

Course Objectives/Course Outline
Spokane Community College

Course Title: Math for Industrial Maintenance
Prefix and Course Number: IMMA 201

Course Learning Outcomes:

By the end of this course, a student should:

- Convert fractions, decimals, and units (American standard and metric)
- Solve algebraic equations
- Describe geometric shapes and relationships
- Calculate area, mass, and volume
- Identify types of angles and triangles
- Describe trigonometric ratios and functions
- Apply algebraic formulae, geometric principles, and trigonometric functions to shop problems and machine practices
- Demonstrate professionalism, critical thinking, and teamwork during in-class discussions, presentations, and hands-on activities

Course Outline:

A. *NOTE:* This course schedule is subject to change at the discretion of the instructor.

I. Week One

- Introductions and Basic Operations
- Review of Four Basic Operations
- Decimals
- Use of measurement tools

II. Week Two

- Fractions
- Introduction to Geometry
- Introduction to Trigonometry

III. Week Three

- Fractions - converting improper fractions and mixed numbers, addition and subtraction
- Signed numbers - addition and subtraction

IV. Week Four

- Signed numbers - multiplication and division
- Introduction to Algebra

V. Week Five

- Solving equations
- Midterm Review

VI. Week Six

- Midterm Exam covers skills learned in Weeks 1 thru 5

VII. Week Seven

- Applications - area and volume; mass, weight, density and force

VIII. Week Eight

- Ratios and Proportions
- Percentages

IX. Week Nine

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- Trigonometry - Pythagorean Theorem, Trig functions and applications

X. Week Ten

- Graphs
- Statistics

XI. Week Eleven

- Review for Final Exam

XII. Week Twelve

- Final Exam covers skills learned in Weeks: 1 - 11