

Architectural Design

Architecture & Construction

Newman Smith High School
Business & Industry Endorsement

This four year plan can be used as an example to help plan your high school career.

Subject	9th Grade	10th Grade	11th Grade	12th Grade
Language Arts	English	English	English	English
Math	Math	Math	Math	Math
Science	Science	Science	Science	Science
Social Studies	Social Studies	Social Studies	Social Studies	Social Studies
CTE Courses	Principles of Architecture (1 Credit)	Architectural Design I OR Interior Design I (1 Credit)	Architectural Design II OR Interior Design II OR Civil Engineering & Architecture (2 Credits)	Practicum in Architectural Design OR Career Preparation (2 Credits)
Additional Elective				
Additional Elective				
Additional Elective				

Additional Graduation Requirements <ul style="list-style-type: none"> • Foreign Language (2 Credits) • Physical Education (1 Credit) • Fine Arts (1 Credit) 	Possible Industry Based Certifications <ul style="list-style-type: none"> • Autodesk Certified Professional or user in AutoCD or AutoCAD Civil 3D • Revit Architect Autodesk Certified Professional or User in Autodesk Revit Architecture or Revit MEP Electrical.
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Occupations	Median Wage	Annual Openings	% Growth
Architects	\$77,043	808	16%
Geographic Information Analysts and Surveyors	\$58,926	162	27%
Architectural/Civil Drafters	\$50,170	1,068	9%
Construction Managers	\$87,402	2,401	14%

The Architectural Design program of study explores the occupations and educational opportunities associated with developing, engineering, and designing building structures and facilities. This program of study may also include exploration into collecting and interpreting geographic information, researching and preparing maps, and interior design.

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Recommended Course Sequence

Principles of Architecture

In this course, students will have an overview to the various fields of architecture, interior design, and construction management. Achieving proficiency in decision making and problem solving is an essential skill for career planning and lifelong learning. Students use self-knowledge, education, and career information to set and achieve realistic career and educational goals. Job-specific training can be provided through training modules that identify career goals in trade and industry areas. Classroom studies include topics such as safety, work ethics, communication, information technology applications, systems, health, environment, leadership, teamwork, ethical and legal responsibility, employability, and career development.



Architectural Design I

In this course, students will gain knowledge and skills needed to enter a career in architecture or construction or prepare a foundation toward a postsecondary degree in architecture, construction science, drafting, interior design, or landscape architecture. Architectural Design I include the knowledge of the design, design history, techniques, and tools related to the production of drawings, renderings, and scaled models for nonresidential or residential architectural purposes.

OR

Interior Design I

This course is a technical course that addresses psychological, physiological, and sociological needs of individuals by enhancing the environments in which they live and work. Students will use knowledge and skills related to interior and exterior environments, construction, and furnishings to make wise consumer decisions, increase productivity, promote sustainability, and compete in industry.



Architectural Design II

In this course, students will gain advanced knowledge and skills needed to enter a career in architecture or construction or prepare a foundation toward a postsecondary degree in architecture, construction science, drafting, interior design, or landscape architecture. Architectural Design II includes the advanced knowledge of the design, design history, techniques, and tools related to the production of drawings, renderings, and scaled models for nonresidential or residential architectural purposes.

OR

Interior Design II

This course is a technical laboratory course that includes the application of the employability characteristics, principles, processes, technologies, communication, tools, equipment, and materials related to interior design to meet industry standards.

OR

Civil Engineering and Architecture(PLTW)

This course is a high school level specialization course in the PLTW Engineering Program. In CEA students are introduced to important aspects of building and site design and development. They apply math, science, and standard engineering practices to design both residential and commercial projects and document their work using 3D architectural design software. Utilizing the activity-project-problem-based (APB) teaching and learning pedagogy, students progress from completing structured activities to solving open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills



Practicum in Architectural Design

This course is an occupationally specific course designed to provide technical instruction in architectural design. Safety and career opportunities are included in addition to work ethics and architectural design study.