This course satisfies the University of Texas at Arlington core curriculum requirement in mathematics.

This course will address three core objectives:

- Critical Thinking Skills - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
- Communication Skills - to include effective development, interpretation and expression of ideas through written, oral and visual communication.
- Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

<table>
<thead>
<tr>
<th>Instructor:</th>
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<tr>
<td>Office:</td>
<td>e-mail:</td>
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<tr>
<td>Phones:</td>
<td>Office Hours:</td>
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<td>Website:</td>
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</table>

| Graduate Teaching Assistant: |  |
| Office:                      | e-mail: |
| Phones:                      | Office Hours: |

| Class Meetings: | Lecture: | Labs: |

Textbook: *CALCULUS, EARLY TRANSCENDENTALS, CUSTOM EDITION FOR UT-ARLINGTON, BY SOO T. TAN* OR
Register** for WebAssign at: [http://webassign.net/](http://webassign.net/)
NOTE that the Class Key depends upon the lecture section for which you are registered:

*If at any time you have questions, please do not hesitate to ask.*
Course: M2425
Prerequisite: A grade of C or above in Math 1426 (Calculus I)

Course Goals: The aim of this course is to develop a conceptually sound understanding of techniques of integration and sequences and series, as well as to gain an introduction to representation in 3-space.

Overview: Roughly, we will study Chapters 5 through 10 in your textbook.

Class Format: The instructor and the GTA will incorporate cooperative learning activities in lecture and lab sections as well as other active learning strategies during the semester. You are expected to participate fully in these activities.

You will need to have 8-10 hours available weekly to study outside of class in order to succeed in this course.

UT-Arlington Department of Mathematics Learning Outcomes for M2425

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.

Electronic Communication Statement: From the UT-Arlington undergraduate catalog: E-mail is a prime means for communication. Therefore, the University has the right to send communications to students via e-mail and the right to expect that those communications will be received and read in a timely fashion. The Office of Information Technology (OIT) will assign all students an official University e-mail address. It is to this official address that the University will send e-mail communications. Students are expected to check their official e-mail account on a frequent and consistent basis to stay current with University communications. The University recommends checking e-mail daily in recognition that certain communications may be time-critical.

If at any time you have questions, please do not hesitate to ask.
Details About the Course

Grades:

<table>
<thead>
<tr>
<th>Exam Type</th>
<th>Date</th>
<th>Time</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>Midterm Exam 1</td>
<td>Friday, February 8</td>
<td>6:00-8:00 PM</td>
<td>20%</td>
</tr>
<tr>
<td>Midterm Exam 2</td>
<td>Friday, March 22</td>
<td>6:00-8:00 PM</td>
<td>25%</td>
</tr>
<tr>
<td>Lab grade</td>
<td>Weekly quizzes*</td>
<td></td>
<td>5%</td>
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<tr>
<td></td>
<td>Homework*</td>
<td></td>
<td>5%</td>
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<td></td>
<td>Labworksheets/</td>
<td></td>
<td>10%</td>
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<td></td>
<td>Signature Assignment</td>
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<tr>
<td>Final examination</td>
<td>Saturday, May 4</td>
<td>12:30-3:00 PM</td>
<td>35%</td>
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<td></td>
<td>Comprehensive coverage</td>
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Grades will be assigned according to the following scheme (approximately):

- 90–100: A
- 80–89:   B
- 70–79:   C
- 60–69:   D
- 59 or below: F

Midterms and Finals:
These exams are departmental. This means that all sections of Math 2425 take the same midterm and final exams and that the grades on these exams have the same weight in each of the sections of calculus regardless of instructor. All of these exams are comprehensive. The format of each exam will be a mix of multiple-choice problems and free-response problems.

The final exam has a grade weight of 35%; however, **any student who scores below 50 on the final exam cannot receive a grade higher than a D in the course.**

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) & submitting it together with necessary documentation as indicated on the form. 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.**

All previous midterm exams and some previous final exams can be accessed online at [https://mavspace.uta.edu/xythoswfs/webview/_xy-698342_1](https://mavspace.uta.edu/xythoswfs/webview/_xy-698342_1)

The solutions to the multiple choice questions are available at [https://mavspace.uta.edu/xythoswfs/webui/_xy-1084452_1-t_BulwoeEK](https://mavspace.uta.edu/xythoswfs/webui/_xy-1084452_1-t_BulwoeEK)

*If at any time you have questions, please do not hesitate to ask.*
Drop Policy: The last day this semester to drop a course is Friday, March 29. Any student who drops the course on or before March 29 at 5 PM will receive a W. **Students must consult an advisor in their major in order to drop a course.**

Weekly Quizzes:  
Suggested homework will be assigned each day. Online homework assignments have already been made and are already available on WebAssign. Your homework grade* will be based upon your online homework average. You will be given in-class (during lab meetings) quizzes which assume your having completed and mastered the suggested homework. Your 10 best quiz grades will be used to calculate your quiz average. Although attendance is required, on the occasion that you miss a class please see ***** website for assignments.

Attendance:  
Attendance for this course and its associated labs is required. Excellent attendance records as well as positive group evaluations will help your grade in that borderline course-grade decisions will be influenced by these records. Arrive on time to class (quizzes take place during the first 10 minutes of class and lab homework is due at the beginning of class).

