CS GRADUATE STUDENT ORIENTATION

Spring 2024

UNIVERSITY OF WATERLOO | DAVID R. CHERITON SCHOOL OF COMPUTER SCIENCE

Faculty

Raouf Boutaba
Director of the School

Khuzaima Daudjee
Director of Grad Studies

Shane McIntosh
Assoc. Director of Grad Studies

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Staff

Denise Shantz
Graduate Studies Manager

Nadine Zinger
Graduate Coordinator, PhD Programs

Carly McLeod
Graduate Coordinator, MMath Programs

Tara Haghighi
Graduate Coordinator, TA & Scholarships

Amy Todd
Graduate Coordinator, Admissions & Scheduling

Sam Khan
Graduate Office Co-op, General Inquiries & Admin Tasks

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Other important contacts

Your supervisor

- Admitted you to the program

- Provides your graduate research studentship (GRS)

- Guides you in your research

- Helps you with course selection

Graduate advocates

- Help with matters of concern that are directly related to your graduate program that are inappropriate to discuss with your supervisor

- Currently: Kate Larson

Please reach out to your supervisor if you haven't already!

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Today's agenda

1. Course enrolment

2. Understanding your funding

3. Key upcoming dates

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COURSE ENROLMENT

What to consider when choosing your courses

SUPERVISOR RECOMMENDATIONS

COURSE REQUIREMENTS

COMPREHENSIVE-I REQUIREMENTS

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What to consider when choosing your courses

SUPERVISOR RECOMMENDATIONS

Before making a decision on your courseload, ensure you speak to your supervisor first!

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COMPREHENSIVE-I REQUIREMENTS

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COURSE REQUIREMENTS

The basic requirements for coursework in both MMath and PhD programs.

A function of **course numbers** and **course area/category.**

COMPREHENSIVE-I REQUIREMENTS

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A guide to Waterloo's course numbering system

Course number	Level	Description
CS 100 to 400	Undergraduate	Not open to graduate students except as remedial or extra courses
CS 600	Graduate	Held with a 400-level undergraduate course. Same classroom, same lectures, but extra work for graduate students.
CS 700	Graduate	Standard core graduate subjects Typically fixed curriculum Lecture based Assignments/exams/projects
CS 800	Graduate	Research-oriented topic courses Reading/analysis of 20 to 40 research papers Projects May vary offering to offering May be able to count two offerings of the same course number – IF they have different topic titles

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Each course also fits within a category and area

Category	Area
Computing and Technology	Software Engineering
	Programming Languages
	Hardware and Software Systems
Mathematics of Computing	Algorithms and Complexity
	Scientific and Symbolic Computing
	Computational Statistics
	Quantum Information and Computation
Applications	Artificial Intelligence
	Databases
	Graphics and User Interfaces
	Bioinformatics
	Health Informatics

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Non-CS courses

To meet course requirements, most of your courses must be in CS. To have a non-CS course count towards your degree, the following must be true:

- You have permission from the course instructor, host department, and recommendation of your supervisor;

- The course has CS content;

- The course is on the <u>list of approved non-CS courses </u>on the CS website;

  - If not on the approved non-CS course list, <u>prior</u> approval from the Graduate Director must be granted. Please email the Graduate Director the course outline, reference materials, grading basis, and supervisor recommendation.

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Master's course requirements

Program	Total	600-level	800-level	Per Area	Non-CS courses (pre-approved)
Thesis	4	Maximum of 1	Minimum of 1	No more than 2	Maximum of 1
Research Paper	7	Maximum of 3	Minimum of 2	No more than 3	Maximum of 2

Generally speaking...

- Plan to complete two courses per term until course requirements are complete

- Remedials do not count towards your course requirements (unless stated in your offer)

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PhD course requirements

Program	Total	600-level	800-level	Non-CS courses (pre-approved)
PhD from Master's	4	Maximum of 1	Minimum of 1	Maximum of 1
PhD from Bachelor's	8	Maximum of 3	Minimum of 3	Maximum of 2

Generally speaking…

▪ Plan to complete at least two courses per term until course requirements are complete

▪ Remedials do not count towards your course requirements (unless stated in your offer)

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The basic requirements for coursework in both MMath and PhD programs.

