Math 126 - Calculus 1
Block 3, 2016 - 2017

Professor: David Brown
Office: TSC 206E
Office Phone: 227-8215
Email: dbrown@coloradocollege.edu
Paraprofessionals: Austin Eide and Anjali Ravunniarath, TSC 209; x6727

The class will meet M-F at 9:00.
There will be an optional problem session each afternoon (1:30 - 3:00 or 3:30) in the classroom.

Textbook: Rogawksi, *Calculus: Early Transcendentals*, 3rd edition

Course Overview

Calculus is one of the greatest intellectual achievements in human history. It provides a mathematical language for studying phenomena in almost every area of the natural world and of human experience. It was central to the breathtaking advances in physics and engineering over the past two centuries, and today it is playing a vital role in the development of fields like biology and economics. I have four goals for the students in this class. First, of course, I want you to master the central concepts and methods of calculus. Second, I want you to be able to apply these ideas in other areas, long after this class is over. Third, I want you to strengthen your communication skills by learning to express mathematical ideas clearly both verbally and in writing. Fourth, I want you to grow intellectually by developing your intuition, logic, and ability to construct examples and counterexamples.

Accessibility

It is important to me that all students have the opportunity to succeed in my class. If you have a physical or learning disability for which you require accommodation, please provide me with a notification letter from the Office of Accessibility Resource as soon as possible.

Grading

Your grade will be based on five components:

1) (20% of grade) Homework will be due each day at 4:30 pm. Turn it into the HW boxes near the lobby of the Department of Mathematics and Computer Science (TSC second floor). The assignments will be posted on Canvas. Only some of the problems need to be turned in for grading. Your homework must be stapled and legible, with your answers clearly indicated. You will be graded not just on whether your answers are correct, but on whether you used the notation and terminology correctly. You may work with other students on the homework, but you must turn in your own solution.

2) (10% of grade) You will work on three group assignments. Each will consist of several challenging problems. Each group will turn in a single write-up of the solutions; it must be completely self-contained and have each step justified. The problems and guidelines will be posted on Canvas.

3) (15% of grade) There will be five short quizzes (approx. 15 minutes each). They will be closed book.

4) (50% of grade) There will be two in-class, closed book tests, on Friday of week 2 and the last day of the block. They will be preceded by brief review sessions.

5) (5% of grade) Class participation. I expect you to attend class and participate actively in discussions and activities. More than 2 unexcused absences will result in a penalty of one letter grade. Please do not come habitually late to class.

Resources

There are several resources that you can use to make this class more enjoyable, or at least tolerable. The afternoon problem sessions are a great chance to work with other students on homework problems. Attendance is recommended, but not required. To make the most of it, however, you should be sure to try the problems on your own first. I encourage you to work with other students on the homework; however, you must turn in your own work. Besides me, you have other resources available to help you this block. Austin and Anjali, our paraprofessionals, are great people for you to talk to when you have questions. The Quantitative Reasoning Center offers tutoring in the afternoons and evenings. They are helpful for brushing up on forgotten algebra and trigonometry, as well as for learning the new material. Please be sure to talk to me if you find yourself struggling with any aspect of the class. Don't suffer in silence! Not that I expect you to suffer at all. Well, maybe a little - it builds character.

Technology

If you have a graphing calculator, I encourage you to learn how to use it. However, I have never figured out how to work the damn things, so my quiz and test problems will be solvable without the use of a fancy calculator. We will occasionally be using a computer program called Mathematica, a very powerful and popular mathematical tool. You will be able to use Mathematica on any HW problem, but not on the tests or quizzes.

Honor Code

I will expect strict adherence to Colorado College's Honor Code. On homework assignments, you may get help from any source, but you must understand what you are writing up and turning in. Simply copying another's work is an Honor Code violation. On the group assignments, you must actively participate in the solution of all of the problems. You may not put your name on something if you did not make a meaningful contribution. Groups must not use a "divide and conquer" strategy on these assignments. On tests and quizzes, you may only use the explicitly allowed resources, and you must turn in your test or quiz by the stated time limit. I will refer any suspected Honor Code violations to the Honor Council.