Graduate Program in Electrical Engineering and Computer Science

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Welcome to EECS

- York is the 4th largest grad school in Ontario (6,000+ grad students), with 60+ programs and degrees

- Graduate program in EECS
  - 80+ faculty members,
  - 200+ PhD/MSc/MASc existing grad students,
  - 85 new 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

- 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 <u>integrated</u> graduate course (EECS course number starts with a 5)
  - at least one course from the <u>theory of computing and scientific computing</u> group (1)
  - at least one course from the <u>AI and interactive systems</u> group (2)
  - at least one course from the <u>software systems and hardware systems</u> 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)

🚫 No course from group 3

- 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)

MSc (project option)

- You need to complete seven courses.
  - at most two may be <u>integrated</u> courses (EECS course number starts with a 5)
  - at least one course from the <u>theory of computing and scientific computing</u> group (1)
  - at least one course from the <u>AI and interactive systems</u> group (2)
  - at least one course from the <u>software systems and hardware systems</u> 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.

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MSc (Artificial Intelligence Specialization)

- You need to complete six courses.
  - at most two may be <u>integrated</u> courses
    (EECS 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 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 and pass either:

    PHIL 5340 (not integrated) OR EECS 6320
- Courses must also satisfy the group requirements for the MSc generally
  - In practice this means all MScAI students must take either EECS 6127 or
    EECS 6154
- You need to identify a supervisor and a supervisory committee member
  by your 3rd term (12 months)
- You need to complete a research project in Artificial Intelligence in
  collaboration with an external partner

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MASc

- You need to complete four courses
  - at most one may be an <u>integrated course</u> (EECS 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.

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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.

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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.[1]

- 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.

[1] See https://www.yorku.ca/gradstudies/students/current-students/regulations/graduate-courses-and-grading/

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PhD

- You need to complete three courses.
  - at most one may be an <u>integrated course</u> (EECS 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.[1]

- 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.

[1] See https://www.yorku.ca/gradstudies/students/current-students/regulations/graduate-courses-and-grading/

Graduate Courses Registration

- A general reminder that students shall register for <u>Fall and Winter term</u> graduate courses early in the academic year.[1]

- It is recommended that students shall not wait until the end of the Fall term to register in Winter term courses as each graduate course has limited enrollment.

[1] See https://www.yorku.ca/gradstudies/students/current-students/registration-enrolment/enrolment/

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.

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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/

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Financial Support

- Master's domestic: $27,072 per year for 20 months (up to $33,000 per year for students with external financial support).

- PhD domestic: $29,072 per year for 4 years (up to $35,000 per year for students with external financial support).[2]

- Must meet progress requirements to continue receiving financial support.

- Your letter of admission may specify a different amount
    - The contents of your admissions offer is your funding guarantee

[2] For year 5 and 6, the Canadian Union of Public Employees (CUPE) minimum guarantee

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Financial Support – expectations per term

- Assuming you have a full TAship (270 hours per year)
  Domestic Masters ($27,072 per year)

	Fall 23	Winter 24	Summer 24	Fall 24	Winter 25	Total
TA hours	135	135	0	135	135	270/year
Rate	$6,169	$6,169	0.00	$6,169	$6,169	$24,676
GIA/SGA*	$2,037	$2,037	0.00	$2,037	$2,037	$8,150
GFA*	$715	$715	$715	$715	$715	$3,575
Fellowship*	$1,801	$1,801	$1,801	$1,801	$1,801	$9,005
RA			***Varies			
	$10,722	$10,722		$10,722	$10,722	$45,120

*Student Account

**Direct Deposit

***Summer RA ship amount varies, total minimum funding will be met

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Financial Support – expectations per term

- Assuming you have a full TAship (270 hours per year)
  Visa Masters ($40,582 per year)

	Fall 23	Winter 24	Summer 24	Fall 24	Winter 25	Total
TA hours	135	135	0	135	135	270/year
Rate**	$6,169	$6,169	0.00	$6,169	$6,169	$ 24,676
GIA*	$2,037	$2,037	0.00	$2,037	$2,037	$8,150
GFA*	$1,194	$1,194	$1,194	$1,194	$1,194	$5,970
ITO	$2,511	$2,511	$2,511	$2,511	$2,511	$12,555
Fellowship*	$2,823	$2,823	$2,823	$2,823	$2,823	$14,115
UHIP	$756	0.00	0.00	$756	0.00	$1,512
RA**			***varies			
						67,845

