Graduate Student Handbook Electrical Engineering and Computer Science

Lassonde School of Engineering Effective 2024

Table of Contents

| General Information | 2 |
|---|----|
| Contact Information | 3 |
| Orientation | 4 |
| Email Account(s) | 4 |
| YU-card | 5 |
| Academic Regulations | 6 |
| Registration, Course Enrollment and Program Withdrawal | 7 |
| Registration Block | 8 |
| Tuition Fees | 9 |
| Graduate Funding | 10 |
| Other Sources of Financial Assistance | 12 |
| Graduate Programs | 13 |
| MSc in Computer Science | 13 |
| MSc in Computer Science, Specialization in Artificial Intelligence | 15 |
| MASc in Electrical and Computer Engineering | 17 |
| PhD in Electrical Engineering and Computer Science | 18 |
| Program Milestones | 21 |
| Graduate Courses, Grading and Academic Standing | 24 |
| Reporting of Grades | 24 |
| Grading System | 25 |
| Academic Standing | 26 |
| Combinations of 'C' Grades Which Require Withdrawal Unless Continued Re is Recommended and Approved | _ |
| Combination of 'F' and 'C' Grades Which Require Withdrawal | 26 |
| Unsatisfactory Research Progress | 26 |
| Thesis, Dissertation and Graduation | 27 |
| Health Plans | 28 |
| Health and Wellness | 29 |
| Student Support Services | 30 |

General Information

This handbook was developed to assist graduate students navigating their way in graduate education.

To assist you with this process, this handbook contains embedded links, where applicable. We hope that they will assist you when you require additional information or immediate access to forms.

The information in this handbook has been adapted from the Faculty of Graduate Studies website and complements the Faculty of Graduate Studies important dates, procedures and regulations.

We welcome your questions, feedback and recommendations and look forward to working in continue to establish best practices.

Contact Information

Each graduate program has a graduate program director and graduate program assistant to assist you with your studies.

Graduate Program Director

Dr. Manos Papagelis
Dr. John Lam
Office Location – LAS 3020
Telephone – (416)736-2100 x 77883
Email – eecs-gpd@yorku.ca

Graduate Program Assistant

Susanna Talanca
Ciara Campbell
Office Location – LAS 1012
Telephone – 416.736.2100 x 66183
Email - eecs-gradasst@yorku.ca

Graduate Program Website

Electrical Engineering and Computer Science (yorku.ca)

In addition to the program contacts, the following contact information may be of use to you. As always, if you have an emergency (ambulance, fire, police), call 911.

York University's main telephone line is 416.736.2100

| GENERAL AND PROGRAM ADMINISTRATION | |
|--|---------------------------------|
| General program administration | Graduate Program Assistant |
| Keys (office and building) | Ulya Yigit – LAS 2042 |
| Technical Support | tech@eecs.yorku.ca |
| | <u>Departmental Wiki</u> |
| | |
| HEALTH AND <u>SAFETY</u> | |
| On-Campus Security, urgent matters | York Security Services |
| | 416.736.5333 or extension 33333 |
| On-Campus Security, general | York Security Services |
| | 416.650.8000 or extension 58000 |
| goSAFE – complimentary service provided to | 416.736.5470 or extension 55454 |
| students to get around campus after-hours, 6am | |
| to 2am. | |
| | |
| FINANCIAL MATTERS | |
| Teaching Assistantship | Graduate Program Director |
| TA Payments | Graduate Program Assistant |

Orientation

You may be invited to attend more than one orientation at the start of your academic studies. All of these orientations have been organized by specific units. Information will rarely overlap and it is in your best interest to attend all of them.

Faculty of Graduate Studies

Each September, the Faculty of Graduate Studies hosts a Graduate Student Social. This orientation is normally held on the Tuesday following Labour Day in September. It usually lasts 2 hours in length and held over the lunch period. It is an opportunity for students to be aware of academic support services that are available on campus. Such supports include Research Librarians from each Faculty, Learning Skills Services, Teaching Commons, Writing Centre, etc.

Graduate Program

Each graduate program organizes an orientation session for their students. It usually is scheduled on the same day as the FGS orientation above, with time left to attend the FGS event. This orientation will provide specific program information and requirements. It is important to attend this orientation.

Mandatory online courses

Mandatory online courses or training will be communicated to you in order to fulfill the requirements of Teaching Assistantship, Health & Safety or Academic Honesty. These courses are employment-based. As such, it is mandatory to complete online courses before commencing your employment with the University.

You must complete the following before starting your Teaching Assistantship duties.

Health and Safety Orientation (first module only) - online

Electrical and Safety Awareness - online

WHMIS I - online

Email Account(s)

As a student at York University, you will be provided a student email address. For those who are also Teaching Assistants, you may be provided with an employee email address. It would be best to use your student email address for student-related purposes and your employee email address for employment purposes. Your employment email account can be forwarded to your student email account. Please do not use your personal email address when emailing staff.

The rationale to separate the information is simple. Like any other employment situation, once you are no longer an employee of the university, your email account will be deactivated. You will no longer have access to this email account or emails associated with this account.

The department of Electrical Engineering and Computer Science technical team will add you to our listserv and set you up with an eecs account. This email will be used for all important announcements and notifications by the graduate program. As above, you may choose to forward the email to your student email account.

YU-card

The YU-card is York University's official photo identification and campus debit card. To avoid long lineups, <u>submit your photo online and pick up your card at the office</u>, located in the William Small Centre.

