

MATH 201X: Calculus II FALL 2009
Syllabus

Instructor: Jill Faudree

Contact Details: Chapman 301D, jrfaudree@alaska.edu, 474-7385

Office Hours: (for 8 Sept-23 Sept only) MWF 10:30am-11:30am, T 11:00am-12:00pm, and by appointment. Also, you are welcome to drop by.

Textbook: *Calculus II*, James Stewart (custom edition) ISBN 10: 0-495-45830-9 **OR** *Calculus*, James Stewart, 6th edition, early transcendentals

Lecture Hours: MWF 9:15am-10:15am Grue 303, T 9:45-10:45 Grue 303

Course Web Page: www.dms.uaf.edu/~faudree/M201F09.html

Prerequisites: a grade of C or better in Math 200 Calculus I or its equivalent

COURSE OVERVIEW AND GOALS:

The course description in the catalog reads as follows:

Techniques and applications of integration. Integration of trigonometric functions, volumes including those using slicing, arc-length, integration by parts, trigonometric substitutions, partial fractions, hyperbolic functions, and improper integrals. Numeric integration including Simpson's rule, first order differential equations with applications to population dynamics and rates of decay, sequences, series, tests for convergence including comparison and alternating series tests, conditional convergence, power series, Taylor series, polar coordinates including tangent lines and areas, and conic sections.

Here's how I think of the course.

A. We continue where Calculus I left off...integration. We will learn several very sophisticated new methods of integration and we will see some new applications. You will be a good integration machine when we're done!

B. Next we will skip to Chapter 11 on Sequences and Series. This will be a completely new topic for most students and an incredibly interesting and surprising one. There are many ways this material relates to earlier ideas and here's one. Even after we're done with Chapter 8: Techniques of Integration, there will be many lovely, continuous, simple functions we still cannot integrate. The ideas in Chapter 11 will give us a powerful technique for attacking these.

C. We will end with a couple of new methods of representing curves: parametric curves and polar coordinates. In addition to enlarging our repertoire of curves, it is a foreshadowing of some crucial ideas in Calculus III.

COURSE MECHANICS:

Class meetings will be run as an interactive lecture as much as is possible. I will always begin by asking if there are any questions – about homework or topics recently covered in class. Also, I will ask lots of questions of you and encourage you participate. We will work problems in class too.

Attendance is expected and strongly encouraged, but not required. I will take roll regularly.

Online homework will be assigned multiple times each week using the online tool Web Assign. (See separate Web Assign Handout for details.) These assignments will be short (approximately

3-4 routine problems). The goal is to force all of us to do a minimum of keeping up. All deadlines are final. Your online homework average will be calculated as (points earned)/(points possible).

Textbook homework problems will be assigned regularly. Sometimes you will be assigned all odd problems (for which you have complete worked solutions in the back of your book.) In this case, we will have an **in-class quiz** made of problems similar to those in your book. Sometimes you will be assigned a mix of even and odd problems. In this case, you will write up solutions to all the assigned problems and turn them in to be graded. The exact mix of quizzes and written homework has yet to be determined. There are no make-up quizzes and no late homework. Your written homework / quiz average will be calculated as (points earned)/(points possible). For this category, the grade bands will be lowered by a letter grade: A (80-100%), B (70-80%), C (60-70%), D (50-60%), F (below 50%).

Exams will be written without the use of calculators. There will be two midterms and a comprehensive final exam. The midterms are tentatively scheduled for Monday 5 October and Monday 9 November. **The Final Exam will be Wednesday 16 December 8:00am-10:00am.** It is DMS policy that final exams cannot be given early or late.

Make-up Midterms will be given only for excused absences. Except in extreme emergencies, absences must be approved in advance.

Grades will be calculated according to the following rubric:

written homework / quiz average	10%
online homework average	10%
Midterm 1	25%
Midterm 2	25%
Final Exam	30%

Grade Bands: A, A- (90 - 100%), B+,B, B- (80 - 89%), C+, C, C- (70 - 79%), D+, D, D- (60 - 69%), F (0 - 59%). I reserve the right to lower the thresholds. Also, in an effort to reward the student who makes significant improvement over the course of the term, a stellar grade on the final may overcome a deficiency on the midterm and improve a student's final grade.

(TENTATIVE) SCHEDULE OF TOPICS:

dates	topics	dates	topics
9/4	intro, 7.1	10/26-10/30	11.5,11.6,11.7
9/8-9/11	7.1,7.2	11/2-11/6	11.7,11.8,Review
9/14-9/18	7.3,7.4	11/9-11/13	Midterm 2, 11.9,11.10
9/21-9/25	7.5,7.7,7.8	11/16-11/20	11.10,11.11,10.1
9/28-10/2	7.8,8.1,8.2,Review	11/23-11/27	10.1,10.2,Thanksgiving
10/5-10/9	Midterm 1, 8.3,11.1	11/30-12/4	10.3,10.4
10/12-10/16	11.1,11.2,11.3	12/7-12/11	10.5,10.6, Review
10/19-10/23	11.3,11.4,11.5	12/14-12/18	Review, Final Exam

MISCELLANEOUS OTHER ISSUES:

Tutoring is available at no extra cost, on a walk-in basis, at the Math Lab in Chapman 305. Hours will be announced and posted on the door. A good way to use the Math Lab is to simply go there to do your homework, so that if any questions arise you can get immediate help.

Course accommodations: If you need course adaptations or accommodations because of a disability, please inform your instructor during the first week of the semester, after consulting with

the Office of Disability Services, 203 Whitaker (474-7403).

University and Department Policies: Your work in this course is governed by the UAF Honor Code. The Department of Mathematics and Statistics has specific policies on incomplete grades, late withdrawals, and early final exams, some of which are listed below. A complete listing can be found at <http://www.dms.uaf.edu/dms/Policies.html>.

Late Withdrawal: This semester the last day for withdrawing with a W appearing on your transcript is October 31. If, in my opinion, a student is not participating adequately in the class, I may elect to drop or withdraw this student. Inadequate participation includes but is not limited to: missing an exam, repeatedly failing to take quizzes or complete homework assignments, or having a failing average (below 70%) at the withdrawal date.

Academic Honesty: Academic honesty, including cheating and plagiarism, will not be tolerated. It is a violation of the Student Code of Conduct and will be punished according to UAF procedures.

Courtesies: As a courtesy to your instructor and fellow students, please arrive to class on time, turn your cell phones and iPods off during class, and pay attention in class.