Precalculus, Mathematics 2312, Section 001, Summer 2026

1 Instructor Info:

- Instructor: Dr. William Blair
- Instructor Office: RBN 4008
- Instructor Email: wblair@uttyler.edu

2 Course Info:

- Course Schedule: Class meets in RBN 4025 MoTuWeThFr 9:00AM - 10:40AM
- Course Website: https://uttyler.edu/canvas
- Office Hours: MWF 11:00 AM - 12:00 PM in RBN 4008 (or by appointment)
- Required Text: Precalculus from OpenStax (Digital ISBN: 978-1-951693-39-8) https://openstax.org/details/books/precalculus-2e. This is an open access textbook. You can read the book online, or download PDF, iBooks, or Kindle versions of it. If you prefer to have a print copy, you can purchase one at the OpenStax website .
- Course Prerequisites: Appropriate score on SAT, ACT, or TSI
- Course Outline: Chapters 1-7 of the text and other chapters, in part or in full, as time permits

3 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.

4 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

5 Approximate Course Schedule:

Week	Textbook Sections
1 (June 1 - 5)	Chapter 1, Chapter 2
2 (June 8-12)	Chapter 3, Chapter 4 (Midterm 1 Friday, June 12)
3 (June 15 - 19)	Chapter 5
4 (June 22 - 26)	Chapter 6, Chapter 7 (Midterm 2 Friday, June 26)
5 (June 29 - July 3)	Finish up! (Final Exam Friday, July 3)

Table 1: Calendar describing approximately which sections of the textbook will be covered on each week of the course.

6 Grading:

Scores will be posted on Canvas. After the end of the semester, final course grades will be available on my.uttyler.edu. A final course grade of 90% is guaranteed to be at least an A, a final course grade of 80% is guaranteed to be at least a B, a final course grade of 70% is guaranteed to be at least a C, and a final course grade of 60% is guaranteed to be at least a D. All grades below D will be F.

7 Grade Breakdown:

Category	Percentage of Overall Grade
Quizzes	30%
Midterm Exams	20%
Final Exam	30%

Table 2: Grade breakdown based on category of assessment as a percentage of overall grade.

8 More Information About Grading and Assignments:

If you have any questions about the grading of a particular quiz or exam, you must contact me no more than one week after the day I return the graded assignment in class, whether you are present during that class or not.

8.1 Homework:

Homework will be assigned daily from the textbook. It is imperative that you work on the homework problems outside of class to gain mastery of the material discussed in class.

8.2 Quizzes:

There will be quizzes given each week (on Wednesdays and Fridays that there is not an exam). Quizzes will usually be given at the end of the class period. The quizzes will give you the opportunity to identify weaknesses before the next exam. Generally, the quiz will cover the material from the previous class periods but could utilize material from past weeks also.

8.3 Exams:

There will be 2 midterm exams and 1 final exam.

8.4 Final Exam:

The final exam will be cumulative. The final exam will take place on Friday, July 3.

9 More Course Information/Policies:

9.1 Cell Phones:

Cell phones are not permitted in class. You must silence them and put them away before class begins.

9.2 Calculators:

Calculators will not be allowed on quizzes nor on exams. You will need to be proficient in fractions and basic computations. Many homework problems will need to be done without calculators. Study accordingly. Towards the end of the semester, calculators may be allowed on some portions of the exams. When allowed, you may use scientific, non-graphing calculators. You may not use your phone. However, all work must be shown. Many different types of calculators will work well, but the **TI-30X IIS is recommended**.

9.3 Absences:

Make-ups for **documented** absences that are **required** as part of a UT Tyler obligation (e.g. athletes participating in an event, students 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 only in extreme cases and at the sole discretion of the instructor. Prior notification is still required. **Under no circumstances will make-ups be granted without prior notification.** Leaving early for a break is NOT grounds for a make-up, so please make your travel plans accordingly. In almost all cases, missed work will be assigned a 0.

9.4 Academic Integrity:

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 2312 students, the Math Learning Center, and your instructor. E-mail is the best way to contact me. I reply to email from 9:00 A.M. - 4:00 P.M. Monday - Friday.

A note about a resource NOT allowed in this course: while the internet may be a valuable resource, using it to unethically acquire answers for your work will be considered a violation of academic integrity and processed accordingly. Similarly, copying answers from other students' assignments, past or present, violates the idea that your work must be your own.

9.5 University Policies:

June 10 is this semester's Census Date, the deadline for all registrations, schedule changes, and section changes. June 30 is the last day to withdraw from one or more courses. For university policies concerning Students' Rights and Responsibilities, Grade Replacement/Forgiveness, State-Mandated Course Drop Policy, Disability Services, Student Absence due to Religious Observance, Student Absence for University-Sponsored Events and Activities, Social Security and FERPA Statement, please see the University Policies and Information file on this course's Canvas page.

9.6 Course Policy Regarding AI:

UT Tyler is committed to exploring and using artificial intelligence (AI) tools as appropriate for the discipline and task undertaken. We encourage discussing AI tools' ethical, societal, philosophical, and disciplinary implications. All 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 students must not use protected information, data, 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 or 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** in this course at all.

10 Notice:

All policies and information above provide general guidelines for the course and may be amended throughout the course as needed at the discretion of the instructor. Any changes will be directly communicated to students through email, announcement in Canvas, or verbally in the classroom.