

CARLETON UNIVERSITY
Faculty of Engineering and Design

COURSE SYLLABUS
Course Outline, Objectives and Requirements
Professional Practice, Fall Term 2026
ECOR 4995

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1. General Information

1.1 Professors:

ECOR 4995A: Professor Oren Petel, PhD, P.Eng.
OrenPetel@cunet.carleton.ca

ECOR 4995B: Professor Pavan Gunupudi, PhD, P.Eng.
PavanGunupudi@cunet.carleton.ca

Each student will be assigned to a Teaching Assistant (TA) who will be his/her primary contact. In exceptional circumstances, the TA may direct the student to the responsible Professor for further consideration.

1.2 ECOR 4995 On-line

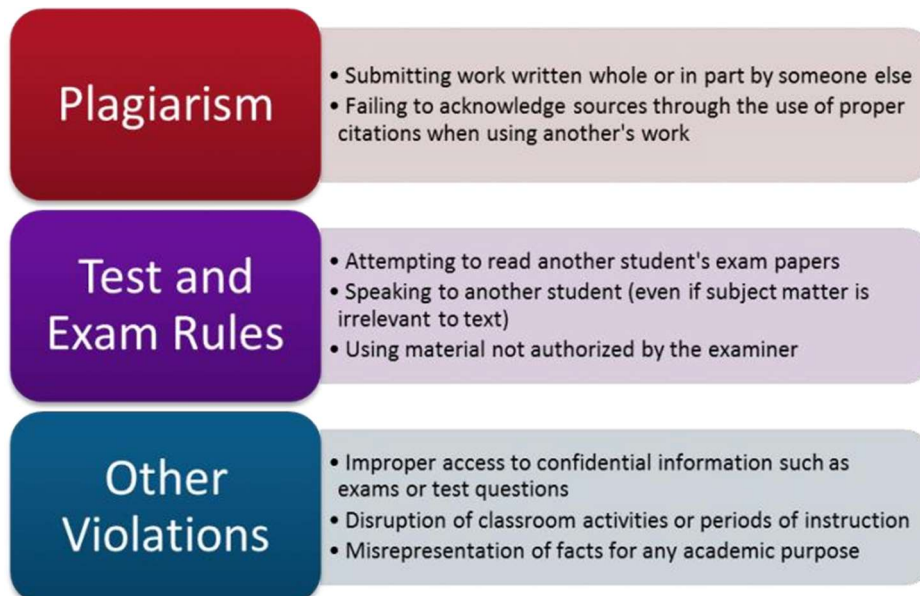
As an on-line course, all in-term assessments in ECOR 4995, excluding the final exam, will be delivered as paperless. All lectures, reading assignments, communications, etc. will also be electronically. The final examination will be administered **in person only (on-campus)**, as per the exam schedule.

1.3 Academic/Professional Integrity

- Academic Integrity: Read “*Carleton University Academic Integrity Policy*”, last updated June 2021 – available [on-line](#).

All students must follow the [Academic Integrity Policy](#) when completing course requirements and when interacting with the University. This policy reflects the high academic standards that form the basis for all credentials awarded by the University. When a student is suspected of violating the Policy, most commonly based on work submitted by the student, an administrative investigation is initiated by the Faculty, with evidence supplied by the faculty member reporting the suspected violation.

Any student who violates the standards of academic integrity set out in this policy will be subject to appropriate penalty.



- Professional Integrity: Plagiarism/copying is a violation of The Code of Ethics of Professional Engineers Ontario and may result in a charge of Professional Misconduct.
- **Student submissions will be examined and regularly compared by electronic means with the current and previous year's works to ensure Academic Integrity.**

1.4 Course Objectives

1.4.1 Calendar Description

Presentations by faculty and external lecturers on the Professional Engineers Act, professional ethics and responsibilities, practice within the discipline and its relationship with other disciplines and to society, health and safety, environmental stewardship, principles and practice of sustainable development. Communication skills are emphasized.

