Math 140 – Trigonometry – Spring 2013

SYLLABUS

Professor: Eric Lehtonen

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Office: 2763

Office hours: MW 5:30-6:30

TR 2:00-3:00

Calculators: The TI-30.
Text: Trigonometry: Lial, 9th ed.

Grading: There will be 4 exams and one final exam. Please note the dates in the class schedule below.

Tests: 60%

Final   30%

Homework 10%

Homework: Homework will be assigned daily.

Attendance: Students not attending the first day of class will be automatically dropped. Students missing more than one week worth of classes, dating from when the student first enters the class will be dropped.

Any student with a documented disability who may need educational accommodation should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible.

COURSE/CATALOG DESCRIPTION:

Right angle trigonometry and applications, unit circle trigonometry, graphs of trigonometric functions, inverse trigonometric functions, trigonometric identities, solving triangles using the Laws of Sines and Cosines, and polar coordinates.

MEASURABLE COURSE OBJECTIVES AND MINIMUM STANDARDS FOR GRADE OF "C":

Upon satisfactory completion of the course, students will be able to:

1. Define the six trigonometric functions using right triangle and unit circle definitions.
   2. Express angles in degrees and radians.
   3. Graph trigonometric functions, including those involving vertical and horizontal translations.
   4. Solve triangles using the Law of Sines and Law of Cosines, including ambiguous cases.
   5. Verify trigonometric identities, including sum and difference formulas, half-angle and power-reducing formulas.
   6. Define and graph inverse trigonometric functions.
   7. Solve trigonometric equations.
   8. Graph polar and equations.
   9. Solve application problems.

STUDENT LEARNING OUTCOMES:

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. verify trigonometric identities (ILO2)
2. Solve a triangle given two sides and the angle in between. (ILO2.
3. Show understanding in solving trigonometric equations.(IL02)

Lecture And Test Schedule

Week 1
Jan 15   Introduction,1.1
Jan 17   1.2
Week 2
Jan 22   1.3
Jan 24   2.1,2.2

Week 3
Jan 29   2.3,2.4
Jan 31   2.5,2.6

Week 4
Feb 5   3.1,Review
Feb 7   **TEST 1**

Week 5
Feb 11   3.2,3.3
Feb 13   3.4,3.5

Week 6
Feb 18   4.1,4.2
Feb 20   4.3,4.4

Week 7
Feb 25   4.5,5.1
Feb 27   **TEST 2**

Week 8
Mar 4   5.2,5.3
Mar 6   5.4,6.1

Week 9
Mar 11   6.2,6.3
Mar 13   6.4,6.5

Week 10
Mar 18 6.6.
Mar 20   7.1,Review

Week 11
Mar 25   **TEST 3**
Mar 27   7.2,7.3

Week 12
Apr 1   **Spring Break**
Apr 3   **Spring break**

Week 13
Apr 8   7.4
Apr 10   7.5,8.1

Week 14
Apr 15   8.2,8.4
Apr 17   9.1

Week 15
Apr 22   9.2
Apr 24   9.3

Week 16
Apr 29   Review
May 1   **Test 4**

Week 17
May 6   Review
May 8   **Final Exam**

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