FOREST ENGINEERING, ASSOCIATE OF SCIENCE

Forest engineering prepares graduates to plan and implement complex forestry and natural resource operations that help meet global demands for wood products while sustaining water, habitat, and other forest resources.

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.

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 98 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 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:

- Use techniques, skills, and modern engineering tools necessary for engineering practice.
- Develop engineered forest operations that achieve silvicultural objectives
- Develop engineered forest operations that appropriately protect soil and water resources.
- Survey and measure land and forest resources so that the engineering tasks associated with forest operations can be effectively completed.
- Provide designs and manage the forest transportation in a way that meets the needs of forest land management with societally acceptable environmental impact.
- Plan and manage safe, economic and environmentally sound forest operations.
- Incorporate long term forest land management and operational planning in an environmental and economic context into forest operation plans.

Math and writing placement are unique to each student and are determined during the admissions and intake advising process. Additional math or writing courses may be required prior to taking the math or writing program requirements in this degree. For more information on placement methods used, visit our college placement policy here.

PRE-PROGRAM COURSE

Code	Title	Credits
MTH112	Trigonometry	4

PROGRAM GUIDE

Course	Title	Credits
First Year		
Fall		
ENV235	Introduction to Soil Science	4
F111	Introduction to Forestry	3
MTH251	Calculus I Differential Calculus	4
PH211	General Physics with Calculus I	5
	Credits	**16**
Winter		
F222A	Elementary Forest Surveying	4
F250	Forest Biology	4
MTH252	Calculus II Integral Calculus	4
PH212	General Physics with Calculus II	5
	Credits	**17**
Spring		
F241	Dendrology	5
MTH243	Intro to Probability and Statistics	4
PE231	Wellness for Life	3
Difference, Power, and Discrimination [1]		3
	Credits	**15**
Second Year		
Fall		
CHEM221	General Chemistry I	5
ENGR211	Statics	3
GEOG265	Intro to Geographical Info Systems	4
MTH254	Vector Calculus I	4
	Credits	**16**
Winter		
ENGR212	Dynamics	3
MTH256	Differential Equations	4
SP111	Fundamentals of Public Speaking	3
WR121	English Composition	4
Literature and Arts [2]		3
	Credits	**17**
Spring		
ECON201	Microeconomics	4
ENGR213	Strength of Materials	3
WR227	Report Writing	4
Cultural Diversity [3]		3

Western Culture [4]		3
	Credits	**17**
	Total Credits	**98**

1 Difference, Power, and Discrimination: HST201, HST202, HST203, SOC206 , SOC213

2 Literature and the Arts:ART204, ART205, ART206, ENG104, ENG105, ENG106, ENG107, ENG108, ENG109, ENG201, ENG204, ENG205, ENG206, ENG262, MUS201, MUS202, MUS203.

3 Cultural Diversity: ANTH224, ANTH230, ANTH231, ANTH232, HST104, HUM204, HUM205, HUM206

4 Western Culture:ART204, ART205, ART206, ENG107, ENG108, ENG109, ENG201, ENG204, ENG205, ENG206, HST101, HST102, HST103, HST201, HST202, HST203, MUS201, MUS202, MUS203, PHL101, PHL102.

* All Honors courses may substitute for their equivalent requirements.