

TRIGONOMETRY

COURSE DESCRIPTION

Math 4A is a trigonometry class that involves angles, trigonometric and inverse trigonometric functions, right and oblique triangles, graphs, identities, trigonometric equations, vectors, polar coordinates, DeMoivre's Theorem, and applications.

TEXTBOOK

Lial, Hornsby, Schneider, Trigonometry, 9th Edition. Pearson/Addison Wesley, 2009.

SUBJECT PREREQUISITE: Successful completion (grade of **C** or better) of Math 102 and Math 103 or equivalent.

MATERIALS NEEDED:

- ❑ 3-ring binder
- ❑ Paper and Pencil(s)
- ❑ Calculator (I **strongly recommend** a TI-83 or 84)
- ❑ **Access Code to CourseCompass**

ATTENDANCE AND TARDY POLICY

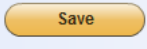
- Students are expected to attend all class meetings, be on time, and be in class the **entire** class session.
- The only excused absences are those due to a school-related activity or a requirement to appear in court. Calling me to tell me you will be absent **does not** excuse the absence.
- Students are expected to be on time. It is distracting, rude and unfair to fellow classmates and to the instructor when a student is late. **Two tardies will be counted as an absence.**
- If a student arrives late, it is his/her responsibility to inform the instructor **after class** so that the absence can be changed to a tardy.
- A student who misses **six (6) class sessions** in the first 9 weeks of the semester **may** be dropped from the course. However, if a student decides to no longer be enrolled in the course, it is the **student's responsibility** to make the drop official in the Admissions and Records office or else possibly receive a grade of F.

HOMEWORK

- Homework is assigned on a regular basis at www.coursecompass.com as well as in class. You may work ahead if you like; all homework for the entire chapter will be made available to the student before the start of the chapter. ***It is important to stay current to be successful in the course!*** Each assignment has a due date. **Homework that is submitted late will be penalized by 20% of the points possible for each day it is late. All homework submitted more than 2 days late will receive a grade of zero.**

- Any written problems and exercises assigned must be worked out thoroughly, completely and neatly, otherwise the work will not receive full credit.

Note:

- *When working on homework, you do not have to complete an entire assignment during one session.*
- *If you need to stop while in the middle of an assignment, simply hit the  icon and the program will save your work. You can then come back to the assignment at another time and continue from where you left off.*
- ***Being absent on the day homework is due does not excuse you from the late submission penalty.***

QUIZZES:

There will be occasional in-class quizzes at the discretion of the instructor. These quizzes will be worth 20 points each and may be given **at any point during the class time**. There will be no makeup quizzes for students coming in late during a quiz nor for students absent on the day of a quiz. These quizzes will be counted as part of the homework grade.

TESTS:

- There will be 6 - 8 chapter tests, worth 100 points each.
- There are **NO MAKEUPS** for missed tests. **NO EXCEPTIONS!!**
- *If you absolutely must be absent on the day a test is scheduled, you may discuss with me the possibility of taking the test early.*

FINAL EXAM:

A two hour comprehensive final exam worth 100 points will be given at the end of the semester. This final exam is optional and may be used to replace a low chapter exam score or a missed test. The final may **not** be used to replace the homework grade.

GRADING

- Homework and quizzes will represent 25% of the final course grade.
- The six to eight chapter exams will represent 75% of the final course grade.

Example: If your homework/quiz average is 90 and the average of your chapter exams is 78, then you would compute your grade as follows:

$$(.25)(90) + (.75)(78) = 22.5 + 58.5 = 81$$

- Your grade will then be determined by the following **grading scale**:

90 – 100 = A
80 – 89 = B
70 – 79 = C
60 – 69 = D
0 – 59 = F

Important Dates:

- September 3, 2010 – Last day to add***
- September 6, 2010 – Labor Day Holiday***
- September 17, 2010 – Last day to file for Pass/No-Pass grading basis***
- October 15, 2010 – Last day to drop***
- November 25 - 26, 2010 – Thanksgiving Holiday***
- FINAL EXAM DATE:***

Wednesday, December 15, 2010: 1:00 – 3:00 (CCI-206)

Academic Dishonesty: Academic dishonesty in any form is a very serious offense and will incur serious consequences, including but not limited to receiving a grade of F in the course. For the college policy on cheating and plagiarism see the college catalog.

NOTE: If you have a verified need for an academic accommodation or materials in alternate media per the Americans with Disabilities Act or Section 504 of the Rehabilitation Act, please contact me as soon as possible.

COURSE OBJECTIVES

Students will be able to:

- apply the trigonometric functions to solve for the parts of a triangle.
- evaluate trigonometric functions of both acute and obtuse angles.
- solve problems involving vectors
- apply the concept of radian measure to circular functions
- apply trigonometric identities to simplify algebraic expressions and solve equations.
- apply the concept of polar coordinates to algebraic operations and graphs.
- apply computing and graphing technology.

COURSE CONTENT OUTLINE

Chapter 1: Trigonometric functions

Chapter 2: Acute Angles and Right Triangles

Chapter 3: Radian Measure and Circular Functions

Chapter 4: Graphs of the Circular Functions

Chapter 5: Trigonometric Identities

Chapter 6: Inverse Circular Functions and Trigonometric Equations

Chapter 7: Applications of Trigonometry and Vectors

Chapter 8: Complex Numbers, Polar Equations and Parametric Equations (as time permits)