

MATH 4600 — Advanced Research Project in Mathematics Fall 2020

Department of Mathematics and Statistics, University of Guelph

Coordinator: [A. Willms](#), MACN 512, ext. 52736

Calendar Description

Each student in this course will undertake an individual research project in some area of mathematics, under the supervision of a faculty member. A written report and a public presentation of the project will be required. This is a 1.00 credit course.

Enrollment

The prerequisite is 1.00 credits in Mathematics at the 3000 level or above. In addition you will need the approval of a supervisor and the course coordinator. If you are interested in this course, you should discuss possible research topics with one or more faculty members in the department. If one agrees to supervise you for a particular project, then they will inform the course coordinator, who must also approve.

Assessment

1. A research proposal, 4-5 pages in length (12 point font, 1 inch margins, single spaced). This proposal should describe the research that will be conducted and the methods or techniques that will be used. A time-line for the remainder of the semester must be included that specifies tasks to be completed and dates at which various milestones are expected to be reached. This time-line must be signed by the supervisor.

Due date: **Friday, October 9.**

Assessed by supervisor. Weight: **15%.**

2. Supervisor's mark. The supervisor will establish a regular set of meetings with the student (typically weekly). These meetings may be either face to face or online. Through these meetings the supervisor will assess the student's participation and engagement, effort extended, work progress, and adherence to the project time-line.

Weight: **15%.**

3. A final oral presentation, about 20 minutes in length using computer-generated slides. These presentations will be done remotely via Courselink Virtual Classroom, or similar software. All members of the class are expected to be present (remotely) for all talks. The intended audience is the other class members, that is, an audience that is mathematically and statistically literate, but not necessarily experts in the specific research area. Students are expected to ask questions of the presenter after the presentation.

Date: To be scheduled during the final week of classes.

Assessed by both supervisor and course coordinator. Weight: **20%**

4. A typeset final report, 15-20 pages in length (12 point font, 1 inch margins, single spaced, appendices and references not included in page count). The language of this report should be formal and professional, as if it were being submitted to a journal. The use of Latex is encouraged but not mandatory. The report should provide a thorough discourse of the

project, including pertinent background, a summary of at least **two** relevant papers from the literature and how they relate to the project, the methods employed in the project, results obtained, and a discussion of those results. The audience for the report is someone with at least as much understanding of the material as the student, that is, the student writer is not trying to convey information to other members of the class, who may not have much knowledge of the area, but rather to someone familiar with the field, like the supervisor.

Due date: **Friday, December 11**

Assessed by both supervisor and coordinator (or one other unrelated supervisor). Weight: **50%**.

For items 3 and 4, the course coordinator's and supervisor's marks will be weighted 1/3 and 2/3, respectively.

University Policies

Disclaimer

Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings and academic schedules. Any such changes will be announced via CourseLink and/or class email. All University-wide decisions will be posted on the COVID-19 website <https://news.uoguelph.ca/2019-novel-coronavirus-information/> and circulated by email.

Recording of Lecture Materials

By enrolling in a course, unless explicitly stated and brought forward to their instructor, it is assumed that students agree to the possibility of being recorded during lecture, seminar or other "live" course activities, whether delivery is in-class or online/remote. If a student prefers not to be distinguishable during a recording, they may:

1. turn off their camera
2. mute their microphone
3. edit their name (e.g., initials only) upon entry to each session
4. use the chat function to pose questions

Students who express to their instructor that they, or a reference to their name or person, do not wish to be recorded may discuss possible alternatives or accommodations with their instructor.

Presentations which are made in relation to course work, including lectures, cannot be recorded in any electronic media without the permission of the presenter, whether the instructor, a student, or guest lecturer. When recordings are permitted they are solely for the use of the authorized student and may not be reproduced, or transmitted to others, without the express written consent of the presenter.

Recorded lectures posted on CourseLink are solely for students to use during the current semester. These recordings may not be reproduced or distributed to others in any form.

Medical Notes

The University will not normally require verification of illness (doctor's notes) for fall 2020 or winter 2021 semester courses. However, requests for Academic Consideration may still require medical documentation as appropriate.

E-mail Communication

All students are required to check their University of Guelph e-mail account regularly; e-mail is the official route of communication between the University and its students.

Academic Accommodation of Religious Obligations

If you are unable to complete a course requirement due to religious obligations, please let the instructor know within the first two weeks of class. See the academic calendar for more information:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-accomrelig.shtml>

Academic Consideration

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id, and e-mail contact. See the academic calendar for information on regulations and procedures for Academic Consideration:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor. The Academic Misconduct Policy is detailed in the Undergraduate Calendar:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact the Student Accessibilities Services (SAS) as soon as possible. For more information, contact SAS at 519-824-4120 ext. 56208 or email csd@uoguelph.ca or see the website: <http://www.uoguelph.ca/csd/>

Drop date

The last date to drop one-semester courses, without academic penalty, is the last day of classes. See the Undergraduate Calendar Schedule of Dates:

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c03/index.shtml>

For regulations and procedures for Dropping Courses, see the Academic Calendar:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>