

PST-1450: LANDSCAPE DESIGN - CAD

Cuyahoga Community College

Viewing: PST-1450 : Landscape Design - CAD

Board of Trustees:

January 2021

Academic Term:

Fall 2021

Subject Code

PST - Plant Science/Landscape Tech.

Course Number:

1450

Title:

Landscape Design - CAD

Catalog Description:

An introduction to the operational components of landscape design software, including the methods and procedures to develop the types of drawings typically used for landscape design/sales presentations and construction implementation at a residential scale, from initial file set-up to printing the completed drawings.

Credit Hour(s):

3

Lecture Hour(s):

2

Lab Hour(s):

3

Requisites

Prerequisite and Corequisite

PST-1441 Introduction to Landscape Design and IT-1090 Computer Applications.

Outcomes

Course Outcome(s):

1. Utilize Computer Aided Design (CAD) graphic communication techniques during the design, sales, and implementation processes of landscape design/build.

Objective(s):

1. Demonstrate a working knowledge of Computer Aided Design.
2. Demonstrate a working knowledge of the software's plant database.
3. Demonstrate techniques for illustrating the residential landscape site in CAD, 2D and 3D drawing environments.
4. Demonstrate a working knowledge of the customization techniques of the software suite including individual implementation of advanced features.

Methods of Evaluation:

1. In-class work
2. Homework
3. Projects
4. Reports
5. Quizzes
6. Tests

Course Content Outline:

1. Concepts
 - a. The computer aided drafting environment
 - b. Advantages and disadvantages
 - c. Portability of developed information and record retention
 - d. Basic language and movement through software programs
 - e. Basic display commands, i.e. grid, snap, ortho, layers
 - f. Data collection, imaging and research
 - g. Importing external data and exporting developed data in different formats
 - h. Drafting, estimating and presenting
 - i. Plan view drawing
 - j. Labeling
 - k. Landscape figures
 - l. Supplemental drawings, elevations, sections
 - m. Color rendering
 - n. Three-dimensional drawing
 - o. Surface grades
 - p. Geometry
 - q. Two- and three-dimensional thought
 - r. Communication
2. Skills
 - a. Hand drafting, drawing and sketching for import
 - b. Draw using appropriate page size and scale for the project
 - c. Import and resize a site survey into the drawing
 - d. Prepare a base plan using site data
 - e. Use software menus, toolbars, and figure libraries
 - f. Generate landscape plans, plant lists and reports
 - g. Perform needed repetitive tasks
 - h. Resize, rotate, and mirror figures
 - i. Create hardscape layouts
 - j. Locate and group softscape figures into the drawing
 - k. Insert, edit, and resize text
 - l. Organize and format labeling for hard and softscape items using both softscape and text box labels
 - m. Apply basic formatting and customizing to projects
 - n. Apply hatching patterns and color to clarify the drawing elements
 - o. Prepare and format drawing for printing or export in alternate formats
 - p. Utilize plan, elevation, section and 3D drawings completed in CAD as visual, communication, marketing, and sales tools as well as an estimating and implementation guide
3. Issues
 - a. Dealing with scale in relation to drawing format
 - b. Using the correct tool
 - c. Thinking and seeing in three dimensions
 - d. Combining graphic mediums and techniques
 - e. Proportion
 - f. Design process and appropriate graphic complexity

Resources

Leggitt, Jim. *Drawing Shortcuts: Developing Quick Drawing Skills Using Today's Technology*. 2. Hoboken, NJ:John Wiley Sons, 2009.

Bertanski, Tony. *Plan Graphics for the Landscape Designer; with Section-Elevation and Computer-Graphics*. 3. Waveland Press, 2018.

Cantrell, Bradley and Michaels, Wes. *Digital Drawing for Landscape Architecture: Contemporary Techniques and Tools for Digital Representation in Site Design*. 2. John Wiley & Sons, 2014.

Tal, Daniel. *Google SketchUp for Site Design: A Guide to Modeling Site Plans, Terrain and Architecture*. 2. John Wiley & Sons, 2016.

Cantrell, Bradley and Yates, Natalie. *Modeling the Environment: Techniques and Tools for the 3D Illustration of Dynamic Landscapes*. 1. John Wiley Sons, 2012.

Resources Other

Dynascape Website: <https://www.dynascape.com/resources/downloads/>

DynaScape Quick Start Guide: <https://go.dynascape.com/rs/295-PFV-854/images/DynaScape%20Design%20QuickStart%20Guide.pdf>

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