# Environmental Engineering Graduate Student Orientation September 3rd, 2024

Department of Civil and Environmental Engineering



#### **Graduate Handbook**

- Find it on the current graduate student's page of the Civil and Environmental Engineering Website:
  - http://carleton.ca/cee/current-students/current-graduate-students/

- It includes information from this presentation, plus:
  - Wellness and Mental Health
  - Roles and Responsibilities of Supervisors and Students
  - Details about PhD Proposals, Timelines and Roadmaps
  - Applying to Graduate
  - Transferring Between Programs
  - Environmental Engineering Laboratories
  - Computing
  - Travel

#### The Department

- Main Office: Room 3432, Mackenzie Building (3432 ME)
- Chair: Dr. Yasser Hassan
  - Faculty: 39 full time & several adjunct (<a href="https://carleton.ca/cee/faculty/">https://carleton.ca/cee/faculty/</a>)
  - Staff: 10 full time (<u>https://carleton.ca/cee/staff/</u>)
  - Graduate Students: Fall 2022 200+ students
- Office Staff:
  - Departmental Administrator: Payal Chadha (3432 ME)
  - Graduate Administrator: Uzma Khan (3452 ME)
  - Undergraduate Administrator: Kay Casselman (3432 ME)
  - Administrative Assistant: Nahda Said(3432 ME)
- Web:
  - http://carleton.ca/cee/
  - http://carleton.ca/cee/current-students/current-graduate-students/

## Graduate Programs

- Distinct graduate programs in
  - Civil Engineering
  - Environmental Engineering
  - Building Engineering
- Civil Engineering & Environmental Engineering are Joint Programs with University of Ottawa (OU)
  - Ottawa Carleton Institute for Civil Engineering (OCICE)
  - Ottawa Carleton Institute for Environmental Engineering (OCIENE)
- Associate Chair for Graduate Studies for Environmental Engineering: Prof. Paul Simms
  - 2372 ME; <u>Paul.Simms@Carleton.ca</u>
- Graduate Administrator: Uzma Kham
  - 3452 ME. <u>CEEGradInfo@cunet.carleton.ca</u>

## Ottawa-Carleton Institute for Environmental Engineering (OCIENE)

- Member Departments
  - Civil and Environmental Engineering at Carleton
  - Civil Engineering at University of Ottawa
  - Chemical & Biological Engineering at University of Ottawa
- Website: <a href="http://www.ociene.ca">http://www.ociene.ca</a>
- About 30 faculty members in OCIENE
- Director: Dr. Robert Delatolla (UO, Civil Eng))
- Associate Directors:
  - Dr. Paul Simms, (Carleton, Civil and Environmental Eng)
  - Dr. Clémence Fauteux-Lefebvre (UO, Chemical & Biological Eng)

### Degree Programs in OCIENE

- > Ph.D., M.A.Sc., and M.Eng. Programs with option for CSCC for Master's programs
- Two pathways in M.Eng. Project, Coursework
- PhD, MASc, MEng (Project) students have a (Research) Supervisor. MEng (Coursework) students have an Advisor.
  - Consult supervisor/advisor when selecting courses
- Access to courses at both Universities
  - CIVE, ENVE are Carleton courses
  - CIVJ, ENVJ Ottawa U courses
  - If you need parking at University of Ottawa, see <a href="https://www.uottawa.ca/about-us/administration-services/parking/joint-programs-algonquin-carleton">https://www.uottawa.ca/about-us/administration-services/parking/joint-programs-algonquin-carleton</a>

## Research Disciplines – Fields of Study

- > Broadly identified. Can include various research topics depending on the supervisor's research interests.
- Air Pollution
- Water Resources Management, Groundwater Management, and Contaminant Transport
- Management of Solid, Hazardous, and Radioactive Waste and Pollution Prevention
- Water and Wastewater Treatment,
- Environmental Impact Assessment, Sustainability and Climate Change

Collaborative Specialization in Climate Change (CSCC)

