

COLLEGE OF FORESTRY

2025-2026 UNDERGRADUATE

ADVISING GUIDE

FOREST ENGINEERING



Oregon State
University

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Forest Engineering Careers

Congratulations on selecting Oregon State University's Forest Engineering (FE) degree program. Graduates from this degree program receive a rigorous blend of engineering and forestry education that provides a foundation for diverse career options. There is only one other university in the U.S. that offers a forest engineering degree. The OSU Forest Engineering Program is the only one that is accredited in both engineering and forestry.

FE graduates are prepared to play a variety of key roles in meeting the world's appetite for wood products from sustainable forests, while also protecting other resources such as soil, water, wildlife habitat, and recreation opportunities. In a world of more than 7 billion people, society's wood demands are enormous and growing, even with aggressive recycling programs. Many FE graduates help meet these demands in positions that plan, design, and implement forestry activities — applying the best engineering, science, technology and experience available to conduct safe, cost effective, and environmentally responsible forest operations.

Some FE graduates pursue careers with less focus on forestry. Examples include land development, surveying engineering, transportation engineering and management, environmental consulting, and municipal engineering.

Traditional forest engineering jobs typically involve developing and maintaining transportation systems, and planning and designing timber harvests and other forest operations. Forest products or timberland management companies, federal or state agencies, and consulting or contracting firms are the most common employers for new graduates. Some stay in field-oriented positions for much of their career, but many graduates have become successful managers and executives as they gain experience. A substantial number of graduates find opportunity and satisfaction in owning their own consulting or contracting business, especially if they are interested in entrepreneurship.

All of these types of positions represent vibrant and timely career opportunities. Forestry continues to be a cornerstone of the economy of many communities, providing jobs and economic vitality. As the population of the world grows and natural resource challenges become more complex, the need for well-rounded highly trained forest engineers increases. Oregon State University is working to fill that need!

The FE Program is divided into pre-professional (years 1 & 2) and professional (years 3 & 4) components. The pre-professional coursework provides the foundation on which the professional coursework is built. This gives you an opportunity to demonstrate that you have the aptitude, desire, professional attitude, and academic accomplishment required for advancement to the professional level. Acceptance into the professional program in Forest Engineering is based upon your performance in the pre-professional courses. Admission requirements for the FE Professional Program are detailed on page 9.

Student Learning Outcomes

Forest Engineering Program Objectives

The Forest Engineering Undergraduate Program provides fundamental coverage of the following:

- Fundamental engineering and forestry principles
- Physical and biological aspects of soil and water resources
- Surveying and measurement of land and forest resources
- Analysis and design of the forest transportation system
- Analysis and design of harvesting operations
- Economics and operational planning principles

As a graduate of the Forest Engineering program, students should have:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.
8. Develop engineered forest operations that achieve silvicultural objectives.
9. Develop engineered forest operations that appropriately protect soil and water resources.
10. Survey and measure land and forest resources so that the engineering tasks associated with Forest Land Management, specifically, the design of appropriate Forest Operations can be effectively completed.
11. Provide designs and manage the forest transportation in a way that meets the needs of forest land management and minimizes environmental impact.
12. Plan and manage safe, economic and environmentally sound forest operations.
13. Incorporate long term forest land management and operational planning in an environmental and economic context into forest operation plans.

Forest Engineering Curriculum

Degree requirements: To earn the B.S. in Forest Engineering, students must complete:

- All Pre-FE and Pro-School courses with grades of C or higher
- All courses for OSU's Core Education
- Any additional electives necessary to achieve 180 total credits
- At least 6 months of relevant work experience

Pre-FE Courses: these courses must be completed with grades of C or higher before students enter the professional program. + indicates courses that also fulfill Core Education.

