

Mathematics 2310 3.0 Section A
Calculus of Several Variables with Applications
Fall 2016

Days: Mondays, Wednesdays and Fridays

Time: 12:30 p.m. – 1:20 p.m.

Place: Chemistry Building 121

Course Coordinator: Professor M. W. Wong

Office: N530 Ross Building

Office Hours: Tuesdays and Thursdays, 11:30 a.m. - 1:00 p.m.

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Website: <http://mwwong.info.yorku.ca>

Textbook: You have the following options:

(1) James Stewart, Calculus: Early Transcendentals, Eighth Edition, Cengage Learning, 2016, and Enhanced WebAssign (EWA)

(2) Standalone multi-term version of EWA that includes the online version of the textbook. (You can buy it online at www.bookstore.yorku.ca or pick up a flyer and take it to the cashier at the bookstore.)

Course Objectives The aim of this course is to study differentiation and integration of functions defined on regions in \mathbb{R}^2 and in \mathbb{R}^3 . In differentiation, the students are expected to learn the basic tools such as partial derivatives, tangent planes to surfaces in \mathbb{R}^3 , directional derivatives, the gradient, maxima and minima of functions of more than one variable. In integration, the students are expected to learn double integrals in rectangular and polar coordinates, and triple integrals in rectangular, cylindrical and spherical coordinates. The course ends with techniques in changes of coordinates in double and triple integrals.

Syllabus: The following sections of the textbook will be covered.

Sections 13.1-13.3, 14.1-14.7, 15.1-15.9

Grading Scheme:

Assignments (WebAssign): 20%

Two Class Tests: 20% each

Final Exam: 40%

Important Dates:

Test 1 on Friday, October 14, 2016

Test 2 on Friday, November 18, 2016

Final Exam: TBA

An Important Note about Tests and the Final Exam:

There will be no make-up tests. Students who have to miss a test for any good reasons with proof(s) may petition to have the weight of the test moved to the final exam.