**15-025-251 Calculus 1** sections 011,12,13,14,15,16 Fall 2010

**Basic information**

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| Class meets: | MWF 12-1:50 in 601 Old Chemistry plus 2 recitation meetings with your individual section |
| Text: | Jon Rogawski *Calculus Early transcendentals.* |
| Blackboard: | `http://blackboard.uc.edu` |
| CalcPortal | `http://courses.bfwpub.com/calculuset.php` |
| Instructor: | Steve Pelikan |
| Office: | 806F Old Chemistry |
| Phone: | 513-556-4084 |
| email: | Please send through Blackboard so it is automatically delivered to me tagged high priority and labeled with the course number |
| Office hours: | MWF 11:00-11:55 |

**Course goals**

In this course you'll learn the basic facts of differential calculus. This includes the definitions and theorems and how to use these to obtain new facts about functions in general and special facts about particular functions. You'll also learn about the key applications of the ideas of calculus including tangents and areas, distances and velocities, qualitative properties of functions and optimization. (That is, Chapters 2-4 in the text.)

This course is also intended to improve your problem solving skills. Help you learn and implement a systematic approach to problem solving and to exposition of your solutions.

Finally, the course is intended to improve your ability to study and learn mathematics and science. You enounter a variety of study strategies and will learn to make more judicious choices between efforts to memorize facts and understand concepts.

**How we'll proceed** The method of instruction we'll be using in this course will probably be new to you. It is referred to as "Just-in-time-teaching" combined with some lecture and some peer instruction. To understand how it works you first need to understand what it involves. So here's the sequence of activities related to the course that you'll engage in over the period of a couple days.

1. Refering to the Blackboard site you'll get the reading assignment for the next class meeting and then do the reading.

2. Before the next class meeting you'll do a short assignment (through the Assignments tab on Blackboard) that helps you focus on the material you just read. Everyone will submit their answers to this assignment before class. I'll review everyone's work and base the plan for the next class period on what people seem to need the most help with.

3. Class time will be used for exposition, discussion with fellow students, and occasional questions (answered via clickers) to assess how everyone's understanding is progressing.

4. After class there will be exercises suggested on the CalcPortal.

5. In rectiation the following day you will be asked to work on and present solutions to exercises or, working in teams, to use what you've learned to develop and write up solutions to more substatial problems.

6. That night you can try some more exercises and then, if you haven't yet, begin the next reading and just-in-time assignment.

There's lots of advantages of this method over the traditional large lecture format. The main ones you can understand already: by doing reading in advance of class you're better prepared to understand what will happen there. What's more, because I'll already have information on what people need help with, our in-class time can be used much more efficiently.

**Getting started**

1. Log in to Blackboard and get acquainted with our courses' BBd site. In particular notice that there are tabs for Announcements (where you'll find reminders and instructions) and for Assignments (where you'll find before class assignments).

2. Connect to the CalcPortal and get acquainted with the site. You'll use this site regularly to work on computer generated and graded exercises.

3. Once you get a clicker to use in class you'll need to register it for our course by going to the course's Blackboard site. Under the `Tools & Communication` tab look for the `PRS Registration` item.

**Your course grade**

Your course grade will be based on a final average that is made up of a weighted average of the several different assessments and assignments used during the term. The weights of these components in you course average are

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| Recitation (collected inclass exercises, short quizzes, problem write-ups) | 20% |
| JITT (pre-class) and inclass (clicker) questions | 10% |
| CalcPortal Exercises | 10% |
| Midtem Exam TBA | 25% |
| Final Exam TBA | 35% |

The final grading curve for the course (how letter grades correspond to percentages) will not be any harder than the usual $A :\geq 90$, $B :\geq 80$ etc.

**Getting help**

There are lots of places to get help in learning the material from the course. Perhaps the best source of help is your friends and classmates. Explaining the material to each other is a great way to learn it well.

For additioanl help you can visit faculty and TA's at their office hours and you can go to the Math Learning Center:

The Mathematics Learning Center (MLC), located in Old Chemistry room 614, is a free, walk-in, mathematics tutoring center for all University of Cincinnati students. The tutoring hours, beginning Saturday September 25, are:

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| Monday -Thursday | 9am -8pm |
| Friday | 9am-4pm |
| Saturday | Noon - 4pm |

For more information see `http://math.uc.edu/mathlearningcenter/index.html`

**General Education:** This course was designed following the guidelines of the University of Cincinnati General Education Program. It satisfies, or partially satisfies the Quantitative Reasoning distribution requirement.

**Academic Integrity:** The University Rules, including the Code of Conduct, and other documented policies of the department, college, and university related to academic integrity, will be enforced. Any violation of these regulations, including acts of plagiarism or cheating, will be dealt with on an individual basis according to the severity of the misconduct.

**Special Needs Policy:** Students with special needs should meet with the instructor as soon as possible to arrange for reasonable provisions to ensure an equitable opportunity to meet all of the requirements of this course. At the discretion of the instructor, some accommodations may require prior approval by Disability Services.

**Safety Issues** UC NightWalk is a student organization that provides any UC student, faculty, or staff member transportation to any location within 3 blocks of campus after dark. Operating hours are 8pm-12:30am Sunday-Thursday, and 8pm-1am Friday. You are encouraged to utilize this service; plan to call ahead because it can take time for the service to arrive. Students may also consider walking in groups or utilizing the University shuttle as a way to get to your vehicles after night classes. The number to call is 558-WALK (558-9255) (see `www.ucnightwalk.org`)