1.4.2 Learning Objectives and Graduate Attributes

(CEAB: Canadian Engineering Accreditation Board)

Knowledge base (CEAB Graduate Attribute 1):

- * Describe fundamental engineering concepts, such as sustainability, as they pertain to the engineering profession.

Professionalism (CEAB Graduate Attribute 8):

- * Review and describe The Professional Engineers Act (Ontario) and Regulation 941 and its implications for the practice of professional engineering.
- * Consider the relationship between the practice of professional engineering and other disciplines, including various laws and regulations.
- * Apply codes of ethics as it pertains to the engineering profession
- * Apply codes of practice as it pertains to the engineering profession
- * Demonstrate an appreciation of the need to protect the public interest
- * Review the requirements for professional certification
- * Identify the role of health and safety in the workplace (statutory and other)

Impact of engineering on society and the environment (CEAB Graduate Attribute 9):

- * Appreciate the impact of engineering on people, society and the environment.
- * Analyze the place of engineering in society (both historical and contemporary context)
- * Explain the necessary interactions between engineers and society as well as other stakeholders
- * Demonstrate the role of engineers in health, safety, and mitigating risk

Ethics and equity (CEAB Graduate Attribute 10):

- * Apply equitable practice in the engineering profession
- * Describe professional, accountable, and ethical conduct in the engineering profession

Guest speakers (practitioners) with engineering, business, legal and social science backgrounds have been invited to share the benefit of their expertise and experience with the students.

See **Section 2.1.1** and **2.1.2** for listing of speakers and topics.

1.5 Course Requirements and Grading

Biweekly Assignments:	<u>See Section 3</u> for details (4x5%)	20%
Mid-term Essay:	<u>See Section 4</u> for details	20%
Final Examination:	<u>See Section 5</u> for details	60%

To pass the course the following is required:

1. Pass the final examination (Minimum 50% on the final exam)
2. Aggregate mark (Assignments + Essay + 60% of Final Examination) must be equal to or greater than 50%.

An overall letter grade based on the aggregate mark will be awarded for the course.

2. List of Speakers and Reading Assignments (all times EST)

2.1.1 List of Speakers, before mid-term break

LECTURE #	TOPIC		LECTURES OPEN	Biweekly Assignment DUE
1 (WEEK 1)	“Introduction to the Course” <i>Professor Petel</i>		Wednesday Sept. 9 7:00 AM	
2 (WEEK 1)	“Engineering your Career” <i>Elza Seregelyi</i>			
3 (WEEK 2)	“Communication in Engineering Making a Great Impression” <i>Lisa Meyer and Helen Triantafellou</i>		Wednesday Sept. 9 7:00 AM	
4 (WEEK 2)	“Engineering, A Regulated Profession” <i>Bernard Ennis</i>			
5 (WEEK 3)	“Engineers Canada” <i>Jeanette Southwood</i>		Wednesday Sept. 16 7:00 AM	Tuesday Sept. 22 11:59 PM
6 (WEEK 3)	“PEO Professional Engineers Ontario” <i>Tracey Caruana</i>			
7 (WEEK 4)	“Diversity” <i>Professor Gunupudi</i>	“Equity, Diversity and Inclusion in Engineering” <i>Tomiwa Olukiyesi</i>	Wednesday Sept. 23 7:00 AM	
8 (WEEK 4)	“Consulting Engineering” <i>John Gamble</i>			
9 (WEEK 5)	“Ethics 101” <i>Professor Jamieson</i>		Wednesday Sept. 30 7:00 AM	Tuesday Oct. 6 11:59 PM
10 (WEEK 5)	“Ethics in Practice – Ontario regulation 941” <i>Professor Petel</i>			
11 (WEEK 6)	“Overview of the Law as It Relates to Engineers” <i>Pierre Champagne</i>		Wednesday Oct. 7 7:00 AM	
12 (WEEK 6)	“Intellectual Property: An Introduction for Engineers” <i>Mitchell Charness</i>			
13 (WEEK 7)	“Labour Law” <i>Jacques Emond</i>		Wednesday Oct. 14 7:00 AM	
14 (WEEK 7)	“Engineers and Safety” <i>Nancy Delcellier and David Hunt</i>			

