EWHS Course Scope & Sequence

Course Title	CAD				
Course Overview	CAD is a project-based course that introduces students to architectural design, drafting, rendering, and construction principles using industry-standard design practices. Students learn to create detailed architectural drawings and digital models while exploring the relationship between architecture, urban planning, sustainability, and the built environment. Through hands-on projects, safety planning, and construction activities, students develop the technical and problem-solving skills needed for careers in architecture, engineering, and construction.				
Unit Component	**Unit 1**	**Unit 2**	**Unit 3**	**Unit 4**	**Unit 5**
Title	Introduction to Architecture	Architectural Drawing	Architectural Rendering and Modeling	Construction Safety	Building Construction
Guiding or Essential Questions *(if applicable)*	What is architecture? How does it affect society?	How can architectural drawing skills be applied in real-world scenarios to convey architectural designs and collaborate effectively with clients, builders, and other professionals in the construction industry?	How does architectural rendering influence the design process and enhance the communication of architectural ideas to various stakeholders, including clients and the broader community?	How can someone identify and minimize hazards on the job site? How does fostering a culture of safety on construction sites positively impact project productivity, worker morale, and the overall success of construction projects?	How does an understanding of the building process benefit a designer? How do sustainable building practices impact the construction industry, and what role can architects, engineers, and contractors play in promoting environmental stewardship through eco-friendly design

					choices and the use of renewable materials?
Topic This should be the overarching theme or big idea. Brief overview of the unit.	Students will be able to demonstrate the relationship between urban planning and architecture and how their collaboration contributes to creating sustainable, functional, and livable cities.	Students will be able to create an accurate, detailed, visually compelling scaled architectural illustration.	Students will be able to apply the concepts learned in the Architectural Rendering and Modeling unit by creating whole house renderings and critique the work of their peers.	Students will be able to create a safety plan that contributes to a safer and more productive construction site, safeguarding the health and lives of workers (students) and enhancing the overall project success.	Students will be able to construct and out-building design.
Length *(in weeks)*	2	3	3	2	2