

Architecture Design & CAD Pathway

Engineering and Architecture



PLEASANT VALLEY HIGH SCHOOL

CTE Architecture Pathway Course Sequence



Course Descriptions

Architecture Design/CAD 1 (Concentrator)

Basic elements of **Architectural Design**, introduction to **Uniform Building Code standards**, introduction to elements of **fine arts** as they pertain to Architectural Design, individual room and **space planning**, and the completion of a **student portfolio** which contains a partial set of working drawings for a two bedroom, one bath house. Plans will be completed on computer using **AutoCAD software**. Floor plans, **electrical plans** and **elevations** will be completed in this class with AutoCAD software. A **full scale 3D model** will be created with **Sketch Up software**. Students can earn **Butte College credit** upon completing this course.

Architecture Design/CAD 2(Capstone)

Year-long course for students who have successfully completed Arch Design 1. Class starts by creating a foundation plan with details, section plan with details and a site plan in **Auto CAD**. A **framing unit** will be completed in **Sketch Up** that will cover **floor framing**, **wall framing** and **roof framing**. Finally, **Revit software** will be used to recreate a more complete set of plans and details in **2D and 3D formats**. **3D printers** will be used to model all REVIT projects.

Architecture Design/CAD 3 & 4 (Advanced)

Year-long course for students who have successfully completed Arch Design 1 & 2. Students must demonstrate the ability to create an **abstract residential design utilizing technical sketching**, **modeling** and **CAD presentations**. **Revit** is the primary software used in this class. All projects will be made digital for students to use for **self-promotion**, **college applications** and **internships**. **3D printers** will be used to create models of all Revit projects.

LOCAL POST-SECONDARY OPTIONS:

Butte College

*AS in Drafting & CAD Tech.
AS Degree in Engineering
Certificate in Drafting & CAD
Certificate in Architectural
Drafting and Modeling*

CSU, Chico

*Civil Engineering
Construction Management
Concrete Industry Management
Electrical Engineering
Mechanical Engineering*

HIGH-WAGE CAREERS:

- * Civil Engineer
- * Project Architect
- * Design Architect
- * Landscape Architect
- * Project Manager

Contact:

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Career and Technical
Student Organization:



SkillsUSA
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