

Math 408C: Differential and Integral Calculus

Fall Semester 2009

Unique Numbers 56975, 56980, and 56985

Where am I?

You are in Associate Professor Dan Knopf's 408C class.

- Lectures are 2:00–3:30 Tuesdays and Thursdays in CPE 2.214.

Your TA is Jane (Xiaojie) Wang. Problem sessions meet Mondays and Wednesdays.

- Section 56975 meets 8:00–9:00 AM in RLM 7.116.
- Section 56980 meets 12:00–1:00 PM in RLM 6.118.
- Section 56985 meets 2:00–3:00 PM in RLM 6.118.

Why am I here?

Math 408C introduces the concepts and methods of differential and integral calculus. We study calculus because it provides a useful language and a powerful toolkit for describing and modeling the world around us. This course will develop practical problem solving skills, enhanced by intuitive geometric understanding. Its main topics include limits, continuity, derivatives, maxima and minima, trigonometric, logarithmic and exponential functions, integration, calculating areas and volumes, and techniques of integration.

What are the prerequisites for this course?

The official course description and prerequisites page is:

<http://www.ma.utexas.edu/dev/math/Courses/Descriptions/M408C.html>

What textbook should I have?

Calculus, Sixth Edition, by James Stewart (Brooks/Cole, 2008). ISBN-13 978-0-495-48276-5.

How can I succeed in this course?

This course covers a great deal of material and moves extremely rapidly! You cannot afford to fall behind. To succeed, you will need good study habits, skill at basic algebraic manipulations, and a willingness to work hard. Here are some tips.

- **Attend problem sessions.** Lectures introduce new concepts and present as many examples as time allows. Problem sessions offer more opportunities to learn from examples, clarify ideas, and practice using new concepts.
- **Ask questions** — in lecture, during problem sections, and on BLACKBOARD. (See below.)
- **Do the homework.** No students, no matter how talented, can learn mathematics without working examples themselves. The most important component of success in virtually any math course is diligence in doing practice exercises.
- **Read the text.** To get the most benefit from the lectures and problem sessions, you should read relevant sections of the text to reinforce the topics covered during lecture and problem sessions.
- **Study together with your peers enrolled in the class.** In particular, you should make arrangements to share notes in case you miss class due to illness. However, *the work on your written homework must always be your own.*
- **Learn to work problems either with or without a calculator.** You may use a calculator on practice problems and homework — but not during exams.
- **Be honest.** Any academic dishonesty will be severely penalized. In this regard, please note that **no books, notes, calculators, or cell phones are allowed during exams.**

How can I get extra help and information?

- The contact information for your professor and TA is below. We encourage you to ask for individualized help at any time.

<i>Name</i>	<i>E-mail</i>	<i>Office</i>	<i>Phone</i>	<i>Office hours</i>
Dan Knopf	danknopf@math.utexas.edu	RLM 9.152	471.8131	M 3:30–4:30, Th 12:30–1:30
Jane Wang	xjwang@math.utexas.edu	RLM 9.116	475.9133	W 3:15–4:30, F 10:00–11:00

- The course will use BLACKBOARD. Class announcements and assignments will be posted there. After assignments are collected, solutions will be posted so that you can check your work. There will be discussion boards, called MATHCHAT, where you may submit questions. Your TA and I will check these frequently and answer your questions as promptly as possible.
- The syllabus will be updated during the semester (e.g. as exam room scheduling becomes available). A current version will always be available on BLACKBOARD as well as through a link from my home page: <http://www.ma.utexas.edu/users/danknopf>
- The UT Learning Center provides a range of resources to help you benefit from this course as much as possible. Visit JES A332A or see <http://www.utexas.edu/student/utlc/>
- See <http://www.ma.utexas.edu/dev/math/Undergrad/Advising.html> for useful information about math advising.
- Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities. Call 471.6259 or see <http://www.utexas.edu/diversity/ddce/ssd/>

Please inform me of any approved accommodations as early in the semester as possible — at least one week before the first exam.