*Student Account
**Direct Deposit

***Summer RA ship amount varies, total minimum funding will be met

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Financial Support – expectations per term

- Assuming you have a full TAship (270 hours per year)
  Domestic PhD ($29,072 per year)

Year 1	Fall 23	Winter 24	Summer 24	Total
TA hours	135	135	0	270/year
Rate**	$6,169	$6,169	0.00	$12,338
GIA*	$1,528	$1,528	0.00	$3,056
GFA*	$715	$715	$715	$2,145
Fellowship*	$1,801	$1,801	$1,801	$5,403
RA**			***varies	
				$29,072

*Student Account
**Direct Deposit

*** RA ship amount varies, total minimum funding will be met

PhD Year 3-5 Rates Vary from information shown above

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Financial Support – expectations per term

- Assuming you have a full TAship (270 hours per year)
  Visa PhD ($41,419 per year)

Year 1	Fall 23	Winter 24	Summer 24	Total
TA hours	135	135	0	270/year
Rate**	$6,169	$6,169	0.00	$12,338
GIA*	$2037.5	$2037.5	0.00	$4,075
GFA*	$1,194	$1,194	$1,194	$3,582
ITO	$2,511.33	$2,511.33	$2,511.33	$6,709
Fellowship*	$2,822.33	$2,822.33	$2,822.33	$8,467
UHIP	$756	0.00	0.00	$756
RA**			***varies	
				$41,419

*Student Account
**Direct Deposit

*** RA ship amount varies, total minimum funding will be met

PhD Year 3-5 Rates Vary from information shown above

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Financial Support

- Your funding guarantee is what is written in your offer letter. The previous slides are illustrative examples of how that funding guarantee might be met and the details can (and do!) vary between students and from year-to-year.

- If you have questions on your funding, please contact the grad office eecs-gradasst@yorku.ca

- FGS also has resources available to help you navigate funding:
    - https://www.yorku.ca/gradstudies/students/current-students/graduate-funding/

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Teaching Assistantship

- The number of teaching assistant (TA) hours and the course assigned is based on availability and background through a process dictated by the collective agreement.
  - We consider TA and instructor preferences if possible but subject to the constraints of the CA and it is generally not possible to satisfy individual requests.
- 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 the grad office know at least one to two months before the leave.

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Teaching Assistantship

- TAs are members of CUPE 3903 Unit 1[3]
- Be on time, responsive and responsible
- Consult with the Course Director (CD) to familiarize yourself with expectations and duties
- Respond to CD emails promptly 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 as soon as discrepancies are anticipated

[3] See CUPE Collective Agreement 2020-2023

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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)

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Academic Honesty

- Faculty of Graduate Studies Academic Integrity Module.
Progression beyond the first term of study is not possible until this requirement has been met. Due September 25th

- 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).

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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 office 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/

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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.

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Health & Safety Training

Students in <u>Computer Science</u>

- Complete <u>Health & Safety Orientation</u> (self paced) as soon as possible.

- Complete <u>WHIMS 1</u> (self paced)
    - Make a PDF of the completion confirmation and send to GPA's (<u>eecs-gradasst@yorku.ca</u>) as soon as possible.
- Training courses can be accessed via https://yulearn.yorku.ca/

Health & Safety Training

Students in <u>Electrical and Computer Engineering</u>

- Complete <u>Health & Safety Orientation</u> (self paced) as soon as possible.

- Complete <u>WHIMS 1</u> (self paced) **OR** (<u>MANDATORY FOR THOSE WORKING WITH CHEMICALS OR BIOLOGICAL AGENTS) Complete</u> <u>WHIMS 2</u> (self paced)

  – Print and submit completion confirmation to GPA's (<u>eecs-gradasst@yorku.ca</u>) as soon as possible.

- Training courses can accessed via https://yulearn.yorku.ca/

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Health & Safety Training

Students in <u>Electrical and Computer Engineering</u>

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 be accessed via
  https://yulearn.yorku.ca/

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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/

EECS-GSA 2022-2023 (2023-2024 TBD)

President – Mohamad Kannan Idris

VP Finance – Yiwei Liu

VP External – Arghya Kundu

VP Internal – Aaron Kammula

VP Organization – Mithila Sivakumar

CUPE 3903 Steward in EECS – Kandana Weerasinghe

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