

COURSE NAME/NUMBER**LEARNING OBJECTIVES / GOALS / OUTCOMES / LEARNING OUTCOMES:**

Successful students will be able to:

1. Utilize their algebraic skills in manipulating algebraic expressions
2. Solve linear, quadratic and absolute value equations and nonlinear systems of equations
3. Find solutions for linear, absolute value and rational inequalities
4. Recognize, formulate, solve and interpret a variety of applied problems
5. Use the language of functions as required for the study of calculus
6. Use technology to enhance their understanding of topics represented by graphs

METHODS:

Lectures mixed with problem sessions.

The use of the graphing calculator to aid in the understanding of topics.

PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):

Credit can be awarded for this course through PLAR (Please check :) Yes No

METHODS OF OBTAINING PLAR:

Course Challenge

TEXTBOOKS, REFERENCES, MATERIALS:

[Textbook selection varies by instructor. An example of texts for this course might be:]

The text is chosen by a departmental curriculum committee.

Recent text; Bittinger, Beecher, Ellenbogen, Penna, *Algebra and Trigonometry*, Graphs and Models, Addison Wesley, 2nd ed., 2001

SUPPLIES / MATERIALS:

A graphing calculator (without a computer algebraic system) will be required.

STUDENT EVALUATION:

[An example of student evaluation for this course might be:]

Assignments and quizzes	16%
Tests	44% (3 or 4)
Semester exam	40%

Letter grades are assigned.

Students must achieve at least 40% on the final exam to receive credit for this course.

COURSE CONTENT:

[Course content varies by instructor. An example of course content might be:]

Basic algebra skills:

- Exponents
- Factoring
- Rational expressions
- Radicals

Solutions for equations:

- linear
- quadratic
- rational
- radical

- absolute value
- nonlinear systems

Functions:

- Notation
- Evaluation
- Transformations
- Domain and range
- Compositions
- Inverses
- Linear and quadratic applications

Graphing: Use of technology to aid in graphing and in the interpretation of the graphs

- Linear functions
- Quadratic functions
- Rational functions

Applications:

- Uniform motion
- Geometric
- Optimization