| Course Number | Title | Cr | Corvallis Campus | Distance Campus | Prerequisites / Notes |
|---|---|-------------|-------------------------------------|-------------------------------------|--|
| First Year Courses | | | | | |
| +AEC 250 or +ECON 201Z | Intro to Environmental Economics & Policy Intro to Microeconomics | 4 4 | SP F,W,SP | F,W,SP,SU F,W,SP,SU | MTH 111Z Rec. |
| +CH 201 | Chemistry for Engineering Majors | 3 | F,W | F,W | MTH 111Z |
| +CH 204 | Chemistry Lab | 1 | F, W | | Take with CH 201 |
| +COMM 111Z or +COMM 114 or +COMM 218Z | Public Speaking Argument and Critical Discourse Interpersonal Communication | 4 3 4 | F,W,SP,SU F,W,SP,SU F,W,SP,SU | F,W,SP,SU F,W,SP,SU F,W,SP,SU | |
| +CORE 100 or +CORE 300 | Transitions Transitions | 2 2 | F,W,SP,SU F,W,SP,SU | F,W,SP,SU F,W,SP,SU | First-Year students Transfer students |
| +FE 101 | Intro to Forest Engineering | 2 | F | | |
| FE 102 | Forest Engineering Problem-Solving and Technology | 3 | W, SP | | |
| +FES 240 | Forest Biology | 4 | F,SP | F,SP,SU | |
| +FOR 111 | Intro to Forestry | 3 | F,SP | W,SU | |
| +MTH 251Z | Differential Calculus | 4 | F,W,SP,SU | F,W,SP,SU | C- in MTH 112Z or ALEKS 75+ |
| MTH 252Z | Integral Calculus | 4 | F,W,SP,SU | F,W,SP,SU | C- in MTH 251 |
| MTH 254 | Vector Calculus | 4 | F,W,SP,SU | F,W,SP,SU | C- in MTH 252 |
| +PH 211 | General Physics with Calculus I | 4 | F,W,SP | F, SP | MTH 251 MTH 252 co-req. |
| +WR 121Z | English Composition | 4 | F,W,SP,SU | F,W,SP,SU | Alpha-sectioned |
| Second Year Courses | | | | | |
| CCE 201 | Civil & Construction Engineering Graphics & Design | 3 | F,W | F,W | C in MTH 111Z |
| ENGR 211 | Statics | 3 | F,W,SP | F,W,SP | C in MTH 252 |
| ENGR 212 | Dynamics | 3 | W,SP | W | C in ENGR 211 and PH 211 |
| ENGR 213 | Strength of Materials | 3 | F,W,SP | W,SP,SU | C in ENGR 211 |
| FE 208 | Forest Surveying | 4 | F | SP | C in MTH 112 |
| FE 257 | GIS and Forest Engineering Applications | 3 | W | F | |
| FES 241 | Dendrology | 3 | F, SP | F,SP,SU | |
| MTH 256 | Applied Differential Equations | 4 | F,W,SP,SU | F,W,SP,SU | C- in MTH 254 |
| PH 212 | General Physics with Calculus II | 4 | F,W,SP | W,SU | D- in PH 211 |
| +SOIL 205 or +CSS 205 | Soil Science Soil Science | 3 4 | SP F,W,SP | | Need 206 Lab Includes Lab |
| +FOR 206 or +SOIL 206 | Forest Soils Lab Soil Science Lab | 1 1 | F,W,SP | F,W,SP,SU | Take with SOIL 205 Take with SOIL 205 |
| +ST 243Z | Principles of Statistics | 4 | SP F,W,SP | | |
| +WR 227Z | Technical Writing | 4 | F,W,SP | F,W,SP,SU | C- in WR 121Z |

Note: At the end of the sophomore year students must apply to be admitted to the FE Professional Program (“Pro-School”). The courses above must all be completed with grades of C or better and a GPA of 2.25 or higher in order to be admissible to Pro-School for fall of the junior year.

Professional Forest Engineering Program

Field School: Pro-School begins with the Forestry Field School prior to fall term of the junior year. It typically takes place in September – two weeks before the junior year begins.

