MATH 151 Course Outline as of Fall 1999

CATALOG INFORMATION

Dept and Nbr: MATH 151 Title: ELEM ALGEBRA
Full Title: Elementary Algebra
Last Reviewed: 4/8/2013

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	5.00	Lecture Scheduled	5.00	17.5	Lecture Scheduled	87.50
Minimum	5.00	Lab Scheduled	0	6	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	5.00		Contact Total	87.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 175.00 Total Student Learning Hours: 262.50

Title 5 Category:	AA Degree Applicable
Grading:	Grade Only
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	

Catalog Description:
This course is a standard beginning algebra course, including equations and inequalities in one variable, integer exponents, polynomials, equations and inequalities in two variables, rational expressions, radicals and rational exponents, quadratic equations, and the graphs of parabolas. Not open to those who have taken MATH 150B within the past 3 years with a grade of "C" or better.

Prerequisites/Corequisites:
CSKL 372.

Recommended Preparation:

Limits on Enrollment:

Schedule of Classes Information:
Description: Standard beginning algebra course. Not open to students who have taken MATH 150B within the past 3 years with a grade of "C" or better. (Grade Only)
Prerequisites/Corequisites: CSKL 372.
Recommended:

Limits on Enrollment:
Transfer Credit:
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**	Effective:	Inactive:
CSU GE:	**Transfer Area**	Effective:	Inactive:
IGETC:	**Transfer Area**	Effective:	Inactive:

CSU Transfer:	Effective:	Inactive:
UC Transfer:	Effective:	Inactive:

CID:

Certificate/Major Applicable:
Not Certificate/Major Applicable

COURSE CONTENT

Outcomes and Objectives:
To be successful, students should be able to:
1. Solve advanced linear equations and inequalities in one variable and their applications.
2. Evaluate and solve formulas.
3. Graph linear equations and inequalities in two variables,including the slope-intercept method and finding the equation of a line.
4. Solve systems of equations and inequalities in two variables and their applications.
5. Define a polynomial, and perform the operations of addition, subtraction, multiplication, division, and factoring of polynomials.
6. Apply the laws of exponents to algebraic expressions.
7. Simplify and perform operations with rational expressions, and complex fractions.
8. Solve rational equations with applications.
8. Apply integer exponents, determine the square roots, simplify radicals, and perform basic operations with radicals, including rationalizing the denominators.
10. Solve radical equations.

Topics and Scope:

LINEAR EQUATIONS AND INEQUALITIES IN ONE VARIABLE
Linear equations and Applications, Inequalities
LINEAR EQUATIONS AND INEQUALITIES IN TWO VARIABLES
Cartesian coordinate system, Graphing linear equations and inequalities, Slope-intercept method, Finding the equation of a line, Systems of equations in two variables, Applications. Introduction to function notation.

POLYNOMIALS
Definition and operations, Factoring (common factors, trinomials, difference of squares, sum and difference of cubes, grouping).
RATIONAL EXPRESSIONS
Simplification and operations, Complex fractions, Rational equati ons, Applications.
EXPONENTS
Natural number exponents, Laws of exponents, Integer and Rational exponents.
RADICALS
Square roots, Simplification, sums and products, rationalizing denominators of square roots, Higher-indexed radicals, Pythagorean Theorem, Radical equations, Applications.
QUADRATIC EQUATIONS
Solution by factoring, Completing the square, Quadratic formula, Applications.
QUADRATIC EQUATIONS IN TWO VARIABLES
Graphing y = ax^2 + bx + c.

Assignment:

1. The student will have daily outside reading, problem set assignments from required text(s), or instructor chosen supplementary materials.
2. Instructional methodology may include, but not limited to: lecture, demonstrations, oral recitation, discussion, supervised practice, independent study, outside project or other assignments.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments and skill demonstrations are more appropriate for this course.	Writing 0 - 0%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems, Exams	Problem solving 15 - 40%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Performance exams	Skill Demonstrations 50 - 75%

Exams: All forms of formal testing, other than skill performance exams.

Multiple choice	Exams 5 - 25%

Other: Includes any assessment tools that do not logically fit into the above categories.

WRITING ASSIGNMENTS	Other Category 0 - 10%

Representative Textbooks and Materials:
Text(s) required of each student will be selected by the department, a committee of the department, or the responsible instructor from the books currently available. Choices in the past have included:
BEGINNING ALGEBRA (8th) by Lial/Miller/Hornsby, Harper Collins, 1998.
ELEMENTARY ALGEBRA (6th) McKeague, Saunders, 1998