

Prerequisites: MAC 131

Corequisites: None

This course covers the interpretation of intermediate blueprints. Topics include a review of Geometric Dimensioning and tolerances, auxiliary views, sectional views, and assembly drawings. Upon completion, students should be able to read and interpret intermediate blueprints. Course Hours per Week: Class, 1. Lab, 2. Semester Hours Credit, 2.

- b. Interpret dimensioning standards.
- c.

- A. Terminology
 - B. Surface Texture Symbols
 - C. Lay Symbols
 - D. Measuring Surface Texture
- V. Violations of True Projection
- A. Rotated or Aligned Projection
 - B. Untrue Projection
 - C. Untrue Projection of Sections
- VI. Special Views
- A. Partial Views
 - B. Distorted Views
 - C. Bottom Views
 - D. Phantom Lines and Views
- VII. Positional Dimensioning
- A. Point to Point Dimensioning
 - B. Datum Dimensioning
- VIII. Geometric Tolerances: Datums and Modifiers
- A. Terminology
 - B. Basic Dimensions
 - C. Datums
 - D. Datum Plane
 - E. Datum Cylinder
 - F. Datum Axis
 - G. Datum Targets
 - H. Datum Identification Symbol
 - I. Feature Control Symbols
 - J. Feature Control Frame
- IX. Geometric Tolerances: Form, Orientation, Profile, Runout, and Location
- A. Modifiers
 - B. Form, Profile, and Orientation Tolerances
 - C.
 - D.

- F. Machine Bolts
 - G. Nuts
 - H. Stud Bolts
 - I. Washers
 - J. Threaded Fastener Size
 - K. Screw and Bolt Specification
- XII. Pipe Threads
- A. American National Standard Pipe Threads
 - B. Tapered Pipe Threads
 - C. Straight Pipe Threads
 - D. Representation of Pipe Threads
 - E. Specification of Pipe Threads
- XIII. Identifying Steels
- A. AISI and SAE Systems
- XIV. Dovetails
- A. Description of Dovetails
 - B. Measuring Dovetails
- XV. Casting
- A. Sand Molding
 - B. Flat Back Patterns
 - C. Coring

Blueprint Reading for Machinists Intermediate Sixth Edition

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A standard calculator is REQUIRED for this course.