



**Career Cluster: Manufacturing**

**Career Pathway: Manufacturing & Production**

JUNIOR HIGH / MIDDLE SCHOOL		
College and Career Awareness		
Exploring Technology		
HIGH SCHOOL		
<b>SUPPORTING COURSES:</b> Suggested high school course that supports the Career Pathway (Course DOES NOT count towards the Pathway)		
Secondary Math 2		
<b>EXPLORER COURSES:</b> Choose one or more of the following courses.		
Biomanufacturing 1	Composites 1 +	Plastics 1 +
Mechanical Design and Engineering 1 *	Manufacturing Principles 1	Woods 1 +
CAM Automated Manufacturing	Manufacturing Technology	
<b>CONCENTRATOR COURSES:</b> To be a concentrator you must pass one of the following courses AND one explorer course.		
Biomanufacturing 2	Manufacturing Principles 2	Woods 2
Composites 2	Plastics 2	
<b>COMPLETER COURSES:</b> To be a completer you must pass a concentrator course and enough courses to equal 3.0 credits in this Pathway.		
Woods 3		
CTE Internship	<a href="#">Apprenticeship</a>	
POSTSECONDARY:		
There are many options for education and training beyond high school.		
Utah System of Higher Education: <a href="https://ushe.edu">ushe.edu</a> (Utah's public colleges and universities)		UtahMajors.org: <a href="#">Majors Guide</a>

\* concurrent enrollment course + recommended explorer course

HIGH SCHOOL TO POSTSECONDARY EDUCATION AND TRAINING			
There are several options for education and training beyond high school, depending on your career goals.			
	Certificate	2-Year Associate Degree	4-Year Bachelor's Degree
	> Production Technician	N/A	> CTE Teacher > Manufacturing Engineer

Career and Technical Education provides all students access to high-quality, rigorous career-focused programs that result in attainment of credentials with labor market value. [Credentials of Value](#)

Utah CTE classes are open to all qualified students without regard to race, color, national origin, sex, disability, or age.

**Advice to Students**

"I would definitely recommend taking CTE classes during high school. They teach multiple skills that you can use in life and give you many experiences that will allow you to have a head start in life."

Luke Asher  
 Future Precision Machinist

**LEARN MORE ABOUT OCCUPATIONS AND WAGES**

**Manufacturing**

UtahCTE.org: [Fact Sheet](#)  
 Department of Workforce Services  
[Utah Occupational Explorer](#)

**SkillsUSA | TSA**

is the Career and Technical Student Organization (CTSO) for students in the Manufacturing & Production Career Pathway.

[SkillsUSA.org](#) | [TSAweb.org](#)  
[UtahSkillsUSA.org](#) | [UtahTSA.org](#)  
[SkillsUSA Utah flyer](#) | [Utah TSA flyer](#)





## Career Cluster: Manufacturing

### Career Pathway: Welding & Machining

JUNIOR HIGH / MIDDLE SCHOOL		
College and Career Awareness		
Exploring Technology		
HIGH SCHOOL		
<b>EXPLORER COURSES:</b> Choose one or more of the following courses.		
Machining 1 *	Sheet Metal	
Metal Working 1	Welding Technician, Entry *	
<b>CONCENTRATOR COURSES:</b> To be a concentrator you must pass one of the following courses AND one explorer course.		
Machining 2 *		
Welding Technician, Intermediate *		
<b>COMPLETER COURSES:</b> To be a completer you must pass a concentrator course and enough courses to equal 3.0 credits in this Pathway.		
Machining 3	Welding-Pipe Fitting	Welding Technician, Advanced *
Non-Destructive Testing *	Welding-Structural Fitting	
CTE Internship	<a href="#">Apprenticeship</a>	
<b>POSTSECONDARY:</b> There are many options for education and training beyond high school.		
Utah System of Higher Education: <a href="https://ushe.edu">ushe.edu</a> (Utah's public colleges and universities)		UtahMajors.org: <a href="#">Majors Guide</a>

\* concurrent enrollment course + recommended explorer course

HIGH SCHOOL TO POSTSECONDARY EDUCATION AND TRAINING			
There are several options for education and training beyond high school, depending on your career goals.			
	<b>Certificate</b>	<b>2-Year Associate Degree</b>	<b>4-Year Bachelor's Degree</b>
	> Tool and Die Maker > Tool Maker > Welder	> Machine Tool Technician > Welding Technician	> CTE Teacher > Machine Tool Engineer > Welding Engineer

Career and Technical Education provides all students access to high-quality, rigorous career-focused programs that result in attainment of credentials with labor market value. [Credentials of Value](#)

Utah CTE classes are open to all qualified students without regard to race, color, national origin, sex, disability, or age.

### Advice to Students

“**CTE courses can help you** decide what career you would like and provide necessary instruction and training that can help you be successful in the future. They teach real world skills that can transfer to many different careers.”

Breanna Duvall  
 Future Welde

### LEARN MORE ABOUT OCCUPATIONS AND WAGES

#### Manufacturing

UtahCTE.org: [Fact Sheet](#)

Department of Workforce Services  
[Utah Occupational Explorer](#)

### FFA | SkillsUSA

is the Career and Technical Student Organization (CTSO) for students in the Welding & Machining Career Pathway.

[FFA.org](#) | [SkillsUSA.org](#)

[UtahFFA.org](#) | [UtahSkillsUSA.org](#)

[Utah FFA flyer](#) | [SkillsUSA Utah flyer](#)

