Math 112 Trigonometry Syllabus Fall 2019

Instructor:
Office:
Phone:
email:
Office Hours:
Class Time/Location
MathXL Course ID:

Course Prerequisites: Math 100, or Math 101 or Math 111 or placement by exam or Math ACT score is greater than or equal to 26 or Math SAT score is greater than or equal to 590.

Course goals: To understand the concepts and perform the calculations concerning trigonometric functions, solving right triangles and general triangles, trigonometric identities and equations, inverse trigonometric functions, and complex numbers.

Textbook: *Trigonometry, 5/e, by Mark Dugopolski, 2020* and MathXL.

Calculator: A scientific is required for this course. TI-30XII is preferred. (No Graphing Calculators)

ATTENDANCE REGULATIONS: Read the "Class Attendance" section of the Tech Bulletin that reads in part that "Class attendance is . . . an obligation . . . and all students are expected to attend regularly and PUNCTUALLY." Any student that has 3 unexcused absences may have their final average drop one letter grade. Any student that has 6 or more unexcused absences may receive a final grade of F regardless of his/her average. Excuses for absences must be submitted within three class days after return to class. Respectfully pay attention for the entire period. Be on time and stay until the class is dismissed. If you are occasionally unavoidably late, apologize. No hats on test days. Please turn off and put away cellular phones, pagers, and any other electronic devices not medically prescribed before entering the classroom.

Homework Policy: Homework will be completed and submitted online at mathxl.com. You will need the Course ID provided by your high school teacher. Your homework grade will be no more than 10% of your grade.

Examinations: Three 100-point tests and a 150-point comprehensive final exam will be given.

MISSED EXAMS: Make-ups will be allowed for exams only in case of an excused absence (generally a doctor's excuse which I have called and verified or an official university excuse). If you must miss a test, tell me ahead of time so other arrangements can be made. If you are ill the day of the test, **contact me BEFORE the next class meeting ready** to take the test if possible. If not possible, with a doctor's excuse, a makeup will be possible **within 3 days of your return to class**. Make-ups will be another exam or the comprehensive final exam as **specified by me**.

Grade Determination: A ten-point grading scale will be used.

| 90-100 % | A | 70-79 % | C | Below 60 % | F |
| 80-89 % | B | 60-69 % | D | | |

STUDENTS NEEDING SPECIAL ACCOMMODATIONS: Students needing testing or classroom accommodations based on a disability should discuss the need with the instructor during the first week of class. Any issues with accessing technology, which are related to a disability, should be reported to the instructor as soon as possible.

RETENTION POLICY ON GRADED MATERIALS: In the event of a question regarding an exam grade or final grade, it will be the responsibility of the student to retain and present graded materials that have been returned for student possession during the quarter.

EMERGENCY NOTIFICATION SYSTEM: All Louisiana Tech students are strongly encouraged to enroll and update their contact information in the Emergency Notification System. It takes just a few seconds to ensure you're able to receive important text and voice alerts in the event of a campus emergency. For more information on the Emergency Notification System, please visit http://www.latech.edu/current-studnets/student-advancement-affairs/university-police. For emergency notifications please visit http://ert.latech.edu

ACADEMIC MISCONDUCT and HONOR CODE: Penalties for cheating and other forms of academic misconduct can be found in the Tech catalog. Note the **Honor Code Statement**, "Being a student of a higher standard, I pledge to embody the principles of academic integrity." Students should be aware that "during an exam, referring to information not specifically allowed by the instructor or receiving information from another student or another unauthorized source" is a violation of the honor code and can be met with severe sanctions against the student. For details refer to http://www.latech.edu/current-students/student-advancement-affairs/student-conduct-integrity

HAZING: In compliance with Acts 635, 637, and 640 of the 2018 Regular Session and Act 382 of the 2019 Regular Session of the Louisiana Legislature and the 2019 Board of Regents Uniform Policy on Hazing, the System reaffirms its policy that any form of hazing of any student enrolled at any institution of the System is prohibited. Violation of this Policy can result in both disciplinary action imposed by the organization and/or institution as well as criminal charges.

Math 112 Suggested Course Outline

Date	Section	Description
	1.1	Angles and Degree Measure
	1.2	Radian Measure, Arc Length, and Area
	1.3	Angular and Linear Velocity
	1.4	The Trigonometric Functions
	1.5	Right Triangle Trigonometry
	1.6	The Fundamental Identity and Reference Angles
	2.1 2.2	The Unit Circle and Graphing The General Sine Wave
	2.3 2.4	Graphs of the Secant and Cosecant Functions Graphs of the Tangent and Cotangent Functions
	Review	
	Test #1 (1.1 - 2.4)	
	3.1 3.2	Basic Identities Verifying Identities
	3.3	Sum and Difference Identities for Cosine
	3.4	Sum and Difference Identities for Sine and Tangent
	3.5 3.6 (optional)	Double-Angle and Half-Angle Identities Product and Sum Identities
	4.1	The Inverse Trigonometric Functions
	4.2	Basic Sine, Cosine, and Tangent Equations
	4.3 4.4	Equations Involving Compositions Trigonometric Equations of Quadratic Type
	Review	
	Test #2 (3.1 - 4.4)	
	5.1	The Law of Sines
	5.2 5.3	The Law of Cosines Area of a Triangle
	5.4	Vectors
	5.5	Applications of Vectors
	6.2	Trigonometric Form of Complex Numbers
	6.3	De Moivre's Theorem, Powers and Roots
	6.4 (optional)	Polar Equations
	Review	
	Test #3 (5.1 - 6.4)	
	Review	
	Comprehensive Final Exam	

Homework Assignments

Section	Assignment
1.1	1 - 109 eoo
1.2	1 - 69 odd, 83 - 101 eoo
1.3	1 - 39 odd, 41, 43, 47, 48, 55, 57
1.4	1 - 97 eoo
1.5	1 - 43 odd, 51, 55, 57, 59, 70, 71
1.6	1 - 61 odd
2.1	1 - 81 eoo
2.2	1 - 29 odd, 57, 61
2.3	1 - 53 eoo, 55
2.4	1 - 53 eoo
3.1	37 - 65 eoo, 91 - 101 odd
3.2	1 - 69 eoo
3.3	23 - 43 odd, 55 - 85 odd
3.4	1 - 55 odd
3.5	1 - 63 odd
3.6 (optional)	1 - 33 odd
4.1	1 - 105 eoo, 109
4.2	1 - 61 odd
4.3	1 - 9 odd, 19 - 49 odd
4.4	1 - 81 eoo, 83
5.1	9 - 25 odd, 37 - 47 odd
5.2	11 - 33 odd, 45 - 59 odd
5.3	5 - 21 odd, 40, 41
5.4	15 - 83 eoo, 89
5.5	1, 10, 12, 13, 17, 19
6.2	17 - 65 eoo
6.3	1 - 49 eoo
6.4 (optional)	5 - 57 eoo

eoo = every other odd