## 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, Daniels, Trigonometry, $10^{\text {th }}$ Edition. Pearson/Addison Wesley, 2013.

Note: You do not need to buy the book, but you must buy the Access Code.


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

## MATERIALS NEEDED:

- Graph paper! All work for all assignments must be done on graph paper. No exceptions!
- Pencil(s)
- Scientific Calculator (TI83 highly recommended. No TI-89 or cellphones)
- Access Code to My Math Lab (Pearson)


## 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 four (4) class sessions in the first 4 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 $F$.

Attendance Grade: Since attendance is not optional, it will be counted as part of your grade. You will receive an attendance grade after each exam throughout the semester with each attendance grade worth 10 points. Each absence will cost you two of those points and each tardy reduces your score by 1 one point.

## HOMEWORK:

- Homework assignments are completed online and the assignments can be found at the My Math Lab website, www. pearsonmylabandmastering.com.
- Late online homework will lose $\mathbf{2 5 \%}$ of the points possible for every day it is late.
- All online homework problems are to be written out and worked out completely on graph paper (see materials list above) and in pencil.
- The written work for the online homework will be due on the next class day after it is due online.
- No late written homework will be accepted.
- Written work will be graded for completeness, neatness and accuracy.
- Math Center Requirement: A part of your homework grade will be a mandatory one hour in the Math Center (FEM-1). This will be worth 10 points per week. You will need to $\log$ in to and out of the math center and I will receive a weekly report showing your attendance in the center.


## Homework (including the Math Center requirement and your attendance grade) will count for $\mathbf{2 0 \%}$ of your grade.

## QUIZZES:

There will be an online quiz at the end of each chapter. All written work for the quiz will be due on the next class day after the quiz was due online.

## Quizzes will count for $\mathbf{2 0 \%}$ of your grade.

## EXAMS:

- There will be 3-4 exams, worth 100 points each.
- There are NO MAKEUPS for missed exams. 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 on the last day of this 9 week course. This final exam may be used to replace a low exam score or a missed test. The final may not be used to replace the homework grade.

## GRADING:

- Homework (including attendance and Math Center grade) will represent $20 \%$ of the final course grade.
- Quizzes will represent $20 \%$ of the final course grade.
- The exams and the final exam will represent $60 \%$ of the final course grade.

Example: If your homework average is 92 and quiz average is 85, and the average of your exams and final is 78, then you would compute your grade as follows:

$$
(.20)(92)+(.20)(85)+(.60)(78)=18.4+17+46.8=82.2
$$

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

```
89.5%-100% = A 79.5%-89.4%= B 66.5%-79.4%=C 54.5%-66.4% = D 0 % - 54.4%= F
```

| Jan. 13, 2016 | Deadline to be enrolled in My Math Lab |
| :---: | :---: |
| Jan. 18, 2016 | Martin Luther King, Jr. Holiday - No classes |
| Jan. 19, 2016 | Deadline to be PERMANENTLY enrolled in <br> My Math Lab |
| Jan. 20, 2016 | Last day to add this 9- week class |
| Jan. 26, 2016 | Last day to file for P/NP grading basis |
| Feb. 9, 2016 | Last day to drop (receive a W) |
| Feb. 15, 2016 | President's Day Holiday - No classes |
| Mar. 8, 2016 | FINAL EXAM: 10:00 - 11:50, FEM-4 |

NOTE: This class runs from January 11 - March 8, 2016 (Tuesday). This is different from most 9 week classes and you need to be aware of this!

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)

