

Math 110 TR
Pre-Calculus, Trigonometry and Function Theory

Text: *Precalculus: Graphs and Models*, 2nd edition, Barnett, Ziegler, and Byleen, McGraw Hill, 2005

Prerequisites: a) Math 109 with a grade of "C" or better; b) Math ACT of at least 25; or c) Sufficient score on one of the department's placement exams. Please be sure that you satisfy one of these requirements. **A graphing calculator is required.** A TI-83, TI-86, TI-89 or TI-92 is strongly recommended. The College of Engineering recommends the TI-92.

Tutoring is available in Lee Hall. The text includes many opportunities for learning: Application to introduce each chapter, examples, Explore/Discuss activities, Chapter Reviews, Review Exercises, and Group Activities. All of these are available for in class or out of class work.

Lesson	Section and Topic	Assignment
1	5.1 Angles and Their Measure	2,5,8,9,12,15,18,19,22,23,29,30,31,36,40,43,47,50,51,54,57,60,63,66,69
2	5.1 Continued (coterminal angles,angular speed and applications)	25,26,74,77,80,83,89,92,94,97,100,101,104
3	5.2 Trigonometric Functions: A Unit Circle Approach	1,4,7,10,13,16,17,20,23,26,29,32,34,38,39,47,51,57,59,60,61,63,66,67,70,75,77,80,81,83,86,89,92,94,96,97,100,102
4	5.3 Solving Right Triangles	1-12,14,16,18,20,23,24,28,29,45,47,48,51,52
5	5.4 Properties of Trigonometric Functions	1,2,4,6,8,9,22,24,26,29,32,34,36,37,38,40,41,43,45,47-52
6	5.5 More General Trigonometric Functions and Models	2,5,8,11,12,14,16,18,21,24,25,28
7	5.5 Continued	29,30,34,38,39,41,58,59,77,79,85
8	5.6 Inverse Trigonometric Functions	1,4,7,10,13,16,19,22,24,27,32,34,36,38,42,44,46,48,50,52,53,63,65,66,67,73,75,81
9	6.1 Basic Identities and Their Use	1,4,7,10,13,16,19,22,25,36,40,43,46,55,57,64,72,73,79,82,85
	Chapter 5 Review	1-11,14-19,21,24,27,30,33,36,37,39,41,43,45-51,53,54,55,63,66,69,70,71,75
10	TEST 1	Chapter 5
11	6.2 Sum,Difference and Cofunction Identities	1,4,7,10,11,14,16,18,20,22,24,26,28,29,31,32,35,57,60
12	6.3 Double-Angle Identities	1,2,3,15,18,24,27,30,39,42,58,59,61,62,63,75
	6.3 Half-Angle Identities(optional)	5,7,10,21,43,46,65
13	6.5 Trigonometric Equations	1,4,7,10,13,16,19,22,23,26,29,32,35,38,43,46,47,50,54,63,67,69
14	7.1 Law of Sines	1,4,7,17,20,21,23,26,29,32,37,39,42,45,48
	Chapter 6 Review	1,3 7-10,12,14,15,16,18,20,22,31,33,35-38,41,43,45,47,48b,49,50,54
15	TEST 2	Chapter 6
16	7.2 Law of Cosines	2,3,5,7,8,9,12,13,16,19,23,26,33,36,37,40,44
17	**7.3 Geometric Vectors	1,4,7,10,12,13,16,17,20,23,26,28,30,31
	**7.4 Algebraic Vectors	1,4,7,10,15,18,19,22,45,48
18	7.5 Polar Coordinates and Graphs	1,4,7,10,12,13,16,17,20,21,23,26,27,30,33,37,39,42,44,45,47,48,49,51,53,55,56,58,66
19	7.6 Complex Numbers in Rectangular and Polar Form	1,4,7,9,12,13,16,17,20,22,23,26,33
	7.7 DeMoivre's Theorem	1,4,6,7,9,12,13,16,17,19,21,24,28,30,33,36
20	8.2 Systems of Linear Eq. and Augmented Matrices	5,6,7,8,11,12,17,22,23,27,29,30,40,43,49,55,65
	Chapter 7 Review	4-8,10-23,25,26,30-33,38-50,55,57,59-65
21	TEST 3	Chapter 7

Lesson	Section and Topic	Assignment
22	8.3 Gauss-Jordan Elimination	1,3,4,5,8,11,13,14,16,17,19-24,25,26,30,35,53,54,56,67,70
23	11.1 Parabola	1,4,8,9,14,17,20-26(even),27,29,31,45,48,51
	11.2 Ellipse	1,4,7-10,11,15,18,20,21,24,27,28
24	11.3 Hyperbola	1-5,8,9,15,18,20,21,24,27,37
	11.4 Translation of Axes	9-15,17,18,21,29,34,35,37,40,41,43,44,45
25	B.4 Parametric Equations	1,9,12,13,15,16,18,19,20,22,25,28,29,30,49,51,52
26	Review	Chapter 8 review: 7-12,17-20,27; p.640: 27-31; p.655: 67,69,70;
		Chapter 11 Review: 1-6,12-14,21-23,28,37-39; p.A62:19,22,28,29,51
27	TEST 4	8.2,8.3 Chapter 11 and B.4
28	Review for Final Exam	

** A handout on vectors is attached which can be used to replace or supplement the problems in the text.

Emergency Evacuation Procedure: A map of this floor is posted near the elevator marking the evacuation route and the **Designated Rescue Area**. This is an area where emergency service personnel will go first to look for individuals who need assistance in exiting the building. Students who may need assistance should identify themselves to the teaching faculty.

Last updated 3 April 2007.