MATH 2312.006 Fall 2026 Syllabus

Instructor:

Dr. Robin Ragland

Office: RBN 4006

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Office Hours:

MWF 12:00pm-1:00pm

Class Schedule:

TTh 12:30pm-1:50pm RBN 4025

Course Description

This course is a survey of college algebra, trigonometry and analytical geometry to prepare students for calculus. Topics include algebraic functions and their graphs, exponential and logarithmic functions, trigonometric functions and identities.

Student Learning Objectives

By the end of the course students should be able to:

* Develop analytical reasoning to solve algebraic problems such as finding the solutions to polynomial, rational, exponential, logarithmic, and trigonometric equations, as well as finding inverse functions.

* Represent trigonometric functions by drawing relevant pictures on the unit circle, by writing the correct trigonometric definitions, and by verbal description.

* Demonstrate a critical understanding of functions by graphing and analyzing functions, evaluating functions at specific real numbers and at variable values, computing new functions from old functions through algebraic operations, and applying known theory such as the Factor Theorem to factor polynomials and find their zeroes.

* Calculate the values of trigonometric functions based on right-triangular and circular definitions.

* Solve right triangles given appropriate information about sides and angles.

* Prove the validity of trigonometric identities.

Textbook

We will be using a free online textbook from OpenStax that can be found hereLinks to an external site..

Grading Policies

The grading scheme for this course will be no more harsh than

90-100 A

80- less than 90 B

70- less than 80 C

60- less than 70 D

less than 60 F

The categories for grading are as follows:

Quizzes 15%

Exams 20% each (3 exams)

Final Exam 25%

Extra Credit

A student who takes all exams and earns all nonzero scores on exams will automatically qualify to re-place their lowest grade on an in-class exam with their grade on the final, if that improves their score.

There will be no other extra credit available in this course. **Do not ask for extra credit**.

Make-ups

Make-ups for **documented** absences that are **required** as part of a UT Tyler obligation (e.g. athletes participating in an event, participating in a debate contest, etc) or for religious observation will be granted. For all make-ups of this type, prior notification of at least one week and documentation are required. Other make-ups are granted in only extreme cases such as hospitalization and at the sole discretion of the instructor.

Make-ups will be allowed for the following excused absences:

1. Illnesses, with a doctor's note, no exceptions.

2. Your child's illness, with a doctor's note.

3. Court appearances, including citizenship court, with documentation.

4. Weddings, funerals, or military advancement, with documentation **and** a photograph showing that you attended the event.

Doctor's notes must be dated either before you miss the class or within 2 days after you missed the class, unless you or your child are hospitalized. In case of hospitalization, bring evidence of hospitalization.

Make-ups for test must be taken within 3 days after returning to class except for lengthy illnesses or hospitalizations.

The homework will **not** be reopened for any reason other than Canvas or WileyPlus being unavailable. Do not ask for an extension.

Attendance

Class attendance is mandatory. If you want to do well in this class, you will need to attend every class meeting and come prepared with all the materials (pencil, paper, calculator, etc) that you will need for learning.

Calculator Policy

No calculators will be allowed in this course. **All work must be shown**. **No credit will be given for correct answers with no supporting work.**

Cell Phones and other electronic devices

Please set your cell phones to silent mode. If you are expecting an emergency call, please notify your instructor in advance, sit near the door, and answer the phone outside. You will not be allowed to wear electronic devices (except hearing aids) during an exam. During exams, cell phones must be turned off and placed in sight on your desk.

Academic Dishonesty

Your work must be your own. Violations will be processed according to the established guidelines of the department, college, and university. Violations of academic integrity include, but are not limited to, cheating, fabrication, or plagiarizing. A range of academic sanctions may be taken against a student who engages in academic dishonesty. Below are ideas related to academic integrity.

Resources you are encouraged to utilize in this course include the textbook and unassigned problems, notes from class, assigned homework problems, your fellow Math 1342 students, the Math Learning Center, and your instructor. Email is the best way to contact me. I reply to emails from

9:00 A.M.– 4:00 P.M. Monday–Friday.

Exam Dates

Exam 1: Thursday, Sep 24

Exam 2: Thursday, Oct 29

Exam 3: Thursday, Dec 3

Final Exam: Thursday, Dec 10 12:30pm-2:30pm

All exams and quizzes are taken on paper during class.

A.I.

UT Tyler is committed to exploring an using artificial intelligence (AI) tools as appropriate for the discipline and task undertaken. We encourage discussing AI tools' ethical, societal, philosophical, and disciplinary implications. Al uses of AI should be acknowledged as this aligns with our commitment to honor and integrity, as noted in UT Tyler's Honor Code. Faculty and student must not use protected information, date, or copyrighted materials when using any AI tool. Additionally, users should be aware that AI tools rely on predictive models to generate content that may appear correct but is sometimes shown to be incomplete, inaccurate, taken without attribution from other sources, and/or biased. Consequently, an AI tool should not be considered a substitute for traditional approaches to research. You are ultimately responsible for the quality and content of the information you submit. Misusing AI tools that violate the guidelines specified for this course (see below) is considered a breach of academic integrity. The student will be subject to disciplinary actions as outlined in UT Tyler's Academic Integrity Policy.

For this course, AI is **not** permitted at all. In order to get the most of this course, you must complete all assignments without the aid of any AI tools. Refrain from using AI tools to generate any course context (e.g., text, video, audio, images, code, etc.) for any assignment or classroom assignment.