This card also functions as an electronic key, and access to some offices and laboratories may be granted through it.

Academic Regulations

The academic policies and regulations for graduate students fall under three areas, York University secretariat policies, Faculty of Graduate Studies and the EECS graduate program. Generally, the Faculty of Graduate Studies regulations apply to all graduate students at York University and specifies the minimum requirements for the award of Master and Doctoral degrees. Individual program requirements may have additional requirements. Finally, there are some York University secretariat policies that oversee the entire York University student body. It is imperative to familiarize with all three of these areas.

York University - Policies, Procedures and Regulations

<u>Academic Support & Accommodations | Student Accessibility Services | York University</u>

Academic Accommodations for Students with Disabilities (Policy)

Academic Honesty

Code of Student Rights and Responsibilities (Regulation)

There are more York University secretariat policies that may be of interest to you.

Faculty of Graduate Studies Academic Regulations

Below are a few academic regulations that are students frequently refer to. It is important to know where to find the information and to acquaint yourself with them.

Student Affairs:

*Important Dates (add/drop course dates, tuition fee deadlines, thesis/dissertation dates, etc)

*Forms

Academic Honesty

Academic Petitions and Appeals

Accommodations for Graduate Students

Continuous Registration

Leave(s) of Absence

Program Withdrawal

Reinstatement/Reinstatement to Defend

Transfer Credit

Fees and Tuition:

Balance of Degree Fees
Direct Deposit (link to sign up)
Funding and Awards
Graduate Tuition Fees

Thesis and Dissertation:

Supervision
Organization and Technical Requirements
Oral Examination
Research Ethics
Final Submission

Registration, Course Enrollment and Program Withdrawal

Registration

Graduate students must be continuously registered in their program in each term (Fall, Winter, Summer) unless on an approved leave of absence. At least 6-8 weeks prior to the commencement of the new term, students may submit paperwork to request a leave of absence from their program. The deadline will be posted on the Important Dates Calendar. While on a leave of absence, students may not continue to actively pursue their research or advance in their study without payment of fees or registration.

Course Enrollment

Students should consult with their supervisor before selecting and enrolling in courses. During the first term of their studies, students must submit their <u>Course Selection Form</u> to the graduate program.

Students can add and drop courses online via My Online Services. However, students should refer to the Important Dates section on the Faculty of Graduate Studies website for deadlines.

Please refer to your program course requirements to determine which courses can satisfy your degree requirements.

Directed Reading Courses

A directed reading course is suited for students with special interests. Students will select areas of study in consultation with their supervisor. These areas should not significantly overlap with material covered in courses currently offered at York University and undergraduate or graduate courses taken by the student either at York University or elsewhere. Directed reading courses require a completed <u>directed reading form</u>. Students should return the completed form to the graduate program assistant. A printout of an email confirming approval can be used in lieu of a signature on the form.

Courses in Another Graduate Program

Students may request to take courses offered by other graduate programs at York University. Such a course requires a completed <u>request form</u>, which needs to be approved by the course instructor, the graduate program director of the program offering the course and the graduate program director. Completed forms should be returned to the graduate program assistant. A printout of an email confirming approval can be used in lieu of a signature on the form.

Late Course Enrollment

If you are unable to meet the deadline(s), a manual Course Transaction Form will need to be completed. Requests to add or drop a course beyond the posted dates are not guaranteed and normally depends on how long after the deadlines have passed. In some cases, you may need to submit an academic petition to the Faculty of Graduate Studies in order to request these late changes.

Registration Block

You may be blocked from registration if there is:

- An admission condition that has not been cleared;
- An advising block (usually occurs during the first term of registration)
- An owing balance of over \$1,000;
- An academic milestone has not been met;

If you are blocked from registration, contact your graduate program assistant for further information.

Tuition Fees

Graduate tuition fees are not calculated on a per-course basis. Therefore, it does not matter if you take one course or three courses in a given term. The tuition fee is charged every term and will be based on your program, registration status and residency status.

Fees Paid by an Employer, Government or External Agency

If your tuition fees are being paid directly to the University by a third party (e.g., employer, government, Embassy, etc.) you must submit your sponsorship letter to the Office of Student Financial Services (for contact information, visit http://sfs.yorku.ca) immediately following registration. Please note that you are still responsible for all charges on your student account, and late charges or other sanctions will apply if the account is not settled promptly. Your account will not be credited until payment has been received.

Balance of Degree Fees

Students must register and pay the minimum program fees. Students who successfully complete a program in less time than the minimum program length will be responsible for payment of a balance of degree fee prior to convocation. For the calculation of balance of degree fees, one full-time term is equivalent to two part-time terms.

Students who exceed the program length or the maximum time limits for completion of their program are responsible for payment of fees beyond the total minimum fee requirement.

Master students must register and pay fees for a minimum of three full-time terms. Doctoral students must register and pay fees for a minimum of six full-time terms.

| Master Programs | Program Length (in full-time terms) |
|---|-------------------------------------|
| Computer Science | 5 terms |
| Electrical and Computer Engineering | 5 terms |
| Doctoral Programs | |
| Electrical Engineering and Computer Science | 12 terms |

Graduate Funding

The purpose of graduate funding is to provide financial support to research-based, full-time students to offset the cost of their graduate education, such as tuition fees. York University and the Lassonde School of Engineering offer a wide range of financial supports to compose your graduate funding package. The amount of funding and duration is specified in your offer of admission. Some of these supports are provided through a fellowship, research assistantship, teaching assistantship, and/or scholarship.

