

## Syllabus for Math 115, Fall, 2006 Calculus

- **Text:** The text for this course is *Calculus: Single Variable* by Hughes–Hallet and Gleason (4th ed.).
- **Instructor:** Jesse Ratzkin
  - **Office:** M423
  - **Office Hours:** Mondays 1:00–2:00, Thursdays 12:30–1:30, and by appointment
  - **phone number:** 486-8391
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- **Tentative Schedule:**

date	topic	sections of the text
Aug. 28–Sept. 7	intro to functions	1.1–1.6
Sept. 11–12	continuity and limits	1.7–1.8
Sept. 14–21	intro to derivatives	2.1–2.4
Sept. 25	second derivatives	2.5
Sept. 26	differentiability	2.7
Sept. 28–Oct. 5	rules of differentiation	3.1–3.4
Oct. 9–10	review	
Oct. 12–16	more rules of differentiation	3.5–3.6
Oct. 17	implicit functions	3.7
Oct. 19	linear approximation, differentiable functions	3.9–3.10
Oct. 23	in class gateway exam	
Oct. 24	differentiable functions	3.10
Oct. 26	using the 1st and 2nd derivative	4.1
Oct. 30	families of curves	4.2
Oct. 31–Nov. 2	optimization and modeling	4.3, 4.5
Nov. 6	rates and related rates	4.6
Nov. 7	L'Hospital's rule, growth and dominance	4.7
Nov. 9	measuring distance traveled	5.1
Nov. 13–14	review	
Nov. 16	definite integrals	5.2
Nov. 27–Dec. 4	fundamental theorem of calculus, antiderivatives	5.3–6.4
Dec. 5–7	review	

There will be three exams in this course, including the final (which scheduled for **Wednesday, Dec. 13, 10:30 AM**). The midterm exams will be on **Tuesday, October 10** and **Tuesday, Nov. 14**. Both midterms will be administered at 6 PM, in CHM A120.

Here is a list of some other dates you might want to keep in mind:

- Labor Day: Sept. 4
- Last day to drop: Oct. 30
- Thanksgiving recess: Nov. 20–24

- **Grading:** To assign grades, I will form a weighted sum of all the grades you receive throughout the semester. The weighting will be

midterm exams	25% each
homework	15%
final exam	35% .

I expect that the median grade in this class will be a C+.

- **Gateway Exam:** You must pass a gateway exam, which tests some basic skills, to pass this course. Calculators are **not** allowed for this exam, and it does not contribute to your course grade. The first gateway exam is in class, Oct. 23. If you do not pass the exam then, you must take it outside of class, at the Mathematics Mac Lab (MSB 203), during the open period Oct. 26–Nov. 17. You can take the exam as many times as you need to.
- **Homework Policy:** I will assign homework approximately every week, and grade several selected problems from each assignment. You are encouraged to collaborate with others in the classes, but you must write each homework assignment in your own words. I do not accept late homework assignments.
- **Exam Policies:** I do not allow reference materials (e.g. a page or index card of notes) during the midterm or final exams. I do allow calculators, but they are not required.
- **ADA Statement:** The Americans with Disabilities Act requires that reasonable accommodations be provided for students with physical, cognitive, systemic, learning and psychiatric disabilities. Please contact me at the beginning of the semester to discuss any such accommodations you may require for this course.
- **General Comments:** Please ask me questions. In general, this is the best way for you to learn the material, and the best way for me to tell how well the class is following the lectures. Asking many questions makes you happier and my job easier. I also encourage you to come to my office hours, or drop by my office outside of office hours. I'm usually available for questions.

Please keep in mind that mathematics is not a spectator sport! You can only learn math by doing it, so it is imperative that you do the homework.

Good luck.