Pro-School Courses: + indicates courses that also fulfill Core Ed.

| Course Number | Title | Cr | Corvallis Campus | Distance Campus | Prerequisites / Notes |
|--|--|------------------|---------------------------|------------------------------|--|
| Third Year Courses | | | | | |
| FE 310 | Forest Route Surveying | 4 | SP | | FE 208 |
| FE 312 | Forestry Field School | 2 | F | | Mid-September |
| FE 315 | Soil Engineering | 4 | W | | C in ENGR 213 |
| FE 316 | Soil Mechanics | 4 | SP | | C in FE 315 or CE 372 |
| FE 330 or BEE 311 | Forest Engineering Fluid Mechanics and Hydraulics Ecological Fluid Mechanics | 3 4 | F F | | ENGR 213 & FE 102 PH 212,MTH254,ENGR211 |
| FE 371 | Harvesting Process Engineering | 4 | F | | ENGR 211 & FE 102 |
| FE 434 | Forest Watershed Management | 4 | F | | C in CH 201 & 204, SOIL 205, & MTH 251 |
| FE 440 | Forest Operations Analysis | 4 | W | | C in FE 102 & FE 371 |
| FE 470 | Logging Mechanics | 4 | W | | C in ENGR 211, ENGR 213, FE 371 |
| FE 471 | Harvesting Management | 3 | SP | | FE 371 & FE 470 |
| FOR 321 | Forest Mensuration | 5 | F | | C in FES 241, FE 208, Calc, Stats |
| FOR 329 | Forest Resource Economics I | 4 | W | | ST 243Z, 314 or 351 |
| FOR 332 | Forest Resource Economics II | 2 | SP | | FOR 329 |
| Fourth Year Courses | | | | | |
| +AG 311 or +ENGR 330 or +GEOG 333 or +SUS 331 | Native American Agriculture Inclusive and Equitable Engineering Environmental Justice Sustainability, Justice, and Engagement | 3 3 3 3 | F,SP TBD F,SP SP | F,W,SP TBD W,SU F,W | or ENSC 333 |
| +FE 008 | Beyond OSU II: Engage | 0 | | W | |
| FE 415 | Forest Road Engineering | 3 | W | | C in FE 310 |
| FE 416 | Forest Road System Management | 4 | SP | | C in ENGR 211, ENGR 213, FE 316, FE 415 |
| FE 444 | Forestry Remote Sensing & Photogrammetry | 4 | F | | FE 257, MTH 251, PH 201 |
| FE 457 | Techniques for Forest Resource Analysis | 4 | F | | FOR 329 and FOR 441 |
| FE 459 | Forest Management Planning & Design I | 4 | W | | FE 457 |
| FE/FOR 463^ | Forest Policy & Regulation | 3 | F, W | | |
| FE 469 | Forest Management Planning & Design I | 4 | SP | | FE 459 |
| FOR 441 | Silviculture | 4 | F | F | C in FES 240 & FES 241 |

Core Education: Students must complete one course in each Core Ed category. Some categories can be fulfilled by courses from the FE major. The chart below shows the overlap between major requirements and the Core Ed. A full listing of Core Ed requirements can be found in the OSU Catalog.

| Title | Course | Cr. |
|--|---|-----|
| Writing Foundations | Fulfilled by WR 121Z | 4 |
| Arts & Humanities: General <i>Arts @ Humanities courses must be from two different departments.</i> | | 3-4 |
| Arts & Humanities: Global | | 3-4 |
| Quantitative Literacy & Analysis | Fulfilled by MTH 251Z or ST 243Z | 4 |
| Communication, Media & Society | Fulfilled by COMM 111Z, 114, or 218Z | 3-4 |
| Social Science | Fulfilled by AEC 250 or ECON 201Z | 4 |
| Scientific Inquiry & Analysis | Fulfilled by CH 201 or PH 211 | 5 |
| Scientific Inquiry & Analysis | Fulfilled by FES 240, SOIL 205 & FOR 206 or SOIL 205 & FOIL 206 | 4 |
| Difference, Power, Oppression: Foundations | | 3-4 |
| Transitions | CORE 100 or 300 | 2 |
| Beyond OSU I: Prepare | Fulfilled by FE 101 or FOR 111 | 2-3 |
| Beyond OSU II: Engage | Fulfilled by work experience and FE 008 | 0 |
| Difference, Power, Oppression: Advanced | Fulfilled by AG 311, ENGR 330, ENSC/GEOG 333, or SUS 331 | 3 |
| Seeking Solutions | Cannot be fulfilled by a course from your major | 3-4 |
| Writing Elevation | Fulfilled by WR 227Z | 4 |
| Writing Intensive Course | Fulfilled by FE/FOR 463 | 3 |

