Course Description: MATH 115-027, Fall 2005

Prof. Gavin LaRose

Who, Where and What:

- TF 11:30am–1pm, 610 Denn
  Th 11:30am–1pm, 626 Denn
- Text: *Calculus* by Hughes-Hallet, et al., 4th ed.
- Instructor: Gavin LaRose (`glarose@umich.edu`)
- Office Hours: W 2:30–4pm (Math Lab, EH B860), Th 1–2:30pm (EH 3831) + by appointment.
- Web: `http://www.math.lsa.umich.edu/courses/115/`
  and: `http://www.math...edu/~glarose/classes/calcI/`
  student data form:
  `http://instruct.math.lsa.umich.edu/stu-info/`

• *What is calculus I?* Calculus is the study of *how things change*. Many things in the world are described by how they change—money in a bank account by the interest rate (how fast it grows), chemical reactions by a reaction rate (how fast they proceed), populations by how they grow or decline, etc. Calculus is the science of describing these types of change. □

• *Why are you taking it?* Because it's really interesting, of course. Also, Calculus is lurking below the surface of just about any science or social-science field. And even if you don't in the future use the calculus we learn, the problem solving and other skills you learn here that will be useful for the rest of your life. □

• *How will you do well in the course?* The only way to learn math is by doing it. **Do the homework** (even the homework we don't collect). **Read the book**. Work the example problems in the book. **Do the team homework** (really—these are the hard problems you need to be able to solve for the exams!). **Participate in class**. Above all, **Ask Questions!**—the whole point of the time and money you're spending on this course is to learn: to avoid wasting that, ask questions if you don't understand!

Tests, Grading, and Other Such Stuff:

- There are two midterms and one final:
  - **1st Exam**: Tue, 10/11, 6–7:30pm
  - **2nd Exam**: Tue, 11/22, 6–7:30pm
  - **Final**: Thu, 12/15, 10:30am–12:30pm

  Generally, only students with a regularly scheduled class are accommodated at an alternate time. Anyone with a regularly scheduled class during these exam times should let me know as soon as possible. Note that travel is *not* a sufficient excuse to have an exam scheduled on a different day.
- **Math Lab**: the Math Lab (EH B860) offers *free, walk-in math help!* Math Lab hours are

M–Th:	11am–4pm	7–10pm
F:	11am–4pm	–
Su:	–	7–10pm

- **Grading Policy**: see the student guide on the course web site. Look under the heading "Grading System."
- **Section Assignments**: In addition to the *Exams*, *Team Homework*, and *Gateway Test*, we will have *Occasional Quizzes* and (*new!*) *Web Homework*. See the Grading Policy for how these will factor into your grade.

*"Oh, 4+3, that's *so easy*. They always give us *such* easy ones... it's 6!" [pause] "... actually, it's 7."* —*overheard in 2nd grade*

"Character consists of what you do on the third and fourth try." —*James A. Michener*

Course Structure, Expectations, etc.:

- **Course Structure**: This course emphasizes *Conceptual Understanding*, (intelligent) *Use of Technology*, and *Team (Cooperative) Learning*. Why?
  - Concepts mean that you can *use* the math that you're learning, which is much better than memorizing it.
  - Technology will let us investigate these concepts better and more easily.
  - Working with a team is *pedagogically sound!*: research tells us that working with others *improves learning for all students in the group*.

  Expectation: we will all (you will) work towards this conceptual understanding, and to make the team homework productive for everyone.
- **Important Dates** to note:
  Last day to drop without a "W": Mon, 9/26
  Fall break: 10/17–10/18
  Thanksgiving break: 11/24–11/25
  Last day of class: Tue, 12/13

Final notes: ○ This is a **4 hour course**: *plan on spending 8 hours a week outside of class on the course*. Really. Only by doing all of the assigned work will you learn the material and do well. ○ I think **math and learning are fun**. I hope in this course you will agree with me. ○ You are taking this course to learn. *Ask questions, come to office hours, or make an appointment to see me if you do not understand any part of the material we cover.*