



# Manufacturing Program of Study



## Education Planning Guide for Middle School and Beyond

*This program of study, 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 Science, Technology, Engineering and Math career cluster. The program of study 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.*

Auburn SD Component of Program of Study	Grade	English	Social Studies	Science	Math	Health/ Fitness	Arts	Career and Technical	Related Electives	Auburn School District Graduation Requirements
	Middle School	Successfully complete required coursework for 6 <sup>th</sup> , 7 <sup>th</sup> and 8 <sup>th</sup> grade, and these electives →							STEM Robotics, STEM Mechatronics, STEM Construction	
9	Language Arts	World Studies (.5) or AP Human Geography	Science (1.0) Next Gen or Biology	Algebra I			2.0 Credit from Fine Arts or Course Equivalencies	<b>Power, Energy and Transportation 1 and Advanced</b>	Orientation or Career Choices	<b>Credit Requirements (24.0 credits total):</b> 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  <b>Additional Requirements:</b> • High School and Beyond Plan • Culminating Project/Portfolio • Certificate of Academic Achievement or Approved Alternative
10	Language Arts	Global Issues (.5) or AP Euro	Science (1.0) Next Gen or Chemistry	Geometry	10 <sup>th</sup> Grade Health (.5)			<b>Aerospace Assembly 1</b>	Minimum of two years of the same world language are required for students planning to enroll at a four-year university	
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>		
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				<b>Aerospace Assembly 2</b>		

**\*Students who earn a "B" or better in these courses may be eligible for college credit. See page 2 for more information.** \*\*Credits may be applied in a chosen career pathway

Post - High Program of Study	Apprenticeship Opportunities	Earn a Certificate and Enter the Workforce	Earn an Associate's Degree and transition to a 4-year university or enter the workforce	Earn a 4-year college degree, and then enter the workforce
		To learn more about apprenticeships in this program, go to: <a href="#">Apprenticeship Registration &amp; Tracking</a> Assembly Machinist (173) Composite Manufacturing Specialist (1828) Machine Tools Maintenance Mechanic (154) Manufacturing Machinist (154)	<a href="#">Renton Technical College</a> Precision Machining Technologies Welding  <a href="#">Green River Community College</a> Machining and Manufacturing Technology Industrial Engineering Welding	<a href="#">Green River Community College</a> Associate in Science  <a href="#">Highline Community College</a> Engineering

*The Post-High School program options listed above for this Program of Study represent 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.*



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The Manufacturing program 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 2016-2026</u>	<u>Earnings</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 “B” 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 Program of Study, contact an instructor, a school counselor or a career specialist.