



Graduate Orientation

Khuzaima Daudjee

Director of Graduate Studies



UNIVERSITY OF
WATERLOO

DAVID R. CHERITON SCHOOL
OF COMPUTER SCIENCE

CS Graduate Office Staff

- Denise Shantz, Graduate Studies Manager
- Nadine Zinger, Graduate Coordinator, PhD programs, RA payments
- Carly McLeod, Graduate Coordinator, Master's programs, RA payments
- Amy Todd, Graduate Coordinator, Admissions, Scheduling, TA inquiries (interim)



Faculty

- Raouf Boutaba, Director of the School
- Khuzaima Daudjee, Director of Graduate Studies
- Shane McIntosh, Associate Director of Graduate Studies
- Kate Larson, Craig Kaplan, Graduate Advocates



Graduate Programs

- PhD, MMath – thesis/research paper option
- Your supervisor
 - admitted you to the program
 - provides your research assistantship (RA)
 - guides you in your research
 - helps you with course selection
- Contact your supervisor as soon as possible



Graduate Courses

- Course numbering
 - CS100—400
 - CS 600
 - CS 700
 - CS 800



CS100 – 400

- Undergraduate courses
- Not open to graduate students except as a remedial or extra



CS600

- Usually held with a 400-level undergrad course
- Same classroom, same lectures, but extra work for graduate students



CS700

- Standard core grad subjects
- Typically fixed curriculum
- Lecture based
- Assignments/exams/projects



CS800

- Research oriented topic courses
- Reading/analysis of 20-40 research papers
- Projects
- May vary offering to offering
- May be able to count two offerings of the same course



Categories and Areas of Courses

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



Master's Course Requirements

Program	Total	600-level	800-level	per area
Thesis	4	≤ 1	≥ 1	≤ 2
Research paper	7	≤ 3	≥ 2	≤ 3

- Plan to complete at least 2 courses per term until course requirements are complete.
- Coursework (Data Science): see details on CSGrad web pages.



PhD Course Requirements

Program	Total	600-level	800-level
PhD from master's	4	≤ 1	≥ 1
PhD from bachelors	8	≤ 3	≥ 3



Comprehensive-I Requirements

- For PhD students only
- ***Separate*** from course requirements
- Ensure PhD students have a broad foundation of Computer Science for future research



Comprehensive-I Requirements

- Coverage of 6 areas, at least 1 from each category.

• E.g.

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



Comprehensive-I Requirements

- Example: 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



Comprehensive-I Requirements

- Example: less than 6 areas!

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



Comprehensive-I Requirements

- The 6 courses used to satisfy the Comp-I requirements must each have a mark of **at least B+** (78% or equivalent).
- Graduate courses or advanced undergrad courses (similar to 400-level courses at Waterloo).
- Undergrad courses at 300-level or below **will not** be accepted.
- Courses from other universities:
 - Non-UW courses will be evaluated by the Grad Director and Graduate Committee.
 - Submit **course syllabus** to determine area and eligibility.



Comprehensive-I Requirements

- Submit the Comp-I report early (preferably by the end of the first month of PhD study)
- Plan your courses carefully so that the Comp-I requirements are satisfied.



Course Offerings

- Grad course offerings can be found online.
- **Consult** your supervisor to decide which courses to take.
- Make sure course requirements are satisfied.
- Enrol in CSgrad courses online using Quest.
- Drop deadline is **3 weeks** into the term.



Non-CS Courses

- Need permission of instructor and host department, and recommendation of supervisor.
- To count towards your CS degree:
 - List of approved non-CS courses online
 - Otherwise, **prior approval** from the Graduate Director (email course outline showing topics covered, reference materials, grading basis, supervisor recommendation)
 - Courses should have “CS content”



Non-CS Courses(cont.)

- Most courses must be CS courses:
 - MMath thesis: 3 of 4
 - MMath research paper: 5 of 7
 - PhD from Masters: 3 of 4
 - PhD from Bachelors: 6 of 8



Teaching Assistantships (TA)

- Only guaranteed for PhD and MMath thesis students
 - Normal load is 4 units per year
 - Max 2 per term
 - Your current assignment (if any) is on Odyssey
- Duties:
 - Set by instructor (or course coordinator)
 - Contact them immediately



Strive to be an exceptional TA

- Attend TA meetings.
- Being a TA is both a privilege and a responsibility.
- Poorly performing TAs will **NOT** get future TAships; this reduces funding!
- Exceptionally performing TAs may receive a TA award.



Major Scholarships

- NSERC (Natural Science and Engineering Research Council) Scholarships:
 - Available to Canadian and Permanent Residents only
 - Applications due in October (PhD) and December (Master's)
- OGS (Ontario Graduate Scholarship):
 - Open to all; only small number for international students
 - Applications due in October (international) and February (Canadian/PR)
- You are strongly encouraged to apply for OGS and NSERC if you hold an RA and are eligible (average over 85%)!



Cheriton Scholarships

- Open to all PhD students within program limits, 80% average.
- 3-5 awarded each term (subject to fund availability).
- \$10,000 per year for 2 years.
- Call for nominations near end of each term.



Running Low on Funds?

- Talk to your supervisor.
- Some funds to help those in genuine distress.



Questions?

- Send email to:
 - Nadine Zinger for PhD students
 - Carly McLeod for Master's students
 - cs-gradoffice for general inquiries



Still Need Help?

- Send email to:
 - Khuzaima Daudjee (cs.graddir)
- Desperate? Contact us for an MS Teams call.