Sample Course Plan - Forest Engineering



This is a sample schedule. Actual schedules will vary from student to student based upon factors such as math placement and course availability. Students are strongly encouraged to create a personalized plan with their academic advisor. *Courses in italics also fulfill Core Ed requirements.*

| B.S. in Forest Engineering | | | | | | |
|-----------------------------------|---|----|--|-------|--|-------|
| 2025-2026 | | | | | | |
| | Fall | | Winter | | Spring | |
| First Year | <i>CH 201: Chemistry for Engineers</i> | 3 | | | | |
| | <i>CH 204: Lab for CH 201</i> | 1 | <i>ECON 201Z/AEC 250: Economics</i> | 4 | <i>COMM 111Z/114/218Z: Comm</i> | 3-4 |
| | <i>CORE 100: Transitions</i> | 2 | <i>FE 102: FE Prob Solving & Technology</i> | 3 | <i>MTH 254: Vector Calculus</i> | 4 |
| | <i>FE 101: Intro to Forest Engineering</i> | 2 | <i>MTH 252Z: Integral Calculus</i> | 4 | <i>PH 211: General Physics with Calc I</i> | 4 |
| | <i>FOR 111: Intro to Forestry</i> | 3 | <i>WR 121Z: English Composition</i> | 4 | <i>Core: Arts @ Humanities General</i> | 3-4 |
| | <i>MTH 251Z: Differential Calculus</i> | 4 | | | | |
| | Total Credits | 15 | Total Credits | 16 | Total Credits | 14-16 |
| Second Year | <i>ENGR 211: Statics</i> | 3 | <i>CCE 201: Civil Engr Graphics & Design</i> | 3 | <i>ENGR 212: Dynamics</i> | 3 |
| | <i>FE 208: Forest Surveying</i> | 4 | <i>ENGR 213: Strength of Materials</i> | 3 | <i>FES 240: Forest Biology</i> | 4 |
| | <i>MTH 256: Applied Diff. Equations</i> | 4 | <i>FE 257: GIS & Forest Engr Applications</i> | 3 | <i>FES 241: Dendrology</i> | 3 |
| | <i>PH 212: General Physics with Calc II</i> | 4 | <i>ST 243Z: Principles of Statistics</i> | 4 | <i>SOIL 205: Soil Science</i> | 3 |
| | | | <i>WR 227Z: Technical Writing</i> | 4 | <i>FOR/SOIL 206: Forest Soils Lab</i> | 1 |
| | | | | | | |
| | Total Credits | 15 | Total Credits | 17 | Total Credits | 14 |
| Third Year | <i>BEE 311: Ecological Fluid Mechanics</i> | 4 | <i>FE 315: Soil Engineering</i> | 4 | <i>FE 310: Forest Route Surveying</i> | 4 |
| | <i>FE 312: Forestry Field School</i> | 2 | <i>FE 440: Forest Operations Analysis</i> | 4 | <i>FE 316: Soil Mechanics</i> | 4 |
| | <i>FE 371: Harvesting Processes Engr</i> | 4 | <i>FE 470: Logging Mechanics</i> | 4 | <i>FE 471: Harvesting Management</i> | 3 |
| | <i>FE 434: Forest Watershed Mgmt</i> | 4 | <i>FOR 329: Forest Resource Econ I</i> | 4 | <i>FOR 332: Forest Resource Econ II</i> | 2 |
| | <i>FOR 321: Forest Mensuration</i> | 5 | | | | |
| | | | | | | |
| | Total Credits | 19 | Total Credits | 16 | Total Credits | 13 |
| Fourth Year | <i>FE 444: For Remote Sens & Photogram.</i> | 4 | <i>FE 008: Beyond OSU II - Engage</i> | 0 | <i>FE 416: Forest Road System Mgmt</i> | 4 |
| | <i>FE 457: Tech. for Forest Res. Analysis</i> | 4 | <i>FE 415: Forest Road Engineering</i> | 4 | <i>FE 469: For Mgmt Planning & Design II</i> | 4 |
| | <i>FE 463: Forest Policy @ Regulation</i> | 3 | <i>FE 459: Forest Mgmt Planning & Design I</i> | 3 | <i>Core: Diff/Power/Opp. Advanced</i> | 3 |
| | <i>FOR 441: Silvicultural Principles</i> | 4 | <i>Core: Arts @ Humanities Global</i> | 3-4 | <i>Core: Seeking Solutions</i> | 3-4 |
| | | | <i>Core: Diff/Power/Opp. Foundations</i> | 3-4 | | |
| | | | | | | |
| | Total Credits | 15 | Total Credits | 13-15 | Total Credits | 14-15 |


