COURSE TITLE: TRIGONOMETRY

Common Course Number: MATH 1316

PREREQUISITE: MATH 1314 or 1414 or equivalent.

REQUIRED TEXTBOOK:

Trigonometry, 10th edition by Lial, Hornsby, Schneider, Daniels
Textbook only (ISBN 9780321671776)
Or

New books purchased from the bookstore include the MathXL software access code.

Used books require that the student buy the MathXL access code separately.

MATERIALS: MathXL access code, email address, eCampus and scientific calculator with trigonometric and inverse functions, graph paper, and scantron for final exam.

COURSE DESCRIPTION: MATH 1316 Plane Trigonometry (3)

In-depth study and applications of trigonometry including definitions, identities, inverse functions, solutions of equations, graphing, and solving triangles. Additional topics such as vectors, polar coordinates and parametric equations may be included.

Coordinating Board Academic Approval Number 2701015319

DCCCD/StateOfTX Learning Outcomes:

1. Compute the values of trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians.
2. Graph trigonometric functions and their transformations.
3. Prove trigonometric identities.
4. Solve trigonometric equations.
5. Solve right and oblique triangles.
6. Use the concepts of trigonometry to solve applications.

   SPRING 2015 1/20/15 – 5/14/15 Spring INET: TBA
   SUMMER 2015 TBA

Revised: Friday, November 07, 2014
El Centro MATH Department Measured Learning Outcomes:
After successfully completing MATH 1316, students will be able to:
I. Solve an application problem involving a real world situation with a right triangle.
II. Find a trigonometric expression equivalent to a given expression using a fundamental identity.
III. Solve a trigonometric equation.
IV. Given a graph of a sine or cosine function, identify the amplitude, period, and phase shift.

COURSE OBJECTIVES:
The following objectives will be evaluated through problem solving and/or objective tests:

1. Compute exact or calculator values of the six trigonometric functions for any angle for which such values exist.
2. Solve application problems with trigonometric functions, similar triangles, the law of sines and the law of cosines.
3. Solve application problems involving arc length, area of sectors, radian measure, linear velocity and angular velocity.
4. Graph variations of the six trigonometric functions with different amplitudes, periods, phase shifts or vertical shifts.
5. Verify complex identities using the reciprocal, Pythagorean, sum and difference, double angle and half angle identities.
6. Discover solution sets of conditional equations by using trigonometric identities.
7. Graph the six inverse trigonometric functions and identify their domain and ranges
8. Solve application problems involving force, velocity and bearing with vectors.
9. Graph complex number vectors and perform algebraic operations on complex numbers in either rectangular or trigonometric (polar) form.
10. Write equations in rectangular or polar form and graph points and cardioids in the polar coordinate system.

THE REQUIRED CURRICULUM FOR THIS TEXTBOOK WILL BE AS FOLLOWS:
Chapter 1: 1.1-1.4, The Trigonometric Functions
Chapter 2: 2.1-2.5, Acute Angles and Right Triangles
Chapter 3: 3.1-3.4, Radian Measure and the Circular Functions
Chapter 4: 4.1-4.4, Graphs of the Circular Functions
Chapter 5: 5.1-5.6, Trigonometric Identities
Chapter 6: 6.1-6.2, Inverse Trigonometric Functions and Trigonometric Equations
Chapter 7: 7.1-7.5, Applications of Trigonometry and Vectors
Chapter 8: 8.2-8.4, Complex Numbers

El Centro MATH Department Measured Learning Outcomes:
After successfully completing MATH 1316, students will be able to:
V. Solve an application problem involving a real world situation with a right triangle.
VI. Find a trigonometric expression equivalent to a given expression using a fundamental identity.
VII. Solve a trigonometric equation.
VIII. Given a graph of a sine or cosine function, identify the amplitude, period, and phase shift.
INSTITUTIONAL POLICIES (listed alphabetically)

ACADEMIC ETHICS STATEMENT: “Any violations of the Student Code of Conduct (as printed in the El Centro College Catalog and available at https://www1.dcccd.edu/cat1011/ss/code.cfm?loc=ECC) will be penalized accordingly. All matters of academic dishonesty (plagiarism, collusion, fabrication, cheating, etc.) will result in a failing grade for the assignment in question. All violations will be forwarded to the proper college authorities for review. The college may, at its discretion, impose additional penalties on the student including academic probation, suspension, or expulsion. ANY form of disruptive behavior will not be tolerated.”

