrial Internship Program, you are obligated to the high standards and professionalism that your university and our internship employers expect of this program and its students.
Timeline – Report
(Faculty Project; MITACS Internship; 4 months Industrial Internship)

• August 31 – the end of the 4 month internship. You will be responsible to have submitted your first draft of the internship project report to your academic supervisor. The final draft needs to be completed by the first week of September, especially if you want to complete by end of September.

• Must ensure that you have completed registration for the new academic year, same as you did at beginning of program. If not done report cannot be examined.

• September – Academic Supervisor will appoint an examination committee and they will require three weeks to examine the report and submit the final decision to the Graduate Program Assistant.

• If this is all done by the end of September, no tuition will be owing for the new academic year.
• December 31 – the end of the 8 month internship. You will be responsible to have submitted your first draft of the internship project report to you academic supervisor. With the final draft being completed by the first week of January.

• January 6 – Academic Supervisor will appoint an examination committee and they will require three weeks to examine the report and submit the final decision to the Graduate Program Assistant.

• If this is all done by the end of January, no tuition will be owing for the new academic year.
Three are three possible outcomes of the examination of your report:

- Pass
- Resubmit with corrections
- Fail

Once a final decision of “Pass” is given by examination committee all degree requirements will be completed and the School of Graduate Studies will be notified.

Industrial Internship: Your transcript will have added to your degree certificate the notation “with Industrial Internship”
Timeline – Writing of Report (Industrial Internship)

- Report that describes the problem, the methods used in the analysis of the problem, and the results and recommendations arising from the analysis.

- During internship you are responsible to start writing up your internship project report.

- **This will not be done during working hours** but during your own time.

- This is part of the degree requirements and you are solely responsible for this.
Benefits of participating in an Internship

• 4 or 8 month degree-related, full-time, paid internship
• Degree designation – “with Industrial Internship”
• Job search support provided by Career Services
• Opportunity to apply classroom learning in professional setting
• Professional supervision and formal feedback through Performance Evaluations
M.Eng. Internship Specific Job Search Support

- M.Eng. Industrial Internship Workshops
  M.Eng. Resume and Cover Letter Workshop
  M.Eng. Interview Workshop

- M.Eng. Individual Advising (by appointment)

- M.Eng. Industrial Internship Postings Board
• Employers encouraged to post as early in the Winter Term as possible
• Employers can post / hire students at any time in the Winter term
• Employer outreach and interviews will be facilitated by Career Services Internship Coordinator
• Students start working in May 2015
Log on to the MyCareer portal and sign up for M.Eng. Resume/Cover Letter and M.Eng. Interview Workshops

Next Steps – Sign up for Required Workshops
Next Steps – Job Search

• Search M.Eng. Job Postings in MyCareer
Next Steps – Attend Employer Events On Campus

<table>
<thead>
<tr>
<th>EVENT</th>
<th>DATES</th>
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<tbody>
<tr>
<td>Engineering and Technology Fair</td>
<td>January 21, 2015</td>
</tr>
<tr>
<td>Employer Info Sessions</td>
<td>Ongoing / Check MyCareer</td>
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Additional Career Services Support

- **Workshops**
  - Career Fair Preparation
  - You’ve Got Skills
  - Networking
  - Using LinkedIn to Find Great Work

- **Drop-in Career Advising**

- **Career Information Area**