

## MATH 2270: Calculus III for Science and Engineering Spring 2018 Syllabus

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

**Scheduled class meetings:** MWF 12:20-1:10 in Boyd 304 and T 11:00-12:15 in Dawson 101.

**Office hours** (tentative): Wednesday and Thursday 2:00-3:30 in Boyd 447.

**Textbook:** *University Calculus, Early Transcendentals*, 3rd ed., by Hass, Weir, and Thomas, Pearson, 2015, ISBN 0321999584. This is the standard textbook for calculus courses at UGA. While I will follow it in broad outline, if you have a different comprehensive calculus book that you prefer to use instead that should be all right. I do strongly recommend that you have some high-quality calculus textbook that you can refer to throughout the semester. It is not necessary to bring your book to class.

**Homework** (10% of your grade): The homework will be assigned via the course WeBWorK page at [https://webwork.math.uga.edu/webwork2/Math2270\\_Usher\\_S18](https://webwork.math.uga.edu/webwork2/Math2270_Usher_S18). Your login name is your myid and your password is your 9-digit student ID number starting with 81 (no hyphens or spaces). WeBWorK can only be accessed through the UGA network, so if you want to log in from off campus you will need to use UGA's VPN (see [remote.uga.edu](http://remote.uga.edu)). Homework will usually be due Thursday night.

**Quizzes** (10% of your grade): Most Fridays, there will be a short (approximately 15 minute) quiz covering the material of that week. Some weeks, I may replace the quiz by a group activity (possibly not on Friday, but announced in advance).

**Midterms** ( $3 \times 15\% = 45\%$  of your grade): There will be three in-class midterms. **Tentative** dates are February 7, March 6, and April 6. You will be allowed to bring one 3x5 card with handwritten notes to the midterms and final.

**Final** (35% of your grade): The final will be comprehensive and is scheduled for Monday, April 30, at 12pm. If you do better on the final than on one of your midterms, then I will replace your lowest midterm grade by the final grade (so that midterm will be dropped and the final will count 50% instead).

**Prerequisites:** MATH2260 (second-semester calculus) or equivalent. Students coming from AP Calculus require a 5 on the BC exam.

**Subject matter:** This course concerns differential and integral calculus for functions of more than one variable, generalizing the single-variable calculus that you learned in MATH 2250 and 2260. Since the world around us is three-dimensional and not one-dimensional, and since many things in life depend on more than just one factor, it is very important for many different kinds of applications to do calculus for three (or other numbers of) variables. We'll cover Chapters 11-15 in the book, though Chapter 11 (an introduction to vectors) will be only briefly reviewed since it is part of the syllabus for 2260.

The main difference between this course and MATH 2500 is simply that, because this course meets for an extra 50 minutes each week, we'll have more time to cover the material in detail and to discuss connections with other subjects like physics.

**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 an 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/study-hall-and-tutoring>

**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 <http://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