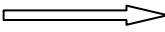# TRIGONOMETRY

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, 10th Edition. Pearson/Addison Wesley, 2013.

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

MATERIALS NEEDED:

- ❑ Textbook
- ❑ **Two spiral gridpaper notebooks,Cambridge brand** ⟹
   in the bookstore. No other notebooks will be accepted!
- ❑ 3-ring binder
- ❑ Paper and Pencil(s)
- ❑ Calculator (I **strongly recommend** a TI-83 or 84)
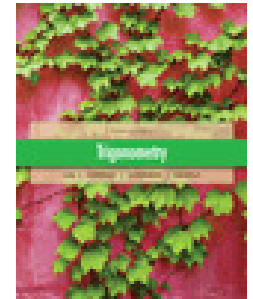
ATTENDANCE AND TARDY POLICY

- 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 **eight (8) 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 in class. All homework will be due **at the beginning** of the next class session after it was assigned. **All homework is to be done on the gridpaper from the Cambridge notebook listed in the materials list.** I will not accept homework that is not on this paper!

- All problems and exercises assigned must be worked out thoroughly, completely and neatly, **_in pencil,_** otherwise the work will not receive full credit.

- **_Being absent on the day homework is due does not entitle you to turn it in late._**

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 or for students absent on the day of a quiz. Students leaving class early after taking a quiz will receive a zero on that quiz. These quizzes will be counted as part of the homework grade.

TESTS:

- There will be 6 - 8 exams, worth 100 points each.
- There are **NO MAKEUPS** for missed exams. **NO EXCEPTIONS**!!
- _If you absolutely <u>must</u> 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 exam score or a missed test. The final may **not** be used to replace the homework grade.

GRADING

- Homework and quizzes will represent 30% of the final course grade.
- The exams and final will represent 70% of the final course grade.

  Example: If your homework/quiz average is 90 and the average of your exams and final is 78, then you would compute your grade as follows:
  $$(.30)(90) + (.70)(78) = 27 + 54.6 = 81.6$$

- 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:

- ***August 30, 2013 – Last day to add***

- ***September 2, 2013 – Labor Day Holiday***

- ***September 13, 2013 – Last day to file for Pass/No-Pass grading basis***

- ***October 11, 2013 – Last day to drop***

- ***November 11, 2013 – Veteran's Day Holiday***

- ***November 28 - 29, 2013 – Thanksgiving Holiday***

- ***FINAL EXAM DATE:***

> **Wednesday, December 11, 2013:   1:00 – 3:00   (FEM – 4E)**

Academic Dishonesty: Academic dishonesty <u>in any form</u> 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)