



## Career Cluster: Advanced Manufacturing & Engineering


### 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.			
3D Print Technology	Machining 1 *	Small Business Math *	
Biomanufacturing 1	Marketing 1 *	Welding Technician, Entry *	
CAM Automated Manufacturing	Manufacturing Technology	Woodworking, Beginning +	
Composites 1 * +	Mechanical Design and Engineering 1		
Entrepreneurship *	Plastics 1 +		
<b>CONCENTRATOR COURSES:</b> To be a concentrator you must pass one of the following courses AND one explorer course.			
Composites 2	Manufacturing Principles 1	Plastics 2	Woodworking, 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.			
Automation Principles	Non-Destructive Testing *	Woodworking, Advanced	
Manufacturing Principles 2	UAS: Design and Maintain		
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://www.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
	<ul style="list-style-type: none"> <li>&gt; Cabinetmaker</li> <li>&gt; Machine Operator</li> <li>&gt; Production Technician</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Controls Technician</li> <li>&gt; Project Manager</li> </ul>	<ul style="list-style-type: none"> <li>&gt; CTE Teacher</li> <li>&gt; Manufacturing Engineer</li> <li>&gt; Product Designer</li> </ul>

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

#### Advanced Manufacturing & Engineering

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](https://www.skillsusa.org) | [TSAweb.org](https://www.tsa.org)  
[UtahSkillsUSA.org](https://www.utahskillsusa.org) | [UtahTSA.org](https://www.utahtsa.org)  
[SkillsUSA Utah flyer](#) | [Utah TSA flyer](#)