

## 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**

Charles P. McKeague and Mark D. Turner, Trigonometry, 6<sup>th</sup> Edition. Thomson, Brooks/Cole, 2008.

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

### **MATERIALS NEEDED:**

- ❑ 3-ring binder
- ❑ Binder Paper
- ❑ Pencil(s)
- ❑ Calculator (Scientific, preferably a graphing calculator)
- ❑ Access Code to WebAssign

### **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.webassign.net](http://www.webassign.net) as well as in class. **Homework will not be accepted late for any reason.**
- Written problems and exercises must be worked out thoroughly, completely and neatly, otherwise the work will not receive full credit.
- Graphs and charts are very important in Trigonometry so they need to be drawn, labeled, titled and scaled accurately and neatly.
- The two lowest homework scores will be dropped to account for emergencies.

***Note: Being absent on the day homework is collected does not give you the right to turn in the assignment late.***

## **TESTS:**

- Six (6) chapter tests, worth 100 points each, will be given.
- An average score of 70% on the unit's homework is a ***prerequisite*** for the exam. If you have earned ***at least 70%*** of the possible homework points for that unit, then whatever score you earn on your exam will be the score entered for your exam grade. If, however, you earn ***less than 70%*** on your homework, then the ***average of your homework grade and your test score*** will be the score entered for your exam grade.
- 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 will represent 20% of the final course grade.
- The six (6) chapter exams will represent 80% of the final course grade.

*Example:* If your homework average is 75 and the average of your chapter exams is 80, then you would compute your grade as follows:

$$(.20)(75) + (.80)(80) = 15 + 64 = 79$$

**Grading Scale:**

<b>% Earned</b>	<b>Grade</b>
<b>90 – 100</b>	<b>A</b>
<b>80 – 89</b>	<b>B</b>
<b>70 – 79</b>	<b>C</b>
<b>60 – 69</b>	<b>D</b>
<b>0 – 59</b>	<b>F</b>

**Important Dates:**

- *September 4, 2009 – Last day to add*
- *September 7, 2009 – Labor Day Holiday*
- *September 18, 2009 – Last day to file for Pass/No-Pass grading basis*
- *October 16, 2009 – Last day to drop*
- *November 26 – 27, 2009 – Thanksgiving Holiday*
- **FINAL EXAM DATE:** **Monday, December 14, 2009: 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 AND LEARNING OUTCOMES**

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 algebraic expressions.
- solve trigonometric equations.
- apply the concept of polar coordinates to algebraic operations and graphs.
- apply computing and graphing technology.

**COURSE CONTENT OUTLINE AND TENTATIVE MATERIAL COVERED**

**Chapter 1:** The six trigonometric functions

**Chapter 2:** Right triangle trigonometry

**Chapter 3:** Radian Measure

**Chapter 4:** Graphing and Inverse Functions

**Chapter 5:** Identities and Formulas

**Chapter 6:** Solving trigonometric and parametric equations

**Chapter 7:** Solving Triangles: Law of Sines, Law of Cosines

**Chapter 8:** Complex Numbers and Polar Coordinates (as time permits)