

MATH 2260: Calculus II for Science and Engineering (74-701)
Syllabus

Instructor: Professor Michael Usher (usher@math.uga.edu)

Scheduled class meetings: MWF 10:10–11:00 in Caldwell 102 and Tuesday 9:30–10:20 in Aderhold 317.

Office Hours: W and Th 2:00-3:00 in Boyd 321C, or by appointment.

Required Textbook: *University Calculus* by Hass, Weir, and Thomas (2007), ISBN 0321350146 (this is the first edition, not the second which just came out in 2011).

Homework (10% of your grade): The homework will be assigned via WeBWorK, which can be found at <https://webwork2.math.uga.edu/webwork2> (you will receive an email with login instructions soon). Homework will usually be due Wednesday night.

Quizzes (10% of your grade): Most Fridays, there will be a short (approximately 15 minute) quiz covering the material of that week.

Midterms (3*15%=45% of your grade): There will be three in-class midterms. **Tentative** dates are September 12, October 12, and November 16. You will be allowed to bring one 3x5 index card with handwritten notes to the midterms and final.

Final (35% of your grade): The final will be comprehensive and is scheduled for 8-11 am on December 14.

Subject matter: We'll begin with a review of the basics of integral calculus that you learned at the end of MATH 2250. A little more than half of the course will be concerned with developing new skills related to integration: first we'll discuss some basic geometric and physical applications of the integral, and then we'll develop a variety of techniques for evaluating integrals. We'll then shift to sequences and series—discussing such questions as, “When can you find the sum of an infinite list of numbers?”—and we'll relate this back to differentiation and integration using what are called “power series.” The course ends with an introduction to vectors, which should be useful in your physics courses and in MATH 2500.

In the book, we should cover at least Sections 5.1–5.6 (quick review), 6.1–6.6, 7.1–7.4, 7.7, 8.1–8.5, 8.7–8.9, and 10.1–10.5 (time permitting, we'll also cover Sections 7.6 and 8.6).

As in any college math course at this level, the goal of the course is not so much to teach you to plug numbers into formulas, but rather to develop a conceptual understanding of the material and the analytical skills needed to solve problems.

Calculators: You may use calculators on your homeworks, but not on quizzes or exams. Quiz and exam questions will be written in such a way that someone who understands the material will have no need for a calculator in order to answer them.

Make-ups: A medical excuse (confirmed by a medical professional) will be required for you to make up any quizzes or exams that you miss without giving me advance warning. If your schedule requires you to miss a quiz or exam and you tell me about this in advance, then, at my discretion, we might find an alternative time for you to take it.

Extra help: You are encouraged to come to my office hours with any questions. In addition, various tutoring resources can be found at http://www.math.uga.edu/about_us/student_services.html

Academic honesty: As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, “A Culture of Honesty,” and the Student Honor Code. All academic work must meet the standards described in “A Culture of Honesty” found at: www.uga.edu/honesty. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.

Obligatory disclaimer: The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.