

**Math 172 Course Syllabus
Sandhills Community College
Department of Mathematics**

Course:	MAT 172 Precalculus Trigonometry
Credit Hours:	3
Lecture Hours:	3 per week
Lab Hours:	0 per week
Prerequisite:	Math 171 (Precalculus Algebra) with a grade of C or higher.
Corequisite:	None
Course Description:	This is the second of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on properties and applications of transcendental functions and their graphs, right and oblique triangle trigonometry, conic sections, and vectors. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural science/mathematics.
Text: (Subject to change)	<u>Trigonometry</u> , 5th Edition. McKeague, Charles. P. and Turner, Mark D, Brooks/Cole 2004. ISBN: 0-534-40392-1
Goals and Objectives:	The student should be able to model and solve application problems while learning to <ol style="list-style-type: none"> 1. Work easily with angles given in both degrees and in radians. 2. Define the six trigonometric functions. 3. Evaluate trigonometric functions with and without using a calculator. 4. Graph the six trigonometric functions with changes in their amplitude, period, phase shift, and vertical shift. 5. Evaluate inverse trigonometric functions. 6. Prove trigonometric identities, including those involving sum and difference formulas and double angles. 7. Solve trigonometric equations. 8. Solve right triangles and oblique triangles using trigonometry. 9. Find areas of triangles. 10. Graph using polar coordinates. 11. Solve problems using vectors.
General Education:	Students who are successful in this course will improve in the following general education areas: reading, oral communication, mathematical skills, problem solving, critical thinking, and cooperating with others.
Course Requirements:	A graphing calculator is required for this class and TI-83 or TI-83 + or 84 is recommended.

Grading Scale:

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92 - 100 = A

84 - 91 = B

76 - 83 = C

70 - 75 = D

Less than 70 = F