

UNIVERSITY OF COLORADO AT BOULDER
Spring 2005

MATH 1300, Section 003, Analytic Geometry and Calculus I
9:00 – 9:50 MTWRF, ECCR 131, 5 credits

INSTRUCTOR INFORMATION

Instructor: Dana Ernst

Office Hours: MWF 10:15-11:30 (or by appnt)

TA: James Johanson

Class Webpage: <http://math.colorado.edu/~ernstd>

Office: Math 214

Email: Dana.Ernst@colorado.edu

Office: Math 360

COURSE INFORMATION AND POLICIES

Description: Introduces single variable calculus and analytic geometry. Includes limits, continuity, derivatives, and applications of derivatives as well as indefinite and definite integrals and some applications.

Prerequisites: This course is designed for those students who have successfully acquired and retained the skills taught in Precalculus (College Algebra and Trigonometry), or equivalent.

Purpose: The primary objective of this course is to aid students in becoming confident and competent in solving problems that require techniques developed in Calculus. Successful completion of Math 1300 provides students with skills necessary for upper division mathematics courses, such as Calculus II. Students will have a working understanding of limits and continuity. Students will also be able to utilize various techniques to differentiate and integrate numerous functions including logarithmic, exponential, and trigonometric functions. In addition, students will understand and be able to apply the Mean Value Theorem, the First and Second Derivative Tests, and the Fundamental Theorem of Calculus in both theoretical problems and applications. Also, the purpose of any mathematics class is to challenge and train the mind. Learning mathematics enhances critical thinking and problem solving skills.

Text: *Calculus: Early Transcendentals Version*, 6th edition, Edwards and Penny

Structure: At this university, Calculus is taught by both the Mathematics Department and the Applied Mathematics Department (School of Engineering). With some exceptions, the Calculus courses taught by the Mathematics Department are standardized in the sense that all of the sections are given the same homework assignments, the same exams, and follow the same schedule. The class meets 5 days a week. Usually, lectures will be given on Mondays, Wednesdays, and Fridays. I will hold recitations on Thursdays, and the TA will hold recitation on Tuesdays. The main purpose of recitation is to provide the students with an opportunity to ask questions about homework, etc.

Attendance: Regular attendance is expected and is vital to success in this class.

Homework: Homework will be assigned regularly (a list of problems will be coming soon) and collected at the beginning of class on the day it is due. You are allowed and encouraged to work together on homework. However, each student is expected to turn in his or her own work, unless otherwise instructed. Late homework will not be accepted without prior approval from me. At least 5 of your lowest homework scores will be dropped at the end of the semester. Homework will be graded by our TA.

Quizzes: Occasionally, I will give "short" quizzes on current material.

Exams: There will be three midterm exams and a cumulative final exam. Make-ups for these exams will not be allowed, unless you have received prior approval. In general, don't expect any make-ups.

Special Services: Students with disability are encouraged to contact the Office of Special Services to arrange for accommodations and support services.

Calculus Help Lab: MTWR (not Fridays) from 4:00-6:00 in Math 170.

Other Comments: Turn off your cell phones!!! If you must be late for class, please try not to disrupt class.

COURSE EVALUATION

Basis for evaluation:

- | | |
|-------------------------|-------------------------|
| 1. Three midterm exams | 20% each (total of 60%) |
| 2. Homework and Quizzes | 15% |
| 3. Final Exam | 25% |

Grade Determination: Grades may be “massaged” at the end of the semester, but in general, this is what you should expect.

93 -100%	A	73 – 76%	C
90 – 92%	A-	70 – 72%	C-
87 – 89%	B+	67 – 69%	D+
83 – 86%	B	63 – 66%	D
80 – 82%	B-	60 – 62%	D-
77 – 79%	C+	0 – 59%	F

SOME IMPORTANT DATES

Date	Remark
1/26	Deadline to drop a course without a “W”
2/9	Midterm Exam #1, 5:00 – 6:30 PM, Location TBA
2/23	Deadline to drop a course, “W” recorded on transcript
3/9	Midterm Exam #2, 5:00 – 6:30 PM, Location TBA
4/13	Midterm Exam #3, 5:00 – 6:30 PM, Location TBA
5/4	Final Exam, 4:30 – 7:00 PM, Location TBA

ADDITIONAL COMMENTS

When does the learning happen? It might happen in class, but most likely it happens when you sit down to do your homework. Most of you can follow what I do on the board, but the question is, can you do it on your own? To learn best, you must struggle with mathematics on your own. It is supposed to be difficult (if its not difficult for you, then I will gladly find things to challenge you). However, if you are struggling too much, then there are resources for you. I am always happy to help you. I want to help you. If my office hours don’t work for you, then we can probably find another time to meet. You can also get help from each other. Get a study buddy! Help each other learn. In addition, you can get help in Calculus Help Lab (MTWR, 4:00-6:00, Math 170). If you are having difficulty, then get some help. It is your responsibility to be aware of how well you understand the material. There are many resources available to you; use them!