

Calculus 2302A, Fall 2013

Intermediate Calculus I

Syllabus

Instructor: Martin Frankland, MC 129, mfrankla@uwo.ca. Office hours: TBA.

Textbook: James Stewart, *Multivariable calculus*, 7th edition, Brooks/Cole. The book (as well as the student solutions manual) is available at the bookstore.

Course web page: <http://www.math.uwo.ca/~mfrankla/Calc2302A/>

Lectures: The course meets MWF 1:30–2:20 PM in HSB 240. There are no tutorials.

Course Description: We will extend differential calculus from the single variable to the multi-variable case. This requires some linear algebra, which we review at the beginning of the course. Roughly, we will cover chapters 12–14 of the textbook. Here is an approximate list of topics.

Three dimensional analytic geometry: dot and cross product; equations for lines and planes; quadric surfaces; vector functions and space curves; arc length; curvature; velocity; acceleration.

Differential calculus of functions of several variables: level curves and surfaces; limits; continuity; partial derivatives; tangent planes; differentials; chain rule; implicit functions; extrema; Lagrange multipliers.

Prerequisites: A minimum mark of 55% in Calculus 1501A/B or Calculus 1301A/B, or Applied Mathematics 1413.

Antirequisites: Calculus 2502A/B.

Homework: Homework will be assigned on a regular basis. It will include routine exercises as well as some challenging problems.

Exams: There will be a midterm (scheduled for Wednesday October 23, 6:30 - 8:30 PM) and a final exam (to be scheduled by the registrar).

Evaluation: Homework = 30%, Midterm = 30%, Final Exam = 40%.

Help Center: The Mathematics Department runs a help center for courses including this one. The tentative schedule is Monday through Friday from 2:30 to 6:30 PM. Details will be announced.

Senate Regulations on Scholastic Offences: Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following web site: <http://www.uwo.ca/univsec/handbook/>

In this course, no calculators or electronic devices will be allowed during tests.

Medical Excuse Regulations: If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or other supporting documentation to the Dean's Office as soon as possible and contact your instructor immediately. It is the student's responsibility to make alternative arrangements with their instructor once the accommodation has been approved and the instructor has been informed. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from the Dean's office. For further information please see:

http://www.uwo.ca/univsec/handbook/appeals/accommodation_medical.pdf

A student requiring academic accommodation due to illness should use the Student Medical Certificate when visiting an off-campus medical facility or request a Record's Release Form (located in the Dean's Office) for visits to Student Health Services.