



MATH 0950 (formerly MATH 0970)

Division: Natural Science and Mathematics

Department: Mathematics

Course: MATH 0950 (formerly MATH 0970)

Title: Pre-Algebra

Catalog Description:

Beginning with a review of basic arithmetic on signed numbers, fractions, and decimals, students will also learn to simplify and evaluate arithmetic and algebraic expressions of the appropriate level. The course also includes basic factoring as well as working with basic linear equations.

General Education Requirements: N/A

Semesters Offered: Fall, Spring

Credit/Time Requirement: Credit: 4; Lecture: 4; Lab: 0

Clock/Hour Requirements: 0

Offered for Non-Credit: No

Prerequisites: An ACT math score 15 or below or corresponding placement test score will require placement in this course. See the advisement center for more information.

Corequisites: None

Justification:

This course is for those students who are currently unprepared for college level mathematics work. This course is designed to prepare students for MATH 1010 which will then lead to a variety of general education math classes including MATH 1030, MATH 1040, or MATH 1050.

Student Learning Outcomes:

At the conclusion of the course, students will be able to:

- 1). Perform basic arithmetic with signed numbers and rational numbers.
- 2). Use knowledge of exponents, roots, and radicals to simplify expressions.
- 3). Simplify and evaluate basic arithmetic and algebraic expressions.
- 4). Identify the parts of a polynomial and perform the basic operations with polynomials.
- 5). Perform basic factoring, including binomials, trinomials, and 4-term polynomials of the appropriate level.

6). Graph, create, and solve basic linear equations.

Content:

This course deals primarily with arithmetic and properties of signed numbers, fractions, and decimals; percents, ratios, and proportions; manipulating and solving basic arithmetic and algebraic equations, including application problems; and an introduction to both factoring and graphing linear equations.

General Education Outcomes:

6) Apply computational skills to a variety of contexts.

Although not a General Education course, this developmental course helps prepare students by creating a solid foundation on which further mathematics will be built. Students will work with signed and rational numbers, variables, expressions, and equations. Homework and exams will include application problems appropriate to their level.

Key Performance Indicators:

Students are evaluated through, and receive feedback on, homework, exams, and in class participation.

Student understanding will be assessed by the following methods (and percent of overall grade in course): homework (10-30%), quizzes (0-10%), chapter / midterm exams (40 - 70%), and a comprehensive final exam (15 - 20%).

Note: A student must earn a score of 70% or higher on the comprehensive final exam in order to earn a grade of C or better for the course.

Representative Text and/or Supplies:

Pre-Algebra: Harvest Your Math Skills, current edition, by Alder and German

OR SIMILAR.

Optimum Class Size: 25

Maximum Class Size: 28

Signatures:

I hereby submit this course syllabus:

Jonathan Bodrero, M.S., Assistant Professor

I hereby find this course consistent with the goals and resources of the Mathematics Department:

Kari Arnoldsen, PhD, Professor, Chair

I hereby find this course consistent with the goals and resources of the Natural Science and Mathematics Division:

Dan Black, EdD, Associate Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

Michelle Olsen, MLS, Campus Librarian (Richfield Campus)