MONTANA CAREER PATHWAYS
Career and Technical Education

Learning that works for Montana
CTE™

A⁺ **Montana Office of Public Instruction**
opi.mt.gov **Elsie Arntzen, Superintendent**

Area of Study: Industrial Trades and Technology Education

Career Pathway: Design & Construction

Get the Facts

A Design & Construction professional will learn and practice designing, planning, managing, building and maintaining structures. Courses in the pathway include drafting, architecture, construction, electricity, sheet metal, HVAC and painting.

Workforce Trends

With the continuous need of skilled and knowledgeable employees in the design and construction industry, this pathway will help provide employees that are trained and work ready.

With a current annual growth rate of 10.1%, the demand for individuals with design and construction skills continues to increase in Montana.

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 SCHOOL

Course #	Foundation Courses (required)	Credit	
71102	Drafting - General	.50	
13003	Industrial Arts	.50/1.0	
17006	Woodworking	.50	1.0 credit
17003	Carpentry	.50	
17002	Construction Comprehensive	.50	
17001	Construction Careers Exploration	.50	
	Elective Courses		
17059	Plumbing and Heating	.50	
17008	Masonry	.50	
21103	Drafting - Architectural	.50	
17010	Home Maintenance	.50	
21007	Engineering Design & Development	.50	1.0 credit
21108	Blueprint Reading	.50	
21101	Drafting Careers Exploration	.50	
21104	Drafting Civil/Structural	.50	
21107	CAD Design & Software	.50	

Foundation courses taken beyond the required credits can be used as elective credit. Additional CTE Credits are recommended for Pathway completion.

2.0 credits for completion

Careers in Design & Construction are:

- High demand, high skill, and high wage

Career Examples
- CAD Draftsperson
- Carpenter
- Electrician
- Cost Estimator
- Interior Designer
- Plumber
- Dry Waller
- Tile Setter
- Landscape Architect
- Builder
- Stonemason

According to the Montana Department of Labor & Industry, the median hourly wage for occupations within the Design & Construction Career Pathway is $30.68.

State Graduation Requirements		Suggested High School Plan of Study				College and Career
High School Administrative Rules of Montana 10.55.905		**9th Grade Suggested**	**10th Grade Suggested**	**11th Grade Suggested**	**12th Grade Suggested**	**Beyond High School** There are many options for education and training beyond high school, depending on your career goals.
English/Language Arts	4.0	English 9 1.0	English 10 1.0	English 11 1.0	English 12 1.0	
Mathematics	2.0	Math* 1.0	Math* 1.0	Math* 1.0	Math* 1.0	- Certificate
Social Studies	2.0	Social Studies* .50/1.0	Social Studies* .50/1.0	U.S History 1.0	U.S. Government 1.0	- Associate degree
Science	2.0	Earth Science 1.0	Biology 1.0	Science Elective*		- Bachelor's degree
Health Enhancement	1.0	P.E./Health* .50	P.E./Health* .50	P.E./Health Electives*		- On-the-job training
Arts	1.0	Arts Courses* 1.0				- Apprenticeship
Career and Technical Education	1.0	Pathway Foundation Course .50/1.0	Pathway Foundation Course .50/1.0	Pathway Elective Course .50/1.0	Pathway Elective Course .50/1.0	For more information on salary projections, labor market demand, and training options, visit lmi.mt.gov.
Work-Based Learning		Participation in a Pathway-related work-based learning experience				
Career and Technical Student Organization		SkillsUSA				

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

- Dual enrollment course offerings vary by school and district.
- Many Montana post-secondary programs accept high school courses toward a two- and four-year degree through dual enrollment. Check with post-secondary campuses for details.

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