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# Basic Math for Mechanics

Basic Curriculum Module



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# Introductions and Administrative Requirements





# Instructor Introduction



- Name
- Work experience
  - Job(s)
  - Length of employment
  - Certifications
- Other related experience



# Student Introductions

- Name
  - Work experience
  - Job(s)
  - Length of employment
  - Certification(s)
- Other related experience





# Course Overview





# Course Purpose

- **To teach and verify ability to perform the math operations required to make measurements, layout/locate parts/details/clips when required.**



# Course Objectives

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Upon completion of this course you will be able to:

1. Perform the math operations using whole numbers, fractions and decimals.



# Evaluation

- Assessments include:
  - **Final Written Test** (assesses knowledge)
    - Multiple choice or fill in the blank
    - 90% passing; corrected to 100%
    - Closed book
  - **Shop Projects** (assesses skills) – (when applicable)
    - 100% to spec., or correctable to 100%
- Certification is awarded upon successful completion



# Basic Math for Mechanics



# Topics

- **Addition, Subtraction, Division & Multiplication of**
  - Whole numbers
  - fractions
    - Common
    - Mixed
    - Decimal
- **Order of operations**



# Whole Numbers

- Addition of whole numbers
- Subtraction of whole numbers
- Division of whole numbers
- Multiplication of whole numbers



# Common Fractions

- Addition of common fractions
- Subtraction of common fractions
- Division of common fractions
- Multiplication of common fractions



# Mixed Fractions

- Addition of mixed fractions
- Subtraction of mixed fractions
- Division of mixed fractions
- Multiplication of mixed fractions



# Decimal Numbers

- Addition of decimal numbers
- Subtraction of decimal numbers
- Division of decimal numbers
- Multiplication of decimal numbers



# Order of Operations

- Use of parenthesis



# Application

- Common Fastener & Drill sizes to Decimal Number and Vs.Versa
- Nominal Edge Distance, Edge Margin and Equal Spacing Calculations
- Dimension, Plus or Minus, Size and Tolerance Calculations.
- Calculator Usage, functions, display, memory storage and power requirements.



# Summary, Review & Skill Check

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- Exercises, Workbook, Reviews
- Verify course objectives met
- Test Evaluation