Below is a list of components that can make up your funding package. For more information on graduate funding and awards, including eligibility, refer to the <u>Faculty of Graduate Studies website</u>.

| Funding Type | Definition | Actionable Items, if applicable |
|-------------------------|--|----------------------------------|
| Fellowship | Financial support offered to offset the cost of | No action required. Will be |
| | tuition fees. | posted to your student account. |
| Research | A stipend provided by the Supervisor for | You may be required to |
| Assistantship | research or academic activities relevant and | complete form(s) to receive |
| | related to the student's field of study. | these funds. Will be deposited |
| | | to your bank account. This is |
| | | not considered employment. |
| Teaching | Paid work for teaching-related work | Apply for a position(s). This is |
| Assistantship* | (laboratory, demonstration, marking, | considered employment. |
| | invigilating, etc). | |
| | | As with any type of |
| | Teaching Assistants are represented by the | employment, you are required |
| | CUPE Collective Agreement. | to report your hours, report to |
| | | work, be on time, etc. If you |
| | Declining a Teaching Assistantship assignment | find yourself requiring an |
| | will reduce your funding by the value of the | accommodation for work- |
| | assignment. | related concerns, you must |
| | | contact Employee Well Being at |
| Calcalandata | The control of the latest the lat | York University. |
| Scholarships – | There are many scholarships that students may | Apply for a scholarship(s) |
| Tri-Agency (Domestic | apply for. The Tri-Council scholarships are the most well-known and are highly competitive | If awarded an external |
| students) | (CIHR, NSERC, SSHRC). | scholarship, the fellowship will |
| students) | Other scholarships – | be reduced. |
| | Canadian Graduate Scholarship (CGS) | be reduced. |
| | Ontario Graduate Scholarship (CGS) | |
| | Vanier Canada Graduate Scholarship | |
| Scholarships – | There are other internal or external scholarship | Apply for a scholarship(s) |
| External and | opportunities. Refer to the Faculty of Graduate | |
| Internal | Studies website for more information. | Fellowship may be reduced. |
| Scholarships – | There are a number of funding and award | Apply for a scholarship(s) |
| International | opportunities for international students ranging | |
| | from government competitions to donor- | Fellowship may be reduced. |
| | funded awards specific to York University. | |

MSc and MASc Programs

Every full—time Master's student in the thesis option is considered for financial support for their first five terms (20 months) in the program. The financial support for each full—time Master's student (excluding AI) in the Program is stipulated in your offer letter. Excellent applicants will be considered for entrance scholarships of \$3,000 to \$4,000 each*.

Specialization in AI

Unlike other programs, this specialization is not funded, but financial support is available to excellent students in the form of scholarships or internships. Particularly, since our program is officially recognized by the Vector Institute, our students will be eligible under the <u>Vector Scholarships in Artificial Intelligence</u>, valued at \$17,500 for one year.

PhD Program

Every full—time Ph.D. student is considered for financial support for their first 4 year (48 months) in the program. The financial support for each full—time Ph.D. student in the Program is stipulated in your offer letter. Excellent applicants will be considered for entrance scholarships which will be included in your offer letter. Students who are offered an external scholarship may reduce the Fellowship amount offered by York University.

Teaching Assistantships

Teaching assistantships (TA) are normally offered to all full–time Ph.D. students and all full-time Masters students (excluding AI Students). Currently a teaching assistantship in EECS are offered at 0.75 as the default TA load. A 0.75 TA Load is 101.25 hours/term.

^{*}This amount may be subject to change per academic year

Other Sources of Financial Assistance

* Please check websites for deadlines and eligibility. *

Bursaries

York University and the Faculty of Graduate Studies provide bursaries to assist full—time graduate students with financial need. Students who complete a Student Financial Profile (SFP) will automatically be considered for a plethora of bursaries.

Some bursaries are administered by Student Financial Services (SFS), others by the Faculty of Graduate Studies.

Academic Excellence Fund

The Academic Excellence Fund (AEF) program supports graduate students in advancing their research and scholarly objectives through simple and timely access to funds. Activities that are supported by AEF include research, dissemination of scholarly or creative work as well as student-led initiatives, activities or events that advance graduate research and professional development.

Minimum Guarantee Assignment

In accordance with the CUPE 3903 Unit 1 Collective agreement, the Faculty of Graduate Studies provides students who are members of the CUPE 3903 Unit 1 Priority Pool with an assignment form by which they can indicate the academic term(s) that they consider themselves unavailable to take on a minimum guarantee work assignment. Please note that in order to consider yourself unavailable to work during a specific term you must demonstrate exceptional circumstances.

Research Cost Fund

The Research Cost Fund (RCF) assists with the costs directly connected to research undertaken by registered full-time York graduate students who are or have been members of CUPE 3903 within their current program of study.

Vector Scholarship in Artificial Intelligence

The Vector Scholarship in Artificial Intelligence is available for one year to excellent students planning to pursue a Vector Institute accredited program, such as the MSc in Computer Science with Specialization in Artificial Intelligence.

Graduate Programs

MSc in Computer Science

The MSc in Computer Science is a 20-month program with a research-intensive thesis option, or a course-intensive project option.

Degree Requirements

Candidates for the M.Sc. degree must complete five graduate three-credit courses and successfully defend a Master's thesis if they wish to follow the Thesis Option or seven graduate three-credit courses and a project if they prefer the Project Option.

