

# Graduate Program in Electrical Engineering and Computer Science

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# Welcome to EECS

- York is the 4<sup>th</sup> largest grad school in Ontario (6,000+ grad students), with 60+ programs and degrees
- Graduate program in EECS
  - 80+ faculty members,
  - 103 PhD candidates,
  - 137 MSc/MASc candidates, and
  - 69 admissions this year



# Topics

- Degree requirements for MSc, MASc, PhD degrees
  - Courses
  - Supervisory committee
  - Financial Support
  - Teaching Assistantships
  - Academic Honesty, Ethics
  - Health & Safety
  - Useful links and Support
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- Note: this presentation, the EECS Graduate Student Handbook and the Thesis & Dissertation Handbook are posted on our graduate program website:  
<https://eecs.gradstudies.yorku.ca/current-students/>

# MSc (thesis option)

- You need to complete **five** courses.
  - at most one may be an integrated graduate course (course number starts with a 5)
  - at least one course from the theory of computing and scientific computing group (1)
  - at least one course from the AI and interactive systems group (2)
  - at least one course from the software systems and hardware systems group (3)
  - See our website for course groupings:  
<http://eecs.gradstudies.yorku.ca/>
- You need to defend a thesis.

# Examples – MSc (thesis option)

- EECS 6111: Advanced Algorithm Design and Analysis (grp 1)
- EECS 6117: Distributed Computing (grp 1)
- EECS 5324: Introduction to Robotics (grp 2)
- EECS 6324: From Control to Actuators (grp 2)
- EECS 6340: Embodied Intelligence (grp 2)
- EECS 6111: Advanced Algorithm Design and Analysis (grp 1)
- EECS 6117: Distributed Computing (grp 1)
- EECS 5324: Introduction to Robotics (grp 2)
- EECS 6340: Embodied Intelligence (grp 2)
- EECS 6412: Data Mining (grp 3)



No course from group 3



# MSc (project option)

- You need to complete **seven** courses.
  - at most two may be integrated courses (course number starts with a 5)
  - at least one course from the theory of computing and scientific computing group (1)
  - at least one course from the AI and interactive systems group (2)
  - at least one course from the software systems and hardware systems group (3)
  - See our website for course groupings:  
<http://eecs.gradstudies.yorku.ca/>
- You need to complete a project.
- For our PhD program, we require a MSc with thesis.

# MSc (Artificial Intelligence Specialization)

- You need to complete **six** courses.
  - at most two may be integrated courses (course number starts with a 5)
  - at least three courses from the following list:  
EECS 5326, EECS 5327, EECS 6127, EECS 6327, EECS 6412
  - at least two courses from the following list:  
EECS 5323, EECS 5324, EECS 5326, EECS 5327, EECS 5326,  
EECS 6127, EECS 6322, EECS 6323, EECS 6325, EECS 6327,  
EECS 6328, EECS 6332, EECS 6333, EECS 6340, EECS 6390A,  
EECS 6390D, EECS 6412, EECS 6414
  - the course PHIL 5340 is mandatory (this is not integrated)
- You need to identify a supervisor and a supervisory committee member by your 3<sup>rd</sup> term (12 months)
- You need to complete a research project in Artificial Intelligence in collaboration with an external partner

# MASc

- You need to complete **four** courses
  - at most one may be an integrated course (course number starts with a 5)
  - at least three courses are EECS...see list of courses on EECS graduate website for information <http://eecs.gradstudies.yorku.ca/>
  
- You need to defend a thesis.



# EECS 6002 – Directed Reading

- Topic
  - that does not overlap with any other course taken, and
  - for which no course is currently being offered
- Faculty member, appointed to the graduate program, who wants to supervise the course.
- Directed reading form.
- Permission of graduate program director.

# MSc / MASc Requirements

- Complete program in **five terms** (20 months).
- Complete course requirements in first two terms (four terms if doing the project option).
- Decide on the thesis or project option by November 15.
- Complete progress report #1 by April 30, then at every term thereafter.
- Maintain an average of at least B+ in the courses and satisfy the Faculty of Graduate Studies (FGS) grades regulations.<sup>1</sup>
- Get the thesis proposal approved at least **three months** before the thesis oral examination.
- Complete the thesis and submit paperwork **four weeks** before the thesis oral examination.

<sup>1</sup> See <https://www.yorku.ca/gradstudies/students/current-students/regulations/graduate-courses-and-grading/>

# PhD

- You need to complete **three** courses.
  - at most one may be an integrated course (course number starts with a 5)
- You need to attend departmental seminars.
- You need to attend at least one professional development workshop per year
  - provided by Faculty of Graduate Studies, Mitacs, Lassonde, Teaching Commons
- You need to pass a qualifying examination.
- You need to prepare a dissertation proposal.
- You need to complete an industrial internship (3 to 6 months) or a teaching practicum.
- You need to defend a dissertation.

