

USF School of Architecture and Community Design

AutoCAD Prerequisite

To satisfy the AutoCAD prerequisite students must successfully complete a 3 credit hour intermediate course (a minimum of 40 class contact hours) or equivalent that covers the material listed at the end of this form.

Confirmation of prerequisite will be by official transcript or authorized certificate of completion. Students who have extensive experience with AutoCAD can be waived this prerequisite by examination based on competency with the material listed at the end of this form.

Examples of local programs meeting this prerequisite would be:

Erwin Technical Center: Completion of all three: *AutoCAD Level 1*, *AutoCAD Level 2*, and *AutoCAD 3D*

Hillsborough Community College: Completion of Intermediate *Computer Aided Design*

St. Petersburg College: Completion of *Intermediate AutoCAD*

USF - School of Architecture and Community Design: *Computer Technology*

Must show proficiency and understanding of the following:

1. Basic Drawing and Editing Commands

- Drawing lines, rectangles and circles
- Erasing objects
- Drawing with GRID and SNAP
- Viewing your drawing
- Undo
- Saving your work
- Exiting AutoCAD

2. Drawing precision

- Using object snaps
- Object snap overrides
- Polar tracking settings
- Object snap tracking

3. Making changes in your drawing

- Selecting objects for editing
- Moving, copying, rotating and scaling objects

4. Organizing your drawing with layers

- Creating new drawings with templates
- Layers and layer state
- Changing an object's layer

5. More object types

- Drawing arcs
- Polylines
- Converting polylines to lines and arcs
- Converting lines and arcs to polylines

6. Getting information from your drawing

- Measuring a distance and an area
- Information about objects

7. Advanced Editing Commands

- Trim, extend, fillet, chamfer
- Offsetting, mirroring, and creating arrays of objects

8. Inserting Blocks

- Blocks and inserting blocks
- Using design center to insert blocks

9. Setting up a layout

- Printing concepts
- Working in layouts
- Creating a new layout
- Guidelines for layout

10. Printing your drawing

- PLOT command
- Plot settings
- Plot Preview

- Plotting to file

11. Text

- Adding, formatting and Editing Multiline text
- Spell checking

12. Hatching

- Hatching and editing the hatch pattern

13. Adding dimensions

- Adding and editing dimensions
- Basic leaders
- Selecting a dimension style

14. External references

- Working with external references
- Attachments vs. overlays
- Working with XREF layers
- Editing XREF's in place
- Binding and clipping XREFS

15. Working with Images

- attaching and editing raster images
- Controlling the display

16. Tools for collaboration

- eTransmit
- Hyperlinks
- object linking and embedding

17. Foundations of 3D modeling

- Types of 3D models
- Wireframe modeling
- Surface modeling
- Basic viewing in 3D
- Rotating the View

- Adding thickness to 2D objects

- Setting up the elevation

- using multiple viewports

18. Working with 3D coordinates

- AutoCAD's 3D Coordinate system
- Using object snaps in 3D
- Point filters
- User Coordinate System (UCS)
- Moving the UCS
- The UCS view option
- The UCS 3 point option
- Working with Multiple UCS's