Upon acceptance to the M.Sc. program, the Candidate will meet with their thesis supervisor, who will advise them on the degree requirements and assist them in their course selection and research. The checkpoints in the M.Sc. program are listed in the following table, along with both expected and mandatory completion times, measured from entry into the program. Students also are required to submit a Progress Report each term on December 31 (Fall term) April 30 (Winter term) and August 31 (Summer term), until the completion of degree requirements.

M.Sc. Program Checkpoints

| Checkpoint | EXPECTED | MANDATORY |
|--------------------------------------|-------------------|-----------|
| Supervisor Selection | Before admittance | |
| Supervisory committee selection | 3 terms | 3 terms |
| Course requirement | 2 terms | 3 terms |
| Thesis / Project proposal | 3 terms | 4 terms |
| Thesis defense or Project Evaluation | 5 terms | |

There is a breadth requirement on the selected graduate courses; at least one course must be from each of the following three groups:

Graduate Courses | Electrical Engineering and Computer Science (yorku.ca)

- Theory of Computing and Scientific Computing
- Artificial Intelligence and Interactive Systems
- Systems: Software and Hardware

No more than one third of the course requirement can be integrated with undergraduate courses (EECS5xxx courses). Details about these groups can be found under the link to "Courses".

M.Sc. Thesis Option

Students that choose the Thesis Option must choose an area of specialization and submit a thesis on an approved subject. The thesis work will be supervised by a faculty member of the Graduate Program. Before work on the thesis starts, the Thesis Supervisory Committee must approve of the thesis topic.

M.Sc. theses are evaluated according to FGS requirements. In particular, there is an oral examination conducted by the Thesis Examining Committee.

M.Sc. Project Option

Students that choose the Project Option must choose an area of specialization and submit a project report. The Project work is supervised by a faculty member of the Graduate Program. The project is a body of work similar to a thesis in quality but of more limited scope and/or degree of originality. Project topics may include implementation and evaluation of recent published ideas, development of novel software/hardware applications or improvements of algorithms. The student and the supervisor have to agree on the topic and the exact scope of the project early and the agreement submitted in writing via a project proposal form to the Graduate Director. The Project Report is evaluated by the Supervisor and a Reader who must also be a member of the Graduate Program.

Thesis / Project Proposal

The Candidate presents a written proposal to their Supervisory Committee outlining the anticipated results of their thesis or project. The purpose of this proposal is to assess the scope and relevance of the problems the student plans to solve, and to ensure significant content to the thesis or project. A substantial portion of research should have been successfully completed, and a clear plan for completing the remainder should be included in the document.

MSc in Computer Science, Specialization in Artificial Intelligence

The MSc in Computer Science with Specialization in Artificial Intelligence focuses on theory and applications of artificial intelligence, culminating in a research project in partnership with organizations in the public or private sector.

Degree Requirements

Candidates for the M.Sc. degree with AI specialization must complete six graduate three-credit courses and successfully complete a project.

The course requirement are:

Complete six courses.

- at most two may be integrated courses (EECS course number starts with a 5)
- Complete at least three courses from the following list: EECS 5326, EECS 5327, EECS 6127, EECS 6327, EECS 6412
- Complete least two courses from the following list:
 EECS 5323, EECS 5324, EECS 5326, EECS 5327, EECS 5326, EECS 6127,
 EECS 6154, EECS 6320, EECS 6322, EECS 6323, EECS 6325, EECS 6327,
 EECS 6328, EECS 6332, EECS 6333, EECS 6340, EECS 6390A, EECS 6412, EECS 6414
- Complete either: PHIL 5340 (not integrated) **OR** EECS 6320
- Courses must also satisfy the group requirements for the MSc generally MScAI students must take either EECS 6127 or EECS 6154
- Identify a supervisor and a supervisory committee member by your third term (12 months)
- Complete a research project in Artificial Intelligence in collaboration with an external partner

No more than one third of the course requirement can be integrated with undergraduate courses (EECS5xxx courses). Note that PHIL 5340 is not an integrated course. Details about these groups can be found here.

<u>Graduate Courses | Electrical Engineering and Computer Science (yorku.ca)</u>

M.Sc.with AI specialization Program Checkpoints

| Checkpoint | EXPECTED | MANDATORY |
|---------------------------------|-------------------|-----------|
| Supervisor Selection | Before admittance | |
| Supervisory committee selection | 3 terms | 3 terms |
| Course requirement | 2 terms | 3 terms |
| Project proposal | 3 terms | 4 terms |
| Project work | 4 terms | 5 terms |
| Project completion | 5 terms | |

Al Project

The Project work applies AI methods to practical problems during the course of an internship. It is supervised by a faculty member of the Graduate Program and is in collaboration with a public or private sector partner. The supervisor or the Vector Institute facilitate the match with a partner. The project is a body of work similar to a thesis in quality but of more limited scope and/or degree of originality. The student and the supervisor have to agree on the topic and the exact scope of the project early and the agreement submitted in writing via a project proposal form to the Graduate Director. The Project Report is evaluated by the Supervisor and a Reader who must also be a member of the Graduate Program.

Project Proposal

The Candidate presents a written proposal to their Supervisory Committee outlining the anticipated results of their project. The purpose of this proposal is to assess the scope and relevance of the problems the student plans to solve, and to ensure significant content to the project. A substantial portion of research should have been successfully completed, and a clear plan for completing the remainder should be included in the document.

