

MATH 2312– PRECALCULUS

SPRING 2023

Professor: Dr. Kassie Archer

Office: RBN 4008

Email: karcher@uttyler.edu

Office hours: Monday 9-10, Thursday 9-10:30

Scheduled lectures:

Section 002

MWF 10:10–11:05 A.M.

Location: RBS 2024

Course Webpage: All course information and documents will be available on Canvas.

Textbook: *Precalculus*, OpenStax, J. Abramson.

- Free online at: <https://openstax.org/details/books/prec calculus>

Course Description

This course is a survey of college algebra, trigonometry, and analytic geometry to prepare students for calculus. Topics include algebraic functions and their graphs, exponential and logarithmic functions, trigonometric functions and identities, and two and three dimensional analytic geometry. Credit not given for both Math 2312 and Math 1316.

Student Learning Outcomes

Upon completion of this course, students should be able to do the following:

- 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.

Assignments and Grading

Quizzes

There will be several quizzes throughout the semester, probably about every other class period. The lowest quiz grade will be dropped.

Exams

There will be three exams during the semester, as well as a comprehensive final exam. All exams will be held in class with no books, notes, or calculators allowed. The tentative dates of the exams are:

- **Exam 1:** February 8 (Wednesday)
- **Exam 2:** March 10 (Friday)
- **Exam 3:** April 17 (Monday)
- **Final exam:** TBD

Grading

Your grade will be computed as follows:

Assignment	Percent
Quizzes	10%
Exams	60% ($3 \times 20\%$)
Final	30%
Total	100

Overall course grades will be assigned according to the following scale:

Numerical	Letter
90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
Below 60	F

Course Policies

Canvas

You must activate your Canvas account and check it regularly. You can activate your account and log in at <https://www.uttyler.edu/canvas>. If you are registered for the course, then you should already have access to the Canvas page. All announcements and important documents will be posted there.

Attendance and Make-Up Policy

Attendance is very important for doing well in the course. However, if you are sick and/or are experiencing any COVID-19 symptoms, please stay home. Send me an email if this happens and we will figure out make-ups, note sharing, etc.

For absences not related to COVID-19 (such as official UT Tyler activities), let me know beforehand that you will be missing class so we can plan around it.

Cell Phones, Calculators, 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 or consult the textbook (if you have the electronic version). If you are using these devices for other purposes, I will ask you to put them away. No calculators of any kind are allowed on exams.

Changes to Syllabus

I reserve the right to make changes to the syllabus during the semester. Any changes to course policies will be announced in class, and an updated version of the syllabus will be posted to Canvas.

Important Dates

- **January 9:** Classes begin.
- **January 16:** Martin Luther King, Jr. Holiday – No class.
- **January 23:** Census date. Last day to change schedule or file for grade replacement.
- **March 13–18:** Spring Break
- **March 23:** Last day to withdraw,
- **April 24–28:** Final exam week.

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>