# PhD Requirements

- Maintain an average of at least B+ in the courses and satisfy the FGS grades regulations.<sup>1</sup>
- Complete progress reports each term, as well as a yearly report after supervisory committee meeting.
- Pass a qualifying examination within **five terms**.
- Get the dissertation proposal approved at least **six months** before the dissertation oral examination.
- Complete the dissertation and submit the paperwork **five weeks** before the dissertation oral examination.

<sup>1</sup> See <https://www.yorku.ca/gradstudies/students/current-students/regulations/graduate-courses-and-grading/>

# Dissertation Supervisory Committee

According to the FGS regulations

“A dissertation supervisory committee shall meet **annually** with the student, normally in the spring, to evaluate the Report on Progress submitted by the student and submit a completed copy of the Report on Progress to the graduate program director after the meeting”

“Reports to the graduate program director of unsatisfactory progress may require a student to withdraw”

# Requirements in the Admission Letter

If your letter of admission contains additional requirements, then these need to be satisfied on top of all the requirements mentioned earlier.

# Supervision

You should have a conversation with your supervisor around expectations, responsibilities and the plan for your degree.

Important topics include:

- Workload, expectations and responsibilities
- Lab dynamics, resources, etc
- Intellectual property
- Academic honesty

FGS provides resources to help both students and supervisors:

<https://www.yorku.ca/gradstudies/students/graduate-supervision/>

# Financial Support

- Master's domestic: \$25,000 per year for 20 months (up to \$33,000 per year for students with external financial support).
- PhD domestic: \$27,000 per year for 4 years (up to \$35,000 per year for students with external financial support).<sup>2</sup>
- Must meet progress requirements to continue receiving financial support.
- Your letter of admission may specify a higher amount

<sup>2</sup> For year 5 and 6, the Canadian Union of Public Employees (CUPE) minimum guarantee



# Financial support – expectations per term

- Assuming you have a full TAship (270 hours per year)  
Domestic Masters (\$25,000 per year)

	Fall 22	Winter 23	Summer 23	
TA hours	135	135	0	Direct dep
Rate	5309.55	5309.55	0.00	Direct dep
4% vacation	212.38	212.38	0.00	To stu acct
GIA	2815.95	2815.95	0.00	To stu acct
GFA	693.00	693.00	693.00	To stu acct
Fellowship	1636.34	1636.34	1636.34	To stu acct
RA	0.00	0.00	1336.21	Direct dep
Total /term	10667.22	10667.22	3665.55	
Total /year	25000.00			

# Financial support – expectations per term

- Assuming you have a full TAship (270 hours per year)  
Domestic PhD (\$27,000 per year)

	Fall 22	Winter 23	Summer 23	
TA hours	135	135	0	Direct dep
Rate	5309.55	5309.55	0.00	Direct dep
4% vacation	212.38	212.38	0.00	To stu acct
GIA	2815.95	2815.95	0.00	To stu acct
GFA	693.00	693.00	693.00	To stu acct
Fellowship	1636.34	1636.34	1636.34	To stu acct
RA	0.00	0.00	3336.21	Direct dep
Total /term	10667.22	10667.22	5665.55	
Total /year	27000.00			

# Financial support – expectations per term

- Assuming you have a full TAship (270 hours per year)  
 Visa Masters (\$37,500 per year)

	Fall 22	Winter 23	Summer 23	
TA hours	135	135	0	Direct dep
Rate	5309.55	5309.55	0.00	Direct dep
4% vacation	212.38	212.38	0.00	To stu acct
GIA	2815.95	2815.95	0.00	To stu acct
GFA	1158.00	1158.00	1158.00	To stu acct
Fellwsp+TO	5169.00	5169.00	5169.00	To stu acct
RA	0.00	0.00	1843.23	Direct dep
Total /term	14664.88	14664.88	8170.23	
Total /year	37500.00			

# Financial support – expectations per term

- Assuming you have a full TAship (270 hours per year)  
 Visa PhD (\$38,000 per year)

	Fall 22	Winter 23	Summer 23	
TA hours	135	135	0	Direct dep
Rate	5309.55	5309.55	0.00	Direct dep
4% vacation	212.38	212.38	0.00	To stu acct
GIA	2815.95	2815.95	0.00	To stu acct
GFA	1158.00	1158.00	1158.00	To stu acct
Fellwsp+TO	4894.00	4894.00	4894.00	To stu acct
RA	0.00	0.00	3168.23	Direct dep
Total /term	14389.88	14389.88	9220.23	
Total /year	38000.00			

# Teaching Assistantship

- The number of teaching assistant (TA) hours and the course assigned is based on availability and TA background.
  - We consider courses preferences by TAs.
  - We also consider preferences of course instructors.
- If you decline your TAship, your funding will be reduced accordingly (approximately \$60 per hour).
- If you plan to go on a leave of absence, let us know at least one to two months before the leave.