2.1.2 List of Speakers, after mid-term break

LECTURE NUMBER	TOPIC	LECTURES OPEN	<u>Biweekly</u> <u>Assignment DUE</u>
15 (WEEK 8)	<i>"AI-Ethics"</i> <i>Professor Jim Davies</i>	Wednesday Oct. 21 7:00 AM	
16 (WEEK 8)	<i>"The Changing Workplace"</i> <i>Brin Sharp</i>		
17 (WEEK 9)	<i>"Great Teams and Great Team Players"</i> <i>Brin Sharp</i>	Wednesday Nov. 4 7:00 AM	
18 (WEEK 9)	<i>"Sustainability in Engineering"</i> <i>Professor Ahmed Abdulla</i>		
19 (WEEK 10)	<i>"Environmental Legislation"</i> <i>Philip Mansfield</i>	Wednesday Nov. 11 7:00 AM	Tuesday Nov. 17 11:59 PM
20 (Week 10)	<i>"Conflict Resolution in the Workplace"</i> <i>Peter Bishop</i>		
21 (WEEK 11)	<i>"Entrepreneurship"</i> <i>Professor Rowland Few</i>	Wednesday Nov. 18 7:00 AM	
22 (WEEK 11)	<i>"Business Organization and Corporate Governance"</i> <i>Elisabeth Preston</i>		
23 (WEEK 12)	<i>"Privacy and Access to Information"</i> <i>Porter Heffernan</i>	Wednesday Nov. 25 7:00 AM	Tuesday Dec. 1 11:59 PM
24 (WEEK 12)	<i>"Wrap-Up"</i> <i>Professor Gunupudi</i>		

The final examination questions will be based on information contained in the lecture slides and information contained in the lecture videos.

3. In-term Assessments

In-term assessments will consist of four biweekly assignments and one mid-term essay.

3.1 Timing

The ECOR 4995 week starts on Wednesdays at 7:00 AM and finishes the following Tuesday at 11:59 PM. To help you manage your workload, in any given week four lectures are available for viewing.

For example, when the course opens on Wednesday, September 9 at 7:00 AM, “LECTURES OPEN” shows that Lectures 1 through 4 are available for viewing. The following day, Wednesday, September 16 at 7:00 AM, Lectures 5 and 6 are available for viewing.

Biweekly assignment submissions will begin in Week 5. These assignments must be submitted at 11:59 PM on the due dates identified in the weekly schedule table above in section 2.1.

Important Note on the Submission of Assignments and Penalty for Late Submissions

The operation of the on-line version of the Professional Practice Course ECOR4995 depends greatly on the deadlines set throughout the course. Strict deadlines have been set for the release of lectures and submission of summaries and essays. It is important to note that the computer system is unforgiving as to the meeting of course deadlines and once a deadline is missed it is impossible to recover.

In the past, the computer logs for the ECOR4995 course showed us that many students left the submission of their assignments to very close to the deadlines. Last-second submissions are always dangerous because so much can go wrong with the delivery system.

Waiting until the last minute involves unnecessary risk. These risks do not just involve the traffic on Carleton servers, but also your IP provider, your home router, power interruptions, etc.

Bottom line, the deadlines have been set and must be respected. A prudent person will not leave their submission until the last minute. This is good professional practice.

Late Submissions: Failure to submit assignments before the submission deadline will result in late submission penalties except for circumstances where a self-declaration form has been duly submitted. Late submissions will be penalized as follows:

- 25% penalty for late submissions within 24 hours of the deadline,
- 50% penalty for late submission within 24 to 48 hours,
- submission which are over two days, i.e., 48hrs overdue, will receive an automatic ‘zero’ grade for the assignment.

3.2 Submission Template for Biweekly Assignments and Essay

Student Name_____, Student #_____, Section # (Group #)_____

Assignment #____, Assignment Title_____

Layout and Structure:

12-point font

1.5 line spacing

2.54 cm margin on all sides

Paragraph form,

Complete sentences, correct spelling, punctuation, and grammar required.