Internship Forms

Prior to commencing the internship, Candidates submit an internship proposal form that outlines the scope and length of the internship. At the conclusion of the internship, Candidates submit an internship report form.

MASc in Electrical and Computer Engineering

The MASc in Electrical and Computer Engineering is a 20-month research-intensive program with thesis. The studies are in the fields of Computer Engineering, Electrical Engineering, or Software Engineering.

Degree Requirements

Candidates for the M.A.Sc. degree in Electrical and Computer Engineering must complete four graduate three-credit courses, of which three are normally EECS courses, and write and successfully defend a Master's thesis.

Upon acceptance to the M.A.Sc. program, the Candidate will meet with their thesis supervisor, who will advise them on the degree requirements and assist them in their course selection and research. Students are expected to complete their degree requirements in no more than five terms (twenty months). Students also are required to submit a Progress Report each term on December 31 (Fall term) April 30 (Winter term) and August 31 (Summer term) until completion of degree requirements.

M.A.Sc. Program Checkpoints

| Checkpoint | Expected | Mandatory |
|---------------------------------|-------------------|-----------|
| Supervisor | Before admittance | |
| Supervisory committee selection | 3 terms | 3 terms |
| Course requirement | 2 terms | 3 terms |
| Thesis proposal | 3 terms | 4 terms |
| Thesis defense | 5 terms | |

No more than one course integrated with an undergraduate course (EECS 5XXX courses) can be used to satisfy degree program requirements.

A Candidate must conduct approved thesis research that demonstrates his/her research ability in the selected field of specialization under the general direction of a supervisor. Typically, the thesis will include a practical demonstration or implementation of the research work undertaken.

Thesis Proposal

The Candidate presents a written proposal to their Thesis Supervisory Committee outlining the anticipated results of their thesis. The purpose of this proposal is to assess the scope and relevance of the problems the student plans to solve, and to ensure significant content to the thesis. A substantial portion of research should have been successfully completed, and a clear plan for completing the remainder should be included in the document.

PhD in Electrical Engineering and Computer Science

The PhD in Electrical Engineering and Computer Science is a 4-year research-intensive program culminating in a dissertation. The studies are in the fields of Computer Science, Computer Engineering, Electrical Engineering, or Software Engineering.

Degree Requirements

Candidates for the Ph.D degree must complete at least three three-credit graduate courses. No more than one third of the course requirement can be integrated with undergraduate courses (EECS5xxx courses). Candidates must successfully complete a qualifying examination consisting of a written report on the Candidate's field of interest and defend it. Candidates must present a dissertation proposal outlining the anticipated results of their dissertation. Candidates are required to enroll in either an industrial internship or a teaching practicum. Candidates are also required to attend departmental research seminars and attend at least one professional development workshop per year. Finally, Candidates must conduct a significant body of original research under the supervision of a supervisory committee and successfully defend the resulting dissertation. Students are expected to complete their requirements in no more than four years.

Upon acceptance as a Candidate to the Ph.D. program, the Candidate will meet with their supervisor, who will advise them with respect to the degree requirements and assist with them with their course selection. The checkpoints in the Ph.D. program are listed in the following table, along with both expected and mandatory completion times, measured from entry into the program. Students also are required to submit a Progress Report, each term on December 31 (fall term) and August 31 and a annual program report on April 30 in each year of their studies.

Ph.D. Program Checkpoints

| Checkpoint | Expected | Mandatory |
|--|-------------------|-----------|
| Dissertation supervisor | Before admittance | |
| Supervisory committee selection | 2 terms | 3 terms |
| Course requirement | 2 terms | 3 terms |
| Qualifying examination | 4 terms | 5 terms |
| Dissertation proposal | 7 terms | 8 terms |
| Industrial internship/teaching practicum | 12 terms | 15 terms |
| Dissertation defense | 12 terms | 15 terms |

Dissertation Supervisor Selection

The Candidate must identify a <u>member of the graduate program</u> who is willing to act as the Candidate's Dissertation Supervisor.

Qualifying Examination

In their second year, PhD students are expected to have mastered a general understanding of the area in which they plan to complete their dissertation. Students are encouraged to complete their qualifying examination in their fourth term. This examination should be taken at the latest in the fifth term. This examination can be taken at most twice.

Under the supervision of their supervisory committee, the student prepares a written report summarizing the literature in the candidates chosen research area. Students should discuss the expected content of the written report with their supervisory committee. Normally, the written report consists of an introductory/motivation section, a survey of relevant literature with a critical analysis, and an open questions/promising directions section. Normally, the written report consists of 20-60 pages. The supervisory committee will provide the students with samples of written reports. It is the responsibility of the student's supervisory committee to ensure that the report covers the chosen research area in sufficient depth and breadth.

In order to demonstrate the student's understanding of their chosen research area, the student gives an oral presentation based on their report to their supervisory committee. Other members of the graduate program are invited to attend this presentation. The student is examined orally by their supervisory committee. Other members of the graduate program can ask questions as well.

Upon completion of the oral examination the supervisory committee will determine the outcome:

- Pass: candidate is permitted to continue on towards their dissertation proposal
- Conditional pass: candidate must either
 - a. take additional courses at the next offering before proceeding towards their dissertation proposal or
 - b. complete additional readings before proceeding towards their dissertation proposal or
 - c. complete remediation, as determined by the supervisory committee, in addition to retake the qualifying examination within six months.
- Fail: candidate has not passed the qualifying examination and is required to withdraw from the program.