The College of Forestry is committed to helping students succeed. Your Academic Advisor can be your first point of contact when you have questions. COF students are required to meet with their academic advisor at least once per quarter, and are welcome to meet more often. It's always okay to call, email, or drop in with questions.

You will have an assigned advisor. The easiest way to schedule your advising appointment is in your BeaverHub Success Team. Advisor contact info: forestry.oregonstate.edu/studentservices/advising

Advisors for New Students (in your first year at OSU)

| | |
|--|--|
|  <p>Morgan Shahan Academic Advisor New Students Peavy 116 -E 541-737-9135 morgan.shahan@oregonstate.edu</p> |  <p>Beth Thompson Academic Advisor New Students Peavy 116 -G 541-737-1179 beth.thompson@oregonstate.edu</p> |
|  <p>Kirk Robinson Academic Advisor New Students Peavy 116 - K 541-737-6458 kirk.robinson@oregonstate.edu</p> | |

Advisors for Forest Engineering Majors (after your first year)

| |
|---|
|  <p>Ruth Sterner Academic Advisor Forestry Peavy 116 -J 541-737-6548 ruth.sterner@oregonstate.edu</p> |
|---|

What:

You can expect your advising appointments to be 30 minutes of one-on-one time with your academic advisor. You and your advisor will both prepare in advance—reviewing your MyDegrees, preparing questions, and looking ahead. During your appointment you will review your progress to date, make course plans for the upcoming term(s), discuss opportunities and resources pertinent to your goals, and track your progress toward graduation. While your advisor is here to assist and guide you, your educational choices are yours to make. We advise and you decide.

Program Structure and Pro-School

The Bachelor of Science in Forest Engineering is offered through a two-phase curriculum that begins with two years of pre-professional coursework, followed by two years of professional coursework (“Pro-School”). Admission to the pro-school is based on successful completion of all the pre-FE coursework prior to fall term of the junior year. Enrollment in FE pro-school courses is restricted to those students who have been admitted to the professional program.



To be eligible for admission to Pro-School, students must earn:

1. a grade of C or better in all courses for the major required for entry into the professional program. Grade repeat (replacement) policy will follow OSU Academic Regulation #20.
2. a minimum GPA of 2.25 in the required courses (or transfer equivalents).

Application for the professional program will be available on the College of Forestry website in March. Applications will be due in early April, and applicants will be notified of their status by early May. The number of students admitted to the program is determined based on available resources. Students meeting the minimum pre-Forestry GPA of 2.25 may or may not be admitted depending on available resources.

