PHILLIPS
DESIGN SERVICES, INC.

AutoCAD 3-D for Woodworking: Solid Modeling and Rendering

General Description:

This is an intermediate to advanced level 3-D AutoCAD course designed specific to the woodworking and architectural millwork industry. Explore the powerful world of 3-D modeling, rendering and output.

Prerequisites:

This course is intended for individuals that have completed our first course "AutoCAD for Woodworking: AutoCAD fundamentals" or are experienced AutoCAD users.

Topics covered:

- The 3-D world
  - X, Y, and Z axis
  - The World Coordinate System (WCS)
  - User Coordinate System (UCS)
  - 3-D views
    - XY, XZ, YZ planes
    - Isometric
    - Parallel and Perspective
- 3-D Objects
  - Primitives
  - Solids
  - Boolean operators
- Solid Editing
  - Fillet, Chamfer
  - Taper, Offset, Extrude faces
  - 3D Osnaps
  - Section Plane
  - Live Sectioning
- Overview of Surfaces and Mesh
  - Solids vs. surfaces vs. mesh
- Materials
  - Color and texture
  - Mapping
  - Attaching
  - Assigning to layers
  - Transparency
  - Reflectivity
  - Background
- Lighting
  - Default lighting
  - Sun and distance lights
  - Point lights and spot lights
  - Light fixtures
  - Shadows
  - Autodesk Seek
- Rendering
  - Settings
  - Shadows
  - Indirect Illumination
  - Render exposure
  - Saving images
- Video walk-through
  - Camera path
  - Target path
  - Settings
- Creating 2-D drawing views
  - Named views
  - 3D Clip
  - Shade Plot
- Microvellum
  - Product library
  - Extruded products
  - Cut lists
  - Material reports
  - CNC output and G code