

FOREST RENEWABLE MATERIALS/ADVANCED MANUFACTURING, ASSOCIATE OF SCIENCE

Renewable Materials is a multidisciplinary program that prepares students to work with renewable, plant-based materials to solve challenging world problems. Renewable materials such as wood, bamboo, canes, and agricultural fibers are examined to understand their characteristics and how to make useful products. Students gain broad perspectives on current issues associated with the sustainable utilization of renewable materials, including global trade, business innovation, energy production, and environment.

This degree was designed to transfer to Oregon State University's College of Forestry. Other transfer options may be available, consult your advisor for details. Check out the Forestry/Natural Resources program website!

The forestry field is projected to have many career opportunities coming up in the next decade as many forestry and natural resources professionals retire in the next few years. Students who enjoy working outdoors and want to have a career that focuses on managing our valuable forest lands to conserve and protect resources as well as produce valuable products for society should consider this degree.

GRADUATION REQUIREMENTS

Students must complete a minimum of 95 credit hours with a cumulative Grade Point Average (GPA) of 2.0 or better. All courses must be completed with a grade of 'C' or better. Twenty-four (24) credits must be completed at Southwestern before the AS degree is awarded.

Courses that are developmental in nature, (designed to prepare students for college transfer courses), are not applicable to this degree.

Complete the graduation application process one term prior to the term of completion (e.g., spring term graduates must apply during winter term).

PROGRAM STUDENT LEARNING OUTCOMES

Upon successful completion of this program, the student will be able to:

- Demonstrate fundamental knowledge of wood and similar renewable materials that make them challenging to utilize as industrial and building materials.
- Demonstrate command of renewable material moisture content and specific gravity calculations.
- Demonstrate ability to find, compile, analyze, and communicate technical communication.
- Demonstrate familiarity with the diverse complexity of the Renewable Materials industry, and the challenges it faces with balancing business and environmental goals.
- Demonstrate a combination of technical and business acumen that allows effective management of process and people.

- Demonstrate ability to creatively self-direct learning outcomes within the classroom environment and/or through independent undergraduate research.
- Gain information and knowledge to become a better global citizen.

PRE-PROGRAM COURSES

Students are required to take the following courses *prior to* the program courses, depending on students' college placement information. See advisor for details:

| Code | Title | Credits |
|--------|---|---------|
| CIS90 | Computer Basics (or demonstrate proficiency) | 2 |
| WR90R | Academic Literacy (or placement in a higher writing course) | 4 |
| MTH112 | Trigonometry | 4 |

PROGRAM GUIDE

| Course | Title | Credits |
|----------------------------------|---|---------|
| First Year | | |
| Fall | | |
| CHEM221 | General Chemistry I | 5 |
| F111 | Introduction to Forestry | 3 |
| WR121 | English Composition | 4 |
| PE231 | Wellness for Life | 3 |
| Credits | | 15 |
| Winter | | |
| CHEM222 | General Chemistry II | 5 |
| CIS125S | Spreadsheet Applications | 3 |
| F250 | Forest Biology | 4 |
| F180 or NR180 | Internship: Forestry ¹ or Internship: Natural Resources | 5 |
| Credits | | 17 |
| Spring | | |
| CHEM223 | General Chemistry III | 5 |
| SP111 | Fundamentals of Public Speaking | 3 |
| WR227 | Report Writing | 4 |
| Literature and Arts ³ | | 3 |
| Credits | | 15 |
| Second Year | | |
| Fall | | |
| ECON201 | Microeconomics | 4 |
| MTH251 | Calculus I Differential Calculus | 4 |
| PH211 | General Physics with Calculus I Difference, Power, and Discrimination ² | 5 |
| Credits | | 3 |
| Credits | | 16 |
| Winter | | |
| ECON202 | Macroeconomics | 4 |
| BA212 | Principles of Accounting II ⁶ | 4 |
| PH212 | General Physics with Calculus II | 5 |
| MTH252 | Calculus II Integral Calculus | 4 |
| Credits | | 17 |

Spring

| | | |
|---------------------------------|-----------------------------------|----|
| PH213 | General Physics with Calculus III | 5 |
| Cultural Diversity ⁴ | | 3 |
| Western Culture ⁵ | | 3 |
| BA213 | Principles of Accounting III | 4 |
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| | Credits | 15 |
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| | Total Credits | 95 |

- ¹ Schedule an appointment with the Internship Coordinator a month prior to term 888-7405. Students may take any combination up to 5 credits of F180 or NR180 in the terms they choose.
- ² Difference, Power and Discrimination - HST201, HST202, HST203, SOC206, SOC213 will satisfy this requirement
- ³ Literature and the Arts:ART204, ART205, ART206, ENG104, ENG105, ENG106, ENG107, ENG108, ENG109, ENG201, ENG204, ENG205, ENG206, ENG262, MUS201, MUS202, MUS203.
- ⁴ Cultural Diversity: ANTH224, ANTH230, ANTH231, ANTH232, HST104, HUM204, HUM205, HUM206
- ⁵ Western Culture:ART204, ART205, ART206, ENG107, ENG108, ENG109, ENG201, ENG204, ENG205, ENG206, HST101, HST102, HST103, HST201, HST202, HST203, MUS201, MUS202, MUS203, PHL101, PHL102.
- ⁶ BA212 has a prerequisite of BA211 or BA111 or AC2764
- * *All Honors courses may substitute for their equivalent requirements.