## Degree and Program Requirements: PhD Environmental

- Coursework Requirements:
  - 1.5 credits (3 courses)
  - Approved by the supervisor.
- Combined Comprehensive exam & Thesis proposal
  - Register in ENVE 6902 PhD Comprehensive Exam (new ENVE 6909 concurrently)
  - within 6 terms FT or 9 terms PT of initial registration
  - Advisory Committee: minimum of 3 members in addition to supervisor/co-supervisors
- Seminar
  - ENVE 7800 Ph.D. Seminar (register only in the term you present)
  - NOT offered in the summer term
- Thesis and thesis defense
  - ENVE 6909 Ph.D Thesis (must maintain continuous registration)
  - Check information about thesis preparation, timeline for thesis submission & defense, and thesis examining committee: <a href="http://gradstudents.carleton.ca/thesis-requirements/">http://gradstudents.carleton.ca/thesis-requirements/</a>

## Degree and Program Requirements: MASc

- Coursework Requirements:
  - 2.5 credits (5 graduate courses)
  - Environmental/OCIENE has "Breadth requirement": at least one course from three of the five breadth "areas"
- Seminar
  - ENVE 5800 Master's Seminar (register only in the term you present)
- Thesis and thesis defense
  - ENVE 5909 Master's Thesis (must maintain continuous registration)
  - Check information about thesis preparation, timeline for thesis submission & defense, and thesis examining committee: http://gradstudents.carleton.ca/thesis-requirements/

## Degree and Program Requirements: MASc with CSCC

- Coursework Requirements:
  - CLIM 5000 Climate Collaboration (1.0 credit)
  - 1.5 credits (3 graduate courses)
  - Environmental/OCIENE has "Breadth requirement": at least one course from three of the five breadth "areas"; CLIM 5000 covers EIA, Sustainability and Climate Change area
- Seminar
  - ENVE 5800 Master's Seminar (register only in the term you present)
  - CLIM 5800 Climate Seminar Series (maintain continuous registration must attend at least six seminars)
- Thesis and thesis defense
  - ENVE 5909 Master's Thesis related to Climate Change (must maintain continuous registration)
  - Check information about thesis preparation, timeline for thesis submission & defense, and thesis examining committee: http://gradstudents.carleton.ca/thesis-requirements/

## Degree and Program Requirements: MEng

- MEng (Project)
  - 4.0 credits (8 graduate courses)
  - Environmental/OCIENE has "Breadth requirement": at least one course from three of the five breadth "areas"
  - ENVE 5900 Environmental Engineering Project (must maintain continuous registration)
  - ENVE 5800 Master's Seminar (register only in the term you present)
  - ENVE 5800 Not offered in summer term

- MEng (Coursework)
  - 5.0 credits (10 graduate courses)
  - Environmental/OCIENE has "Breadth requirement": at least one course from three of the five breadth "areas"

## Degree and Program Requirements: MEng with CSCC

- MEng (Project)
  - CLIM 5000 Climate Collaboration (1.0 credit)
  - 0.5 credits (1 graduate course) from specified list
  - 2.5 credits (5 graduate courses)
  - Environmental/OCIENE has "Breadth requirement": at least one course from three of the five breadth "areas"; CLIM 5000 covers EIA, Sustainability and Climate Change area
  - ENVE 5900 Environmental Engineering Project related to Climate Change (continuous reg)
  - ENVE 5800 Master's Seminar (register only in the term you present)
  - CLIM 5800 Climate Seminar Series (maintain continuous registration must attend at least six seminars)
- MEng (Coursework)
  - CLIM 5000 Climate Collaboration (1.0 credit)
  - 1.5 credits (3 graduate course) from specified list
  - 2.5 credits (5 graduate courses)
  - Environmental/OCIENE has "Breadth requirement": at least one course from three of the five breadth "areas"; CLIM 5000 covers EIA, Sustainability and Climate Change area
  - CLIM 5800 Climate Seminar Series (maintain continuous registration must attend at least six seminars)