How will the course be graded?

There will be homework, two midterm exams, and a cumulative final.

- **Homework:** There will be twelve homework assignments. (See schedule below.) Each homework will be posted on BLACKBOARD approximately one week before it is due. On its due date, an assignment must be turned in at the start of lecture. Graded homework will be returned during a subsequent problem session.
 - Your assignments must be legible, neat, and stapled.
 - The lowest two homework scores will be dropped, to allow for illness, emergencies, and other valid nonacademic excuses.
 - The remaining ten scores will be averaged to determine **15%** of your overall grade.
 - **A late assignment counts as a missed assignment.** Late homework is not accepted under any circumstances. (The sole exception is a conflict with a religious holy day, in which case you must contact me in advance.)

- **In-class exams:** There will be two in-class exams. (See schedule below.)
 - Each in-class exam will count for **25%** of your overall grade.
 - **No exam scores are dropped.**
 - If you miss an exam, you must contact me before the exam and provide a written excuse in order to be allowed to take a make-up.

- **Final exam:** The final exam time is set by the Registrar. (See schedule below.)
 - The final will determine **35%** of your overall grade.
 - Approximately half of the final will cover material not on either of the first two exams. The remainder will be cumulative.
 - If you have a schedule conflict with the final, you must contact me at least three weeks in advance. Final exams can be rescheduled only for very serious reasons.

Your overall grade will be computed according to the following scale:

F	D-	D	D+	C-	C	C+	B-	B	B+	A-	A
0–50	51–55	56–63	64–65	66–67	68–75	76–77	78–79	80–87	88–89	90–91	92–100

What is the lecture schedule?

The following schedule may be altered for pedagogical reasons. **It is your responsibility to be aware of all changes announced in class.**

Thursday, August 27 Introduction, Section 2.1

Monday, August 31 *Last day of the official add/drop period*

Tuesday, September 1 Sections 2.2, 2.3 **(Homework 1 due)**

Thursday, September 3 Sections 2.4, 2.5
Monday, September 7 *Labor Day holiday; no class*
Tuesday, September 8 Sections 3.1, 3.2 (Homework 2 due)
Thursday, September 10 Sections 3.3, 3.4
Friday, September 11 *Last day to drop with possible refund*
Tuesday, September 15 Sections 3.5, 3.6 (Homework 3 due)
Thursday, September 17 Sections 3.7, 3.8
Tuesday, September 22 Sections 3.9, 4.1 (Homework 4 due)
Wednesday, September 23 *Last day to drop without a possible academic penalty*
Thursday, September 24 Sections 4.2, 4.3
Tuesday, September 29 Sections 4.4, 4.5 (Homework 5 due)
Thursday, October 1 Section 4.7, Review
Tuesday, October 6 Exam I — during regular class time in WEL 1.316
Thursday, October 8 Sections 4.9, 5.1
Tuesday, October 13 Sections 5.2, 5.3 (Homework 6 due)
Thursday, October 15 Section 5.4
Tuesday, October 20 Section 5.5 (Homework 7 due)
Thursday, October 22 Section 6.1
Tuesday, October 27 Section 6.2 (Homework 8 due)
Thursday, October 29 Sections 7.1, 7.2*
Tuesday, November 3 Sections 7.3*, 7.4* (Homework 9 due)
Thursday, November 5 Section 7.5, Review
Tuesday, November 10 Exam II — during regular class time in WEL 1.316
Thursday, November 12 Section 7.6
Tuesday, November 17 Section 8.1 (Homework 10 due)
Thursday, November 19 Section 8.2
Tuesday, November 24 Section 8.3 (Homework 11 due)
Thursday, November 26 *Thanksgiving holiday; no class*
Tuesday, December 1 Section 8.4 (Homework 12 due)
Thursday, December 3 Section 8.5, Review
Saturday, December 12 Final Exam — 7:00–10:00 PM in WEL 2.246