

**James Madison University**  
**Department of Mathematics and Statistics**  
**Calculus I – Math 235.4 Spring 2011**

MWF 11:15-12:05 Roop 213, Th 11:00-12:15 Roop 213

**Overview:** Math 235 gives a solid coverage of differential calculus and an introduction to integral calculus. Calculus is essentially a rigorous formulation of rates of change, and as such forms the basis of much in the sciences and engineering.

**Instructor:** Dr. Stephen Lucas.

**To contact me:** In Person: Roop 341, Office Hours: to be determined or by appointment. Phone: 568-5104, Email: [lucassk@jmu.edu](mailto:lucassk@jmu.edu)

**Textbook:** *University Calculus* by Hass, Weir & Thomas, Pearson Addison Wesley 2007. We will be covering topics up to the end of Chapter 5 and selected appendices.

**Website:** I will be placing current progress, solutions to homework and other relevant information up on Blackboard as the semester progresses.

**Calculators:** A graphing calculator could be useful for this course. Calculators with symbolic manipulation abilities, such as the TI-89 or TI-92, are banned from tests and the final exam, and as such I do not recommend using them during the semester.

**Homework, Exams and Grading:** Homework problems will be assigned in each class, and those for the previous week should be handed in on the following *Wednesday*. Time will be made for discussion of homework questions in class the next day. A roll of the dice will determine which ones will be graded. The proposed syllabus also lists dates for the midterm tests. There will be three midterm tests, made up of homework problems. I anticipate they will be on the Thursdays February 10, March 24 and April 21. Your grade will be determined as follows: Homework 15%, Midterm tests 15% (each), Final Exam 40%. The final exam is timetabled for: Wednesday May 5, 10:30-12:30. Final grades will be somewhat related to  $A \geq 85$ ,  $B \geq 65$ ,  $C \geq 50$ , but may vary depending on the class average and natural divisions between raw scores. Plus/minus grades will also be provided. Borderline cases will be decided based upon class participation, effort, and performance throughout the semester.

**Attendance:** Attendance is not mandatory. However, past experience suggests there is an extremely strong correlation between attendance and success. If you cannot make a class where homework is being collected, please give to a classmate to give to me on the day. If you miss handing in homework or a test without previously getting my permission, you will receive a zero for that homework or test. If there is a medical emergency and you cannot inform me beforehand, let me know as soon as possible. Any potential clashes should be brought to my attention as soon as possible.

**Getting Help:** If you need help, ask! The worst thing you can do in a math course is let things slide, since material at the beginning of the course is built upon later. It is best to contact me via email. If you wish to see me outside of office hours, please make an appointment beforehand. I can't guarantee that I will be available if you come and knock on my door at a random time. You can also get help from the Math and Science Learning Center (Roop 200), which is a resource specifically designed for helping students in courses like this one.

While new material will be presented every day, there will always be time for questions, particularly on Thursdays, where we have seventy five minutes available. I also encourage you to ask questions during class. If there is something you don't understand, it is quite likely others are having similar difficulties.

**Some random advice**

- Read each section of the book either before or after the corresponding lecture, but always before you attempt the homework questions.
- Do the homework problems as soon as possible after the relevant class. If you have trouble, ask questions! If you are having trouble it is likely that others in the class are also having difficulties. I will be generous with hints and solving related problems in detail.
- Don't just copy the answers in the back of the book. Include appropriate amounts of working. True/false questions ask for reasons, so don't just write "true" or "false". Graded homework will involve partial credit, and the majority of the marks will be for the working.
- Weekly submission of homework means you should work consistently through the semester. Don't just cram it all in a few days before a test. Try and spend roughly eight hours a week on all aspects of this course.
- Don't fall behind. If something doesn't make sense, ask me about it in lectures. It's quite likely that several other students don't understand what is causing you problems, so I can immediately try and explain it in another way. Lectures are not there for me to drone on endlessly; they are there for me to help you learn.
- If you get a bad grade in a homework assignment or test, don't panic. Instead, get help, and take the time to work out what you missed.
- Math is about understanding, not memorizing. If you are memorizing a lot of things you may be studying the wrong way.
- Working in groups is encouraged, since talking over problems is one of the best ways to learn. I have no problem with you working together on the homework problems. However, *simply copying someone else's homework solutions and handing it in is plagiarism*. Write out your own version.