

Course Syllabus

COURSE TITLE: Elementary Algebra

COURSE IDENTIFICATION: Mathematics 26

CREDIT HOURS: 5

STUDENT LEARNING OUTCOMES:

Upon successful completion of Math 26, the student shall be capable of...

- Modeling and solving real-world applications algebraically
- Meeting the demands of the next sequential math course

DIVISION: Liberal Arts & Public Services

DEPARTMENT: Mathematics & Natural Sciences

INSTRUCTOR: James A. Schumaker

OFFICE LOCATION: EKH-225

OFFICE PHONE: (808) 934-2626

OFFICE HOURS: see current semester information

DATE: January 2018

COURSE DESCRIPTION:

A beginning course in algebra; operations with real numbers, solving linear equations and inequalities (in one variable), polynomials, factoring, rational expressions and equations, linear equations and systems of linear equations (in two variables), roots, radicals, and quadratic equations (in two variables).

Prerequisites: "B" in Math 22 (or its equivalent) or placement in Math 26.

COURSE OBJECTIVES:

To become familiar with various Real number sets, including the Integers and the Rational numbers.

To acquire skill in solving first degree equations (and inequalities) in one variable.

To achieve a comprehensive understanding of exponential notation, properties of exponents, and their application regarding the use of scientific notation.

To acquire a meaningful understanding of linear equations (and inequalities) in two variables, including their graphs.

To solve a system of linear equations by several methods.

To become familiar with polynomials; including their operations, factoring, and the solving of various polynomial equations.

To become familiar with rational expressions; including their operations, factoring, simplification, and the solving of simple rational equations.

To become familiar with radical expressions; including their operations, simplifications, and the solving of various equations involving radicals.

To develop the ability to solve quadratic equations (in one variable) using a variety of methods, and to gain an initial exposure to quadratic equations (in two variable) and their graphs.

In addition, as in most mathematical courses, students will be presented with the challenge of utilizing critical thinking along with the development of communicating analyses (results) in a legible/neat, ordered and cogent fashion.

INSTRUCTIONAL MATERIALS:

<u>Textbook</u>: Elementary Algebra - 1st Edition

by Mark D. Turner & Charles P. McKeague

Calculators: Scientific calculator (any brand/model).

Recommended: Student Solutions Manual

Graph paper or engineering pad;

A loose-leaf notebook for storing HomeWork, exams, and notes.

MISCELLANEOUS:

Grading Policies (regarding course grades throughout the semester)

Course Calendar (regarding the class schedule throughout the semester)

Student Conduct Code (Haw 7.101 Policy)

Academic Grievances (Haw 5.101 Policy)

<u>Discrimination & Harrassment Complaints/Grievances</u> (Title IX Rights)

Disability Services (Americans with Disabilities Act)

• <u>Haʻawi Kōkua Program</u> (HawCC's PDF Brochure)

Family Educational Rights and Privacy Act