

Campbellsville University
MTH 112-01
Trigonometry

TEXTBOOK: Trigonometry 10th ed. by Lial, Hornsby, Schneider, Daniels

INSTRUCTOR: Chris Bullock
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OFFICE HOURS: MWF 11-12 and 1-2
TR 11-12:15
or by appointment

1. DESCRIPTION OF COURSE: In this course emphasis is given to trigonometric functions, graphs, identities, applications to practical problems, the oblique triangle, etc. This course is required for the mathematics major with teacher certification, however it will not count for credit toward the mathematics major (without teacher certification). Prerequisite: MTH 111 or consent of instructor. This course is offered in both the fall and spring semesters.
2. COURSE OBJECTIVES: The primary goal of this course is for students to understand various aspects of trigonometry. In addition, the student will also learn how this discipline can be used in practical applications and in further study of mathematics. By the end of the course, students should have gained a general knowledge of trigonometric functions, trigonometric identities, trigonometric applications, exponential and logarithmic functions.
3. STUDENT GENERAL EDUCATION LEARNING OUTCOMES: In the Math/CS Department, we wish for all students taking general education courses in mathematics to demonstrate an adequate level of ability at the postsecondary level in the following areas as denoted by the following student learning outcomes.
 1. The student will demonstrate the ability to think logically and critically.
 2. The student will be able to communicate mathematics in oral or written form.
 3. The student will demonstrate quantitative literacy by interpreting, planning, and solving real world problems.
 4. The student will demonstrate knowledge of the role of ethics in mathematical pursuits.
4. COURSE OUTLINE: Topics to be covered include:

Chapter 1: Angles, Similar Triangles, Trigonometric Functions, Basic Identities
Chapter 2: Trigonometric Functions on Acute Angles, Trigonometric Functions on Non-acute Angles, Finding Trigonometric Values Using a Calculator, Solving Right Triangles

Chapter 3: Radian Measure, The Unit Circle, Applications of Radian Measure
Chapter 4: Graphs of the Six Trigonometric Functions
Chapter 5: Fundamental Identities, Sum and Difference Identities for Sine,
Cosine, and Tangent, Double-angle Identities, Half-angle Identities
Chapter 6: Solving Trigonometric Equations, Inverse Trigonometric Functions
Chapter 7: The Law of Sines, The Law of Cosines, Solving Triangles

Topics may be added or omitted depending upon time constraints.

5. **EVALUATION:** There will be a total of four tests including a final exam. Each test will be worth 100 points. Also, there will be a homework grade worth 100 points. Thus, there will be a total of 500 attainable points in this class. The grading scale will be the usual grading scale:

90-100% A
80-89% B
70-79% C
60-69% D
0-59% F

Homework will be assigned and graded after almost every class meeting. Each homework assignment will consist of a variable number of questions. Each homework problem will be graded as follows: 2 points for a correct solution, 1 point for a partially correct solution, 0 points for no effort or a completely incorrect solution. The percentage of earned points out of the total points will be recorded for each assignment. At the end of the semester, these homework grades will be averaged to get the final 100-point homework grade. This grade will then be averaged with the four test grades to obtain the final grade for the class.

6. **REQUIREMENTS:** The tentative dates for the exams are as follows:

Exam #1: Feb 9

Exam #2: Mar 6

Exam #3: Apr 10

Final: Wednesday, May 6 from 11-12:30

7. **ATTENDANCE:** Campbellsville University has an attendance policy which states that a student who misses two weeks worth of a class (for any reason) receives a warning. Thus, any student missing 6 class periods in this class will receive a warning. Any student who misses four weeks worth of a class (for any reason) is automatically withdrawn from the class with a failing grade. Thus, any student missing 12 class periods in this class will be withdrawn from the class. PLEASE NOTE THAT, BY THIS POLICY, ANY ABSENCE COUNTS, WHETHER EXCUSED OR UNEXCUSED.

Attendance will be recorded by me every class period at the beginning of class. If you are late for class, you will be counted as absent. Also, if you leave class early, leave your seat, disrupt class, or distract anyone else in class by talking, you will be counted as absent. The actions above show disrespect for

others in class and thus will be penalized as noted.

You must notify me in advance if you are going to miss a test. You may contact me by phone or by e-mail. Make-up exams are possible if I am notified in advance and if I think the excuse is reasonable.

8. **CALCULATORS:** Only scientific calculators will be permitted for use on exams. Graphing calculators, cell phones, and other forms of technology are strictly prohibited. It is your responsibility to make sure that you have an acceptable scientific calculator for each exam. Calculators may not be shared under any circumstances.
9. **DISABILITIES:** Campbellsville University is committed to reasonable accommodations for students who have documented physical and learning disabilities, as well as medical and emotional conditions. If you have a documented disability or condition of this nature, you may be eligible for disability services. Documentation must be from a licensed professional and current in terms of assessment. Please contact the Coordinator of Disability Services at 270-789-5192 to inquire about services.

If you have a documented disability, you must provide the instructor with the paper from Disability Services. At that time, the instructor will give you a copy of the department disability guidelines.

10. **ADDITIONAL SOURCES:**
College Algebra with Trigonometry by Barnett/Ziegler/Byleen
Trigonometry by Sullivan and Sullivan
11. **EMERGENCY PHONE NUMBERS:**
Security Cell Phone: 270-403-3611
Security Office Phone: 270-789-5556