Lab Information:  
Again, **attendance is required.** If you are absent from lab on a problem solving activity day, you will not be part of a lab group for that week and you will be required to submit the missed lab work individually with a 20% reduction of your grade for the missed lab.

In the lab, you will:
- have the opportunity to ask for guidance on homework questions;
- take weekly quizzes (except for weeks in which a midterm is scheduled) based upon mastery of the suggested homework assignments; and
- participate in problem-solving activities from Lab Worksheets and submit group solutions (or individual solutions) to selected problem-solving activities from the Lab Worksheets—this is 50% of your lab grade (10% of your total course grade).

Instructions for solutions submitted:  
- Work should be done in pencil and erasures should be clean and complete.
- Problems should be written in order and include the page number and the problem number, i.e. p26 # 5, if appropriate.
- Write on one side of the paper only.
- If you tear the page from a spiral notebook, trim the curly edges.
- Papers must be stapled together (upper left hand corner) and folded in half lengthwise.
- On the outside write your name, date and assigned problems.
- If these guidelines are not followed, your paper will not be graded and you will receive 0 points on that work.

Signature Assignment:  
In order to assess the three core objectives for this course (Critical Thinking Skills, Communication Skills, and Empirical and Quantitative Reasoning Skills,) students will submit one of their weekly lab write-ups specifically to be assessed for these skills. This submission will their signature assessment for the semester. A student must submit their signature assignment in order to pass the class.  

*If at any time you have questions, please do not hesitate to ask.*
Help Outside of Class Time:
My office hours are given above. These are times when I will be available in my office to discuss the material/homework/tests. No appointment is necessary for those times. If, however, those times are inconvenient for you, then make an appointment with me for another time (e.g., e-mail me stating the times you prefer).

Sources for help: The University of Texas at Arlington supports a variety of student success programs to help you connect with the University and achieve academic success. These programs include learning assistance, developmental education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally, or socially should contact the Office of Student Success Programs at 817-272-6107 for more information and appropriate referrals.

The Math Department operates the Math Clinic, a tutoring service staffed by upper level undergraduate students. The Math Clinic is on the 3rd floor of Pickard Hall; the phone number is 817-272-5674; and the hours of operation for fall and spring are
   Monday – Thursday     8AM to 9PM
   Friday                8AM to 1PM
   Saturday              1PM to 6PM
   Sunday                1PM to 9PM
Go to the Math Clinic webpage http://www.uta.edu/math/clinic/ to get more information or to access assignment sheets for the courses for which tutoring is offered.

All previous midterm exams and some previous final exams are available to students in the Science Education and Career Center (SECC), 106 Life Science Building. The fall and spring hours of operation are
   Monday-Thursday       8AM - 8PM
   Friday                8AM - 5PM
   Saturday              12PM - 5PM
   Sunday                Closed
You need a Mav ID Card to check out these exams. A copy machine is available for you to make copies. There are also video tapes of lectures on calculus topics that can be viewed in the SECC. For more information, go to

The Math Department maintains a list of people who have expressed an interest in tutoring. These persons are not necessarily recommended by the Math Department and they set their own fees. You may obtain a copy of the tutor list in the Math Office, 478 PKH.

My web page will list the homework as the term progresses as well as other miscellaneous information pertinent to this course. My web-page address is above.
Cell Phone, Beeper, & Chiming Watch Etiquette:

- Cellular phones should be either switched off or set to “silent” mode during all classes. Cellular-phone use will not be permitted in class. If you must take an important call, please leave the classroom.
- Cellular phones are prohibited during exams.
- Beepers should be either switched off or set to “silent” mode during all classes and during tests.
- You should assure that watches with alarms and chirps will not sound during class.

Since lecture and lab focus on interpersonal communication, students must request permission to use a laptop during class or lab time.

<table>
<thead>
<tr>
<th>Important Dates</th>
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<tbody>
<tr>
<td>January 21</td>
<td>MLK Holiday</td>
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<tr>
<td>January 30</td>
<td>Census Date <strong>Deadline for make-up exam requests for all exams</strong></td>
</tr>
<tr>
<td>February 8 (Friday)</td>
<td>Midterm 1, 6 PM to 8 PM</td>
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<tr>
<td>March 11-15</td>
<td>Spring Break</td>
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<tr>
<td>March 22 (Friday)</td>
<td>Midterm 2, 6 PM to 8 PM</td>
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<tr>
<td>March 29</td>
<td>Official last day to drop by 5 PM</td>
</tr>
<tr>
<td>May 3</td>
<td>Last day of classes</td>
</tr>
<tr>
<td>May 4 (Saturday)</td>
<td>Final Exam, 12:30 PM to 3:00 PM</td>
</tr>
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Americans with Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the Americans with Disabilities Act (ADA). All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at [www.uta.edu/disability](http://www.uta.edu/disability) or by calling the Office for Students with Disabilities at (817) 272-3364.

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.

If you require an accommodation based on disability, I would like to meet with you in the privacy of my office, during the first week of the semester, to make sure you are appropriately accommodated.
Academic Integrity: All students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington’s tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

Instructors may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System Regents’ Rule 50101, §2.2, suspected violations of university’s standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student’s suspension or expulsion from the University.

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/content/general/academic_regulations.aspx#10 (scroll about half way down the page).

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.
**Student Feedback Survey:** At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory shall be directed to complete a Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student’s feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit [http://www.uta.edu/sfs](http://www.uta.edu/sfs).