

MATH 2310H SYLLABUS

Fall 2006

Instructor: William Graham

Office: Boyd Graduate Studies Building 505

Phone/email: 542-2560; wag@math.uga.edu

Office hours: To be announced.

Web page: Information about the course, including a list of homework assignments, will be available on the web page:

www.math.uga.edu/~wag/

I will try to keep this up to date, but if it is not up to date, or if there are any errors on the web page, class announcements will be the definitive source of information.

Meeting times and location: MWF 11:15-12:05, Room 322 Boyd

Other resources: The math department will run calculus study halls Monday-Thursday 3:30-5:30 in Boyd (room TBA).

Free tutoring is available at Milledge Hall (behind Memorial Hall); 542-7575. The math department maintains a list of tutors who (for a fee) are available for help. This list is available at:

math.uga.edu/math/undergraduate/student_services.html

Text: Edwards and Penney, *Calculus, Early Transcendentals Version*, sixth edition.

Grading: There will be quizzes, 3 midterms and a final exam. Grades will be computed by:

Quizzes: 100 points

Midterms: 300 points (100 points each)

Final (comprehensive): 250 points

Homework will be assigned frequently. It will not be collected, but approximately each week (when there is not a test) there will be a brief quiz, which will be either taken from the homework, or similar. In order to do the quiz, it will be essential to have done the homework! It is impossible to understand mathematics without spending a substantial time thinking about it, so homework is very important. You may discuss homework problems with your fellow students, but you should try the problems on your own first.

Prerequisite: Math 2300H, Math 2200, or the equivalent.

Midterms (tentative dates): Wed. Sept. 27, Wed. Nov. 1, Fri. Dec. 1

Final exam: Monday, Dec. 11, 12:00-3:00 pm.

Purpose of the course: Calculus is one of the most powerful tools in mathematics and for understanding nature. This course is an introduction to the basic rules and techniques of calculus. We will also devote some time to applications of calculus and to the theory behind calculus—not just what calculus is, but why it works. The goals of the course are to learn to do computations, set up and solve word and other applied problems, and to understand and answer questions about the theory involved. This is an honors course and is more demanding than the regular calculus course.

Calculators: No calculators are allowed on tests.

Topics:

1. Riemann sums and the integral (Sections 5.3-5.7)
2. Applications of the integral (Sections 5.8-6.5)
3. Transcendental functions and techniques of integration (Sections 6.7-7.7)
4. Differential equations (Sections 8.1-8.7)

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