MATH 1010

Division: Natural Science and Mathematics
Department: Mathematics
Course: MATH 1010
Title: Intermediate Algebra
Catalog Description:

This course introduces a study of the properties of the real number system including the use of set and/or interval notation and performing operations on the real numbers. Students will be introduced to variables and the simplifying and evaluating of algebraic expressions. Solving and graphing of linear and quadratic equations along with an introduction to linear, quadratic, exponential, and logarithmic functions will be covered. This course is designed for students who have had only one year of high school algebra or who did poorly in two years of algebra.

General Education Requirements: N/A
Semesters Offered: Fall, Spring, Summer
Credit/Time Requirement: Credit: 4; Lecture: 5; Lab: 0
Clock/Hour Requirements: 0
Offered for Non-Credit: No
Prerequisites: Math 0970 with a C or better, ACT math score 18 - 22, or appropriate placement test score. Prerequisite score or class must have been completed within the last two years or you must (re-)take placement test.

Corequisites: None

Justification:

This course is for those students who are unprepared for college level mathematics work. This course is designed to prepare students for one of three different general education math classes including MATH 1030, MATH 1040, or MATH 1050.

Student Learning Outcomes:

Students will:learn basic operations on the real number system,understand the concept of a variable and be able to simplify or evaluate basic polynomial expressions,learn to manipulate and solve linear and quadratic equations,become prepared to continue to the next appropriate math class,understand graphing concepts and be able to graph linear functions,and become familiar with practical applications in the realm of mathematics.

Content:

Content consists of: real numbers, algebraic expressions, linear equations, quadratic equations, functions, graphing, systems of equations, rational functions, roots and radicals, polynomials, conic sections, and exponential and logarithmic functions.

General Education Outcomes:

6) Apply computational skills to a variety of contexts.

In this course students are taught how to perform quantitative calculations. Homework exercises and exam problems assess the competency of student skills variety of theoretical and applied situations.

Key Performance Indicators:

In class: Student learning will be assessed by homework (15 - 30%), quizzes (0 - 20%), group projects (0-30%), chapter / midterm exams (30 - 60%) and final exam (15 - 25%).Out of class: Success rate in their next math experience.

Representative Text and/or Supplies:

Latest edition of a college level combined beginning and intermediate algebra book.

Optimum Class Size: 30
Maximum Class Size: 45

Signatures:

I hereby submit this course syllabus:

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Jonathan Bodrero, M.S., Assistant Professor

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

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Kari Arnoldsen, PhD, Professor, Chair

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

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Dan Black, EdD, Associate Professor, Dean

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

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

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Michelle Olsen, MLS, Campus Librarian (Richfield Campus)