

## Math 2312.031 Syllabus for Spring 2026

### Instructor Contact Information

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### Text

Precalculus, A Right Triangle Approach, 5<sup>th</sup> edition, by Beecher, Penna and Bittinger

ISBN-10: 0-321-96955-3

Pearson Course ID: pitts04117

### 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.

### Course Syllabus/Schedule (Subject to Change)

1-7,8	4.1 Getting Triggy with It!; 4.2 What Is Your Angle?
1-9,13	4.3 Can You Give Me That in Twizzlers? UC Game
1-12,15	Unit Circle Quiz, Pearson Course Sign up, Syllabus
1-14,16	Coming Full Circle 1&2
1-20, 21	Can You Reciprocate? Tangent and Reciprocal Values of the Unit Circle
<b>1-22, 23</b>	<b>Quadrant 1 UC TEST all 6 Trig Values</b>
1-28, 29	Notes 6.1 Trigonometric Functions of Acute Angles, 6.1 Assignment
1-30, 2-2	Notes 6.2 Applications of Right Triangles, 6.2 Assignment
2-3, 4	Notes 6.3 Trigonometric Functions of Any Angles, 6.3 Assignment
2-5, 6	Notes 6.4 Arc Length, and Angular Speed, 6.4 Assignment
2-9, 10	Notes 6.5 Circular Functions: Graphs and Properties, 6.5 Assignment
2-11, 12	Notes 6.6 Graphs of Transformed Sine and Cosine Functions, 6.6 Assignment
2-17, 18	Notecard for Quiz, Chapter 6 Quiz Pretest
<b>2-19, 20</b>	<b>Chapter 6 TEST</b>
2-23, 24	Notes 7.1 Identities: Pythagorean and Sum and Difference, 7.1 Assignment,
2-25, 26	Notes 7.2 Identities: Cofunction, Double-Angle and Half-Angle, 7.2 Assignment
2-27, 3-2	Notes 7.3 Proving Trig. Identities, 7.3 Assignment
3-3, 4	Notes 7.4 Inverses of the Trig. Functions, 7.4 Assignment
3-5, 6	Notes 7.5 Solving Trigonometric Equations, 7.5 Assignment
<b>March 9-16</b>	<b>Spring Break</b>
3-17, 18	Notecard for Quiz, Chapter 7 Quiz
<b>3-19, 20</b>	<b>Chapter 7 TEST</b>
3-23, 24	Notes 8.1 Law of Sines, 8.1 Assignment
3-25, 26	Notes 8.2 Law of Cosines, 8.2 Assignment
3-27, 30	Notes 8.3 Complex Numbers: Trigonometric Notation, 8.3 Assignment
3-31, 4-1	Notes 8.4 Polar Coordinates and Graphs, 8.4 Assignment
4-2, 6	Notes 8.5 Vector Applications, 8.5 Assignment
4-7, 8	Make Notecard for Quiz, Chapter 8 Quiz
<b>4-9, 10</b>	<b>Chapter 8 TEST</b>
April 13-22	Study for Final Exam, Make Notecard for Final Exam,
April 23-24	Pre-Test Final Exam
<b>April 28-29</b>	<b>Final Exam</b>

## **Grade Calculation**

Average of Assignments	20%
Average of Quizzes	15%
Average of 4 Tests	40%
Comprehensive Final Exam	25%

## **Instructor Drops**

Some students will begin the course on academic probation. If your average gets below a 75, you might be put on academic probation. If performance does not improve, the instructor will drop you from the course.

## **Missed Test**

If you miss a test, that grade will be a zero until you take the final exam, at which time I will substitute the final exam grade for the missed test. You must take the missed test within 1 week. If you don't miss any tests and your final exam grade is better than one of your 5 tests, I will substitute the final exam grade for that low test grade. Departmental policy is that you can only make one grade higher in the course than you make on the final exam.

## **Calculator**

You will need to use a graphing calculator which includes trig functions, in this class. Calculators will be provided in the classroom.

## **Attendance**

Class attendance is very important to your success. If you are absent, you are responsible for that day's assignments and notes.

## **Cell Phone Policy**

When it is time for class to begin, turn your cell phone to silent or off and put it out of sight. If cell phone is seen out, it will be taken up. **If this happens again, you will be dropped from the course.**

## **Homework**

There will be daily homework assignments. These are very important. The best way to learn mathematics is to work mathematics problems.

## **Student Learning Outcomes**

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.

## **UT Tyler Resources for Students**

- Writing Center (903-565-5995) [writingcenter@uttyler.edu](mailto:writingcenter@uttyler.edu)
- UT Tyler Tutoring Center (903-565-5964) [tutoring@uttyler.edu](mailto:tutoring@uttyler.edu)
- UT Tyler Counseling Center (903-566-7254)

## **Students Rights and Responsibilities**

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <http://www.uttyler.edu/wellness/rightsresponsibilities.php>

### **Grade Replacement/Forgiveness and Census Date Policies**

Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar. Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

**The Census Date** is the deadline for many forms and enrollment actions that students need to be aware of. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid
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### **UT Tyler a Tobacco-Free University:**

- All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors.
- Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products.
- There are several cessation programs available to students looking to quit smoking, including counseling, quitlines, and group support. For more information on cessation programs please visit [www.uttyler.edu/tobacco-free](http://www.uttyler.edu/tobacco-free).

### **State-Mandated Course Drop Policy**

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date). Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

### **Disability Services**

In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University offers accommodations to students with learning, physical and/or psychiatric disabilities. If you have a disability, including non-visible disabilities such as chronic diseases, learning disabilities, head injury, PTSD or ADHD, or you have a history of modifications or accommodations in a previous educational environment you are encouraged to contact the Student Accessibility and Resources office and schedule an interview with the Accessibility Case Manager/ADA Coordinator, Cynthia Lowery Staples. If you are unsure if the above criteria applies to you, but have questions or concerns please contact the SAR office. For more information or to set up an appointment please visit the SAR office located in the University Center, Room 3150 or call 903.566.7079. You may also send an email to [cstaples@uttyler.edu](mailto:cstaples@uttyler.edu)

### **Student Absence due to Religious Observance**

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

### **Social Security and FERPA Statement:**

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

**UT Tyler Honor Code**

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

**Emergency Exits and Evacuation:**

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.