#### **Course Selection**

- All courses must be from those identified in the calendar <a href="http://calendar.carleton.ca/grad/gradprograms/environmentalengineering/">http://calendar.carleton.ca/grad/gradprograms/environmentalengineering/</a>
  - Discuss with your supervisor/advisor when selecting courses
- Courses outside the Institute may be permitted for research students.
  - Permission to take courses outside the Institute must be sought ahead of time.
  - Complete the <u>necessary form</u>, get approval from the research supervisor and submit to the Graduate Administrator at least two weeks before the last date for registration (for departmental approval).
  - Courses taken without prior departmental approval will NOT count toward program requirements.
  - MEng (Coursework) students are generally limited to courses within the Institute.
- At least one half of the course work must be taken from within the Institute in all programs.
- NEW: "....Note: the Ontario Universities Council on Quality Assurance requires that no more than one-third of a graduate student's coursework be in classes where undergraduate students predominate. This is called the Two-thirds Requirement..."

#### **Registering for Courses**

- Must Register online at Carleton Central: <a href="https://central.carleton.ca/">https://central.carleton.ca/</a>
  - Courses, thesis, project, directed studies, seminar all require registration
  - Seminar Register in the term that you plan to present, i.e. Fall or Winter term
  - Please do not register in more courses than you plan to take as courses fill and this impacts other students registering or arriving later
- Directed Studies
  - A specialized "course" offered (typically) by the supervisor
  - 0.5 credit accepted towards the graduate degree program
    - Different course numbers for Master's (ENVE 5906) and PhD students (ENVE 6906)
  - Agreement signed by instructor & student, and approved by the department before commencing the directed studies.
    - Agreement must be signed during the registration period
    - Complete the form available at <a href="https://carleton.ca/cee/wp-content/uploads/directed-studies-aggreement-form-v2-fillable.pdf">https://carleton.ca/cee/wp-content/uploads/directed-studies-aggreement-form-v2-fillable.pdf</a>
- Course offerings might change during the registration period:
  - Keep checking your email and the schedule in Carleton Central

### **Program Time Limits**

Time Limit - based on degree, same for civil & environmental

Degree	Full-time	Part-time
Masters	2 years	6 years
Ph.D.	6 years	9 years

- If need extra time, request extension during the last term. Extension requests considered term by term —and typically limited to one year of additional time.
- Must know and follow the rules and requirements of your program
  - i.e. the requirements for the Environmental Engineering program are different from the requirement for Civil Engineering or Building Engineering

## Admission to Collaborative Specialization in Climate Change (CSCC)

- Prior to the start of or early in your program, submit an application to the Graduate Administrator
- The application consists of a one-paragraph to one-page submission outlining why you want to be enrolled in the CSCC
- The department submits your application to the CSCC admissions committee
- Once approved, your program and audit are adjusted to reflect the program requirements for an MASc or MEng with CSCC
- Recommended you take CLIM 5000 and CLIM 5800 in first year of program
- If you are interested in the CSCC and currently in a Master's in Environmental Engineering without the CSCC, please enrol in CLIM 5000 and CLIM 5800 and complete an application or a course approval form to take CLIM 5000 as part of regular program requirements

#### **OCIENE Seminars**

- Program requirement for PhD, MASc, and MEng Project
- Only register in the seminar course for the term you plan on presenting
- > The seminar course is only offered in the Fall & Winter terms; NOT Summer term
  - PhD Environmental : ENVE 7800
  - Master's Environmental: ENVE 5800
- Single day event hosted at Carleton one term and UO one term
- > All students are encouraged to attend the seminars each term

### **Continuous Registration & Status**

- Any student who does not registered for three terms (twelve months) will lose their "status"
  - i.e., cannot go more than 2 consecutive terms without registering; Also, these "NR" terms count toward your time limit.
  - If you need to be away, apply for Leave of absence (LOA). LOA terms do not count toward your time limit. If you have a TA for that term, also apply for "Leave of Duties" for the TA.
- PhD, MASc and MEng (project) students must maintain continuous registration once they register for thesis or project.
  - Calendar says "Any student (full-time or part-time), after initial registration in a thesis, research essay or independent research project, must maintain this registration in all successive terms (including the term in which the student is examined) until his/her thesis, research essay or independent research project is completed."
  - Discuss with supervisor before initial registration in thesis or project
  - Failure to maintain continuous registration will result in "loss of a status"
- Part-time or full-time status based on application and offer of admission
  - Part-time (1.25 credits or less), Full-time (no specific credit value)
  - Request to change status are normally not accepted unless extenuating circumstances exist.

