

## FORESTRY

### Renewable Materials: Advanced Wood Manufacturing Associate of Science

#### PROGRAM MISSION

The advanced wood manufacturing option allows students to tailor their degree to their interests. This option is completely unique to Oregon State and in high demand throughout the industry. Advanced manufacturing students study the latest technologies throughout the wood products industry. Graduates are highly-sought after and set apart to fill a need for entry level positions throughout the Pacific Northwest and the rest of the country. Once in the industry, students make everything from advanced wood products to cabinetry.

#### PROGRAM DESCRIPTION

The Advance Wood Manufacturing option focuses on behavior of bio-based materials and adds a strong foundation in advanced manufacturing processes such as automation, scanning and optimization systems, computer numerically controlled (CNC) machining, robotics, and 3D printing.

#### PROGRAM OUTCOMES

This UCC program aligns with the programs offered through the OSU College of Forestry Program. UCC students that complete the Renewable Materials: Advanced Wood Manufacturing AS degree in Forestry will have the knowledge, skills, and abilities to:

1. Demonstrate ability to find, compile, analyze and communicate technical information
2. Demonstrate basic knowledge of wood and similar renewable materials that make them challenging to utilize as industrial and building materials
3. Apply knowledge of mathematics, science, and engineering
4. Demonstrate a combination of technical and business acumen that allows effective management of process and people

#### CAREER CONSIDERATIONS

Advanced wood manufacturing professional often work as supervisors and leaders at sawmills or engineered wood products facilities.

#### PROGRAM COURSE REQUIREMENTS

##### Year One

CH 104 or CH 221	Introductory Chemistry General Chemistry	4
CH 105 or CH 222	Introductory Chemistry General Chemistry	4
CH 106 or CH 223	Introductory Chemistry General Chemistry	4
ENGR 111	Engineering Orientation I	3
ENGR 245	Engineering Graphics: SolidWorks	3
FOR 111 <sup>2</sup>	Intro to Forestry	3
FOR 112 <sup>3</sup>	Problem Solving & Technology	3
MTH 251 <sup>1</sup>	Calculus I	5
MTH 252	Calculus II	4
MTH 265	Statistics for Scientists & Engineers	4
SP 111	Fundamentals of Public Speaking	4
WR 121	Academic Composition	4

##### Year One Credits (minimum) 45

##### Year Two

Arts & Letter Elective <sup>6</sup>		3
BA 211	Principles of Accounting I	3
BA 212	Principles of Accounting II	3
BA 213	Principles of Accounting II	3
ECON 201	MicroEconomics	4
ECON 202	MacroEconomics	4
FOR 240	Forest Biology	4
HPE 295	Health & Wellness	3
PH 211	General Physics w/Calculus	5
PH 212	General Physics w/Calculus	5
PH 213	General Physics w/Calculus	5
WR 227	Technical Writing	4

##### Year Two Credits 46