Note: The length of each assignment submission should adhere to the guidelines within the posted assignment. Your submission should cover the necessary salient information.

Submit completed assignments to Brightspace.

3.3 Grading

Grading scheme for in-course assessments is as follows:

Biweekly Assignments: See Section 3 for details (4x5%) 20%

Four biweekly assignments will be posted during the term as per the weekly course schedule shown in section 2.1. Each assignment will weigh 5% towards the final grade. Submissions should strictly adhere to the template provided on the course webpage.

Teaching Assistants will grade all assignments based on the rubric provided in section 4.

Mid-term Essay: The midterm essay will weigh 15% towards the final grading scheme.

The essay should be between 1500 and 2000 words, 12-point font size, 1.5 line spacing, and 2.54 cm margin all around. Paragraphs should be clearly identified either by indentation, or by separation with an extra line. The cover page should identify the title, course number, student name, and student number.

Teaching Assistants will grade the midterm essay based on the rubric provided in section 4 below.

Note: Midterm Essay topic will be posted on Tuesday, October 13th at 12:00 pm (EST).

Essay due date: Tuesday, November 3th by 11:59 pm (EST)

4.1 RUBRIC: Biweekly Assignment GRADING

Content Max. 50	Excellent 46 - 50 Marks	Above Average 41 - 45 Marks	Average 36 - 40 Marks	Below Average 26 - 35 Marks	Poor 16 – 25 Marks	Unsatisfactory < 15 Marks
Knowledge of subject; Originality of interpretation; Critical insight	Synthesis of ideas, in depth analysis, original thought, main points well developed.	Original thinking and develops ideas with sufficient and firm evidence	Original thought on a few ideas and some critical thinking. Main points made with limited support.	Some thinking and reasoning but most ideas undeveloped and unoriginal.	Lack of reasoning and originality.	Content does not meet assignment requirements.
Organization Max. 20	Excellent 19 - 20 Marks	Above Average 17 - 18 Marks	Average 15 - 16 Marks	Below Average 11 - 14 Marks	Poor 6 – 10 Marks	Unsatisfactory < 5 Marks
Logical and coherent arguments, always relevant to the topic.	Outstanding attention to logic and reasoning. Leads the reader to the conclusion with ease.	Mostly logical and coherent. Overall competent in leading the reader to the conclusion.	Generally logical and coherent. Some points stray from the topic or are misplaced. Conclusion not immediately apparent to reader.	Lacks logical organization. Some coherence but ideas lack unity. Serious errors.	Incoherent organization, serious flaws	Organization does not meet assignment requirements.
Style Max. 15	Excellent 15 Marks	Above Average 13 - 14 Marks	Average 11 - 12 Marks	Below Average 7 - 9 Marks	Poor 3 - 5 Marks	Unsatisfactory < 3 Marks
Unified coherent paragraphs, precise, forceful sentences.	Creative use of sentence structure. Rhetorical devices used effectively.	Sentence variety used to enhance content and maintain the reader's interest. Rhetorical devices.	Only some variety in sentence structure, pattern, and use of rhetorical devices.	Elementary form with little or no variety in sentence structure, rhetorical devices or emphasis.	Poor sentence and paragraph structuring, lack on emphasis	Style does not meet assignment requirements.
Mechanics Max. 10	Excellent 10 Marks	Above Average 8 - 9 Marks	Average 6 - 7 Marks	Below Average 4 - 5 Marks	Poor 2 - 3 Marks	Unsatisfactory 0
Language, grammar, spelling, punctuation, etc.	Extensive vocabulary. Free of spelling, punctuation, and grammatical errors. Meets all assignment format details. Citations	Notable vocabulary. Few spelling, punctuation and grammatical errors. Meets all assignment format details. Citations	Ordinary vocabulary. Few spelling, punctuation and grammatical errors. Meets most assignment format details. Citations	Deficient vocabulary. Spelling, punctuation, and grammatical errors. Meets few of assignment format details. Citations.	Poor vocabulary. Extensive Spelling, punctuation, and grammatical errors. Assignment format violations. Citations.	Mechanics does not meet assignment requirements.
References Max. 5	Excellent 3 Marks	Above Average 2 Marks	Average, 1 Mark	Below Average 0 Marks	Poor 0 Marks	Unsatisfactory 0 Marks
Proper referencing and citation	No errors	1 error	2 errors	3 errors	3 or more errors	3 or more errors

