

High School to College and Career Pathway: Secondary

Career and Technical Education: Preparing Students for College and Career!



Area of Study: Skilled and Technical Sciences Education

Pathway: Precision Production Trades – Machine Tool

Get the Facts

No two countries were more responsible for the Industrial Revolution than America and England. In England, machines served to make talented artisans better. In America, machines served to make entrepreneurs more productive.

Workforce Trends

Despite rising productivity that is expected to limit employment growth, opportunities should be excellent because not enough qualified people are attracted to production-related occupations.



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
48.0503	Machine Tool *	.50
Elective Courses:		
15.1301	Technical Design 1	.50
15.1302	Architectural Design 1	.50
15.1303	Architectural Design 2	.50
15.1306	Mechanical Drafting	.50
48.0508	Welding Technician – Entry Level	1.00
48.0701	Woodworking	.50
32.0199	Student Internship (Critical Workplace Skills)	.50

2.00 credits

1.00 credit

3.00 credits for completion

* Will include advanced Machine Tool courses.

Machine Tool is:

- > High skill
- > High wage
- > High demand
- > Nontraditional for females

Sample Career Occupations

- > Machine Tool Cutter
- > Machine Tool Teacher
- > Machinist
- > Machinery Mechanic

This is a nontraditional occupation for women. In 2007, 13.2 percent of the people employed in this occupation were women.

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	There are a number of options for education and training beyond high school, depending on your career goals. <ul style="list-style-type: none"> > Certificate > Associate degree > Bachelor's degree > Professional degree > On-the-job training > Apprenticeship > Military training For more information on salary projections, labor market demand, and training options, visit www.utahfutures.org .
Math * 1.00	Math * 1.00	2.00	Math 3.00	Math * 1.00	Math * 1.00	Math * 1.00		
Science .50	Science 1.00	1.50	Science 3.00	Earth Systems 1.00	Physics 1.00 or Physics with Technology 1.00	Additional Credit 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			Computer Tech. .50	Computer Technology .50				
CTE Intro 1.00		1.00	CTE 1.00	Refer to Career and Technical Education box above.				

* Talk to your school counselor about math requirements in the new common core curriculum. Core curriculum and elective requirements may vary district to district.

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.