Architecture Design & CAD Pathway

Engineering and Architecture

PLEASANT VALLEY HIGH SCHOOL

2021—2022

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

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Career and Technical Student Organization: