

UNIVERSITY OF COLORADO

AT COLORADO SPRINGS

COURSE SYLLABUS

Math 136-001: Calculus II

Fall, 2009

Details

Course Schedule: TRF 9:25 – 10:40 am, Eng. 107

Instructor: Jenny Dorrington

Office: Engineering 128

Phone: 255-3129 (office)
578-8880 (home)

email: jdorrington@uccs.edu

Office Hours: TRF 10:45 – 12:00 and by appointment

SI sessions: To be determined

MLC: Across the hall (!) in room 136
M 9:00 a.m. – 8:00 p.m., T – Th 8:00 a.m. – 8:00 p.m., F 8:00 a.m. –
4:00 p.m., Sun 11:00 a.m. – 2:00 p.m.

Prerequisite: Math 135 Calculus I or its equivalent

Text: *Single Variable Essential Calculus: Early Transcendentals* by James Stewart

Optional: Student Solutions Manual

Course materials will be posted on my webpage at www.uccs.edu/~jdorrington. To access the archived videos and class notes, go to the video archive at www.uccs.edu/~math/vidarchive.html.

Course Description & Objectives

Calculus II begins where Calculus I left off – with the study of integrals. We will learn both analytic and numerical techniques for finding the value of a definite integral, as well as many applications of integrals.

We will also explore the ideas of infinite sequences and series. What does it mean to sum an infinite number of terms? When does such a sum have a finite answer? We will consider many techniques for determining whether a series converges, and learn how to represent transcendental functions using Taylor series.

Finally, we will look at parametric curves in the plane and use the polar coordinate system to parametrize functions that are “circle-like.” We will learn to differentiate and integrate in this new coordinate system.

In addition to the mathematics we will be investigating, you will learn how to read and write about mathematics. You will also study several important theorems in some depth, and will have the opportunity to begin to write your own proofs.

Course Requirements

We will cover most of Chapters 6 through 9 of the text in this course. In order to facilitate class discussion, please try to read the text before class each day. I will announce in class what the section(s) to be covered in the next class will be, so that you can do this. We will focus on some of the major ideas in class, but we cannot cover everything there. This may mean there are topics which we do not discuss in class, but which show up on the homework, quizzes, and exams. That is, unless I explicitly say otherwise, you are responsible for every topic in the reading. Part of the responsibility for what we do cover in class is yours, so *please ask questions*.

Attendance is essential for successful completion of this course. You are responsible for everything we do in class, *even if you are not present*. Thus, it is up to you to find out from a classmate or from the archived class materials what was covered in class on any day you miss. I will not spend class time repeating myself, so please see me during office hours to catch up, if necessary. It is also up to you to find out about any announcements, especially schedule changes. For example, not knowing that the date of a test has changed is **not** an excuse for missing the test.

I will assign a large number of suggested **homework** problems, with some subset to be handed in from each section. Due dates will be announced in class, but generally homework is due two class periods after we finish discussing it in class. Doing homework is your way to study for the quizzes and exams, so be sure you do all of the suggested problems. Try to do as many extra problems as possible, as doing mathematics is the only way to learn mathematics. I encourage you to work in small groups on the homework, however *you should be sure you understand the problems yourself and that the work you turn in is your own*. You are encouraged to make use of the Math Learning Center and my office hours for help with the homework.

When turning in homework, please write neatly, organize the problems in order, and label them clearly. Any homework I cannot read will be returned ungraded. *No late homework* is accepted out of courtesy to the grader. If you do fall behind, though, please do not hesitate to contact me. Most situations are not fatal to your grade if you stay in communication with me.

There will be approximately five **quizzes** throughout the semester (about every two weeks). The quizzes will be short – one or two questions – and will serve as “checkups” between exams. That is, the quizzes are your way of knowing if you are keeping up adequately. If you take them seriously, you will find it easier to prepare for the exams.

In addition to homework and quizzes, you will complete two **projects**. The projects are your opportunity to synthesize what you learn in class and to apply your knowledge to

solve more in-depth problems. I will have more specific guidelines for you when the projects are assigned.

Finally, there will be three **tests** and a comprehensive **final exam**. There will be *no* makeups given for the tests or the final exam, nor can the final be taken early. See Important Dates below for the date and time of the final. Exam dates will be announced in class.

I expect you to show your work on homework, projects, and exams. It is extremely important that your work be organized and easy to read. Unsupported answers may receive no credit. ***All work submitted must be your own.***

Assessment

Your final grade will be computed with the following weights:

Homework	8%
Quizzes	8%
Projects (2)	16%
Exams (3)	48%
Final Exam	20%

The final grades will be calculated according to the following scale:

A	90 – 100%
B	80 – 89%
C	70 – 79%
D	60 – 69%
F	0 – 59%

Important Dates

Tuesday, September 8	Labor Day Holiday – no class
Thursday, September 10	Last day to drop or withdraw with a full refund
Friday, October 30	Last day to drop or withdraw without dean's approval (no refund)
November 25 - 29	Thanksgiving Holiday – no classes
Thursday, December 17	Final Exam
8:00 – 10:30 a.m., Eng 107	

Policies

Academic Honesty: All forms of cheating are grounds for an immediate F in the course for all parties involved; the minimum penalty will be a 0 on the affected assignment. Academic dishonesty is defined as the unauthorized use of assistance with intent to deceive a faculty member or another person assigned to evaluate work submitted to meet course requirements. While you are strongly encouraged to work together on homework and projects, *all work submitted must be your own. All exams and quizzes are closed note and closed book*, unless otherwise announced. Please see the Academic Honor Code and Policy on Cheating in the college catalogue.

Conduct: Students are expected to adhere to the Student Code of Conduct. In particular, disruptive behavior in class will not be tolerated - you may be asked to leave the room if I deem your behavior to be disruptive to your fellow students. Please note: arriving late to class is disruptive to the other students; *please arrive on time. Please silence all cell phones and pagers while in class.* See the full Student Code of Conduct on the University web site for more information.

Withdrawals: Dropping part of your schedule with a full refund is possible during the first three weeks of the term. After this date, you may withdraw completely and receive a partial refund; if you drop part of your schedule, you receive no refund. After the last withdrawal date (see important dates above), you may not drop or withdraw without special permission from the dean.

Incomplete: If you experience an emergency, have 75% of the class completed with a grade of C or better, and you have a verifiable and justifiable reason why the course cannot be completed at the time, then you may request an incomplete. The course must be completed within one year, otherwise your grade reverts to an F. *Incompletes are rarely approved-* they should only be used in extreme circumstances.

Students with disabilities need to provide me with their letters of certification and accommodation within the first two weeks of class, so that I can make the requested accommodations. Please visit the office of Disability and Testing Services in Main Hall for the applicable letters.