Requirements for Graduation

In addition to the University and degree program requirements, students in the FE program must also meet specific requirements to graduate.

S/U Grading — Students majoring in Forest Engineering may not take for S/U (Satisfactory/Unsatisfactory) grading any course listed as a requirement for the major or option. This includes approved substitutions. Core Education courses may be taken S/U if they are not also being used to fulfill a program requirement.

Grades of “C” or better must be earned in all required courses (or approved substitutions) for majors and options in forestry degree programs.

Approved Work Experience. Forest Engineering students must complete six months of forestry and/or engineering-related work experience in order to graduate.

Credit Hour Requirement – A minimum of 180 credits are required to complete the Forest Engineering degree. To attain this, additional free electives may be needed in addition to major and Core Ed courses.

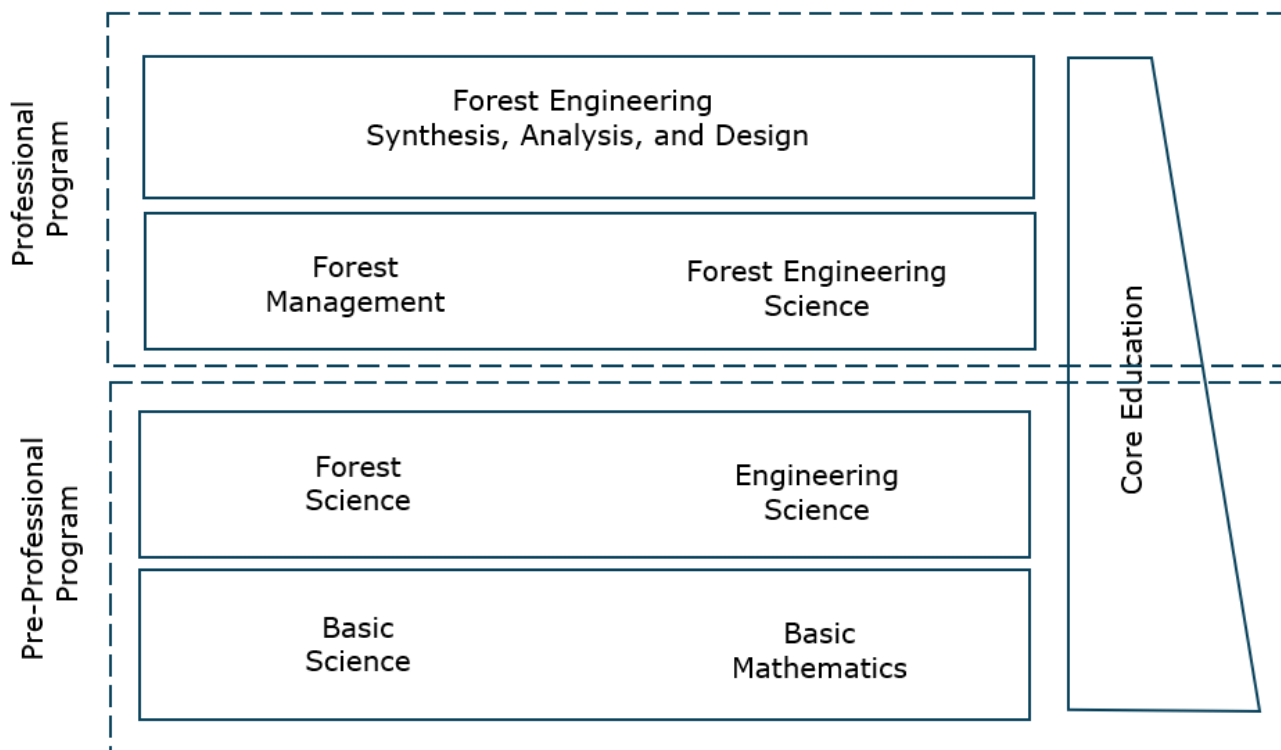
Professional Licensure

The pathway to licensure for Professional Engineers and Professional Land Surveyors is located at <https://www.oregon.gov/osbeels/obtaining/Pages/Licensing-Process-in-Oregon.aspx>. An important part of the pathway to licensure is passing the Fundamentals of Engineering Exam, and Oregon State University supports all engineering students with exam review assistance <https://engineering.oregonstate.edu/current-students/advising/fundamentals-engineering-exam>.