# Teaching Assistantship

- TAs are members of CUPE 3903 Unit 1<sup>3</sup>
- As a Tutor 3 (marker/grader) you may be asked to grade student work, and perform related duties such as consultation with students, exam invigilation
- As a Tutor 1 (tutorial leader) you may **also** be asked to lead labs/tutorials
- Be on time
- Consult with the Course Director (CD) to familiarize yourself with expectations and duties
- Respond to CD emails within 24 hours and finish marking by the deadline
- Mark neatly and informatively
- Complete a TA workload form with the CD
  - Assignment of tasks
  - Distribution of working hours
- Keep track of your hours and consult with CD if discrepancies are anticipated

<sup>3</sup> See <https://3903.cupe.ca/files/2012/03/92365-1-YU-Unit-1.pdf>

# Teaching Assistantship

- Your roles and responsibilities

<https://teachingcommons.yorku.ca/graduate-students/>

- Equity, Diversity, Inclusion (EDI) – know your rights and be respectful, promote equity & diversity and foster inclusiveness

<http://rights.info.yorku.ca/>

- Article 4 on Discrimination and Harassment of the CUPE 3903 Unit 1 Collective Agreement (link on previous page)

# Academic Honesty

- Familiarize yourself with <http://gradstudies.yorku.ca/current-students/regulations/academic-honesty/> and the links provided on the URL.
- Familiarize yourself with <https://spark.library.yorku.ca/academic-integrity-what-is-academic-integrity/>
- Behave academically honest (not doing so may have serious consequences).



# Research Ethics

- All University-based research involving human participants, including thesis and dissertation research, is subject to the ethics review process
- Research ethics approval must be granted **BEFORE** commencing the research
- Consult your supervisor and the Graduate Program Director for information on the process
- Information sessions about research ethics will be held in Fall 2022 and Winter 2023 at the Faculty of Graduate Studies.  
<http://gradstudies.yorku.ca/current-students/thesis-dissertation/research-ethics/>

# Intellectual Property

- The University protects the intellectual property of its faculty members and students.
- Familiarize yourself with the University's intellectual property policy: <https://gradstudies.yorku.ca/current-students/thesis-dissertation/intellectual-property>
- Be sure to clarify any questions you may have before starting your research
- Some projects you may become involved in will have more specific IP and confidentiality agreements in place, particularly if the work is co-funded by a private corporation.

# Health & Safety Training

## Students in Computer Science

- Complete Health & Safety Orientation for Faculty & Staff (self paced) as soon as possible.
- Complete WHMIS I (self paced). Make a PDF of the completion confirmation and send to Huy as soon as possible.
- Training courses can be accessed via <https://yulearn.yorku.ca/>

# Health & Safety Training

## Students in Electrical and Computer Engineering

- Complete Health & Safety Orientation for Faculty & Staff (self paced) as soon as possible.
- Complete WHMIS I (self paced). Print and submit completion confirmation to Huy as soon as possible.  
**OR (MANDATORY FOR THOSE WORKING WITH CHEMICALS OR BIOLOGICAL AGENTS)**  
Complete WHMIS II (self paced)
- Training courses can accessed via <https://yulearn.yorku.ca/>

# Health & Safety Training

## Students in Electrical and Computer Engineering

Depending on the type of TAing and research, the following may also need to be completed:

- Biosafety (instructor led)  
This training is mandatory for anyone who will be working with biological materials and/or supervising workers with biological materials (e.g., viruses, bacteria, cell culture, etc.) in a certified containment level laboratory.
- Chemical Handling & Volatile Rooms (instructor led)  
This training is mandatory for lab employees in Chemistry and Biology.
- Training courses can accessed via <https://yulearn.yorku.ca/>

# Useful Links and Support

For information, consult

<http://gradstudies.yorku.ca/>

<http://eecs.gradstudies.yorku.ca/>

<http://yugsa.ca/>

<https://teachingcommons.yorku.ca/>

<https://www.library.yorku.ca/web/>

<http://yorkinternational.yorku.ca/>

Graduate Program Director

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Graduate Program Assistant

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**EECS-GSA 2021–2022 (2022-23 TBD)**

**President** – Aaron Kammula

**VP Finance** – Taha Sajjad

**VP External** – Subrina Shawlin

**VP Internal** – Anni Siren

**VP Communications** – ??

**VP Organization** – Yoland El-Hajj