

MATH 1300-401: Calculus 1, Summer 2007
MTWRF 7:30-8:50 AM, MUEN D144
June 4, 2007 - August 10, 2007

General Information:

Instructor: Michael D. Roy

Email: Michael.D.Roy@colorado.edu

Second Instructor: Jason B. Hill (July 9 - August 10)

Office: MATH 216

Office Hours: by appointment

Course Webpage: <http://euclid.colorado.edu/~roymd/m1300sum07/>

Prerequisites: Two years of high school algebra, one year of geometry, and one-half year of trigonometry, *or* Math 1150.

Text: Anton, Bivens, & Davis: *Single Variable Calculus, Math 1300/2300* (Wiley)

Supplemental Material: Appendices A–H to the text are available at <http://bcs.wiley.com/he-bcs/Books?action=resource&bcsId=2257&itemId=0471472441&resourceId=4971> (which is linked from the course webpage). Appendices A–C are also in the textbook.

Material Covered: This course will cover appendices A, F, and G, as well as parts of chapters 1 through 7. I will announce when we are skipping certain sections ahead of time in class so that you may prepare.

Homework: Homework will typically be assigned daily and will also be posted on the web. It is intended as a means for you to test your comprehension of the main topics of each section, but will not be collected or graded. Please use homework as a source of honest reflection about your understanding of the material and treat the assigned problems as a recommendation: if you find a particular subject easy, you are free to do fewer problems; if you find a particular subject difficult, it will be worthwhile to work similar problems in addition to those assigned. Collaboration with other students is acceptable.

Partial solutions to homework assignments will be posted on the course webpage regularly, typically the day after an assignment is given. Remember that solutions to most of the odd problems are available in the back of your textbook. Consulting these is a good way of verifying that you did the problems correctly.

Quizzes: There will be weekly quizzes on both computational and conceptual topics.

- **Computational quizzes** will be given every Friday except in exam weeks. These will be relatively short (five to ten minutes) with questions drawn from or similar to problems from the homework assigned since the previous quiz. See me (in advance if possible) if you will be missing a quiz for a legitimate documented reason to discuss a make-up.
- **Conceptual quizzes** will test your understanding of the ideas behind the homework problems. While the questions will typically be simple, they may require you to think about a subject for a while to formulate an answer. To provide adequate time, they will be assigned on Fridays and collected on Mondays. You may use your textbook or e-mail me about the conceptual quizzes, but please refrain from working collaboratively with others.

Exams: There will be three midterm exams (tentatively, June 20, July 6, and TBA) and a final exam (August 10). All exams will be held at the same time and place as the regular class. Calculators will not be allowed on the quizzes and the exams. The final exam will be cumulative. Your lowest midterm exam score will be dropped, primarily as an accommodation for an unavoidable absence of any nature.

Grading: You will be graded on your written work, which will be judged on the basis of *correctness*, *completeness*, and *legibility*. Your final grade will be determined by the scores of your quizzes, mid-term exams, and final exam. To combine these items the following weights will be used:

Quizzes: 15%

Midterm Exams: 25% each, lowest score dropped

Final Exam: 35%

There will be no extra credit assignments.

Getting Help: Don't wait until it is too late if you need help. Feel free to ask questions at any time during class, or to schedule an appointment to see me outside of class. I will also answer questions asked via e-mail.

Further Information About the Course: Information concerning this course will be posted on the course webpage. The webpage also provides further information about CU policies on the **Student Honor Code**, **Classroom Behavior**, **Accommodating Students with Disabilities**, and **Observance of Religious Holidays**. Items announced in class may supersede information written in this syllabus.

If you need any special accommodation due to medical disability or observance of a religious holiday, please inform me as soon as possible, and provide documentation.

Closing Remarks: Mathematics is not a spectator sport: you should be able to follow what I do on the board, but this is no guarantee that you will be able to do these problems on your own. Most likely, the majority of your understanding will come from sitting down and actually working the homework problems yourself. Although you may do homework in groups, I encourage you to attempt the problems on your own first. To learn best, you must first struggle with the mathematics on your own. If the material seems difficult, it's because it is supposed to be difficult (and if it isn't difficult for you, I'll be glad to find you additional material that will provide a challenge). However, you have several sources of help available if you are struggling too much. I want you to succeed in this course and will be glad to help you with the material both inside and outside of class. While you must do your own work on quizzes and exams, you are also free to study and work with others on homework. Finally, don't forget your textbook: it is beneficial to read the material in your text before it is covered in class in order to reinforce your understanding and to better enable you to ask questions about the material. To assist in your comprehension, the textbook labels concepts as **Definitions**, **Theorems**, and **Examples**. If the textbook were a novel, the definitions would be the characters and the theorems and examples would be the plot. Sections marked **Proof** are intended to explain why the ideas preceding them are true: they are interesting, but less essential to your success in this course. Calculus is an exploration of some of the most beautiful ideas in mathematics. I hope you will enjoy it and find it useful for your future endeavors.