

**Math 171 Course Syllabus
Sandhills Community College
Department of Mathematics**

Course:	MAT 171 Precalculus Algebra
Credit Hours:	3
Lecture Hours:	3 per week
Lab Hours:	0 per week
Prerequisite:	Math 080 with a grade of C or higher or placement
Corequisite:	None
Course Description:	This is the first of two courses designed to emphasize topics which are fundamental to the study of calculus .Emphasis is placed on equations and inequalities, functions (linear, polynomial, rational), systems of equations and inequalities, and parametric equations. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and predictions. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.
Text: (Subject to change)	College Algebra Essentials , 2nd edition, Robert Blitzer, Prentice Hall, 2007, ISBN: 0-13-228111-2
Goals and Objectives:	The student should be able to model and solve application problems, using technology when appropriate, while learning to: <ol style="list-style-type: none"> 1. Solve linear, absolute value, quadratic, polynomial, rational, exponential, and logarithmic equations. (if time permits, parametric equations) 2. Graph linear, absolute value, quadratic, piecewise, polynomial, rational, exponential, and logarithmic functions using transformations. 3. Solve linear, absolute value, polynomial, and rational inequalities. 4. Solve systems of equations and inequalities. 5. Find the complex zeros (both real and imaginary) of a polynomial function and show their relationship to the graph of a function. 6. Determine the symmetry of a relation or a function given its equation or graph. 7. Find the composition of two functions. 8. Find the inverse of a function and graph both functions, discussing symmetry. 9. Solve optimization problems
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 course in addition to the text.

Grading Scale:

Grading scale:

92 - 100 = A

84 - 91 = B

76 - 83 = C

70 - 75 = D

Less than 70 = F