

HORT 60G: LANDSCAPE DESIGN: INTERMEDIATE COMPUTER APPLICATIONS

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2022
Units:	3
Hours:	2 lecture, 3 laboratory per week (60 total per quarter)
Advisory:	HORT 21, 22, 26, 40 and 60B recommended.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU
Grade Type:	Letter Grade Only
Repeatability:	Not Repeatable

Student Learning Outcomes

- Export drawings to printers and external files.
- Produce three-dimensional renderings of designs.

Description

Advanced use of Vectorworks as a landscape design and drafting tool. Topics covered include structuring of drawings using layers, improving drawing skills using tool commands and shortcuts, importing and rescaling PDFs for basemaps, importing images, creating viewports and sheet layers. Also covered will be customizing tool bars, expanding plant database, and importing/exporting/printing drawings. Introduction to three-dimensional drawing using Vectorworks and related programs.

Course Objectives

The student will be able to:

1. Understand basic and advanced options available in CADD software.
2. Create a drawing by importing a base, PDF, image or other drawing from a remote source and using as a base for a new drawing.
3. Create viewports and sheet layers from existing drawings.
4. Use and modify the plant database option of CADD software.
5. Create rendered 3-D drawings.

Course Content

1. Drawing using advanced tools and techniques (Lec and Lab)
 - a. Keyboard shortcuts for commands
 - b. Advanced commands
 - c. Landmark tools
 - d. Customizing selection
 - e. Customizing toolbars
2. Importing, exporting, printing (Lec and Lab)
 - a. Importing DWG, PDF, JPEG, and similar graphic files
 - b. Preparing drawing for print formats

- c. Rescaling drawings to match Vectorworks scales
 - d. Inserting photos into drawings
3. Enhancing presentations
 - a. Creating and inserting viewports
 - b. Creating sheet layers
 4. Utilizing and developing the plant database software (Lec and Lab)
 - a. Expanding plant database
 - b. Importing plant data
 5. Three-dimensional drawing (Lec and Lab)
 - a. Set up 3-D drawings
 - b. Render 3-D drawings
 - c. Manipulate 3-D rendering using software
 - d. Produce final rendered 3-D print of design

Lab Content

1. Preparing drawings using CADD
 - a. Set up drawing sheets
 - b. Establish scale and sheet size
 - c. Set up workspace with necessary commands and drawing tools
 - d. Set up layers and classes
 - e. Import base map
 - f. Draw design based on classroom exercise
2. Editing drawings using CADD
 - a. Correct errors
 - b. Prepare viewports
 - c. Prepare sheet layers for printing
 - d. Move symbols and drawing elements from layer to layer
 - e. Move symbols and drawing elements from class to class
 - f. Edit hatches and textures
3. Printing drawings using CADD
 - a. Prepare drawing for export to PDF format
 - b. Prepare drawing for printing on large format printer
 - c. Adjust sheet layers for printing varying versions of drawing
 - d. Adjust scales and sheet sizes for printing on small paper printers

Special Facilities and/or Equipment

1. CADD laboratory with computer work stations, CADD software (Vectorworks and Sketchup, latest releases), multi-media projection system, access to internet, access to printer, and seating/tables necessary to layout drawings and support study materials.
2. When taught online, on-going access to computer with email and internet access.

Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

Participation through attendance
Exercises and projects
Final project

Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

Lectures

Discussions
Lab activities
Assigned reading activities
Self-guided research

Representative Text(s) and Other Materials

Slatter, Tamslin. Residential Garden Design with Vectorworks. 2022.

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

1. Reading assignments will include reading approximately 5 to 10 pages per week from classroom notes and Canvas site
2. Writing assignments include:
 - a. Preparing class drawing assignments
3. Lectures will address reading topics and experiences of instructor. Classroom discussion and demonstrations in support of lecture topics will be provided

Discipline(s)

Ornamental Horticulture