

# HORT 45: VECTORWORKS FOR LANDSCAPE DESIGNERS

## Foothill College Course Outline of Record

Heading	Value
<b>Effective Term:</b>	Summer 2022
<b>Units:</b>	3
<b>Hours:</b>	2 lecture, 3 laboratory per week (60 total per quarter)
<b>Advisory:</b>	HORT 40 and a basic understanding of the operation of computers is recommended; not open to students with credit in HORT 60E.
<b>Degree &amp; Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU/UC
<b>Grade Type:</b>	Letter Grade Only
<b>Repeatability:</b>	Not Repeatable

## Student Learning Outcomes

- Demonstrate knowledge of landscape design software command skills through development of an appropriate landscape design project.
- Utilize the terminology appurtenant to computer aided design software.

## Description

Introduction to Vectorworks 2D software for computer aided design and drafting (CADD), specifically for landscape related applications. Focus on development of basic command skills, including 2-D drawing, editing, creation of layers, plant placement tool, and exporting to other programs and as a PDF for printing. 3-D CADD drawing is covered in a different course. Vectorworks software is utilized in this course.

## Course Objectives

The student will be able to:

1. Exhibit an understanding of the principles of computer aided design.
2. Perform basic drawing activities using CADD software.
3. Prepare a planting plan using CADD software.
4. Import information used in drawings.
5. Export CADD drawings for printing and use in other programs.
6. Understand the cross-cultural applications for computer aided design.

## Course Content

1. Introduction to computer aided drafting and design for landscape design
  - a. Overview of computer aided design and drafting software (Vectorworks)
  - b. Practical applications, given project type, size and business structure
  - c. Underlying principles of CADD

- d. Design nomenclature (entity drafting, layers, dimensioning, grids, etc.)
2. Performing basic computer aided design and drafting activities
    - a. Drawing files, opening and saving
    - b. Menu layout and ribbon layout
    - c. Symbol libraries
    - d. Drawing tools
    - e. Editing tools
    - f. Layers and classes
    - g. Sheet setup and layout
    - h. Templates
  3. Preparing planting plans
    - a. Using place plant tool
    - b. Modifying plant characteristics
    - c. Inserting plant schedule
  4. Importing information
    - a. Importing and rescaling base information
    - b. Importing images
    - c. Importing PDFs
  5. Exporting information
    - a. Exporting drawing as acad, pdf and other file types
    - b. Saving drawing in previous releases
    - c. Using CADD exports in other drawing formats
    - d. Printing CADD exports
  6. Cross-cultural implications of CADD
    - a. CADD in other countries and professions

## Lab Content

1. Preparing designs using CADD
  - a. Drawing setup
  - b. Drawing rendering
  - c. Drawing editing
2. Manipulating drawings using CADD
  - a. Creating symbols
  - b. Changing layers and classes

## Special Facilities and/or Equipment

1. CADD laboratory with computer work stations, CADD software, and a multi-media projection system.
2. Students provide printer supplies and other relevant drafting equipment or supplies necessary to complete exercises and projects.
3. Students provide drawing storage media (thumb drive or equivalent).
4. Students may purchase software used in class through publisher.
5. 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  
Class exercises  
Class projects

## 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**

Vectorworks software  
[Vectorworks Getting Started Guide](#) (free online guides for beginners, available on the Vectorworks website)

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

1. Reading assignments will include reading approximately 5-10 pages per week from the online guides
2. 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