

Program of Study Information

The following program of study information sheet as well as the program structure tables for the courses are provided to be able to print separately for handouts. The information provided is based on the best available information at the time of this document and will be updated as appropriate.

Design Drafting



The Design Drafting program provides students with the principles of technical drafting and design concepts. Areas of study include sketching, dimensioning and annotation, construction and engineering documentation, 3D modeling, problem solving, critiquing, and team building.

Architecture and Construction Career Cluster

Architecture and Construction is focused on careers in designing, planning, managing, building, and maintaining the built environment.

Postsecondary Options

Secondary

- Certificate of Skills Attainment

Associates Degree

- Technology- Construction, AAS (WNC)
- Construction and Design, Architecture, AAS (TMCC)
- Manufacturing Technologies, Drafting, AAS (TMCC)
- Construction and Design, Landscape Architecture, AAS (TMCC)
- Construction and Design, Residential Design (AAS)

Bachelor's Degree

- Architecture, BS (UNLV)
- Interior Architecture and Design, BS (UNLV)
- Bachelor of Landscape Architecture (UNLV)

Master's/Doctoral Degree

- Master of Architecture (UNLV)



For additional information on this cluster, please contact:

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Website: <https://doe.nv.gov/CTE/>

Approved Courses

- Design Drafting I
- Design Drafting II
- Design Drafting II Lab

Complementary Courses

- Design Drafting Advanced Studies
- Architecture Design
- CTE Work Experience – Architecture and Construction
- IRC – Design Drafting

Work-Based Learning Opportunities

- Job Shadowing / Internship / Work Experience / Career Days / Career Fairs / Field Trips / Guest Speakers

Career and Technical Student Organization

SkillsUSA



State Recognized Industry Certifications

Refer to the Governor's Office of Innovation's [Nevada Eligible Industry Credentialing List](#)

Aligned to Industry

Occupation	Median Wage Per year	Annual Openings	% Growth
Architectural and Engineering Managers	\$152,350	14,000	2.0%
Landscape Architects	\$67,950	1,500	0.0%
Drafters	\$60,290	18,900	-3.0%
Surveying and Mapping Technicians	\$46,910	7,800	4.0%
Surveyors	\$82,380	3,800	1.0%
Architects	\$80,180	9,100	3.0%

Source U.S. Bureau of Labor Statistics 2022

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Alignment of Design Drafting Standards and the Science and Engineering Practices

Science and Engineering Practices	Design Drafting Performance Indicators
1. Asking questions (for science) and defining problems (for engineering).	
2. Developing and using models.	4.2.2-4.2.4
3. Planning and carrying out investigations.	
4. Analyzing and interpreting data.	2.5.4
5. Using mathematics and computational thinking.	2.1.6, 2.2.2, 2.2.3, 2.2.6, 2.2.7, 3.3.1, 3.3.2
6. Constructing explanations (for science) and designing solutions (for engineering).	4.2.7
7. Engaging in argument from evidence.	
8. Obtaining, evaluating, and communicating information.	

Crosswalks of Design Drafting Standards and the Common Career Technical Core

Architecture and Construction Career Cluster	Performance Indicators
1. Use vocabulary, symbols and formulas common to architecture and construction.	2.1.1, 2.3.4, 2.3.8
2. Use architecture and construction skills to create and manage a project.	2.2.4, 2.3.6, 2.7.7, 3.6.4
3. Comply with regulations and applicable codes to establish and manage a legal and safe workplace.	
4. Evaluate the nature and scope of the Architecture and Construction Career Cluster™ and the role of architecture and construction in society and the economy.	
5. Describe the roles, responsibilities and relationships found in the architecture and construction trades and professions, including labor/management relationships.	
6. Read, interpret and use technical drawings, documents and specifications to plan a project.	2.5.1
7. Describe career opportunities and means to achieve those opportunities in each of the Architecture and Construction Career Pathways.	1.4.3

Design/Pre-Construction Career Pathway	Performance Indicators
1. Justify design solutions through the use of research documentation and analysis of data.	
2. Use effective communication skills and strategies (listening, speaking, reading, writing and graphic communications) to work with clients and colleagues.	2.7.1, 2.7.3, 2.7.5, 2.7.7
3. Describe the requirements of the integral systems that impact the design of buildings.	
4. Apply building codes, laws, and rules in the project design.	
5. Identify the diversity of needs, values, and social patterns in project design, including accessibility standards.	
6. Apply the techniques and skills of modern drafting, design, engineering, and construction to projects.	3.4.3, 3.5.5, 4.1.3, 4.1.4, 4.2.7
7. Employ appropriate representational media to communicate concepts and project design.	
8. Apply standards, applications and restrictions pertaining to the selection and use of construction materials, components, and assemblies in the project design.	