Dissertation Proposal

The Candidate presents a written proposal to their Dissertation Supervisory Committee outlining the anticipated results of their dissertation. The purpose of this proposal is to assess the scope and relevance of the problems the student plans to solve, and to ensure significant content to the dissertation. A substantial portion of research should have been successfully completed, and a clear plan for completing the remainder should be included in the document. Ideally the Candidate will have presented some preliminary results from their Dissertation in some external formal setting such as a conference publication, and reprints of these results should be included in the Dissertation Proposal document.

Industrial Internship/Teaching Practicum

All Ph.D. Candidates are required to enroll in either an Industrial Internship or a Teaching Practicum. Under the Industrial Internship option, the Candidate will spend a 3 to 6 month period working in an appropriate research position in industry. The position must be formally approved of by the Graduate Program Director. Companies such as IBM, Hyrdro One, AECL, MDA Space Missions, etc., would be

considered for possible Industrial Internships. Under the Teaching Practicum option, the Candidate will spend 3 to 6 months assisting an instructor in the preparation and delivery of a course, and possibly instructing an introductory or service course for the Department of Electrical Engineering and Computer Science.

It is the responsibility of the Candidate's Dissertation Supervisory Committee to ensure the academic integrity of the industrial internship/teaching practicum. The Candidate's Dissertation Supervisory Committee must approve the internship/practicum before it begins and the committee will monitor the Candidate's progress during the internship/practicum.

- 1. Industrial Internship: Many graduate students plan to follow careers in industry, rather than in academia. This option provides students who plan to seek industrial employment after completion of their Ph.D. a chance to experience an industrial research setting. With the assistance of their supervisor, Candidates will identify an industrial position and industrial liaison willing to monitor the Industrial Internship. Before beginning the internship, the Candidate must prepare a document describing the expected duties and requirements of the internship. This document will be signed by the Candidate, the Candidate's Dissertation Supervisory Committee and an industrial liaison who will be willing to monitor the Candidate during the internship. This document must be approved by the Graduate Director before the start of the Industrial Internship.
 - The time spent taking part in an Industrial Internship will not be counted towards a Candidate's time taken towards graduation.
- 2. Teaching Practicum: Graduate students who plan to follow careers in academia may wish to consider the Teaching Practicum option. Under this option the Candidate will receive considerable exposure to the preparation and delivery of instructional material to undergraduate students. Students interested in taking part in the Teaching Practicum option will work with an instructor in the Department of Electrical Engineering and Computer Science (The Teaching Practicum Supervisor) in the preparation and delivery of an undergraduate course. The student, in collaboration with the Instructor will prepare a document describing the duties and requirements of the teaching practicum.
 - Before beginning a Teaching Practicum, the Candidate will prepare a document describing the proposed practicum. This document, signed by the Candidate, the Candidate's Dissertation Supervisory Committee, and the Teaching Practicum Supervisor must be approved by the Graduate Director before the Teaching Practicum may begin.

Evaluation: At the completion of the Industrial Internship/Teaching Practicum, the Candidate must submit a written report describing the Internship or Practicum to the Candidate's Dissertation Supervisory Committee. The Industrial Liaison (in the case of the Industrial Internship) or the Teaching Practicum Supervisor (in the case of the Teaching Practicum) will also be asked to submit a written description of the Candidate's performance. The Candidate's Dissertation Supervisory Committee will consider the proposal, the Candidate's report, and the written comments by the Liaison/Teaching Practicum Supervisor, plus any supporting documentation such as course evaluations to determine if the Candidate has met the requirements of this checkpoint. At either the committee or the Candidate's option, the Candidate may make an oral presentation to the committee which may then conduct an oral examination of the Candidate.

As a result of this presentation, the committee may decide that:

That the Candidate has met the requirements of this checkpoint, or

- That the Candidate has not met the requirements of this checkpoint (under this decision the Candidate would normally be required to withdraw from the program), or
- That the committee would prefer not to make a decision at this time and that the Candidate should perform some additional work within a specified period of time before deciding between either of the first two options.

Dissertation and Oral Examination

All entering Ph.D. Candidates plan a research program with their supervisor at the start of their degree studies, and must successfully complete a significant body of original research of high calibre in Computer Engineering, Computer Science, Electrical Engineering, or Software Engineering, under the general direction of a Supervisor and the Dissertation Supervisory Committee, and describe it in an appropriate dissertation. The research must be of such calibre that it satisfies departmental standards. Dissertation research should be of such quality that it would be publishable in prominent journals within the field. After the formal submission of the dissertation, an oral examination is held, centered on the dissertation research. In addition to the defense of their dissertation before the Dissertation Examining Committee, the Candidate is required to present their dissertation research to a Departmental Colloquium. The colloquium will be held at least one week prior to the oral examination.

The Dissertation Examination Committee is selected by the Graduate Program Director in consultation with the Candidate's Supervisor and includes at least:

- 3 Faculty Members, at least one of whom has major research interests outside of the area of the Candidate's dissertation (typically the Dissertation Supervisory Committee)
- 1 Faculty Member from outside the Program but within the University (representative of the Dean of Graduate Studies).
- 1 Representative from outside the University (the External Examiner).

According to the University Regulations, the External Examiner will submit a written appraisal of the dissertation before the Oral Examination.

