Math 1324-Algebra & Trigonometry

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

This course will address three 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.

MW 11:00-12:20
PKH 105
Instructor:
Office:
E-mail:
Office Hours:


1. Students will be able to solve algebraic equations. They will also be able to interpret the meaning of the solution(s) and demonstrate graphical solution techniques when appropriate.
2. Students will be able to interpret equations and their graphs.
3. Students will be able to interpret and explain the meaning of solutions of inequalities.
4. Students will be able to transform and solve equations involving logarithmic and exponential functions.
5. Students will be able to perform matrix operations, including multiplication, inverses and determinants.
6. Students will be able to represent functions graphically, numerically, algebraically, and/or verbally.
7. Students will be able to transform and solve equations involving logarithmic and exponential functions.
8. Students will be able to apply radian and degree angle measures used in trigonometry.
9. Students will be able to simplify and prove simple trigonometric identities.
10. Students will be able to solve trigonometric equations.

Grading Scale: (by percentage)
A: 90-100, B: 80-89, C: 70-79, D: 60-69, F: 0-59

Grading Components: Homework will be assigned daily and students are expected to finish it before the next day of class. I will give quizzes randomly that will be over previous assignments. The two lowest quiz grades will be dropped before calculating the final average.

To specifically assess the core objectives of critical thinking skills, communication skills, and empirical
and quantitative reasoning skills, each student will complete a **signature assignment** (further described at the end of the syllabus.) Completion of this assignment is required to receive a passing grade in the course. The signature assignment will count for a quiz grade.

**Quizzes:** 10%
- Exam 1: 20%
- Exam 2: 20%
- Exam 3: 20%
- Final Exam: 30%

Exam dates will be announced in class one week in advance. There will be no make up exams or make up quizzes offered. With a valid excuse the missing exam grade will be replaced by the final exam grade.

**Drop Policy:** The last day this semester to drop a course is November 4. Any student who drops the course on or before November 4 will receive a W. Students must contact an advisor in their major in order to drop a course.

**Email policy:** 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. (http://www.uta.edu/catalog/general/academicreg)

**Help in the course:** The Math Clinic (314 PKH) is available to you seven days a week at no additional cost. The SOAR program (132 Hammond Hall) provides tutors on a cost-share basis. The Science Education and Career Center (106 Life Sciences) has tapes and other material pertinent to the course. The Math Department maintains a list of people, primarily graduate students, who are available for hire.

**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 the instructor and coordinator of Math 1316 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)

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.

Important Dates:

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<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>November 24-27</td>
<td>Thanksgiving Holiday</td>
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<tr>
<td>December 13</td>
<td>Final Exam</td>
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Final Exam December 13 11:00-1:30 p.m.

Important!! Please bring your student ID to class. You will not be able to take tests or turn in assignments without an ID.

**Signature assignment**

Students will be assigned three problems, selected from the text, that represent three different learning outcomes for this course. A full solution to each problem will include all intermediate work. For each problem, students will respond to the following prompt: *describe three fundamental mathematical concepts that were crucial to the solution of this problem, and explain why they were key to the solution of the problem.*