

# Mechanical Drawing: Board & CAD Techniques

## Chapter 7 Dimensioning

### Chapter Summaries

#### **Section 7.1 Basic Dimensioning Practices**

- Notes and symbols give information about the type of finish and materials needed to make an object, and measurements or dimensions must be as precise as necessary to allow the manufacturer to create the object.
- ASME and ISO standards closely control the dimensions and notes used in dimensioning.
- Size dimension defines the size of each piece; location dimension gives the size of each piece as well as its position in relation to the other pieces.
- Why must variation in specified dimensions for mating parts be limited?
- To specify permissible variations in parts to be manufactured, technical drawings include geometric dimensions and tolerances.

#### **Section 7.2 Dimensioning Techniques**

- The process of adding dimensions in board drafting is the same whether they are added in a preliminary freehand sketch or the final drawing.
- Geographic dimensioning and tolerancing is a very flexible communication system that can help designers specify the intent of the design throughout the entire manufacturing process.
- In AutoCAD, you must set up the dimension style by either creating a custom style or modifying AutoCAD's Standard style.
- Drafters use standard surface texture characteristic symbols and ratings to designate roughness, waviness, and lay direction of a surface.