ACCESSING ECAMPUS: HOW DO I LOGIN TO ECAMPUS?
e-Campus is the web interface used to access Internet-based distance education courses. Some traditional on-campus classes will have supplemental information posted on e-Campus. The instructor will inform you if an e-Campus site exists for your course. For information go to http://www.elcentrocollege.edu/ecampus or http://ecampus.dcccd.edu

ACCESSING ECONNECT: e-Connect is the web interface that provides online student services which allow students to search, register, and pay for credit classes, view final grades and financial aid status. Go to this address: https://econnect.dcccd.edu/econnect/index.html
You MUST have an e-mail address on file with the College to access e-Connect. You may use a DCCCD. If you have a question, contact eConnect@dccc.edu

ASSESSMENT CENTER PROCEDURES
- See hours posted on first floor
- You must show a picture ID before receiving an exam.
- The Assessment Center is not responsible for giving you the right test. It is your responsibility to check the test before entering the testing area. Memorize your section number, your instructor’s name and know the name of the unit of material you are testing over. The testing center will supply scratch paper.
- Write your name, class and section number on each page of your test and scratch paper.

ATTENDANCE POLICY: Check your instructor’s syllabus for additional attendance requirements.

CELL PHONE/PAGERS: In order not to interrupt the class session, students are asked to turn off all cell phones and pagers prior to the beginning of class. Students not conforming to this policy will be asked to leave class.

CHILDREN ON CAMPUS: El Centro College strives to protect an environment most conducive to teaching and learning for all enrolled students. Minor children may not be brought to classrooms, labs, testing areas or study areas of the college. This practice is disruptive to the learning process. Children who are taking part in organized scheduled activities, or who are enrolled in specific classes, are welcomed. For reasons of security and child welfare, the college will not permit unattended children to be left anywhere on the premises. Students/Parents who have problems with childcare should visit the advisement/counseling center or the Adult Resource Center to receive referrals to childcare services in the area.

COMPUTER USE POLICY: This class will require you to utilize campus computers. Please see the computer use policy for the district at https://www1.dcccd.edu/cat0608/ss/computer.cfm

Revised: Friday, November 07, 2014
CLASSROOM RULES AND EXPECTATIONS: All students are required to practice courteous, respectful cooperative behavior at all times, as this would be the norm in any higher education or work environment. To avoid, distractions in the classroom, students will:

- Arrive on time and stay until the class is dismissed;
- Be prepared and stay on task;
- Leave all food, drinks, candy and gum outside the classroom;
- Listen courteously to one speaker at a time, with no interruptions and no side conversations;
- Generally behave as mature adults would in the work place.

In order not to interrupt the class session, students are asked to turn off all cell phones and pagers prior to the beginning of class. Students not conforming to this policy will be asked to leave the class.

COUNSELING SERVICES: Counseling for personal, academic or career issues is provided to all students currently enrolled at El Centro College in the Division of Communication and Math. These services are provided by a licensed professional counselor who is bound by confidentiality. With the assistance of a counselor, students are able to identify, understand, resolve issues and develop appropriate skills. To make an appointment call Joe Martinez, M.Ed., LPC at 214-860-2396 or via email at jmartinez2@dcccd.edu.

DROP PROCEDURE: If you withdraw from this class, the withdrawal will be subject to El Centro’s published refund policies, and you are solely responsible for any Financial Aid obligations you may have incurred. If you are unable to complete the course, you must withdraw from it by the college’s stated drop date.* See appropriate date below. Withdrawal from a course is a formal procedure that you must initiate. I cannot do it for you. You need to speak with me and obtain my signature to drop the course. If I am not available, a counselor, advisor, or dean may sign the drop form. If you stop attending class and do not withdraw, you will receive a performance grade, usually an “F”.