4.2 RUBRIC: Mid-Term Essay GRADING

Overall Impression	Excellent 10 Marks	Above Average 8 - 9 Marks	Average, 6 - 7 Marks	Below Average, 4 - 5 Marks	Poor 2 – 3 Marks	Unsatisfactory 0 Marks
Appears organized and not overwhelming to the reader	Short statements, perhaps bullets or numbered, reader feels something he/she can grasp	Short paragraphs, perhaps bullets or numbered. Reader feels not a complicate issue	Reader friendly appearance but perhaps a complicated issue	Several long paragraphs, reader's impression a complicated issue	Poor overall impression, readers unable to follow the messaging	Overall impression does not meet assignment requirements.
Organization	Excellent 46 - 50 Marks	Above Average 41 - 45 Marks	Average, 36 - 40 Marks	Below Average, 26 - 35 Marks	Poor 16 - 25 Marks	Unsatisfactory < 15 Marks
Logical and coherent leading the reader to accept the conclusion/recommendation	Leads the reader to the conclusion/recommendation with ease.	Overall competent in leading the reader to the conclusion/recommendation	Conclusion/recommendation not immediately apparent to reader.	Conclusion/recommendation only partially supported.	Conclusion/recommendation not supported	Organization does not meet assignment requirements.
Style	Excellent 29 - 30 Marks	Above Average, 26 - 28 Marks	Average, 21 - 25 Marks	Below Average, 16 - 20 Marks	Poor 11 – 15 Marks	Unsatisfactory < 10 Marks
Unified coherent structure, precise, forceful sentences.	Logical presentation of facts. Impressive language and sentence structure.	Logical presentation of facts but language and sentence structure not notable.	Some facts seem misplaced. Just ordinary language and sentence structure.	Questionable logic and not coherent. Weak use of language and sentence structure.	Poor sentence structuring throughout	Style does not meet assignment requirements.
Mechanics	Excellent 10 Marks	Above Average 8 - 9 Marks	Average, 6 - 7 Marks	Below Average, 4 - 5 Marks	Poor 2 – 3 Marks	Unsatisfactory 0 Marks
Grammar, spelling, punctuation, attention to assignment format	Free of spelling, punctuation, and grammatical errors. Meets all assignment format details.	Few spelling, punctuation and grammatical errors. Meets all assignment format details.	Few spelling, punctuation and grammatical errors. Meets most assignment format details.	Spelling, punctuation, and grammatical errors. Assignment format violations.	Multitude of grammatical errors	Mechanics does not meet assignment requirements.

5 Final Examination

The Final Examination will be an **IN-PERSON**, two-hour long, multiple choice format exam, covering the entire course including all **lectures and video presentations**. Sample questions are available on the course web site. The examination is for grading purposes only and will not be returned to the student.

- 100 multiple choice questions
- One correct answer per question

***** Note: It is STRICTLY PROHIBITED to wear any type of smart glasses, wearable computer frames or any head's up display items during the final exam. *****

Final exams are for evaluation purposes and will not be returned to students.

iv) Deferred Final Examinations

Students who are unable to write the final examination because of a serious illness/emergency or other circumstance beyond their control may apply for accommodation by contacting the Registrar's office. Consult the Section 4.3 of the University Calendar (<https://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/examinations/>)

6 Keeping in Touch

- Q&A on-line Discussion Forum (Ask the Instructor). Questions can be posted anytime, and answers will be posted within 24 hours, Monday to Friday.
- Once TA grading groups are assigned, you can connect with your grading TA through their email address.
- By appointment (Contact your professor – email addresses given in Section 1.1)

7 Academic Consideration for Coursework Request Form

As per the [Academic Consideration Policy](#), if students encounter extenuating circumstances that temporarily hinder their capacity to fulfil in-class academic requirements for a period that is five days or less, they can request academic consideration as per the following instructions:

1. Consult the course syllabus about the instructor's policy or procedures for requesting academic consideration.
2. Contact your instructor(s) as soon as possible and normally **no later than 24 hours** after the submission deadline.
3. Fill out the request form.
4. Complete and submit course work per academic consideration, if granted.

