MATH 150B Course Outline as of Fall 2013

CATALOG INFORMATION

Dept and Nbr: MATH 150B   Title: ELEMENTARY ALGEBRA 2
Full Title: Elementary Algebra 2
Last Reviewed: 4/8/2013

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.00	Lab Scheduled	0	6	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00   Total Student Learning Hours: 157.50

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:
The second half of a beginning algebra course, including systems of equations, rational expressions, radicals and rational exponents, quadratic equations, and the graphs of parabolas. The combination of MATH 150A and MATH 150B is equivalent to MATH 151. Not open to those who have taken MATH 151 with a grade of "C" or better.

Prerequisites/Corequisites:
Course Completion of MATH 150A

Recommended Preparation:

Limits on Enrollment:

Schedule of Classes Information:
Description: The second half of a beginning algebra course, including systems of equations, rational expressions, radicals and rational exponents, quadratic equations, and the graphs of parabolas. The combination of MATH 150A and MATH 150B is equivalent to MATH 151. Not open to those who have taken MATH 151 with a grade of "C" or better. (Grade Only)
Prerequisites/Corequisites: Course Completion of MATH 150A

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:
Upon successful completion of the course, students will be able to:
1. Solve systems of equations and inequalities in two variables and related applications.
2. Perform operations of addition, subtraction, multiplication, and division on radical expressions and simplify.
3. Solve radical equations and related applications.
4. Manipulate expressions involving rational exponents.
5. Perform operations of addition, subtraction, multiplication, and division on rational expressions, and simplify rational expressions and complex fractions.
6. Solve rational equations and related applications.
7. Solve quadratic equations by completing the square and the quadratic formula.

Topics and Scope:

I.   Linear equations and inequations in two variables
 A. Systems of equations in two variables
     1. Solving by graphing
     2. Solving by elimination
     3. Solving by substitution
     4. Applications
 B. Systems of inequalities
II. Rational expressions
 A. Simplification
 B. Operations
 C. Complex fractions
 D. Rational equations
 E. Applications
III. Radicals

A. Square roots
B. Simplification
C. Sums and products of radicals
D. Rationalizing denominators of square roots
E. Higher-index radicals
F. Pythagorean Theorem
G. Radical equations
H. Rational exponents
I. Applications
IV. Quadratic equations
A. Completing the square
B. Quadratic formula
C. Applications
V. Graphing parabolic functions
A. Intercepts
B. Vertex

Assignment:

1. Weekly reading outside of class (0-50 pages)
2. Problem set assignments (10-30)
3. Mid-terms (2-5) and a final exam; quizzes (0-15)
4. Projects (for example, calculator explorations and activities) (0-2)

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 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.

Problem set assignments	Problem solving 5 - 20%

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

None	Skill Demonstrations 0 - 0%

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

Exams: multiple choice, free response exams; quizzes	Exams 70 - 95%

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

Projects		Other Category 0 - 10%

Representative Textbooks and Materials:
Beginning Algebra (6th ed.). Martin-Gay, Elayn. Prentice-Hall: 2013.