Forest Engineering Curriculum Structure

The FE program coursework is structured to begin with a broad general foundation in science and math, followed by forest science and engineering science to bridge between the basic sciences and forest management and forest engineering science. Incorporating the University's Core Education requirements provides basic skills and broader perspectives. The curriculum is completed with forest engineering synthesis, analysis and design, the hallmark of forest engineering practice.

The Forest Engineering program is divided into pre-professional coursework and professional coursework. Pre-professional courses are commonly completed in the freshman and sophomore years. The professional coursework begins in the junior year, and requires that you be admitted to the Professional Program.



In addition to the structure and categories illustrated in the figure above, the FE program has been structured to satisfy the accreditation criteria of the Society of American Foresters (SAF) and of the Engineering Accreditation Commission (EAC) of ABET, Inc. SAF divides Forestry curricula into seven categories; Communication, Science and Math, Humanities and Social Science, Forest Ecology and Biology, Forest Measurements, Forest Management, and Forest Policy and Administration. ABET divides engineering curricula into three categories: Mathematics and Basic Science, Engineering topics and a General Education Component. Courses may include material that can fit in more than one category.

Grade Requirements for Accreditation

Mathematics (all required courses must be graded C or higher)

A grade of C or higher is required in all Mathematics courses listed with the MTH prefix (e.g. MTH 251: Differential Calculus). Preparatory Mathematics courses not required for your major (such as MTH 111Z: College Algebra) can be taken for an S/U grade, but you must earn an S grade in order to meet the prerequisite requirements for the subsequent courses. You should consult with your advisor on any S/U grading questions as well as the possibility of retaking Math courses for which a grade of C is earned.

Basic Science (all courses must be graded C or higher)

The Basic Science requirement includes Physics, Chemistry, Soil Science, and an array of Forestry courses. Some Forestry courses include subject matter that is considered to be an Engineering Topic as well. All required courses that include basic science content are listed in Table 1 on page 13.

Engineering Topics (all courses must be graded C or higher)

Engineering Science (ENGR courses) provides the bridge between the basic sciences and engineering synthesis and design. The classical Engineering Science sequence, Statics, Dynamics, and Strength of Materials, is easily identifiable as engineering science course material. Many other components of engineering science are less easily delineated, and make up only portions of engineering or other courses. In some cases, courses taught by other departments have engineering science character appropriate to Forest Engineering. For example, the application of basic mathematics to the Engineering and Management analysis of the “time value of money” is an engineering science topic even though it is presented in Forest Resource Economics I (FOR 329). Similarly, the application of mathematics and statistics to measurement of forest resource quantities is an engineering science topic even though it is presented in Forest Mensuration (FOR 321). All required courses that include engineering content are listed in Table 1.

The heart of engineering practice is Synthesis and Design; hence Synthesis and Design are the capstone of an engineering education. Within Forest Engineering coursework, the most common occurrence of engineering science topics is in the beginning of a course or course sequence, the latter portion of which is engineering synthesis or design. The Engineering Design experience in the Forest Engineering program culminates in the Forest Planning Sequence (FE 459 and FE 469). This sequence provides the challenge and opportunity for students to integrate components of the entire curriculum, including the disciplines of Engineering, Forest Ecology, Silviculture, Fisheries, and Wildlife, into the design of a timber harvesting plan that meets a set of financial objectives developed with consideration of the time value of money and forest growth. All required courses that include engineering design content are listed in Table 1.