STOP BEFORE YOU DROP

For students who enrolled in college level courses for the first time in the fall of 2007, Texas Education Code 51.907 limits the number of courses a student may drop. You may drop no more than 6 courses during your entire undergraduate career unless the drop qualifies as an exception. Your campus counseling/advising center will give you more information on the allowable exceptions. Remember that once you have accumulated 6 non-exempt drops, you cannot drop any other courses with a “W”. Therefore, please exercise caution when dropping courses in any Texas public institution of higher learning, including all seven of the Dallas County Community Colleges. For more information, you may access: https://www1.dcccd.edu/coursedrops

*Drop Dates (may be different for hybrid/flex/on-line classes; consult your instructor):

- Fall 2014: Thursday, November 13, 2014
- Spring 2015: Thursday, April 16, 2015
- Sum I 2015: Thursday, June 25, 2015
- Sum II 2015: Thursday, July 30, 2015

THIRD ATTEMPT TO ENROLL IN A COURSE: http://www.dcccd.edu/thirdcourseattempt/

The act of dropping one or more classes for a given semester, while remaining in others within the Dallas County Community College district. The act of officially dropping all courses for a given semester within the Dallas County Community College district.

Revised: Friday, November 07, 2014
FINANCIAL AID STATEMENT: Students who are receiving any form of financial aid should check with the Financial Aid Office prior to withdrawing from classes. Withdrawals may affect your eligibility to receive further aid and could cause you to be in a position of repayment for the current semester. Students who fail to attend or participate after the drop date are also subject to this policy.

GRADE REPORTS:
Grade reports are no longer mailed. You can log into eConnect (http://econnect.dcccd.edu) or call DCCCD Touch Tone Services at (972) 613-1818 to find out your final letter grade.

GRIEVANCE PROCEDURES: Students are expected to follow established procedures of the appropriate division in handling academic issues, such as grade appeals. El Centro College requires that other complaints and disputes (that cannot be resolved by the persons directly involved) be referred initially to the Ombudsman Office for informal, confidential resolution. Additional grievance procedures and Student Code of Conduct are outlined in El Centro College Catalog, available in hard copy in advisement or on the web at www.elcentrocollege.edu.

INCLEMENT WEATHER:
In case of inclement weather, listen to area radio and TV stations for announcements. You may also call the El Centro Inclement Weather Hotline: (214) 860-2701

NOTIFICATION OF ABSENCE DUE TO RELIGIOUS HOLY DAY(S): A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence if, not later that the fifteenth day after the first day of the semester, the student notified the instructor of each class scheduled of the date that the student would be absent for a religious holy day. A “religious holy day” means a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20, Tax Code. The notification shall be in writing and shall be delivered by the student personally to the instructor, with receipt acknowledged and dated by the instructor or by certified mail, return receipt requested, addressed to the instructor. A student who is excused under this section may not be penalized for the absence but the instructor may appropriately respond if the student fails to satisfactorily complete the assignment.

SPECIAL NEEDS: Students who feel that they may need assistance or accommodations due to a disability should contact the El Centro Disability Services Office in Room A095, phone (214) 860-2411, or go to the DSO webpage at: http://www.elcentrocollege.edu/students/disability-services

STUDENT HANDBOOK: The student handbook with additional information for students is available at

STUDENT IDs: Students are required to wear their student ID at all times. IDs should be visible.

STUDY ASSISTANCE: El Centro Learning Center (room A350) provides free group and individual tutoring. Also available are tutorial, drill & practice software, video and audio tapes, and student solutions manuals. Also, the Math Lab (room A830) provides a quiet study environment with computer access and lab assistance.

=================================================== DISCLAIMER STATEMENT===================================================
The instructor reserves the right to modify his/her attendance policy, due dates of class presentations, tests, or assignments, and his/her grading policy.

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