I. **OVERVIEW**

The following information will appear in the 2017 - 2018 catalog

**MATH 921—INTEGERS**

**12.00 Lecture Hours**

*Prerequisite: Satisfactory completion of MATH 913.*

An introduction to the arithmetic of the integers. Includes addition, subtraction, multiplication, and division, along with basic expressions, equations, and applications. Course is repeatable. Field trips are not required. (Non-Graded course)

II. **LEARNING CONTEXT**

Given the following learning context, the student who satisfactorily completes this course should be able to achieve the goal specified in Section III, Desired Learning:

A. **COURSE CONTENT**

1. **Required Content:**

   A. Formulas

      1. Evaluation
      2. Applications

   B. Measurement and Applied Geometry

      1. English and metric systems of measurement
      2. Perimeter and area of common objects

   C. Integers

      1. The number line and order (greater than/less than)
      2. Operations
      3. Applications

   D. Algebra and Polynomials

      1. Simplifying algebraic expressions
      2. Polynomial algebra with integer coefficients
      3. Solving linear equations with integers
B. **ENROLLMENT RESTRICTIONS**

1. **Prerequisites**
   Satisfactory completion of MATH 913.

2. **Requisite Skills**
   *Before entering the course, the student will be able to:*  
   - Evaluate formulas.
   - Solve one step equations.

C. **HOURS AND UNITS**

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D. **METHODS OF INSTRUCTION (TYPICAL)**

*Instructors of the course might conduct the course using the following method:*  
1. Lectures  
2. Demonstration of mathematical techniques  
3. Guided practice

E. **ASSIGNMENTS (TYPICAL)**

1. **EVIDENCE OF APPROPRIATE WORKLOAD FOR COURSE UNITS**
   *Time spent on coursework in addition to hours of instruction (lecture hours)*
   - Regular homework assignments requiring approximately 2 hours for each class hour  
   - Ongoing review of computerized practice problems  
   - Preparation for final module exam

2. **EVIDENCE OF CRITICAL THINKING**
   *Assignments require the appropriate level of critical thinking*
   - Taylor's Tayloring received a payment from a client for $375, but also received several bills from suppliers, for $138, $94, $118, and $72. Has Taylor's Tayloring become richer or poorer, and by how much?  
   - Perform the calculation: \((-3)(4)+(-8)(-5)-(7)(-3)+(-2)(-4)\).  
   - Simplify: \((3x-5)(2x-7)\).

F. **TEXTS AND OTHER READINGS (TYPICAL)**

1. Other: www.aleks.com
III. **DESIRED LEARNING**

A. **OBJECTIVES**

1. **Required Objectives**

   Upon satisfactory completion of this course, the student will be able to:
   
   a. Use mathematical vocabulary correctly.
   
   b. Perform operations with integers.
   
   c. Add, subtract, and multiply polynomials with integer coefficients.
   
   d. Evaluate formulas and algebraic expressions for given values of the variables.
   
   e. Solve linear equations in one variable.
   
   f. Solve applied problems involving integers and geometric objects.

IV. **METHODS OF EVALUATION (TYPICAL)**

A. **FORMATIVE EVALUATION**

1. Homework
2. Quizzes
3. Exams/Tests

B. **SUMMATIVE EVALUATION**

1. Exams/Tests

Although no grade or course credit is granted, the administration of assessments serves several important functions: 1) It informs the student of their level of preparation to move on to the next module. 2) It introduces students to the procedures and formalities of school test situations, preparing them for transfer into credit classes. 3) Provides a method of accountability for student progress and success.
MATH - 921: Integers

Course Learning Outcomes

Upon satisfactory completion of this course, the student should be prepared to:

1. Analyze and solve level appropriate problems involving integer arithmetic.
2. Effectively communicate, using appropriate mathematical notation, processes and strategies in solving level appropriate problems involving integer arithmetic.