## **Academic Standing**

- A grade of B- or better must be obtained in each course credited towards the degree
  - Up to two courses with C+ grade may be credited at the Master's level, if
    - Students with good standing in all other courses
    - a request is made by the supervisor/advisor
- GPA requirement of 7.0 at Masters level to continue in program
  - After 2 terms if full-time
  - After 2.0 credits if part-time
- > GPA of 7.0 or better in each course for Ph.D. students

### Program Related Queries?

- Graduate Calendar & FGPA policies
  - http://calendar.carleton.ca/grad/ for general regulations
  - for dates & deadlines <a href="https://calendar.carleton.ca/academicyear/">https://calendar.carleton.ca/academicyear/</a>
  - <a href="http://calendar.carleton.ca/grad/gradprograms/">http://calendar.carleton.ca/grad/gradprograms/</a> for program requirements
- Research Supervisor (or Program Advisor for MEng coursework students)
- Departmental Graduate Administrator
- Associate Chair for Graduate Studies Environmental Engineering
- Faculty of Graduate and Postdoctoral Affairs
  - http://gradstudents.carleton.ca/
  - 512 Tory Building; graduate.studies@carleton.ca
- Student/Supervisor responsibilities and expectations at <a href="http://gradstudents.carleton.ca/thesis-requirements/graduate-supervision-responsibilities-expectations-policy/">http://gradstudents.carleton.ca/thesis-requirements/graduate-supervision-responsibilities-expectations-policy/</a>

#### **Library Resources**

- Carleton University Library
- University of Ottawa Library
- CISTI Source (document delivery)
- NRC & Other Government Libraries
- RACER & Inter Library Loan
- Carleton Library
  - http://www.library.carleton.ca/
  - Tours
  - Workshops
    - Dates on the web at <a href="http://www.library.carleton.ca/services/tours-and-workshops">http://www.library.carleton.ca/services/tours-and-workshops</a>
  - Kristof Avramsson (<u>Kristof.Avramsson@carleton.ca</u>) is CEE rep this year

#### **Important Forms**

- Forms you may need during your program can be found on our website:
  - https://carleton.ca/cee/graduate-forms/
  - Directed Studies Agreement Form
  - Course Approval Form
  - Course overload Form
  - Change of Program
  - Audit a course
  - Registration Change Form
  - Academic Change Form:
    - Extension of time limit, leave of absence, reinstatement, status change
- This presentation can be found at:
  - http://carleton.ca/cee/current-students/current-graduate-students/

#### Instructional/Conduct Offences

- Calendar
  - Section 19: <u>Academic Integrity</u> (See <a href="https://carleton.ca/secretariat/wp-content/uploads/Academic-Integrity-Policy-2021.pdf">https://carleton.ca/secretariat/wp-content/uploads/Academic-Integrity-Policy-2021.pdf</a>)
  - Section 20: <u>Offences of Conduct</u>
- Plagiarism is presenting, whether <u>intentional or not</u>, the ideas, expression of ideas or work of others as one's own.
  - Plagiarism includes reproducing or paraphrasing portions of someone else's published or unpublished material, regardless of the source, and presenting these as one's own without proper citation or reference to the original source.
  - Examples of sources from which the ideas, expressions of ideas or works of others may be drawn from include but are not limited to: books, articles, papers, literary compositions and phrases, performance compositions, chemical compounds, art works, laboratory reports, research results, calculations and the results of calculations, diagrams, constructions, computer reports, computer code/software, and material on the Internet.

## **Examples of Plagiarism**

- Submitting a take-home examination, essay, laboratory report or other assignment written, in whole or part, by someone else;
- Using ideas or direct, verbatim quotations, paraphrased material, algorithms, formulae, scientific or mathematical concepts, or ideas without appropriate acknowledgment in any academic assignment;
- Using another's data or research findings;
- Submitting a computer program developed in whole or in part by someone else, with or without modifications, as one's own;
- Failing to acknowledge sources through the use of proper citations when using another's works and/or failing to use quotation marks.

