Unit 05: AutoCAD for Architecture

Content Area: **Science**
Course(s): **CAD Architect**
Time Period: **Semester 2**
Length: **2 weeks**
Status: **Published**

Standards

MA.12.4.2.12 D.2	Choose appropriate tools and techniques to achieve the specified degree of precision and error needed in a situation.
TEC.9-12.8.1.12.A.3	Participate in online courses, learning communities, social networks or a virtual world as resources for lifelong learning.
TEC.9-12.8.2.12.F.1	Determine and use the appropriate application of resources in the design, development, and creation of a technological product or system.
TEC.9-12.8.2.12.F.3	Select and utilize resources that have been modified by digital tools in the creation of a technological product or system (CNC equipment, CAD software).

Enduring Understandings

- Creating a basic foundation to work from can improve efficiency, workflow, and help maintain consistency.
- Different symbols, markings, components and annotations exist in technical drawings to help communication information to necessary parties.
- The precision of a measurement / significant digits will be determined by the required information for a given application or scenario.
- Creating a workflow can aid in automating tasks and help eliminate potential problems or errors.
- Various methods of illustrating ideas have been established to convey information over different mediums.

Essential Questions

- What are the advantages of setting up a template?
- What are the major components that make up a floor plan?
- How are different components used to convey information?
- Why is precision such an important part of creating technical drawings?
- What steps can be taken to insure issues with a drawing are addressed quickly?
- How are 3 dimensional objects represented on a 2 dimensional drawings?

Knowledge and Skills

- Following a demonstration and instructions, students will be able to create and save a template file to use for future drawings.
- Students will be able to modify Drafting Settings in AutoCAD to fine tune the options for drawing tools.
- Students will be able to use properties and zooming commands to aid in the drawing process: Properties command, match properties command, zoom (extents, window, previous, and object)
- Students will be able to use Direct Distance Entry, Polar Tracking, and Object Snap Tracking as primary tools for drawing.
- Students will complete and submit the drawing from Lesson 2-1, including all elements and the correct title block as demonstrated.
- Students will use the information from a demonstration and tutorial to create and insert blocks using AutoCAD.
- Students will use the information from a demonstration and tutorial to create and insert write blocks as separate files in AutoCAD.
- Students will use the information from a demonstration and tutorial to insert blocks for the Lesson 2-1 drawing.
- Students will be able to use AutoCAD's block library (the design center) to locate blocks already created in AutoCAD.
- Students will complete and submit the drawing from Lesson 2-1, which includes all elements and the correct title block as demonstrated.

Resources

- Creating a title block template PowerPoint
- AutoCAD Title block template
- Lesson 2-1 Project Description
- Lesson 2-2 Project Description
- AutoCAD Title block template
- PowerPoint on creating blocks

Assessments

https://docs.google.com/document/d/1wR7bQF-8AQoRrt0g4C3hKja0yjwDjC9_BiAmONWbTcI/edit

Modifications

https://docs.google.com/document/d/1ODqaPP69YkcFiyG72fIT8XsUIe3K1VSG7nxuc4CpCec/edit