A function of **course numbers** and **course area/category.**
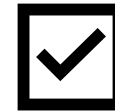
COMPREHENSIVE-I REQUIREMENTS

An additional requirement <u>for PhD students only</u>. Ensures a student has a broad foundation of Computer Science for future research

Separate from course requirements!

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Comp-I: Coverage of <u>6 areas</u>, at least <u>1 from each category</u>

Category	Area
Computing and Technology	Software Engineering
	Programming Languages
	Hardware and Software Systems
Mathematics of Computing	Algorithms and Complexity
	Scientific and Symbolic Computing
	Computational Statistics
	Quantum Information and Computation
Applications	Artificial Intelligence
	Databases
	Graphics and User Interfaces
	Bioinformatics
	Health Informatics

☑ Student has satisfied coverage of both areas and categories

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Comp-I: Coverage of 6 areas, at least 1 from each category

✗ Missing one category

Category	Area
Computing and Technology	Software Engineering
	Programming Languages
	Hardware and Software Systems
Mathematics of Computing	Algorithms and Complexity
	Scientific and Symbolic Computing
	Computational Statistics
	Quantum Information and Computation
Applications	Artificial Intelligence
	Databases
	Graphics and User Interfaces
	Bioinformatics
	Health Informatics

✗ Less than 6 areas

Category	Area
Computing and Technology	Software Engineering
	Programming Languages
	Hardware and Software Systems
Mathematics of Computing	Algorithms and Complexity
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	Computational Statistics
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Further requirements to satisfy Comp-I

The courses used to satisfy the Comp-I must:

- Have marks of at least B+ (78% or above);

- Be graduate courses or advanced undergraduate courses (ie. 400-level);

  - Undergraduate courses at 300-level or below will not be accepted!

  - Non-UW courses will be evaluated by the Grad Director and Grad Committee. Please submit a course syllabus to determine area eligibility.

A reminder: Comp-I submission

Please submit the Comp-I report early!
By the end of your first month in PhD study, you should submit your report to your graduate coordinator.

Make sure you plan your courses carefully so that the Comp-I is satisfied.

FINAL COURSE ENROLMENT REMINDERS

1. **Grad course offerings can be found online:**
   - Check the Schedule of Classes/Quest for class details
   - Check the Course Offerings page for course list and areas

2. **Enroll in CS graduate courses online using Quest – starts the month before term**
   - Do not enrol in more than the courses you will be taking. We monitor for students enrolled in more than three courses.

3. **Drop deadline is three weeks into term**

UNDERSTANDING YOUR FUNDING

Your funding includes up to three sources:

GRADUATE RESEARCH STUDENTSHIPS (GRS)

TEACHING ASSISTANTSHIPS (TA)

SCHOLARSHIPS

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Your funding includes up to three sources:

GRADUATE RESEARCH STUDENTSHIPS (GRS)

TEACHING ASSISTANTSHIPS (TA)

SCHOLARSHIPS

Paid by:
Your supervisor

How you receive payment:
Lump sum at the beginning of each term through Quest

Responsibilities:
Research-based responsibilities determined by supervisor

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Graduate research studentships (GRS)

Please note: your GRS will fluctuate in amount each term depending on how many TA units you have.

- In terms with one TA unit: you will receive a base GRS

- In terms with two TA units: your GRS is <u>reduced</u> as your TA income doubles

This ensures your GRS + TA base pay remains the same each term, despite how many TA units you have.

Make sure your banking info is updated in Quest to receive payment when term starts!

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Your funding package includes up to three sources:

GRADUATE RESEARCH STUDENTSHIPS (GRS)	TEACHING ASSISTANTSHIPS (TA)	SCHOLARSHIPS
Paid by: Your supervisor	**Paid by:** The university	
How you receive payment: Lump sum at the beginning of each term through Quest	**How you receive payment:** Last Friday of each month, through Workday	
Responsibilities: Research-based responsibilities determined by supervisor	**Responsibilities:** Outlined in TA contract and via instructor expectations	

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Teaching assistantships (TA)

Teaching assistantships are guaranteed to full-time thesis PhD and MMath students.

- PhD and first-year MMath students will have four TA units over three terms

- One term you will have two TA units; two terms you will have one TA unit

- Each TA unit = 5 hours per week over 16 weeks (80 hours total)

You can check your TA assignment on Odyssey. Please contact the instructor or Instructional Support Coordinator for your course once you have your assignment.

