

# Course Outline Form: Fall 2015

## General Information

**Course Title:** Advanced Calculus I: MATH\*2200

**Course Description:** The topics covered in this course include infinite sequences and series, power series, tests for convergence, Taylor's theorem and Taylor series for functions of one variable, planes and quadratic surfaces, limits, and continuity, differentiability of functions of two or more variables, partial differentiation, directional derivatives and gradients, tangent planes, linear approximation, Taylor's theorem for functions of two variables, critical points, extreme value problems, implicit function theorem, Jacobians, multiple integrals, and change of variables.

**Credit Weight:** 0.5

**Academic Department (or campus):** Mathematics and Statistics

**Campus:** Guelph

**Semester Offering:** Winter

**Class Schedule and Location:** Mon/Wed/Fri, MCKN 117, 9:30-10:20

## Instructor Information

**Instructor Name:** H. Kunze

**Instructor Email:** [hkunze@uoguelph.ca](mailto:hkunze@uoguelph.ca)

**Office location and office hours:** MACN 507, Tuesday, 8:30-10:30

## 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.

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

	Value	Date
9 Assignments	30%	Due Wednesdays at start of class
Midterm 1	15%	Wednesday, October 21
Midterm 2	15%	Wednesday, November 11
Final Exam	40%	Friday, December 18, 8:30-10:30

**Final examination date and time:** Friday, December 18, 8:30-10:30

**Final exam weighting:** 40%

### **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. I am writing a four-semester Calculus text book and will make available draft sections for extra reading, examples, and exercises. Students who have the four-semester Calculus text by either Thomas or Stewart may find additional related reading, examples, and exercises there.

#### **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**

#### **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>

A grade of zero is assigned for assignments or tests missed due to unsatisfactorily explained reasons.

### **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...>

### **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 Centre for Students with Disabilities as soon as possible.

For more information, contact CSD at 519-824-4120 ext. 56208 or email [csd@uoguelph.ca](mailto:csd@uoguelph.ca) or see the website: <http://www.csd.uoguelph.ca/csd/>

### **Course Evaluation Information**

Please refer to the [Course and Instructor Evaluation Website](#)

### **Drop date**

The last date to drop one-semester courses, without academic penalty, is stated in the undergraduate calendar. For regulations and procedures for Dropping Courses, see the Academic Calendar:

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