MATH 2425
CALCULUS II
Section 004
TuTh 11:00am-12:20pm in PKH 309

INSTRUCTOR: Prof. Ren-Cang Li, 445 PKH, (817) 272-0548, `rcli@uta.edu`

CLASS HOME PAGE: `http://www.uta.edu/faculty/rcli/Teaching/math2425/s2008`

OFFICE HOURS: TuTh 3:30-4:20 or by appointment

GTA: Ming Xie, PKH 430, `mingxie@uta.edu`; Office hours: TuTh 2-2:50pm

AFFILIATED LABS: Section MATH 2425-004 is affiliated with

- Lab 2425-005, TuTh 10-10:50am, PKH 111
- Lab 2425-006, TuTh 1-1:50pm, PKH 304

If you are enrolled in MATH 2425-004, you must also be enrolled in Lab 005 or Lab 006. If you are enrolled in Lab 005 or Lab 006 you must also be enrolled in MATH 2425-004. Anyone not correctly enrolled in MATH 2425-004 will be dropped automatically.

TEXT: Weir, Haas, and Giordano, *Thomas' Calculus*, 11th Edition.

- Chapter 8, Sections 8.1, 8.2, 8.3, 8.4, 8.5, 8.7, 8.8
- Chapter 11, Sections 11.1 – 11.9
- Chapter 6, Sections 6.1, 6.2, 6.3, 6.5
- Chapter 10, Sections 10.5, 10.6, 10.7
- Chapter 12, Sections 12.1 – 12.6
- Chapter 11, Sections 11.11

The course will progress in the order listed.

EXPECTATIONS: Between lectures, you are expected to review your notes, go through the appropriate section(s) in the book, understand all relevant examples in the book, and attempt ***all*** homework problems assigned for the section. It is anticipated that a student passing this course with a C will spend at least 12 hours each week on Math 2425 outside the classroom. See also the "***Study Guidelines***" section below.

EXPECTED LEARNING OUTCOMES: Upon completion of Math 2425, the student should be able to

1. compute the area between two curves, in both rectangular and polar coordinates; compute volumes and surface areas of solids of revolution, in both rectangular and polar coordinates; compute arc length of both polar and rectangular curves
2. compute the value of integrals by the methods of integration by parts, trigonometric substitutions and partial fractions
3. compute the value of improper integrals

4. compute limits of sequences and series
5. determine the radius of convergence of power series; differentiate and integrate power series
6. represent a known function as a Taylor series; approximate a known function with a Taylor polynomial and determine the error involved
7. compute the standard representation of a vector in 3-space, compute the dot product and cross product of vectors
8. write equations of lines, planes, and quadric surfaces in 3-space
9. justify and explain their steps in problem solving. In particular, students should be able to construct correct and detailed mathematical arguments to justify their claimed solutions to problems.

EXAMS, WEIGHTS: There will be two mid-semester examinations and a Final. These exams are departmental, i.e., all sections of Math 2425 will take the same exam and the grades will have the same weight in each section. All of these exams are comprehensive. The format of each exam will be approximately half multiple choice problems and half show-your-work problems.

Component		Date	Points
Midterm 1		Friday, February 15, 6-8pm	20
Midterm 2		Friday, March 28, 6-8pm	25
Final exam		Saturday, May 3, 12-2:30pm	35
Lab	quizzes		10
	Problem-solving		10
Total Points Possible: 100			

MAKE-UP POLICY: If you have a conflict with either midterm or final, you must contact the course coordinator no later than **Census Date (January 30)**, by using a form attached to the coordinator's office door (PKH 448) and submitting it together with necessary documentation as indicated on the form. You may also contact the coordinator by e-mail (`Krueger@uta.edu`) no later than January 30. Do not assume that you e-mail has been received if there is no response from the coordinator. If a conflict arises after January 30, contact the coordinator immediately. ***Delays in submitting a make-up request may mean that your request cannot be approved.***

GRADING: As a rule, examinations will be designed to achieve grades on the standard scale:

Grade	Point range
A	90–100
B	80–89
C	70-79
D	60-69
F	0-59

This scale will be used to convert final numerical scores to letter grades.

