

MATH 150B Course Outline as of Fall 2006**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:

This course is the second half of a standard beginning algebra course, including rational expressions, radicals and rational exponents, quadratic equations, and the graphs of parabolas. The sequence MATH 150A/MATH 150B constitutes a complete course in beginning algebra equivalent to a standard first year high school algebra course. Not open to those who have taken MATH 151 with a grade of "C" or better.

Prerequisites/Corequisites:

Completion of MATH 150A or higher (VE)

Recommended Preparation:**Limits on Enrollment:****Schedule of Classes Information:**

Description: Second half of a standard beginning algebra course. The sequence MATH 150A/150B constitutes a complete course in beginning algebra equivalent to a standard first year high school algebra course. Not open to students who have taken MATH 151 with a "C" or better. (Grade Only)

Prerequisites/Corequisites: Completion of MATH 150A or higher (VE)

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

Certificate/Major Applicable:

Both Certificate and 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 their applications.
2. Perform operations of addition, subtraction, multiplication, and division on rational expressions, and simplify.
3. Evaluate rational exponents.
4. Solve radical equations and their applications.
5. Simplify and perform operations with rational expressions and complex fractions.
6. Solve rational equations with applications.
7. Solve quadratic equations by completing the square and quadratic formula.

Topics and Scope:

Instructional methodology may include, but is not limited to: lecture, demonstrations, oral recitation, discussion, supervised practice, independent study, outside project or other assignments.

I. Rational Expressions

- A. Simplification
- B. Operations
- C. Complex fractions
- D. Rational equations
- E. Applications

II. Systems of Equations

- A. Solving systems of equations in two variables by graphing

- B. Solving systems of equations in two variables by elimination
- C. Solving systems of equations in two variables by substitution
- D. Applications of systems of equations in two variables

III. Radicals

- A. Square roots
- B. Simplification
- C. Sums and products of radicals
- D. Rationalizing denominators with square roots
- E. Higher-index radicals
- F. Rational exponents
- G. Pythagorean Theorem
- H. Radical equations
- I. Applications

IV. Quadratic Equations

- A. Completing the square
- B. Quadratic formula
- C. Applications

V. Quadratic Equations in Two Variables

- A. Graphing $y = ax^2 + bx + c$
 - 1. Intercepts
 - 2. Vertex

Assignment:

1. Daily reading outside of class (approximately 0-50 pages per week).
2. Problem set assignments from required text(s) or supplementary materials chosen by the instructor.
3. Exams and quizzes.
4. Projects (for example, calculator explorations and activities).

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.

Homework problems

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.

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:

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 (4th ed.). Martin-Gay, Elayn. Prentice-Hall: 2005.