

Course Objectives/Course Outline

Spokane Community College

Course Title: Shop Algebra

Prefix and Course Number: APM 121

Course Learning Outcomes:

By the end of this course, a student should:

- Recognize and interpret algebraic terminology and symbolism
- Apply the order of operations
- Create algebraic equations from word statements or illustrations
- Identify and apply formulas to shop problems
- Manipulate formulas
- Simplify expressions and solve linear equations
- Work with whole numbers, decimals and fractions: add, subtract, multiply, divide
- Calculate ratios and solve problems involving proportion and percentages
- Work with number lines and Cartesian coordinates

Course Outline:

- I. **Week One**
 - A. Symbols/Expressions and Signed Numbers
- II. **Week Two**
 - A. Signed Numbers and Algebraic Operations
- III. **Week Three**
 - A. More Algebraic Operations
- IV. **Week Four**
 - A. Introduction to Equations
- V. **Week Five**
 - A. Solving Equations – Part 1
- VI. **Week Six**
 - A. Midterm
- VII. **Week Seven**
 - A. Solving Equations – Part 2
- VIII. **Week Eight**
 - A. Application of Formulas
- IX. **Week Nine**
 - A. Applications – Feeds and Speeds
- X. **Week Ten**
 - A. Applications
- XI. **Week Eleven**
 - A. Applications and Review
- XII. **Week Twelve**
 - A. Final