

# Math 129 - Calculus 2

## Block 1, 2014-15

Professor: David Brown  
Office: TSC 206E  
Office Phone: 227-8215  
Email: dbrown@coloradocollege.edu

The class will meet M-F at 9:00 in TSC 101.  
There will be an optional problem session M-F from 1:30 - 3:30.  
My office hours are by appointment.

Textbook: Rogawski, *Calculus: Early Transcendentals* (2nd edition)

Course web page: <http://faculty1.coloradocollege.edu/~dbrown/ma129/index.html>

### Course Overview

In this class we will continue the development of single-variable calculus, and begin to look at multivariable calculus. I assume that you are well-acquainted with functions, limits, and derivatives. You should already have seen an introduction to integrals, both in terms of Riemann sums and antiderivatives. We will begin with a review of the basics of integration and the Fundamental Theorem of Calculus. Then we will spend the first two weeks on methods and applications of integration. After that, we will study differential equations, vector algebra, and differentiation of functions of more than one variable.

### Grading

Your grade will be based on five components:

1) Homework will be due each day at 4:30 pm, starting tomorrow. The assignments are on the course webpage. Only some of the problems need to be turned in for grading. However, I strongly recommend that you do all of the recommended problems; this is where most real learning occurs, and these will be good practice for the quizzes and tests. **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.

2) There will be a weekly group work assignment. In these assignments you will work in small groups to solve problems of greater depth or complexity. Please see the web page for assignments and guidelines.

3) There will be approximately five short (15 - 20 minutes) in-class quizzes. They will be announced the day before. They will be closed book.

4) There will be two in-class, closed book tests, on Thursday of week 2 and the last day of the block. They will be preceded by brief review sessions. You will be allowed to use a one page sheet of notes (crib sheet) for each exam.

5) 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.

Your course grade will be based on the following breakdown:

Homework	20%
Group Work	10%
Quizzes	15%
Test 1	25%
Test 2	25%
Class Participation	5%

## Resources

There are several resources that you can use to make this class more enjoyable, or at least tolerable. The QRC has daily drop-in help sessions. They can help you with the new material, reviewing things that you have forgotten, and study strategies. Our paraprof, Denali, is also a great person to talk to. Each day we will have a problem session from 1:30 - 3:30. This is 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. Please don't hesitate to get touch with me to get more help, give me feedback, and report your breakthroughs. Be sure to talk to me as soon as possible 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

Taking the time to learn some mathematical technology will pay off now, and in the future when robots take over the world. If you have a graphing calculator, I encourage you to learn how to use it. You may use it on the homework; please indicate where you have used it so there are no unexplained gaps in your reasoning. *However, note that the use of calculators will not be allowed on the quizzes and tests.* Thus, you should make sure that you can solve problems by hand - don't let the calculator become too much of a crutch.

We will be using a program called Mathematica; this is one of the most powerful and popular mathematical tools. (I use it on a daily basis in my research.) We will spend the first afternoon problem session going over the basic commands in Mathematica. You may use it on any of the homework and group work assignments.

## Honor Code

Here are the ways in which the Honor Code will apply to assignments for this class:

- On each test and quiz, you will need to state and sign a pledge: “Upon my honor, I have neither given nor accepted unauthorized aid on this quiz/test.” Learn it. Use it.
- All tests and quizzes are closed book and closed notes. You will be able to use a one page sheet of notes for the two tests only.
- On tests and quizzes, you may ask me for clarification of questions. You may not ask me or anyone else for help answering the questions.
- You may not use calculators, computers, or i-anythings on tests and quizzes.
- You may use any technology on homework assignments. You may collaborate with other students and get help from anyone on homework assignments. However, you may not claim someone else’s work as your own. In other words, when you put your name on your homework, you are stating that you fully understand the solutions, even if someone helped you get there.
- You may use the back of the book to check your answers on odd-numbered problems. You may not use the Instructor’s Solutions Manual. If you happen to find one lying around, please give it to me.
- You may not use a “divide and conquer” approach on the group work. When you put your name on the group’s writeup, you are stating that you participated fully in the solution of all of the problems.
- Late homework assignments will be assessed a 15% penalty for each day (or part thereof) that they are late.
- No makeup quizzes or tests will be given without preapproval or a valid medical excuse.