

## **MATH 090 – Basic Mathematics – SYLLABUS**

Department of Mathematics  
Millersville University

### **Description**

This course is designed to assist students who need additional preparation before taking a college mathematics course. It contains core mathematics needed to prepare students for college algebra and any other course that requires knowledge of elementary algebra. Remedial in nature and not applicable toward the science/math requirement. After successfully completing MATH 090, students are prepared to take courses that fulfill this requirement. Students who must take MATH 090 earn course credits, and the grade is counted in the cumulative grade point average, but MATH 090 course credit cannot be counted towards fulfillment of the baccalaureate or associate degree. (3 credits)

### **Prerequisites**

Placement MPT 090.

### **Course Objectives**

By the conclusion of this course the successful student will be able to:

- Perform arithmetic operations on number sets (including integers, rational numbers).
- Classify and define properties of real numbers.
- Solve multi-step linear equations.
- Solve single- and multi-step inequalities.
- Graph linear equations and inequalities.
- Simplify polynomials (including addition, subtraction, multiplication, and division).
- Factor polynomials and use them to solve equations.
- Simplify rational expressions (including multiplication and division).

### **Assessment**

Assessment of student achievement of the course objectives will vary from one instructor to another. Typical assessment will be made through work in class, homework, and examinations.

### **Use of Technology**

Technology use may vary by professor.

### **Topics**

- Pre-Algebra Review
- Variable Expression
- Solving Equations and Inequalities
- Linear Equations
- Polynomials
- Factoring
- Rational Expressions