

COCONINO COMMUNITY COLLEGE
COURSE OUTLINE

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December 4, 1991

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A. Identification:

1. Subject Area: Math (MAT)
2. Course Number: 097
3. Course Title: Intermediate Algebra
4. Credit Hours: 4
5. Catalog Description: Basic algebraic concepts, including rational expressions, functions and their graphs, radicals, quadratics, and logarithms/exponentials. Prerequisite: MAT 091 or placement. Four lecture.

B. Course Goals:

To build student confidence in the use algebraic skills to expand and reinforce concepts previously learned, to have students develop a positive attitude toward mathematics and to build algebraic skills in the listed areas.

C. Course Outcomes: Students will:

1. graph radical, quadratic, exponential, logarithmic, and absolute value functions;
2. solve quadratic and rational inequalities;
3. simplify rational expressions and solve rational equations;
4. simplify radical expressions and solve radical equations;
5. solve quadratic equations using the Zero-Product Property, completing the square, and the quadratic formula;
6. analyze exponential and logarithmic expressions and functions;
7. solve logarithmic and exponential equations;
8. perform function evaluation and identify domain and range;
9. perform operations on functions including finding the inverse;
10. and solve application problems involving concepts taught in the course.

D. Course Outcomes Assessment will include: a comprehensive final exam.

E. Course Content will include:

1. rational equations, expressions, and inequalities
2. radical equations, expressions, and graphs
3. quadratic equations, graphs, and inequalities
4. exponential and logarithmic expressions, equations, and graphs
5. functions
 - a. evaluation;
 - b. operations;
 - c. inverses;
 - d. domain and range;
6. and applications.