MATH 2260, FALL 2007, Integral Calculus,10:10 MWF, 323 Boyd, Fri. 1:25, 222 Boyd
Book: Hass, Weir, Thomas, University Calculus, chapters 5,6,7,8,10.
Instructor: Roy Smith, 448 Boyd, Office 11:10-12:10 MWF, or appt; (706)542-2595;
emails: roy@math.uga.edu, rcsmith97@comcast.net (To email me use both.) I use email to send information about the course, so check yours daily.
Prerequisite: Math 2250 or equivalent (first 5 chapters of HWT).

Course Objectives: Understand theory and application of Riemann integrals, infinite series, separable differential equations, and vector geometry, including finding plane and surface areas, volumes, arc length, force and work, sums of series, Taylor series for familiar functions. You are responsible for reading the relevant chapters, even if not lectured on, and keeping up with the lectures.

Tests: I: 9/10; II: 10/5; III: 11/2; IV: 11/30.
Final Exam: 12/14, 8am, in our room. (check this on the web)
IMPORTANT: The final cannot be moved. No makeups of missed tests. If you have a valid medical reason that you cannot attend a test, or if you are on a varsity team and must be out of town, tell me IN ADVANCE. The number of tests, and test dates may change, so it is unwise to miss class, especially near a scheduled test date. Check NOW for possible exam conflicts in your courses at
http://www.reg.uga.edu/or.nsf/html/Fall_Exam_Schedule

GRADING FORMULA: Your grade will not be lower than: 15% HW & quizzes + 60% Test Average + 25% FINAL EXAM. 90-100=A; 80-89=B; 70-79=C; 60-69=D; 0-59=F. Attendance is required. Excessive absence can result in a W or WF. Write legibly, explaining your notation and reasoning (not just calculations) for full credit. If you withdraw, do so formally, do not just stop coming and expect me to do it for you.

Academic Honesty: In all work for credit, do your own research, thinking, computations and writeup. You may brainstorm with others on problem assignments and you should. Notes, books, and calculators are not allowed on tests. Read the University policy at http://www.uga.edu/ovpi/honesty/culture_honesty.htm

This syllabus provides a general plan for the course; deviations may be necessary.

EXPECTATIONS AND ADVICE:

1) LEARN THE BASIC INFORMATION THOROUGHLY.

Study book and lectures until you know and understand all definitions, theorems, formulas and procedures. This involves memorizing and understanding. Know the definition of derivative, continuity, equation for tangent line, max, min, Riemann sum, Riemann integral; statement of product, quotient, chain rule, trig identities, derivatives and antiderivatives of elementary functions, inverse function rule, properties of logs, exponentials, intermediate value theorem, mean value theorem, fundamental theorem of calculus, substitution rule, integration by parts, convergence rules for sequences and series, meaning and formulas for dot and cross products, equations for lines and planes etc... with perfect accuracy. Then explain what each of these things means. Read the book, attend all classes, and review your lecture notes daily.

2) DEVELOP COMPUTATIONAL POWER.

Learn to solve problems and to make detailed and accurate calculations. This can only be done by working large numbers of problems, not just the few that are assigned. I will frequently choose problems from the book, or similar ones, to put on tests. Study the worked out examples, attempting them yourself first.

3) PRACTICE LOGICAL REASONING.

One benefit of a mathematics course is learning to make convincing arguments. Know and be able to explain why the procedures work, and to use ideas from the course to solve problems we have not explicitly treated in the lectures. Learn to make a clear statement and prove it. Practice understanding my proofs and the book's, and attempt some prove or show problems.

4) ASK QUESTIONS. Get troublesome points explained well before the test. (I am never available for help on the day of a test.) If you cannot meet office hours, email me, at both addresses. I usually answer 7 days a week. I will test understanding, not just your ability to repeat things from the board. You must be able to state general principles correctly, apply them to old and new situations, and write up your solutions in understandable, correct form. Keep up, and study for the final, since people who do not do well earlier, or who do not restudy for the final, do not do well on the final.

Remember: read & work problems, attend class & review notes, ask questions.