



# Manufacturing Career Pathway

Education Planning Guide for Middle School and Beyond



This Career Pathway, along with other career planning materials, serves as a guide to assist students in the Auburn School District in developing a relevant middle-to-high school plan that will prepare them for further education and/or employment in the **Skilled and Technical Sciences Career Cluster**. The career pathway outlined below can be individualized to meet each learner's education and career goals. It allows students to earn high school credits while completing coursework in middle school, earn college credits while completing coursework within high school, and apply those credits toward attainment of a college certificate and/or degree. It is important to share and review this plan with a parent/guardian and school counselor.

EDUCATION LEVELS	GRADE	English/ Language Arts	Social Studies	Science	Math	Other Required Courses Other Electives Recommended Electives Learner Activities Leadership Activities		Career & Technical Courses And/or Degree Major Courses	Auburn School District Graduation Requirements		
<i>Interest Inventory Administered and Plan of Study Initiated for all Learners</i>											
<b>MS</b>	8	Successfully complete required coursework for 6th, 7th and 8th grade, and these electives →			STEM Robotics, STEM Mechatronics, STEM Construction				<u>Credit Requirements</u> (24.0 credits total):  4.0 credits - English 3.0 credits - Social Studies 3.0 credits – Math 3.0 credits - Science 1.5 credits – Fitness 0.5 credits – Health 2.0 credits – Arts ** 2.0 credits – World Language ** 1.0 credits – Career and Technical 4.0 credits - Electives  <u>Additional Requirements:</u>  • High School and Beyond Plan • Culminating Project/Portfolio • Certificate of Academic Achievement or Approved Alternative		
	<b>SECONDARY</b>	9	Language Arts	(.5) World Studies or AP Human Geography	Science (1.0) Next Gen or Biology	Algebra I	(2.0) Credit from Fine Arts or Course Equivalen cies	Orientation or Career Choices		<b>Power, Energy and Transportation 1 and Advanced</b>	
		10	Language Arts	Global Issues (.5) or AP Euro	Science (1.0) Next Gen or Chemistry	Geometry		(.5) 10th Grade Health		Minimum of two years of the same world language are required for students planning to enroll at a four-year university	<b>Aerospace Assembly 1</b> Engineering Design 1 & 2 Woodworking Design 1 & 2
		11	American Literature 1, 2	U. S. History or AP U. S. History	Chemistry	Advanced Algebra and Trig		(1.5) Credits From Fitness Courses			<b>Welding 1 and 2*</b> Engineering Design 3 & 4 Woodworking Design 3 & 4
		<i>College Placement Assessments-Academic/Career Advisement Provided</i>									<b>Aerospace Assembly 2,</b> Above Courses or Engineering 5 & 6 Electronics 1 & 2 Woodworking 5 & 6
	12	Senior English Electives	Civics (.5) and Elective (.5) or AP American Government (1.0)	Physics or AP Biology or AP Chemistry	AP Statistics or Pre-Calculus						
<p><i>*Students who earn a "C" or better in the above (*) courses may be eligible for college credit. See page 3 for more information. **Credits may be applied in a chosen career pathway.</i></p>											



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<b>POST SECONDARY</b>	<p>The Post-High School program options listed below for this Career Pathway represents just some examples of options available within the Puget Sound area, including programs where agreements for dual credit exist between the college and school district. For other options available related to this program of study, visit your career center or the websites of local colleges.</p>	
	<b>Apprenticeship Opportunities</b>	<p>To learn more about apprenticeships in this program, go to: <a href="#">Apprenticeship Registration &amp; Tracking</a>            Examples: Assembly Machinist, Composite Manufacturing Specialist, Machine Tools Maintenance Mechanic, Manufacturing Machinist</p>
	<b>Earn Certificate and Enter Workforce</b>	<p>To learn more about certificate programs, go to: <a href="#">Renton Technical College</a> , <a href="#">Green River College</a>            Examples: Precision Machining Technologies, Welding, Machining and Manufacturing Technology, Industrial Engineering</p>
	<b>Military</b>	<p>To learn more about Military education and training programs, go to: <a href="http://todaysmilitary.com">todaysmilitary.com</a> , <a href="http://defense.gov">defense.gov</a></p>
	<b>Associate Degree Transitions</b>	<p>To learn more about Associate degrees, go to: <a href="#">Green River College</a> , <a href="#">Highline College</a>            Examples: Associate in Science, Engineering</p>
	<b>4 year University</b>	<p>To learn more about Bachelor and beyond degrees, go to: <a href="#">University of Washington</a>, <a href="#">Washington State University</a> , <a href="#">Central Washington University</a>            Examples: Mechanical Engineering, Engineering and Computer Science, Industrial Technology, Mechanical Engineering Technology</p>

**Students intending to earn an Associate Degree and transition to a 4-year University can use the below section to list appropriate classes.**

COURSE CODE	CREDIT	COURSE NAME	COURSE CODE	CREDIT	COURSE NAME



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The Manufacturing Career Pathway prepares students for the highly technical and rewarding careers within the manufacturing field. Students learn to operate milling machines, lathes, computer-controlled machines, and various other tools. They also acquire skills in measuring, print reading, manufacturing processes and leadership.

## Occupational Information

The following represent occupations within this field and their average annual earnings and openings based on data from the Washington State Employment Security Department. For more information about these and other occupations within this field, go to <https://esd.wa.gov/labormarketinfo>

<u>Occupation</u>	<u>Washington State Projected Openings</u>		<u>Earnings</u>
	<u>2016-2026</u>		
Industrial Production Managers	49,000		\$88,190 yr.
CNC Machine Tool Programmers	4,900		\$45,890 yr.
Manufacturing Engineering Technologists	16,800		\$58,670 yr.
Manufacturing Production Technician	71,000		\$58,670 yr.

## Post-High School Connections

The following courses within this program of study may be eligible for college credit at several local colleges if students earn a “C” or better:

<u>High School Course</u>	<u>Credits Possible</u>	<u>College</u>	<u>College Course</u>
Welding 1, 2	8 6	Renton Technical College Green River Community College	WELD 102 WELD 141, WELD 194

## Student Leadership Development



The following courses Skills USA, a student leadership organization, serves high school and college students enrolled in training programs in trade, technical and skilled service occupations. Programs include local, state and national competitions in which students demonstrate occupational skills, leadership, teamwork, citizenship, and promotes involvement in community service activities.

For information about this leadership opportunity, talk with a Career and Technical Education instructor.

## Scholarship Opportunities

For local, state, and national scholarship opportunities, please visit your counseling and/or career center, Career Cruising [www.CareerCruising.com](http://www.CareerCruising.com), WOIS [www.wois.org](http://www.wois.org), [mapyourcareer.org](http://mapyourcareer.org), Fast Web [www.FastWeb.com](http://www.FastWeb.com) or [www.mapyourcareer.org](http://www.mapyourcareer.org).

For more information about this Career Pathway, contact an instructor, a school counselor or a career specialist.

