

MATH 150 OUTLINE

TRIGONOMETRY

TEXT: Trigonometry, 6th Edition, McKeague & Turner

Approved: MAY 16, 2008

Effective: FALL 2008

MATERIAL TO BE COVERED	SECTIONS FROM TEXT	TIME LINE
Angles, degrees, special triangles, rectangular coordinate system, trigonometric functions, introduction to identities, identities.	1.1 - 1.5	5 Hours
Right triangle trigonometry, trig functions of acute angles, solving right triangles, applications, vectors: a geometric approach.	2.1 - 2.5	5 Hours
Reference angle, radians and degrees, circular functions, arc length and area of a sector, velocities.	3.1 - 3.5	3.5 hours
Basic graphs of trig functions, amplitude, reflection, period, graphing using vertical translation and phase shift, equations from graphs, combinations of functions, inverse trig functions.	4.1 - 4.7	5 Hours
Proving identities, sum and difference formulas, double-angle formulas, half-angle formulas, additional formulas.	5.1 - 5.5	5 Hours
Solving trigonometric equations, additional trig. equations, multiple angle trig. equations, parametric equations.	6.1 - 6.4	5 Hours
Law of sines, ambiguous case, law of cosines, area of a triangle, vectors: algebraic approach, dot product.	7.1 - 7.6	5 Hours
Complex numbers, trig. form for complex numbers, products/quotients in trig. form, roots of a complex number, polar coordinates, equations in polar coordinates and graphs.	8.1 - 8.6	6 Hours

*** One hour = 1 hour of face time. ****This outline allows for 3 hours of exams.

16 Week Term: 1 week = 2.8333 hours (face time) 6 Week Term: 1 week = 7.5 hours (face time)

COURSE POLICY:

1. Students should be tested on the core material (see below) without the aid of a calculator or note card.
2. Professors are allowed to supply a note card to students in order to test their application skills. Student-generated note cards are not allowed.

CORE MATERIAL:

Definitions and graphs of basic trig functions: reciprocal, ratio, and pythagorean identities; double-angle half-angle, and sum/difference formulas; sine, cosine, and tangent values of all quadrantal angles and "key" reference angles; correct sign of each trig function in each quadrant; recognition of equivalent forms of quadrantal and "key" reference angles in degrees and radians. The laws of sines and cosines.

**** See reverse side for important Department Policy****

Submitted by: Abbott, Chan, Kojima, McMullin, Parra, Wakefield