Math 215-080 Fall 2009 Course Information
Calculus III ∘ Prof. Gavin LaRose

Essential Info:
- ◇ MWF 2:00pm–3:00pm, 260 Denn
  Thu lab, B735 EH
- ◇ Text: *Calculus* by Stewart, 6th ed.
- ◇ Instructor: Gavin LaRose (`glarose@umich.edu`)
- ◇ Office Hours: Tue 3–4pm (Math Lab, EH B860);
  Mon, Wed 3:30–4:30pm (EH 3832) + by apptment
- ◇ GSI: Alex Mueller (`amuell@umich.edu`)
- ◇ Web: `http://www.math.lsa.umich.edu/courses/215/`
  &: `http://www.math...edu/∼glarose/classes/calcIII/`

- ◇ WebHW: see course page; (10% of grade)
- ◇ WrittenHW: see course page; (10% of grade)
- ◇ Exam 1: Thu, 10/22, 6–7:30pm (25% of grade)
- ◇ Entrance G/W Deadline: Fri, 10/30, 4PM *tentative*
  (not passing the gateway is a letter grade penalty)
- ◇ Exam 2: Thu, 11/19, 6–7:30pm (25% of grade)
- ◇ Final: Thu, 12/17, 10:30am–12:30pm (30% of grade)

• *What is calculus III?* In calculus I and II we learned about rates of change and how they accumulate. In calculus III we extend this to functions of more than one variable. We learn, therefore, about functions of multiple variables, how they are represented, their geometry, and how the ideas of calculus apply to them. □

• *Why take it?* In the real-world, many things require multiple variables to describe them: time and space variables, for example. In addition, the generalization of calculus to functions of multiple variables is both useful and mathematically beautiful. Calculus III is therefore essential to understanding of applied science and advanced mathematics courses. □

• *How will you do well in the course?* The only way to learn math is by doing it. **Do the homework** (all of it!). **Read the book** (carefully!). **Do the Labs**. **Do the in-class activities**. Above all, **Ask Questions!**—you're here to learn, so ask questions when you don't understand! □

Important Course Policies:

◇ *Exams*: Exam dates and times are *absolutely firm*. Travel plans *will not* be considered an excuse to take an examination on a different day or at a different time. If you have a course that conflicts with an exam time, be sure to tell me as soon as possible. □

◇ *More on Exams*: No calculators or note cards are allowed on exams. This is an issue of fairness: we want all students to have the same resources on the exams. There will be a provided formula sheet, however. □

◇ *Labs*: Every week you will meet in B735 for a lab. Most weeks you will work on a *Maple* exercise that will prepare you to work the written homework. □

◇ *Written Homework*: Written homeworks are due approximately weekly, *in lab*, and are 5–10 problems long. □

◇ *Web Homework*: Web homework assignments are due approximately weekly, most on Saturday at 11:59pm. □

◇ *Gateway*: Failure to pass the gateway will result in your final grade for the course being reduced by a full of a letter grade. However, I expect *everyone* in our section to pass the gateway. More information on this will be forthcoming. □

◇ *Special Arrangements*: If you have a documented disability requiring special accomodations, please inform me *as early as possible* prior to needing the accomodation (e.g., prior to an exam)—at least two weeks in advance. □

Course Philosophy

◇ This course emphasizes *Conceptual Understanding* and (intelligent use of) *Technology*. This is because

→ Conceptual understanding means that you *really know* what we're learning—that you will be able to use it, and the skills you gain from the course, later. □

→ Technology is ubiquitous, and allows us to see relationships and explore concepts that would otherwise be inaccessible. This is particularly important in calculus III, where we study mathematics that is hard to work with and visualize without technology. By using technology we will learn *more* and *better*. □

◇ *To learn, you must be engaged both in class and lab*. Participate! Ask questions! □

◇ I think *math and learning are fun*. This course will require a lot of work both in and out of class (plan on 8 hours a week out of class!), but I hope at the end of the semester you will feel you have learned and had fun.

No, really. □

Other Help? If you have questions about anything in the course, please ask me! The math department also offers *free, walk-in tutoring* in the Math Lab (East Hall, B860) M-F 11am–4pm and Su-Th 7–10pm. □

"You have to respect someone who can spell Tuesday, even if they can't spell it right." —A.A. Milne