# Course Outline Form: MATH\*6010, Fall 2023

## **General Information**

**Course Title:** Analysis

**Course Description:** Half the course covers metric spaces, normed linear spaces, and inner product spaces, including Banach's and Schauder's fixed point theorems,  $L^p$  spaces, Hilbert spaces and the projection theorem. The remaining content may include topics like operator theory, inverse problems, measure theory and spectral analysis.

Credit Weight: 0.5

Academic Department (or campus): Mathematics and Statistics

Campus: Guelph

Semester Offering: Fall

**Class Schedule and Location:** 

## **Instructor Information**

**Instructor Name:** 

**Instructor Email: Office location and office hours:** My office is

Office hours will b

Zoom

meetings can also be arranged, as needed.

## **Course Content**

### **Specific Learning Outcomes:**

- 1. Numeracy and Quantitative Skills
- 2. Critical Thinking
- 3. Application of Knowledge
- 4. Knowledge of Methodologies
- 5. Communication
- 6. Depth of Understanding

### **Lecture Content:**

The instructor will present lectures on the topics listed in the calendar course description. On occasion, the instructor may decide that handouts and/or computer demonstrations are appropriate.

I have speaking engagements in Toronto on November 30 and December 1, so our last lecture meeting on November 30 will not be possible. During September, we will talk about how to reschedule the missing lecture slot to another date/time to which the entire class agrees or another solution to make up the missed lecture.

### **Course Assignments and Tests:**

	Value	Date
Assignments	50%	Four bi-weekly assignments, due in class
		at start of class, beginning September 28
Test 1	25%	Thursday, October 26, in class
Test 2 / Final	25%	Thursday, November 16, in class

When the entire class wishes for and agrees to a change, perhaps due to other pressures that they are feeling, I am open to adjusting assignment due dates or test dates, including shifting the second test into the final exam period, if desired.

## **Course Resources**

#### **Recommended Texts**

The lectures are the primary source of course material.

No text is required, as the lecture notes will contain all required information. The instructor can recommend books for supplementary reading, but the course is self-contained.

### **Grading Policies**

The assignments you hand in are expected to contain your own work. Of course, you can talk about the questions with me and with each other, but please make sure that the bulk of the work you submit is truly your own work. There will be low tolerance for plagiarism or what I deem to be excessive collaboration.

### Course Policy regarding use of electronic devices and recording of lectures

Electronic recording of classes is expressly forbidden.

## **University Policies**

#### **E-mail Communication**

As per university regulations, all students are required to check their <mail.uoguelph.ca> e-mail account regularly: e-mail is the official route of communication between the University and its students.

### When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. See the academic calendar for information on regulations and procedures for Academic Consideration.

### **Drop date**

Courses that are one semester long must be dropped by the end of the last day of classes; two-semester courses must be dropped by the last day of classes in the second semester. The regulations and procedures for dropping courses are available in the Graduate Calendar.

### Copies of out-of-class assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

### **Accessibility**

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student. When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required, however, interim accommodations may be possible while that process is underway. Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability. Use of the SAS Exam Centre requires students to make a booking at least 14 days in advance, and no later than November 1 (fall), March 1 (winter) or July 1 (summer). Similarly, new or changed accommodations for online quizzes, tests and exams must be approved at least a week ahead of time. More information: www.uoguelph.ca/sas

#### **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. <u>The Academic Misconduct Policy is detailed in the Graduate</u> Calendar.

### **Recording of Materials**

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

#### Resources

The <u>Academic Calendars</u> are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs.

#### Illness

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g., final exam or major assignment).