Calculus II: Math 116-036, Fall 2010

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Office Hours:
M, W 2.30-3; Th, 2-3, 5832 EH
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or by appointment (send me an email)

Course Hours:
MWF 1:00-2:30, Dennison 524

Websites:
Section website: http://www-personal.umich.edu/∼rkinsey/math116/
Course website: http://www.math.lsa.umich.edu/courses/116/
The section website will include the section schedule, reading and homework assignments, other handouts (including this syllabus), and useful links. The course website includes the course syllabus and the Student Guide, both of which you should read, as well as exam times and other information.

Text: *Calculus* by Hughes-Hallet, Gleason, et al., 5th ed., published by John Wiley and Sons. Make sure to have the current edition, as problems have changed from the previous edition. Please bring the book to class every day. You will be expected to read the assigned section of the book *before* it is discussed in class. You will be responsible for the material in the assigned sections even if it is not discussed in class.

Calculator: TI-84 or equivalent. If you have another model, you will be responsible for knowing how to use it. Bring your calculator to class each day and to the Uniform Exams.

Course Description:
This course is the second half of the introduction to calculus, following Math 115. Calculus is one of the great accomplishments of humankind, and has had profound impact on not only mathematics but also economics, medicine, physics, biology, statistics, engineering, and computer science. We will cover most of chapters five through eleven of the textbook, focusing on integration, series, and differential equations.

The aim of this course is not merely to teach narrow, computational details; rather, we focus on the *conceptual* foundations, implications, and applications of calculus both in mathematics and in the real world. Students will be expected to apply their understanding to a range of situations, and to *communicate* their ideas effectively, both *verbally* and *in writing*. You will also be expected to *read* mathematics, and to learn from the text. The *problem solving* and *critical thinking skills* we are trying to develop in this course will prove useful throughout college and beyond.

There will be a focus on *co-operative learning* in this course, for three reasons: (1) students learn better when they cooperate, learning from and teaching one another; (2) group work

[1] Please feel free to call me by my first name.

[2] Make sure to take the stairways or elevators in the math side of the building (closest to South University), otherwise you will not be able to get to the part of the fifth floor where my office is.

develops important skills in communicating mathematics; and (3) throughout college and in the real world, you will be expected to work effectively in groups.

Prerequisites, Alternatives, and Subsequent Courses: Math 115 or the equivalent is a prerequisite for this class. Math 186 and Math 156 are honors alternatives to this class. If you have any questions about whether this is the right course for you, especially if you're not sure whether you have enough background, please talk to me as soon as possible.

Expectations: This course requires a significant time commitment; the university expects two to three hours of work for every hour of class time. You will be expected to work productively with other students, both during and outside of class. In particular, I expect everyone will act so that that the classroom environment is conducive to learning; *use of cell phones during class time is inappropriate.* If you miss a class, you are expected to contact me or another student to find out what you missed. You should make sure to have your textbook and calculator for every class, and you should make sure to have done the assigned reading *before* class, along with any other assignments. It's alright if you don't understand everything in the reading—we will discuss it in class—but it is important that you read through it, and come to class with questions. You should be familiar with the policies of the course, as listed in this syllabus, the course website, and the student guide.

Academic Integrity: I expect all students in the class to follow the LSA's policy on academic integrity, available at http://www.lsa.umich.edu/academicintegrity/. Of course, you are expected to collaborate with your classmates on many assignments, but cheating is not permitted and will be treated seriously. When in doubt, ask me.

Resources: There are many resources available to help you succeed in this course. I am available for consulation at my office hours or by appointment. The math department also offers a *free tutoring service*, the **Math Lab**. The Math Lab is located in B860 East Hall, and is open Monday through Thursday, 11am-4pm and 7pm-10pm; Friday, 11am-4pm; and Sunday, 7pm-10pm, from September 13 to December 13. You should also make sure to communicate with your classmates; there are hundreds of you in various sections of this course, and you can learn a tremendous amount from your peers. There are also many university-wide resources available to ensure your success in college; some of these are linked to on the section homepage.

Communication: Email is the best way to reach me; I will try to respond to all emails promptly. I will be using a class email list to communicate with you. Please make sure you check your umich email regularly and are successfully receiving such emails. If you have any questions, please don't hesitate to email me, stop by office hours, or talk to me before or after class. *In particular, I encourage you to give me feedback (in person, by email, or anonymously through my mailbox in the graduate student mailbox room, 2096 East Hall) about how I can teach to best help you learn.*

Grading Policy: All sections of Math 116 use the same grading policy, to ensure fairness. You should read the course website and student guide carefully to understand the course grading policy. Most of your grade will be determined by your performance on the three **uniform exams**. The uniform exams and the **web homework** will determine the **uniform component** of your grade. You must also pass two **gateway exams**, the first

reviewing differentiation and the second on techniques of integration. You will lose *a third of a letter grade* if you fail to pass the first gateway, and you will lose *a third of a letter grade* if you fail to pass the second gateway. You will have many opportunities to take the gateway exams; I will give you more details soon.

In addition, there is an **in-class component** of your grade, determined by me: this may push your uniform grade up by a third of a letter grade or down by up to a full letter grade. See the student course guide for full details. Your in-class component will consist of **team homework** (50%) and **quizzes** (50%).

Homework: You will have daily **web homework**, available from the course website, and regular **team homework** assignments, in addition to your reading. We will discuss team homework in the next class.

Quizzes: There will be short, announced quizzes in class, approximately (but not necessarily) once a week. There will be no make-ups, but I will drop the lowest quiz score when I compute your final grade. If you are sick, you must email me to let me know *before* the quiz, or else it will count as your dropped quiz. *I reserve the right to start giving pop quizzes on the reading if people aren't doing the reading before class, but I don't expect to have to do so; I would let you know before I start doing this.*

Uniform Exam Dates:

First Exam:	Wednesday, October 13	6-7:30pm
Second Exam:	Wednesday, November 17	6-7:30pm
Final Exam:	Friday, December 17	8-10am

Dates for the exams are fixed. 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. Make sure that these dates are in your calendar. Note that travel is *not* a sufficient excuse to have an exam scheduled on a different day.

Other Important dates:

Entrance Gateway starts	Monday, September 13
Last day to drop without a W	Monday, September 27
Integral Gateway starts	Wednesday, September 29
Entrance Gateway deadline	Monday, October 4
Fall Study Break	Monday-Tuesday, October 18-19
Integral Gateway Deadline	Monday, October 25
LSA Drop Deadline (with a W)	Friday, November 12
Thanksgiving Recess	Thursday-Friday, November 26-27
Last Day of Classes	Monday, December 13

Note: Any student with a documented disability should contact me as soon as possible so that we can discuss arrangements to fit your needs.