

**Lecture 010**

MWF 8:00–8:50 AM, ECCR 265

Instructor: Mary Nelson

ECOT 327, (303) 492-4152

*mary.nelson@colorado.edu***Lecture 020**

MWF 11:00–11:50 AM, ECCR 1B40

Instructor: Adam Norris

ECOT 212, (303) 492-7566

*adam@colorado.edu***Lecture 030**

MWF 1:00–1:50 PM, ECCR 245

Instructor: Christopher Curtis

ECOT 338, (303) 735-6209

*christopher.w.curtis@colorado.edu*

**Course Objective:** This course extends the ideas of single-variable calculus (eg. differentiation, integration, optimization) to functions of several variables. Topics include vectors and vector operations, curves in space, multi-variable functions, partial differentiation, multiple integrals, line integrals, Stokes's Theorem and Gauss's Theorem. These concepts form the mathematical basis for many areas in the Sciences and Engineering.

**Text:** Chapters 10–14 of *Calculus and Analytic Geometry*, 9<sup>th</sup> ed., by Thomas & Finney (blue cover) OR *Thomas' Calculus*, Alternate ed., by Thomas & Finney (maroon cover).

**Recitations:** Recitations meet for 1 hour on Thursdays. The purpose of the recitation is partly to help you with the homework. More importantly, the recitation is intended to further clarify the Calculus III concepts.

**Homework:** To do well in this course attend the lectures and do (and understand) the homework. Ask questions. Homework is due at the start of recitation each Thursday. Late homework will **not** be accepted or graded. Selected problems will be graded and then returned during the next recitation. Solutions will be posted on the course web page.

**Exams:** There are three midterms and a comprehensive final. The midterms are on Wednesdays (Feb 10, Mar 10 and Apr 14) from 5:00–6:30 PM. The final exam is Monday, May 3, from 7:30–10:00 AM. There will be **no** make-up exams or early exams. If you are sick during a midterm, please bring a note from your doctor verifying your illness. Your course grade will then be determined by the rest of your course work. Please bring your CU ID to each exam. Electronic devices are not allowed during the exams. If you have questions about exam grading, within one week of the exam submit to your instructor a detailed written explanation addressing the specific grading errors.

**Computer projects:** To give you experience solving larger, more difficult problems involving multiple concepts, there will be three computer-based projects assigned during the semester. Suggested software includes MatLab, Mathematica, and Maple. The projects will be posted on the course web page.

**APPM 2450:** This is an optional, 1 credit Pass/Fail lab in which one can learn more about Mathematica. This software is useful for visualizing functions and solving multi-variable problems. Students wanting additional help on their 2350 projects are also encouraged to sign up for this lab.

**Grade determination:** There is a total of 800 points for the course. The points are distributed over homework and recitation assignments (150 points), three projects (50 points each), three midterm exams (100 points each), and a cumulative final exam (200 points). You must earn a C- or better on your exams to earn a grade of C- or better in the course. After the final exam, if your exam scores average to something less than a C-, it is not possible to earn a C- or better in the class.

**Dropping the course:** Advice from the Dean's office and your department advisor is recommended before dropping any course. After Feb 24, dropping the course is possible only with a petition approved by the Dean's office.

**Course web page:** (<http://amath.colorado.edu/courses/2350>) It is your responsibility to check the web page on a regular basis. Here you will find detailed information such as homework assignments and solutions, past exams, tutoring options, pre-exam review sessions, exam rooms and times, and office hours. In addition, it contains policies on illness, academic honesty, and special accommodations for religious holidays and documented special needs.

**Blue books:** Each student is required to purchase **five** 8.5×11 blue books and give them to the TA by the second recitation (Jan 21). These will be used for the exams, so please do not write anything on the front of the books.

**Academic Honesty:** Students are encouraged to work in groups, however **all work turned in must be your own**. Violation of the CU Student Honor Code (<http://www.colorado.edu/academics/honorcode>) or the College of Engineering's Academic Honesty Advising Guidelines ([http://www.colorado.edu/engineering/ar\\_ugradadvising.html](http://www.colorado.edu/engineering/ar_ugradadvising.html)) will result in a final grade of F in this course.