Subject:	MATH
Course Number:	508
Descriptive Title:	Math Essentials for STEM: Crash Course on Trig
Division:	Mathematical Sciences
Department:	Mathematics
Course Disciplines:	Mathematics
Catalog Description:	This noncredit course is an introduction to the trigonometry of triangles, inverse trig functions, graphs, equations and identities.
Prerequisite:	
Co-requisite:	
Recommended Preparation:	
Enrollment Limitation:	
Hours Lecture (per week):	.22
Hours Laboratory (per week):	0
Outside Study Hours:	.44
Total Course Hours:	4
Course Units:	0
Grading Method:	Pass/No Pass/SP
Credit Status:	Noncredit
Transfer CSU:	No
Effective Date:	
Transfer UC:	No
Effective Date:	
General Education ECC:	
Term:	
Other:	
CSU GE:	
Term:	
Other:	
IGETC:	
Term:	
Other:	
Student Learning Outcomes:	Upon the completion of this course, students will be able to:

	1. explain and demonstrate basic trigonometric concepts and definitions. 2. solve trigonometric application problems, including those involving the laws of sines and cosines. 3. create, interpret and analyze the graphs of trigonometric functions. 4. analyze and construct proofs of trigonometric identities
Course Objectives:	1. Define trigonometric functions using the unit circle and right triangles. 2. Solve problems involving triangles with and without a right angle. 3. Graph trigonometric functions. 4. Solve trigonometric equations. 5. Prove trigonometric identities. 6. Graph and evaluate inverse trigonometric functions.
Major Topics:	I. Definition of functions A. Reference angle B. Special values II. Unit circle III. Identities IV. Graphing A. Basic trig functions B. Function transformations C. Domain
Total Lecture Hours:	4
Total Laboratory Hours:	0
Total Hours:	4
Primary Method of Evaluation:	2) Problem solving demonstrations (computational or non-computational)
Typical Assignment Using Primary Method of Evaluation:	Graph y = 2cos(2x+3pi) + 1.
Critical Thinking Assignment 1:	Verify the identity (1/(cot(x)+1)) + (1/(tan(x)+1)) = 1.
Critical Thinking Assignment 2:	Solve 2sin(x) + 1 = 0.5.

Other Evaluation Methods:	Homework Problems, Objective Exam, Quizzes
If Other:	
Instructional Methods:	Demonstration, Discussion, Group Activities, Lecture, Multimedia presentations
If other:	
Work Outside of Class:	Answer questions, Problem solving activity, Skill practice, Study
If Other:	
Up-To-Date Representative Texts:	Teacher-generated materials
Alternative Texts:	
Required Supplementary Readings:	
Other Required Materials:	
Requisite	
Category	
Requisite course:	
Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).	
Requisite Skill:	
Requisite Skill and Matching skill(s): Bold the requisite skill(s). if applicable	
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Enrollment Limitations and Category:	

Enrollment Limitations Impact:	
Course Created by:	Matthew Kline
Date:	04/29/2024
Original Board Approval Date:	04/28/2025
Effective Term:	FA 2026