Please refer to: <https://carleton.ca/registrar/academic-consideration-coursework-form/> for more information.

8 Advising and Counselling services

a) Engineering Academic Advising

The Engineering Academic Support Service : <https://carleton.ca/engineering-design/current-students/undergrad-academic-support/> assists undergraduate engineering students with course selection, registration, and learning support from first-year through to graduation.

Academic Advisors Contact : <https://carleton.ca/engineering-design/current-students/undergrad-academic-support/undergraduate-advisors/>

b) Student Mental Health Service

As a University student you may experience a range of mental health challenges that significantly impact your academic success and overall well-being. Carleton's Wellness Services Navigator <https://wellness.carleton.ca/navigator/> is designed to help students connect with mental health and wellness resources. If you need to talk to someone, please reach out for assistance: <https://carleton.ca/health/emergencies-and-crisis/>.

9 Learning and Working Environment

The University and all members of the University community share responsibility for ensuring that the University's educational, work and living environments are free from discrimination and harassment. Should you have concerns about harassment or discrimination relating to your age, ancestry, citizenship, colour, creed (religion), disability, ethnic origin, family status, gender expression, gender identity, marital status, place of origin, race, sex (including pregnancy), or sexual orientation, please contact the Department of Equity and Inclusive Communities at equity@carleton.ca

We will strive to create an environment of mutual respect for all through equity, diversity, and inclusion within this course. The space which we work in will be safe for everyone. Please be considerate of everyone's personal beliefs, choices, and opinions.

10. Academic Integrity and Plagiarism

a) Please consult the Faculty of Engineering and Design information page about the Academic Integrity policy and our procedures: <https://carleton.ca/engineering-design/current-students/fed-academic-integrity> Violations of the Academic Integrity Policy will result in the assignment of a penalty such as reduced grades, the assignment of an F in a course, a suspension or, expulsion.

b) One of the main objectives of the Academic Integrity Policy is to ensure that the work you submit is your own. As a result, it is important to write your own solutions when studying and preparing with other students and to avoid plagiarism in your submissions. The University Academic Integrity Policy defines plagiarism as "presenting, whether intentionally or not, the ideas, expression of ideas or work of others as one's own." This 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 violations of the policy include, but are not limited to:

- Any submission prepared in whole or in part, by someone else;
- Using another's data or research findings without appropriate acknowledgement;
- Submitting a computer program developed in whole or in part by someone else, with or without modifications, as one's own; and
- Failing to acknowledge sources of information through the use of proper citations when using another's work and/or failing to use quotations marks.
- Unless explicitly permitted by the instructor in a specific course, the use of generative AI and similar tools to produce assessed content (such as text, code, equations, images, summaries, videos, etc.).

11. Academic Accommodations

You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:

Pregnancy obligation: write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For accommodation regarding a formally-scheduled final exam, you must complete the Pregnancy Accommodation Form ([click here](#)).

Religious obligation: write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details [click here](#).

Academic Accommodations for Students with Disabilities: The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (if applicable).

You should request your academic accommodations in the [Ventus Student Portal](#), for each course at the beginning of every term. For in-term tests or midterms, please request accommodations at least two (2) weeks before the first test or midterm.

Please consult the [PMC website](#) for the deadline to request accommodations for formally-scheduled exams (if applicable).

Survivors of Sexual Violence: As a community, Carleton University is committed to maintaining

a positive learning, working and living environment where sexual violence will not be tolerated, and where survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit:

<https://carleton.ca/equity/sexual-assault-support-services>

Accommodation for Student Activities: Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation will be provided to students who compete or perform at the national or international level. Write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. <https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>