



High School to College and Career Pathway: Secondary Career and Technical Education

Area of Study: Technology and Engineering Education

Pathway: Architectural Design (CAD/Drafting)

Get the Facts

Rising energy costs and increased concern about the environment have led to many new buildings being built with more sustainable designs. Therefore, demand for architects with knowledge of green design/sustainable design are particularly in demand.

A drafter is a nontraditional occupation for women. In 2012, 16.6 percent of the people employed in this occupation were women.

Workforce Trends

Nationwide, employment of architects is projected to grow 17 percent through the year 2022. In Utah, the average hourly median wage is \$35.80.

CAREER AND TECHNICAL EDUCATION Recommended Pathway Courses

(Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.)

CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL

Course #	Foundation Courses: (required)	Credit
15.1341	CAD Architectural Design 1	.50
15.1342	CAD Architectural Design 2	.50
15.1343	CAD Architectural Design 3	.50
Or choose the following courses:		
14.1330	PLTW Civil Engineering & Architecture	1.00
14.1300	PLTW Introduction to Engineering Design	1.00
Elective Courses		
48.0703	Cabinetmaking	1.00
46.0201	Carpentry 1	1.00
46.0000	Construction Trades Foundation	.50
46.0302	Electrician 1	.50
15.1510	Engineering Technology	.50
47.0705	GIS Remote Sensing	.50
47.0201	HVAC	1.00
20.0110	Interior Design 1	.50
47.0702	Introduction to Geographical Information Systems (GIS)	.50
14.1211	Physics with Technology	1.00
46.0501	Plumbing 1	1.00
32.0199	Workplace Skills	.50

1.50-2.00 credits

1.00-1.50 credits

3.00 credits for completion

Architectural Design (CAD/Drafting) is:

- > High skill
- > High wage
- > High demand

Sample Career Occupations

- > Architectural Drafter
- > Civil Engineer
- > Drafting/CAD Teacher
- > Industrial Designer
- > Interior Designer
- > Landscape Designer

Foundation courses taken beyond the required credits can be used as elective credit.

Middle School		State Requirements		High School Suggested Education Plan				College and Career
7th Grade	8th Grade	Middle School	High School	9th Grade Suggested	10th Grade Suggested	11th Grade Suggested	12th Grade Suggested	Beyond High School
Language Arts 7 1.00	Language Arts 8 1.00	2.00	Language Arts 4.00	Language Arts 9 1.00	Language Arts 10 1.00	Language Arts 11 1.00	Language Arts 12 1.00	<p>There are a number of options for education and training beyond high school, depending on your career goals.</p> <ul style="list-style-type: none"> > Certificate > Associate degree > Bachelor's degree > Professional degree > On-the-job training > Apprenticeship > Military training <p>For more information on salary projections, labor market demand, and training options, visit UtahFutures.org.</p>
Math * 1.00	Math * 1.00	2.00	Math 3.00	Math * 1.00	Math * 1.00	Math * 1.00	Math * 1.00	
Science .50	Science 1.00	1.50	Science 3.00	Earth Systems 1.00	Physics or Physics with Technology 1.00	Chemistry 1.00	Biology 1.00	
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies 3.00	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and Citizenship .50	
P.E. 1.00	Health .50	1.50	P.E./Health 2.00	Participation Skills and Techniques .50	Fitness for Life .50 / Health Education .50 Lifetime Activities or Sport .50			
The Arts .50	The Arts .50	1.00	Fine Arts 1.50	Fine Arts Courses 1.50				
Keyboarding .50			Digital Literacy .50	Comp. Tech. or Exploring Computer Science .50				
College & Career Awareness 1.00	Exploring Technology .50	1.00	CTE 1.00	Refer to Career and Technical Education box above.				

> * Talk to your school counselor about math requirements in the core curriculum. Core curriculum and elective requirements may vary district to district.
 > Many CTE courses may qualify for concurrent enrollment credit, which in some cases may earn up to 1.0 credit toward Pathway completion. Talk to your school counselor about availability.

> Concurrent enrollment course offerings vary by school and district.
 > Many Utah postsecondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional postsecondary Pathways for details.