

**Course Objectives/Course Outline
Spokane Community College**

Course Title: Applied Technical Math 2

Prefix and Course Number: CAD 121

Course Learning Outcomes:

By the end of this course, a student should be able to:

- Perform basic algebraic and advanced operations
- Rearrange formulas
- Utilize geometric formulas and concepts
- Utilize trigonometric formulas and concepts

Course Outline:

- I. Algebra Review
- II. Formula Rearrangement
 - A. Terms and Coefficients
 - B. The Multiplication Axiom
 - C. The Addition Axiom
- III. Functions and Graphs
 - A. The Coordinate System
 - B. Graphing Equations
 - C. Slope of a Line
- IV. Geometry
 - A. Plane Figures
 - B. Similar Triangles
 - C. Perimeter and Areas
 - D. Volumes
 - E. Density
- V. Right Triangles
 - A. Angles and Sides
 - B. Pythagorean Theorem
 - C. Types of Triangles
 - D. Right Triangle Ratios
 - E. Applied Problems
- VI. Oblique Triangles
 - A. Oblique Triangles
 - B. The Law of Sines
 - C. The Law of Cosines
 - D. Applied Problems
- V. Formula Rearrangement
 - A. Formula Rearrangement
 - B. Fractional Formulas
 - C. The Multiplication Axiom
 - D. The Addition Axiom
 - E. Factoring

- VI. Systems of Two Equations
 - A. Graphing and Addition Methods
 - B. Substitution Methods
 - C. Applied Problems
- VII. Powers and Roots
 - A. Evaluation Formulas
 - B. Powers of Ten