Instructor: Dr. Laura Taalman	**Office:** 115 Burruss
E-mail: taal@math.jmu.edu	**Office Phone:** 568-3355
Web: www.math.jmu.edu/∼taal/236_2002.html	**Home Phone:** 442-8800 (until midnight)

Welcome to Math 236! Class meets MTWR 1:00-3:45 in Burruss 034 from May 13 to June 20. There will be no class on Memorial Day (Monday, May 27). The final exam will be on Friday, June 21 at the usual class time and room. We will be using the book *Calculus, One and Several Variables, Eighth Edition* by Salas, Hille, and Etgen. A graphing calculator is required for this course. The class website (see above) will be regularly updated with quiz and test keys, chapter outlines, and links, so check it often.

Daily Schedule
On most class days we will do two sections of material (see the syllabus). From 1:00–1:10 class will start with one of four things: a quiz, homework collection, an attendace quiz, or a question period. The lecture on the first section will run from 1:10-2:00, followed by a ten minute break. From 2:10–2:55 we will do problems in groups at the board. The second lecture will run from 2:55–3:45. (Test days will start with an exam from 1:00-2:30, followed by a 10 minute break and then a lecture from 2:40–3:30.)

Time Committment
This course will cover a lot of material over a very short period of time. It is especially important that you do not fall behind in this class, because if you do it will be almost impossible for you to catch up. Ideally you should have no other time committments during the six weeks that you are taking this course. This course alone will be a full-time job: in addition to the time you spend in class, you should expect to spend at least four hours every day reading, going over notes, doing homework, and studying for quizzes. On top of that, you will need additional time to effectively prepare for the tests and the final exam.

Grades
The bulk of your grade will be determined by three in-class tests (100 points each) and the final exam (200 points). There will also be quizzes (20 points each), collected homework (10 points each), and attendance quizzes (5 points each), which will occur (or not) according to a random roll of a die each day. According to the laws of chance, these additional events should total approximately 100 points, *i.e.* the equivalent of one test. I will deterimine your grade for the course by calculating the percentage of the possible points you have earned and then using statistics, your performance, and the class performance to determine a scale. When calculating your grade I may also consider your performance throughout the course (for example, whether it improved or got worse) and your participation in class, groups, and problem sessions.

Calculators
A graphing calculator is required for this course. I recommend the TI-83 (although most graphing calculators are fine). You may *not* use a TI-89 or TI-92 on quizzes or tests (they would provide a significant advantage). In general, you should only use your calculator to check your answers or when specifically called for. For example, if I ask you to find the zeros of a function on a quiz or exam, you will not get any points for finding them with your calculator unless the problem specifically requests that you use a calculator. However, once you've found the zeros algebraically you can always check your answer using your calculator. See me if you have any questions, or if your only calculator is a TI-89 or a TI-92.

Tests and Quizzes
Attendance quizzes will be very short and relatively easy. Quizzes will be problems directly from the homework (or very slightly modified). Tests will include computational problems (like the homework problems) as well as conceptual problems (like definitions, theorems, or proofs from the lectures or reading).

Homework
The single greatest predictor of your grade in this class will be how much homework you do. A few homeworks will be collected, but most will not. Those that are collected will be graded for completeness and effort, not

necessarily for accuracy. I expect you to do every homework assignment *before* the next class day, and be ready to ask or answer questions about that homework in class.

Tardiness and Absences
Quizzes and homework collection will always occur at the *beginning* of the class period, so be on time. I will not accept late homeworks and I will not give make-up quizzes or tests. If you know you will be absent and tell me in advance I may "excuse" you from that day's quiz. If you miss a quiz or test and have not worked it out with me in advance, it is imperative that you contact me immediately, calling me over and over in a complete panic, until you reach me.

Getting Help
Don't hesitate to email me, call me, or stop by my office if you have a problem or question. Most of the time it will probably be easiest to contact me at my home number (442-8800). You are welcome to call me at that number any day of the week (or weekend) until midnight. Also, the Math Learning Center in Wilson Hall will be open during the summer session (see thier website), and it's free! For those of you who would rather pay money than get stuff for free, the math department keeps a list of tutors that you can hire.

Advice
Work with other people. Talk about math out loud as you do it, and explain what you are doing. Don't use memorization as a replacement for understanding. Don't fall behind! Come to each class, participate, and take good notes. Be ready with questions every day. Read the material before *and* after each class.

A Few Homework Hints
(corresponding to the starred problems in the syllabus)
7.5 #41: take logs of both sides and use algebra and implicit differentiation
7.5 #68: by calculator and then exactly
7.6 #13: "square miles" should say "acres"
7.7 #46: "verify" means "prove"
8.1 #5: no integral tables until #39
8.1 #39: use the integral tables for this block
8.5 #48: use parts, then partial fractions
8.9 #30: don't try to solve the differential equation
10.4 #1: use the rules from this section show where you use them (and no L'H)
10.4 #37: try using the conjugate somehow
10.7 #40: use a comparison test for part (b)
10.7 #38: compare with e^{-x}
10.7 #51: note that $\ln x < \sqrt{x}$
11.1 #23: break up the sum first so you can use the formulas
11.1 #26: use partial fractions
11.1 #38: .9999... = 1??!?!? yes!
11.1 #60: is this a contradiction?
11.1 #67: use properties of logs and look at s_n
11.3 #23: think about e
11.3 #46: use the root test
11.6 #10: use geometric series
11.6 #15: use $\sin((x - \pi) + \pi)$ and a trig identity
11.6 #16: use $\cos(x - \frac{\pi}{2})$
11.6 #20: use 11.6.1
11.6 #25: use 11.5.6
11.6 #37: you must choose a suitable value for a
11.7 #42: let $u = x + 2$ and use 11.7.2
11.8 #9: use 11.5.4
11.8 #14: split into two fractions