MATH 2312.004 – Precalculus

Fall 2023

Meeting Time: T Th 3:30-4:50
Classroom: RBN 4024
Instructor: Haley Melton
Office: MLC (RBN 4021)
Email: haleymelton@uttyler.edu
Office hours: T Th 12:30–2:00 p.m.

Course Webpage: All course information and documents will be available on Canvas. Go to www.uttyler.edu/canvas to log into Canvas using your regular patriots account.

Prerequisite: The official prerequisite for this course is an appropriate score on ACT, SAT, STAAR, TSI or special permission.

Textbook: Precalculus: A Right Triangle Approach – MyLab Access
ISBN 13: 8220117027567

Course Description

This course will help you to succeed in Calculus and all of your future mathematics courses. You will learn or review topics from college algebra, trigonometry and analytical geometry which are critical for passing Calculus. The topics covered will include algebraic functions and their graphs, exponential and logarithmic functions, trigonometric functions and identities, two and three dimensional analytical geometry.

Student Learning Outcomes

At the conclusion of this course, you will be able to:
1. Reason analytically to solve algebraic problems such as finding the solutions to polynomial, rational, exponential, logarithmic, and trigonometric equations, as well as finding inverse functions.
2. Represent trigonometric functions by drawing relevant pictures on the unit circle, by writing the correct trigonometric definitions, and by verbal description.
3. 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.
4. Calculate the values of trigonometric functions based on right-triangular and circular definitions.
5. Solve right triangles given appropriate information about sides and angles.
6. Prove the validity of trigonometric identities.

Course Evaluation

Homework (15%)
Homework will be assigned each class period and will be due the following Thursday.

Quizzes (15%)
You can expect a quiz every Thursday, excluding the first week and excluding the week of and after a test. To allow for emergencies and necessary absences, the lowest score will be dropped at the end of the semester. Make-ups will not be granted for quizzes.

Tests (3 tests, 15% each)
There will be three tests, held on Thursdays. There will be an in-class review the Tuesday before each test. These exams will test your knowledge of the material taught in the class and practiced on the homework.

Final Exam (25%)
The final exam will be comprehensive, but will emphasize material in the final weeks of the course. There will be an in-class review the final week of class that will cover the information needed for the final exam. The final exam is scheduled for Thursday, December 7 from 3:30-5:30.

Make-up Policy

Make-ups will be granted for cases of severe illness, excused absences that are required as part of a UT Tyler obligation, or religious observances. You must notify me ahead of time and provide appropriate documentation. Other makeups will be granted at the discretion of the instructor. Makeups will not be granted after the fact under any circumstances.

Cell Phones and Electronic Devices

When class is about to begin, place any electronic devices (e.g. cell phones) in silent mode and put them out of sight. You may use a laptop or tablet to take notes if you wish. If you are using such devices for other purposes, I will ask you to put them away.

Calculators

Calculators will not be allowed on quizzes and tests. You will need to be proficient in fractions and basic computations. Some homework problems will need to be done without calculators. When allowed, you may use scientific, non-graphing calculators. You may <u>not</u> use your phone. However, all work must be shown.

Changes to Syllabus

I reserve the right to make changes to the syllabus during the semester. I will announce any changes to course policies in class and post an updated version of the syllabus to Canvas.

Important Dates

August 21: Classes begin.
September 1: Census date. Last day to change schedule or file for grade replacement.
September 4: Labor Day holiday. No class.
October 30: Last day to withdraw.
November 20–24: Thanksgiving break. No classes.
December 7: Final exam.

University Policies

Information on University policies concerning the following topics:
- UT Tyler Honor Code
- Students Rights and Responsibilities
- Campus Carry
- UT Tyler Tobacco-Free Policy
- Grade Replacement/Forgiveness and Census Date
- State-Mandated Course Drop Policy
- Student Accessibility and Resources
- Student Absence due to Religious Observance
- Student Absence for University-Sponsored Events and Activities • Social Security and FERPA Statement
- Emergency Exits and Evacuation
- Student Standards of Academic Conduct
- UT Tyler Resources for Students

can be found at: https://www.uttyler.edu/academic-affairs/files/syllabuspolicy.pdf.

Other Help

Math Learning Center (MLC): RBN 4021. Free walk-in tutoring is available. A schedule will be posted on Canvas. The MLC will open the second week through the last week of classes.

PASS Center: LIB 401. Free individual tutoring. https://www.uttyler.edu/tutoring/
email: tutoring@uttyler.edu

Tentative Schedule

Week	Date	Topics Covered	HW	Assignments Due
1	8/22			
1	8/24		1	
2	8/29		2	
2	8/31	**Quiz 1**	3	HW 1, HW 2
3	9/5		4	
3	9/7	**Quiz 2**	5	HW 3, HW 4
4	9/12		6	
4	9/14	**Quiz 3**	7	HW 5, HW 6
5	9/19	Test 1 Review		
5	9/21	**Test 1**		HW 7
6	9/26		8	
6	9/28		9	HW 8
7	10/3		10	
7	10/5	**Quiz 4**	11	HW 9, HW 10
8	10/10		12	
8	10/12	**Quiz 5**	13	HW 11, HW 12
9	10/17	Test 2 Review		
9	10/19	**Test 2**		HW 13
10	10/24		14	
10	10/26		15	HW 14
11	10/31		16	
11	11/2	**Quiz 6**	17	HW 15, HW 16
12	11/7		18	
12	11/9	**Quiz 7**	19	HW 17, HW 18
13	11/14	Test 3 Review		
13	11/16	**Test 3**		HW 19
14	11/21	Thanksgiving Break – No Class		
14	11/23	Thanksgiving Break – No Class		
15	11/28	Final Exam Review		
15	11/30	Final Exam Review		