

Syllabus

Instructor: Michael Henle

Office Hours: 3-5 PM, M and Th, in King 202

Phone: X8380 (Dept), X8383 (Office) or 775-7676 (Home)

Text: **Multivariable Calculus** by James Stewart (seventh edition)

Software: **Mathematica** (available on OC computers and for installation on your own)

Evaluations:

Homework (~10 weekly assignments, due 5 PM: Thursday)	200
Two Hour Exams (March 22 and April 19)	200
Final Exam (Wednesday, May 15, 9-11 AM)	<u>100</u>
TOTAL:	500 points

Course Objectives:

- 1) To learn how to think in 3-variables and 3-dimensions.
- 2) To learn how the calculus works in 2-, 3- (and even more?) variables.

Outline of the Semester:

Week of	Topics	Reading
February 4	Vectors and their products	12.1-12.4
February 11	Flats and quadrics	12.5-12.6
February 18	Curves and curved coordinate systems.	15.8-15.9
February 25	Vector functions	13.1-13.4
March 4	Partial differentiation	14.1-14.3, 14.6
March 11	Tangent planes, chain rule	14.4-14.5
March 18	Lagrange multipliers. MIDTERM EXAM	14.7-14.8
Fall Break		
April 1	Double integrals and iterated Integrals	15.1-15.4
April 8	Surfaces and surface area	15.6-7, 16.6
April 15	Triple integrals. MIDTERM EXAM	15.8-15.9
April 22	Vector fields, line and surface integrals	16.1-16.4
April 29	Green's theorem, curl and divergence	16.5-16.7
May 6	The fundamental theorem of calculus	16.8-16.9

Honor Code Policy

1. Late work is normally *not* accepted without approval in advance. All written work must be in final form; drafts are not acceptable.

2. For **exams** and **quizzes**: all work must be yours alone without any supplementary aid: in particular, no use of books, calculators, computers, or the assistance of other people, except as explicitly allowed in the instructions. After completing each exam, the honor pledge must be written out in full and signed. (The honor pledge is "I affirm that I have adhered to the Honor Code on this assignment.")

3. For **homework**: collaboration with other students is encouraged. However, the written work handed in should be your own account, in your own words, of the solutions worked out with, or without, others.