Any student who scores below 50 on the final exam cannot receive a grade higher than D in the course.

LAB, INCLUDING QUIZZES: Tuesday labs are devoted to questions and answers about previous weeks assigned homework. The Tuesday lab time will end with a quiz, taken directly from or similarly to the assigned homework. The top 10 quizzes will count for 10% of your final grade. Thursday labs are devoted to problem solving activities. Frequently lab projects will be turned in with at most two lab partners. They are always due by at the beginning of the following **Tuesday** labs. The top 10 labs will count for 10% of your final grade. For the first week, however, the roles of Tuesday lab and Thursday lab as detailed above are exactly switched.

Attendance is ***absolutely required*** at Thursday labs; attendance will be taken and no attendance credit will be given to anyone who come in 5 minutes or longer late or leave early without permission.

There will be no make-up quizzes and no make-up lab projects.

ATTENDANCE: Attendance is required. You are responsible for any and all announcements made in class. You are responsible for any material missed during class.

CALCULATOR: The only calculators allowed for quizzes, midterms, and final without permission are **TI-30XA** and **TI-30XIIS**. But ***If you wish to use a different calculator, then you must get permission to do so BEFORE an exam and/or quiz***. Only nonprogrammable calculators with basic computational features, such as arithmetic and transcendental functions will be allowed. Calculators with the following features are NOT allowed: graphing, equation solving, differentiation and integration. Any device that has internet or email capabilities **this includes cell phones** - and any device with a QWERTY keyboard are also not permitted.

DROP POLICY: The last day this semester to drop a course is **March 28**. Any student who drops the course on or before March 28 will receive a W. ***Students must contact an advisor in their major in order to drop a course***.

PICTURE ID: You may be asked to present a UTA picture ID at any exam and quiz. Please bring your UTA picture ID to all exams and quizzes.

MATH CLINIC TUTORING AVAILABLE: Room PKH 314 is the location of the Math Clinic. Free Tutoring is available. See `http://www.math.uta.edu` for hours of operations.

IMPORTANT DATES:

January 14	First day of class
January 30	Census Date
	Deadline for makeup exam requests
February 15	Friday, Midterm 1, 6 pm to 8 pm
March 17-21	Spring Break
March 28	Friday, Midterm 2, 6 pm to 8 pm
March 28	Last day to drop
May 2	Last day of class
May 3	Saturday, Final Exam, noon to 2:30 pm

AMERICANS WITH DISABILITIES ACT: The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 93112 - The Rehabilitation Act of 1973 as amended. With the passage of new federal legislation entitled Americans with Disabilities Act (ADA), pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens. As a faculty member, I am required by law to provide "**reasonable accommodation**" to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with **informing faculty at the beginning of the semester and in providing authorized documentation through designated administrative channels.**

Academic Dishonesty: It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University.

"Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts." (Regents Rules and Regulations, Part One, Chapter IV, Section 3, Subsection 3.2, Subdivision 3.22)

Grade Replacement and Grade Exclusion Policies: These policies are described in detail in the University catalog and can also be founded online at

`http://www.uta.edu/catalog/general/academicreg`.

The deadline for filing a grade replacement request is Census Date, January 30.

Student Disruption: The University reserves the right to impose disciplinary action for an infraction of University policies. For example, engagement in conduct, alone or with others, intended to obstruct, disrupt, or interfere with, or which in fact obstructs, disrupts, or interferes with, any function or activity sponsored, authorized by or participated in by the University.

Drop for Non-Payment of Tuition: If you are dropped from this class for non-payment of tuition, you may secure an Enrollment Loan through the Bursar's Office.

Information is subject to change, please keep yourself informed!