#### Use of Generative Al

- Department Policy:
- 1. By default, the use of Large Language Models (LLM) are not permitted unless explicitly permitted by the thesis supervisor(s) or project supervisor(s).
- 2. Students who plan to use generative AI tools must get approval in writing from their supervisor **before** the tools are used. This approval should state explicitly how the AI tools will be permitted to be used (e.g., proof-reading, summarization, outlining, research, drafting, image generation, coding, etc.).
- 3. The use of AI tools without approval may be considered an academic offense.
- 4. If the use of AI tools is permitted as described above, the use of AI tools must be disclosed in the thesis document in the preface section (e.g., see integrated thesis policy). This disclosure must describe how AI tools were used and which sections of the thesis document it was used for.
- 5. In all cases, the graduate student is completely responsible for all submitted work and must be able to defend that work. The student is responsible for ensuring that all material is correct and not plagiarized. Refer to Carleton's Academic Integrity Policy for more information: <a href="https://carleton.ca/secretariat/wp-content/uploads/Academic-Integrity-Policy-2021.pdf">https://carleton.ca/secretariat/wp-content/uploads/Academic-Integrity-Policy-2021.pdf</a>

#### **Additional Items**

- Office space will be available for Ph.D. and M.A.Sc. students (TAs will be prioritized).
  Office assignments will be finalized and announced in early September.
- Office Usage
  - Security, phones, etc.
  - Only for your educational/professional activities
- Graduate student's mail is in the main office check regularly.
- FIPPA form if you want to be listed as a student on our website for news articles, etc.: <a href="https://carleton.ca/cee/wp-content/uploads/Fippa-Form.pdf">https://carleton.ca/cee/wp-content/uploads/Fippa-Form.pdf</a>
- > Teaching Assistants Duties & Responsibilities

## Scholarships & Funding

- Eligible students have full-time status & generally a GPA of 10 or above.
- http://gradstudents.carleton.ca/awards-and-funding/external-awards/
- Departmental deadline for NSERC applications:
  - NSERC PhD: September 26<sup>th</sup>, 2023
  - NSERC Masters : December 1, 2023
  - http://gradstudents.carleton.ca/awards-and-funding/external-awards/nserc/
- Departmental deadline for OGS applications: November 15<sup>th</sup>, 2023
  - http://gradstudents.carleton.ca/awards-and-funding/external-awards/ogs/
- Internal Carleton Scholarships: Nomination by the Department based on the recommendation of your supervisor(s)
  - General Donor Funded Awards Deadline September 28, 2023
     <a href="http://gradstudents.carleton.ca/awards-and-funding/internal-awards/">http://gradstudents.carleton.ca/awards-and-funding/internal-awards/</a>
  - Department-specific Donor-Funded Awards Deadline January 8, 2024
     <a href="https://carleton.ca/cee/current-graduate-students/#department\_donor-funded\_awards">https://carleton.ca/cee/current-graduate-students/#department\_donor-funded\_awards</a>

## Beyond Academics

- Wellness and Mental Health Resources
  - https://carleton.ca/cee/2021/11/student-support-and-wellness/
  - https://carleton.ca/wellness/
  - Please reach out and seek support from these resources when needed
- Graduate Student Association (GSA) <a href="http://gsacarleton.ca/">http://gsacarleton.ca/</a>
- International Student Services Office (ISSO) <a href="https://carleton.ca/isso/">https://carleton.ca/isso/</a>
- TA Union (CUPE 4600) <a href="https://www.cupe4600.ca/unit-1">https://www.cupe4600.ca/unit-1</a>
- Clubs: <a href="http://carleton.ca/engineering-design/community/clubs-and-societies/">http://carleton.ca/engineering-design/community/clubs-and-societies/</a>
- Intramurals: <a href="http://athletics.carleton.ca/leagues/">http://athletics.carleton.ca/leagues/</a>

## Questions

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