

**Western Kentucky University**  
**MATH 117: Trigonometry Sec. D01**

COHH 1102, Summer 2015  
MTWRF 10:30am – 12:10pm

**Instructor:** Dominic Lanphier

**Office:** COHH 4113

**Office hours:** MTWRF 10:00am – 10:30am

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**Course Description:** The fundamental skills of trigonometry are developed. There is an emphasis on development and understanding of the trigonometric functions and their use in analysis and applications. Trigonometry (3 hours) meets five learning objectives of the Colonnade requirement for quantitative reasoning. Students in Math117 will be able to apply knowledge of the unit circle; trigonometric functions and graphs; trigonometric identities and equations; right triangle trigonometry; laws of sines and cosines; DeMoivre's Theorem; vectors and applications of trigonometry. Further, students will learn to model and solve problems appropriate for the field of study in majors of the sciences.

**Prerequisites:** Sufficient high school mathematics including Algebra I and II and geometry, and satisfactory score on Math Placement Exam; or Math 116 with a grade of C or better.

**Text:** *Trigonometry*, by Lial, Hornsby, Schneider, and Daniels, 10<sup>th</sup> edition. Text only, the course will not require lab software.

**Exams:** There will be two 1 ½ hour exams given tentatively on the following dates:

Exam I            Friday, July 24

Exam II           Friday, August 7

The exams will be worth 100 points each.

**Final Exam:** The Final Exam will be comprehensive, covering all the material of the course and it will be worth 200 points. The Final Exam will be on the last day of class, Thursday, August 13 at 10:30am – 12:10pm.

**Homework and Quizzes:** Homework will be assigned. It is important to attempt every homework problem in order to properly learn the material. If difficulty with a particular problem arises then ask the instructor for help. There will be numerous quizzes based very closely on the homework assignments and each quiz will be worth 10 points. The total of the homework and quizzes will be a total of 200 points. No make-up quizzes will be given and late homework will not be counted.

**Grade:** The grade for the course will be determined from the point total of the quizzes, homework, and exams. In particular,

Exam I	100
Exam II	100
Quizzes and HW	200
<u>Final Exam</u>	<u>200</u>
Total	600

So there are 600 possible points for the course.

**Attendance:** It is expected that you will attend every class. The exams and quizzes will be written under the assumption that the lectures have been attended, the book has been read, and the relevant homework has been done.

### **Goals for Colonnade Mathematics**

This course satisfies the General Education mathematics requirement in Category D-2, with the goal of providing students with the ability to understand and apply mathematical skills and concepts. After completing Math 117, students will be able to use fundamental mathematical reasoning to solve problems and have the ability to understand, manipulate, and apply trigonometric functions.

**Learning Outcomes:** Trigonometry (3 hours) meets five learning objectives as part of the Colonnade requirement for quantitative reasoning. The goal for Math 117 is to provide students with the ability to understand and apply mathematical skills and concepts. Students will learn basic concepts of trigonometry. Further, students will learn to model and solve problems appropriate for the field of study in majors of the sciences. Math 117 specifically meets the five learning objectives as detailed below:

Learning Objective 1: Interpret information presented in mathematical and/or statistical forms.

Learning Objective 2: Illustrate and communicate mathematical and/or statistical information symbolically, visually and/or numerically.

Learning Objective 3: Determine when computations are needed and execute the appropriate computations.

Learning Objective 4: Apply an appropriate model to the problem to be solved.

Learning Objective 5: Make inferences, evaluate assumptions, and assess limitations in estimation modeling and/or statistical analysis.

Tutors are available to assist you in the Mathematics Laboratory (TCCW 125A) between 8am and 4:30pm, Monday through Thursday, and between 8am and 2pm on Friday.

Cell phone use is prohibited in class. Cell phones and other mobile devices should be turned off or set to silent during class. Any use of cell phones is considered disruptive behavior.

Academic dishonesty will not be tolerated. University policies regarding academic integrity will be enforced.

Credit for a course in which a grade of "F" has been received can be earned only by repeating the course in residence unless prior approval is given by the head of the department in which the course was taken.

*In compliance with university policy, students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Student Disability Services in DUC A-200 of the Student Success Center in Downing University Center.*

*Please do not request accommodations directly from the professor or instructor without a letter of accommodation from the Office for Student Disability Services.*