If an ISC is assigned to your course, that is your point of contact.

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Strive to be an exceptional TA!

Being a TA is both a privilege and a responsibility. Please ensure you are meeting the duties outlined in your contract and by your ISC/course instructor, and attending TA meetings.

- Poorly performing TA's will not get future TA-ships, which reduces your funding.

- Exceptional TA's are eligible for a TA award each year.

Your funding package includes up to three sources:

GRADUATE RESEARCH STUDENTSHIPS (GRS)

Paid by:
Your supervisor

How you receive payment:
Lump sum at the beginning of each term through Quest

Responsibilities:
Research-based responsibilities determined by supervisor

TEACHING ASSISTANTSHIPS (TA)

Paid by:
The university

How you receive payment:
Last Friday of each month, through Workday

Responsibilities:
Outlined in TA contract and via instructor expectations

SCHOLARSHIPS

Paid by:
The university or external org

How you receive payment:
At the beginning of each term through Quest.

Responsibilities:
Continue to meet eligibility requirements as outlined in your offer

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Major scholarships

Natural Science and Engineering Research Council Scholarships (NSERC)

- Available to Canadian and Permanent Residents only

- Deadlines for applications:

  - PhD students: October

  - MMath students: December

Ontario Graduate Scholarship (OGS)

- Open to all students; only a small number for international students

- Deadlines for applications:

  - International students: October/February(?)

  - Domestic students: February

You are strongly encouraged to apply if you hold a GRS and are eligible (average over 85%)!
Please check our bi-weekly newsletter for updates on scholarships!

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Cheriton scholarships

- Open to all PhD students within program limits with an 80% average

- Three to five awarded each term (subject to availability)

- $10,000 per year for one or two years

- Call for nominations near the end of each term

Please check our bi-weekly newsletter for updates on scholarships!

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If you are running low on funds

- Talk to your supervisor first

- There are some funds available to help those in financial distress

KEY UPCOMING DATES

Important dates

Course enrolment

- Starts **April 1ˢᵗ, 2024**

- Enroll in Quest:
https://uwaterloo.ca/quest/help/students/how-do-i/add-classes

Fee arrangement

- Deadline **April 24ᵗʰ, 2024**

- Need to be "fees arranged" by this deadline, meaning:

  a) You have paid your tuition out-of-pocket;

    OR

  b) You have submitted a <u>promissory note</u> to commit your <u>future</u> funding for that term to your tuition

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If you're using a promissory note, be aware of the timeline:

CS Grad Office uploads <u>approved</u> funding (except TA-ships) to Quest

If your uploaded funding covers your tuition balance, you can now submit your promissory note

CS Grad Office sends funding letters to students

If you've not yet been able to submit a promissory note, use this funding letter to submit one before April 24

Today

April 19

Fee Arranged Deadline

April 24
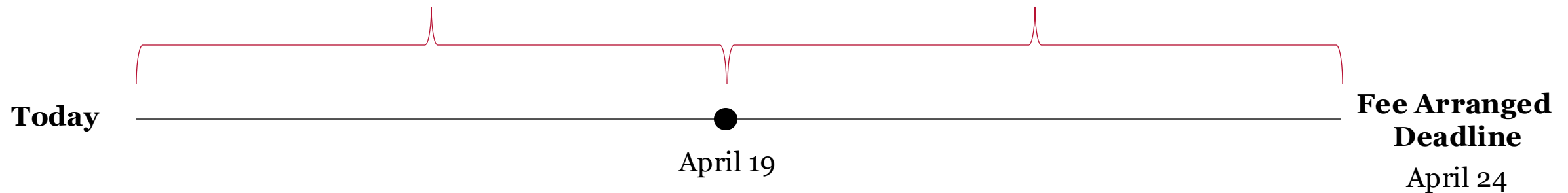
Depending on when your funding is approved, you may receive a funding letter up to the fees arranged deadline. Please contact us on the 22nd if you still have no letter/funding.

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Questions?

PhD program
csphd@uwaterloo.ca

MMath program
csmasters@uwaterloo.ca

Funding
cfinance@uwaterloo.ca

Other inquiries?
cs-gradoffice@uwaterloo.ca

If you're ever in doubt, do not hesitate to reach out to the CS Grad Office!

Photo credit: @bruce.digital

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Welcome new students!