Number: MATH G092  TITLE: Support for Trigonometry

ORIGINATOR: Gita Alemansour  EFF TERM: Fall 2019
FORMERLY KNOWN AS:

CROSS LISTED COURSE:

SEMESTER UNITS: 2.0
HRS LEC: 36.0  HRS LAB: 0.0  HRS OTHER: 0.0
CONTACT HRS TOTAL: 36.0
STUDY NON-CONTACT HRS RECOMMENDED: 72.0
CATALOG DESCRIPTION:
This co-requisite course is intended for students that enroll into Trigonometry, Math G120. It provides supplemental instruction in basic algebra skills and concepts needed for success in Trigonometry computations and applications. Success in this course will be based on attendance and satisfactory completion of in-class assignments. Requires concurrent enrollment in specified sections of Trigonometry, Math G120.

JUSTIFICATION FOR COURSE:
To comply with AB705

PREREQUISITES:

COREQUISITES:
• MATH G120: Trigonometry

ADVISORIES:
ASSIGNED DISCIPLINES:
Mathematics

MATERIAL FEE: Yes [ ] No [X] Amount: $0.00
CREDIT STATUS: Noncredit [ ] Credit - Degree Applicable [ ] Credit - Not Degree Applicable [X]
GRADING POLICY: Pass/No Pass [X] Standard Letter [ ] Not Graded [ ] Satisfactory Progress [ ]
OPEN ENTRY/OPEN EXIT: Yes [ ] No [X]
TRANSFER STATUS: CSU Transferable[ ] UC/CSU Transferable[ ] Not Transferable[X]

BASIC SKILLS STATUS: Yes [X] No [ ] LEVELS BELOW TRANSFER: 1 level below transfer level

CALIFORNIA CLASSIFICATION CODES: Y - Not Applicable
NON CREDIT COURSE CATEGORY: Y - Not applicable, Credit Course

OCCUPATIONAL (SAM) CODE: E

REPEATABLE ACCORDING TO STATE GUIDELINES: No [X] Yes [ ] NUMBER REPEATS:
REQUIRED FOR DEGREE OR CERTIFICATE: No [X] Yes [ ]

GE AND TRANSFER REQUIREMENTS MET:
COURSE LEVEL STUDENT LEARNING OUTCOME(S) Supported by this course:
1. Solve for the missing side of a right triangle using the Pythagorean Theorem
2. Graph trigonometric functions
3. Solve for the missing side of a triangle using proportions

COURSE OBJECTIVES:
1. Address the affective side of learning to provide students with the necessary skills to succeed in transfer level mathematics
2. Perform basic operations of real and complex numbers.
3. Identify relations and transformations for a function and its graph.
4. Determine the domain and range of a function.
5. Use proportions, area formulas, and Pythagorean Theorem to solve problems in geometry.
6. Interpret the concept of a function and its properties.
7. Learn the Unit circle
8. Use trigonometric identities and properties to simplify expressions
9. Use the calculator in conjunction with the above objectives

COURSE CONTENT:

LECTURE CONTENT:

A. The following course content is to be covered as the instructor deems necessary.
B. Learning skills
   1. study skills
   2. time management
   3. math anxiety
   4. test taking skills
C. Operations of real and complex numbers
   1. arithmetic
   2. simplifying
   3. rationalizing the denominator
   4. conjugation
   5. sets
D. Graphs, relations, and functions
   1. find domain and range
   2. function notation
   3. arithmetic
   4. inverse functions
E. Geometry
   1. coordinate plane
   2. properties of formulas of triangles
   3. parallelograms
   4. pythagorean theorem
F. Unit Circle
G. Trigonometric functions
   1. graph
   2. domain and range
H. Trigonometric Identities
I. Trigonometric Equations
METHODS OF INSTRUCTION:

A. Lecture:
B. Tutoring – noncredit:
C. Dist. Ed – Delayed Interaction:
D. Online:
E. Independent Study:
F. Hybrid:

INSTRUCTIONAL TECHNIQUES:

A. Lecture and discussion
B. teamwork
C. computer-facilitated instruction

COURSE ASSIGNMENTS:

Reading Assignments

A. problem sets
B. reading and/or written assignments
C. exploratory activities and/or projects

Out-of-class Assignments

A. problem sets
B. reading and/or written assignments
C. exploratory activities and/or projects

Writing Assignments

A. problem sets
B. reading and/or written assignments
C. exploratory activities and/or projects

METHODS OF STUDENT EVALUATION:

Short Quizzes
Projects (ind/group)
Problem Solving Exercises
Skills Demonstration

Demonstration of Critical Thinking:

Through independent work or group discussions, students will demonstrate critical thinking and problem solving by completing and applying the applications of designated topics in the required assignments/assessments.

Required Writing, Problem Solving, Skills Demonstration:

Students will demonstrate written skills, problem-solving, and skill demonstration through turned in class activities, projects, and/or quizzes of topics presented.

TEXTS, READINGS, AND RESOURCES:

TextBooks:

1. Lial, Hornsby, Schneider, Daniels. Trigonometry, ed. Pearson, 2017
2. Abramson, Jay. Algebra and Trigonometry, 1 ed. OpenStax(OER), 2015

Other:

1. scientific calculator

LIBRARY:
Adequate library resources include: Print Materials
Non-Print Materials
Online Materials
Services

Comments:

Attachments:

Attached Files