Progress

Research progress is monitored by meetings of the Candidate's Dissertation Supervisory Committee. In the event of failure to achieve satisfactory progress the Candidate will normally be required to withdraw from the program. In exceptional circumstances the Dissertation Supervisory Committee may petition the Graduate Program Director on behalf of the Candidate for additional time to complete a particular checkpoint. Should the petition be successful, the extension would be for a limited and specified period of time.

Program Milestones

Please refer to the websites of the Faculty of Graduate Studies and the EECS Graduate Program for updated deadlines and important dates.

Master programs

• Complete program in five terms (20 months).

- Complete course requirements in first two terms.
 - Maintain an average of at least B+ in the courses and satisfy the Faculty of Graduate Studies (FGS) grades regulations.
- Complete progress report #1 by December 31.
- Complete progress report #2 by April 30.
- Get the thesis proposal approved at least three months before the thesis oral examination.
- Complete the thesis four weeks before the thesis oral examination.
- Maintain satisfactory progress:
 - Selection of a supervisory committee: Students are expected to have found a thesis supervisor by April 15 of the winter term of their first year (W1). Selection of a supervisor is primarily the responsibility of the student. As well, a second member of the supervisory committee must be identified. These two people will form the thesis or project supervisory committee.
 - Research: Students are expected to work on research leading to a thesis or project by their first summer term (S1) and to submit a preliminary version of their theses proposal (thesis option) or a written agreement between the student and supervisor on project scope (project option) by the end of that term. The thesis proposal should include a clear statement of the project they are undertaking, a summary of the work performed on it during the summer term, and a timetable with milestones to be achieved during terms F2 and W2, leading to successful completion of the thesis by the end of term W2.

PhD program

- Pass a qualifying examination within five terms (20 months).
- Maintain an average of at least B+ in the courses and satisfy the FGS grades regulations.
- Submit progress reports every term by April 30, August 31, December 31.
- Get the dissertation proposal approved at least six months before the dissertation oral examination.
- Complete the dissertation four weeks before the dissertation oral examination.
- Maintain satisfactory progress:
 - Year 1:

Take graduate courses.

Select dissertation supervisor.

Select dissertation supervisory committee (3 people) and inform FGS.

Year 2:

Finish graduate courses.

Do qualifying examination.

Work on dissertation proposal.

o Year 3:

Present dissertation proposal.
Send accepted dissertation proposal to FGS.
Do industrial internship/teaching practicum.

o Year 4:

Complete dissertation.

Graduate Courses, Grading and Academic Standing

Each year, graduate programs offer a selection of graduate courses. Plan accordingly when selecting courses and seek advice from your supervisor, graduate program assistant and/or graduate program director. Note that first-year students are required to submit a course selection form soon after the start of their first term (refer to program description and milestones).

Reporting of Grades

Graduate courses must be completed by the end of each term. Course directors must report final grades no later than the following deadlines:

Fall Term: January 15

Fall/Winter and Winter Term: May 15

Summer Term: September 15

If a course grade or approved incomplete grade is not reported to the Registrar's Office within one month of the appropriate reporting date, the course will be assigned a grade of F.

Requesting a course extension

If your coursework is not completed and evaluated by the grade reporting deadline date, you may speak with the Course Director to request an informal extension until the grade reporting deadline.

If you require additional time beyond the reporting deadline, you may formally request a course extension by completing a <u>Course Transaction Form</u>. This form must be completed by the course director and approved by the Graduate Program Assistant/Director. Per FGS regulations, a grade of "I" (Incomplete) must be removed within two months of the reporting date for a half-course (3 credits) or within four months of the reporting date for a full-course. The dates outlined below are the deadlines for such extensions. You can choose an earlier deadline if you can complete your coursework earlier.

| | Fall Term | Fall/Winter or Winter Term | Summer Term |
|-----------------|-----------|----------------------------|-------------|
| 3-credit course | March 15 | July 15 | November 15 |
| 6-credit course | May 15 | September 15 | January 15 |

Please ensure that the coursework is completed and evaluated before your deadline as it may turn to an F grade, as per FGS regulations.

Grading System

At the graduate level, a satisfactory pass in a course is a grade of B (70%-74%) or higher. It is important to understand the grading system to ensure you are met the academic standing requirements to continue in the program.

| Grading Syste | m | |
|---------------|---------------------|-----------|
| A+ | Exceptional | 90 – 100% |
| Α | Excellent | 85 – 89% |
| A- | High | 80 - 84% |
| B+ | Highly Satisfactory | 75 – 79% |
| В | Satisfactory | 70 – 74% |
| С | Conditional | 60 – 69% |
| F | Failure | 0 – 59% |
| 1 | Incomplete | N/A |

Academic Standing

Combinations of 'C' Grades Which Require Withdrawal Unless Continued Registration is Recommended and Approved

A student who received in total any of the following combinations of grades for graduate courses may not continue to be registered in the Faculty of Graduate Studies and in a graduate program unless this continuation is recommended by the graduate program director concerned and approved by the Dean:

- a. two C grades for 6.00 credit courses;
- b. one C grade for a 6.00 credit course and one C grade for a 3.0 credit (or equivalent) course;
- c. a total of three C grades for 3.0 credit (or equivalent) courses. In no cases will grades be averaged.

Combination of 'F' and 'C' Grades Which Require Withdrawal

A student will be required to withdraw from a graduate program and registration in the Faculty of Graduate Studies will be terminated if the student receives in total for graduate courses, during enrolment at York University:

- a. one F grade for a 6.00 credit course or two F grades for 3.0 credit (or equivalent) courses; or
- b. one F grade for a 3.0 credit (or equivalent) course and one C grade for a 6.00 credit or 3.0 credit (or equivalent) course.

