

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.

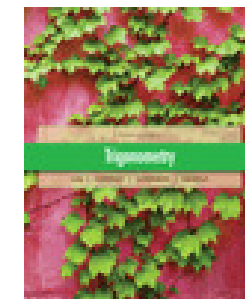
TEXTBOOK

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.

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 is assigned on a regular basis in class. **All homework is to be done in the Cambridge notebook listed in the materials list.** I will not accept homework that is not in this notebook! This notebook is to be used for your Math 4A **homework only**. There should not be any lecture notes or materials from any other class in this notebook.
- All problems and exercises assigned must be labeled and worked out thoroughly, completely and neatly, *in pencil*.
- Homework notebooks will be collected randomly and 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.

QUIZZES:

There will be a 20 minute in-class quiz every Thursday unless there is an exam scheduled for that day. 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.

EXAMS:

- There will be 4 - 6 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 at the end of the semester. 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:

- **Quizzes** and **Homework notebooks** will represent 25% of the final course grade.
- **Attendance** will represent 5% of the final course grade.
- The **three exams and the final exam** will represent 70% of the final course grade.

Example: If your homework and quiz average is 85, the average of your attendance grades is 90 and the average of your exams and final is 78, then you would compute your grade as follows:

$$(.25)(85) + (.05)(90) + (.70)(78) = 21.25 + 4.5 + 54.6 = 80.35$$

- 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
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Sept. 4, 2015	Last day to add a Fall 2015 full-term class
Sept. 7, 2015	Labor Day Holiday – No classes
Sept. 10, 2015	Last day to file for P/NP grading basis
Oct. 16, 2015	Last day to drop (receive a W)
Nov. 11, 2015	Veteran’s Day Holiday – No classes
Nov. 26-27, 2015	Thanksgiving Holiday – No classes
Dec. 14, 2015	FINAL EXAM: 9:00 – 10:50, 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)