

**Calculus 2302, Fall 2012**  
**Intermediate Calculus**  
**Syllabus**

**Instructors:** Rasul Shafikov, MC 112, [shafikov@uwo.ca](mailto:shafikov@uwo.ca) (emails will be answered within 48 hours).  
Office hours: Mondays 2:30 - 4:30 PM.

**Textbook:** J. Stewart, *Multivariable calculus*, 7th ed., Brooks/Cole. The book (including the student solutions manual) is available in the bookstore.

**Course web page:** <http://www.math.uwo.ca/~shafikov/2302/>

**Course Description:** Course meets MWF 13:30–14:20 PM in HSB 35.

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.

We will extend differential calculus from the single variable to the multivariable case. This requires some linear algebra, which we review at the beginning of the course. Roughly, we will cover Chapters 12–14 from the textbook, maybe more if time permits.

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

**Antirequisites:** Calculus 2502A/B, or the former Applied Mathematics 290A.

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

**Exams:** There will be a Midterm (tentatively scheduled for October 19, 6:30 - 8:30 PM) and a Final Exam (to be scheduled by the registrar).

**Evaluation:** Homework = 30%, Midterm = 30%, Final examination = 40%.

**Help Centres:** The Mathematics Department runs help centres daily from 2:30 to 6:30 PM in MC 106.

**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/>

**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](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.