Tigard High School

MANUFACTURING

For students interested in:

- Designing unique products
- Creating products
- Using tools and equipment
- Building with tools
- Applying learning in a real-world environment

Students will learn:

- To use a computer and machines to model and create products
- To apply quality control techniques to achieve desired specifications
- To plan manufacturing operations to meet deadlines
- To operate machine shop equipment such as a laser cutter or 3D printer
- To practice safe, legal, and ethical work habits
- Industry standard software

Sequence of Courses

Introductory
- Exploring Engineering and Design (9-12th grade, 1.0 credit)
- Intro to Engineering (9-11th grade, 1.0 credit)
- Fusion 360 Fundamentals (10-12th grade, 1.0 credit)
- SOLIDWORKDS Fundamentals (9-12th grade, 0.5 credit)

Intermediate
- Digital Design and Fabrication Fundamentals
- Robotics

Advanced
- Digital Design and Fabrication Advanced (10-12th grade, 1.0 credit)
- SOLIDWORKS Advanced

Career Options

Sheet Metal Workers	$78,354
Structural Iron and Steelworkers	$79,373
Industrial Engineers	$103,334
Industrial Machinery Mechanics	$62,856
Welders, Cutters, Solderers, and Brazers	$51,355
Machinists	$51,667
Computer Numerically Controlled Tool Programmers	$65,083

2022 median annual salary for tri-county area high wage and high demand
-Oregon Employment Division

Dual Credit Offerings

- PCC – CADD 105 – Digital Design and Fabrication Fundamentals (3 credit hours)
- PCC – CADD 155 – Fusion 360 Fundamentals (3 credit hours)
- PCC – CADD 175 – SolidWorks Fundamentals (3 credit hours)

Current Industry Partners

- OMIC
- WaferTech
- Intel
- Lam Research
- Microsoft

PACTEC
Portland Area Career Technical Education Consortium