In no case will grades be averaged.

Unsatisfactory Research Progress

Research-based and/or project-based students must meet regularly with their supervisor and supervisory committee. Their research progress is documented in a Report on Progress evaluation. Unsatisfactory progress may require a student to withdraw from their program as they have failed to make academic progress in their research.

Thesis, Dissertation and Graduation

Useful and up-to-date information on thesis and dissertation can be found on the <u>Faculty of Graduate Studies website</u>. We have created a separate guide collecting this information as well as program-specific timelines for EECS students. Please refer to the guide found on the EECS Graduate Program

EECS Thesis and Dissertation Handbook

If you are in the last term of your program and expect to graduate, you must apply to graduate. Please visit <u>York Convocation – Apply to Graduate</u> for more information.

Health Plans

YUGSA Health and Dental Plan (Domestic and International Students)

The York University Graduate Student Association (YUGSA) Health and Dental plan is mandatory for all full-time graduate students who do not have alternative coverage. This plan is optional for part-time students.

If you have alternative coverage, you can opt-out before end of September.

Contact YUGSA for more information.

<u>University Health Insurance Plan (UHIP)</u> (International Students)

The UHIP is a mandatory basic coverage plan that covers international students. This plan covers physician fees, annual eye examination, emergencies, lab services and x-rays.

If you are an:

International student who is a Teaching Assistant

• You should have both UHIP and the CUPE Benefits.

International student who is not a Teaching Assistant

You should have both UHIP and the YUGSA Health Plan.

Contact the International Office for more information.

CUPE 3903 Benefits Plan

Graduate students who hold graduate or teaching assistants are covered under the CUPE 3903 benefits plan.

Contact the Pension and Benefits Office for more information.

Health and Wellness

GradConnect Wellness Services, offered by the Faculty of Graduate Studies, supports and enhances the mental health and well-being of graduate students.

These services include but are not limited to, workshops, personal wellness consultations, and mental health promotion initiatives.

- Graduate students can request a <u>wellness consultation</u> for help with concerns about mental health, balancing life as a graduate students, transitioning to graduate school, difficulty coping with stress, anxiety, self-doubt, isolation, etc.
- The Faculty of Graduate Studies has partnered with Learning Skills Services to offer a <u>certificate</u> in <u>learning and wellness skills</u>. This program is free and is open to all York graduate students.
- GradConnect Resource Hub provides resource information for on and off-campus resources, helplines and websites/applications.
- The Faculty of Graduate Studies developed the <u>Graduate Student Wellness Initiative Fund</u> to subsidize the costs to develop or implement initiatives related to the promotion, awareness, or enhancement or mental health and well-being for the graduate student community at York University.

Student Support Services

| Academic Support Service(s) – Office and for Contact Information | Primary Service |
|--|---|
| Office and/or Contact Information | Construction Breater Continu |
| Career Centre | Career counselling, Dossier Service, |
| 202 McLaughlin College | preparing for an academic career path, |
| 416-736-5351 | preparing for an alternative career path, |
| | learning skills development workshops, online |
| | resources |
| Centre for Aboriginal Student Services | Workshops and support services for Aboriginal |
| 246 York Lanes | students. |
| 416-736-5571 | |
| Student Accessibility Services | Facilitate and coordinate individual support and |
| • | academic accommodations, assist in the |
| | transition of students with disabilities at York U, |
| | advocacy. |
| Student Counselling and Development | Personal counselors, crisis counseling, group |
| N110 Bennett Centre for Students Service | development workshops, learning skills training, |
| 416-736-5297 | and support for learning disabilities and |
| | psychiatric disabilities |
| Learning Skills Services | Workshops, peer academic coaching, drop-in, |
| Scott Library, 2 nd Floor, Learning Commons Hub | study hub, individual session with a Learning |
| 416-736-5144 | Skills Specialist, time management, |
| <u>Libraries</u> | Learning Commons – support with research, |
| Scott Library | writing, time management, and learning skills |
| | SPARK – online tool will assist you with |
| | Understanding the Assignment, Time |
| | Management, Academic Integrity. |
| | Research Workshops |
| Study Hub | You can start your own study group with like- |
| | minded students. |
| | |
| Administrative Support Services | Primary Service |
| Your Graduate Program is here to help you with y | • |
| · · · · · · · · · · · · · · · · · · · | s-gradasst@yorku.ca or Graduate Program Director |
| gpd-eecs@yorku.ca. | -gradasst@yorkd.ca or Graduate Program Director |
| gpu-eecs@yorku.ca. | |
| Athletics and Recreation | Varsity athletics, campus recreation, fitness |
| Adheres and Recreation | programs, intramurals |
| Centre for Student Community & Leadership | Enrich student life by promoting education, |
| Development (SC&LD) | awareness and growth; celebrating diversity, |
| S172 Ross Building | encouraging collaboration and developing |
| · · | citizenship. |
| 416- 736-5144 | Citizensing. |
| http://scld.yorku.ca | |
| | |

| ion, |
|------|
| ls, |
| ls, |
| ls, |
| to |
| |
| |
| |
| |
| ork |
| es. |
| |
| |
| |
| |
| |
| and |
| on |
| |
| |
| |
| |
| |
| |
| |
| nt |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| nal |
| |
| |
| rn |