Forest Engineering Program Electives for admission to the Fundamentals of Land Surveying Examination

The Oregon State Board of Examiners for Engineering and Land Surveying [OSBEELS] has established the minimum educational qualifications for admission to the Fundamentals of Land Surveying Examination. These qualifications require that Forest Engineering graduates who wish to pursue a professional career in land surveying take additional coursework beyond that required for the Bachelor of Science in Forest Engineering. If you are interested in professional land surveying, please consult the listed OAR, and discuss the educational requirements with your advisor.

Professional Engineering (PE) Licensure

After graduating, FE students may want to pursue licensure as a Professional Engineer (PE) which is administered through the Oregon State Board of Examiners for Engineering and Land Surveying [OSBEELS]. Additional information here: <https://www.oregon.gov/osbeels/obtaining/Pages/default.aspx>

Table 1. Forest Engineering Degree Credit Distribution

| | Course Title | Course Prefix and Number | Basic Science and Mathematics Credit | Engineering Topics Credit | Supporting General Education Credits |
|--|--|---|--------------------------------------|---------------------------|--------------------------------------|
| Forest Engineering Pre-Professional Program | | | | | |
| | Chemistry for Engineering Majors ** [4 cr M&S] | CH 201 & CH 204 | 4 | | |
| | Introduction to Forest Engineering ** [1 cr ET; 1 cr Other] | FE 101 | | 1 | 1 |
| | Introduction to Forestry ** [1 cr M&S; 1 cr ET; 1 cr Other] | FOR 111 | 1 | 1 | 1 |
| | Differential Calculus [CE] ** [4 cr M&S] | MTH 251Z | 4 | | |
| | English Composition [CE] ** | WR 121Z | | | 4 |
| | Economics [CE] ** | AEC 250 or ECON 201 | | | 4 |
| | Forest Engineering Problem Solving and Tech ** [1 cr M&S; 1 cr ET; 1 cr Other] | FE 102 | 1 | 1 | 1 |
| | Integral Calculus ** [4 cr M&S] | MTH 252 | 4 | | |
| | Speech Communication[CE] ** | COMM 111Zor COMM 114 or COMM 218Z | | | 3-4 |
| | Dendrology ** [3 cr M&S] | FES 241 | 3 | | |
| | Vector Calculus I ** [4 cr M&S] | MTH 254 | 4 | | |
| | General Physics with Calculus [BC] ** [4 cr M&S] | PH 211 | 4 | | |
| | Statics ** [3 cr ET] | ENGR 211 | | 3 | |
| | Forest Surveying ** [4 cr ET] | FE 208 | | 4 | |
| | Applied Differential Equations ** [4 cr M&S] | MTH 256 | 4 | | |
| | General Physics with Calculus ** [4 cr M&S] | PH 212 | 4 | | |
| | Civil Engr and Const Engr Graphics & Design ** [3 cr ET] | CCE 201 | | 3 | |
| | Strength of Materials ** [3 cr ET] | ENGR 213 | | 3 | |
| | GIS & Forest Engineering Applications ** [3 cr ET] | FE 257 | | 3 | |
| | Principles of Statistics ** [4 cr M&S] | ST 243Z | 4 | | |
| | Dynamics ** [3 cr ET] | ENGR 212 | | 3 | |
| | Forest Biology [CE]** [4 cr M&S] | FES 240 | 4 | | |
| | Soil Science [CE] ** [3 cr M&S] | SOIL 205 | 3 | | |
| | Forest Soil lab [CE] ** [1 cr M&S] | FOR 206 or SOIL 206 | 1 | | |
| | Technical Writing [CE]** | WR 227Z | | | 4 |

Table 1. Forest Engineering Degree Credit Distribution continued

| Check Completed | Course Title | Course Prefix and Number | Basic Science and Mathematics Credit | Engineering Topics Credit | Supporting General Education Credits |
|--|--|--|--------------------------------------|---------------------------|--------------------------------------|
| Forest Engineering Professional Program | | | | | |
| | Forest Engineering Field School [2 cr ET] | FE 312 | | 2 | |
| | Forest Engineering Fluid Mechanics and Hydraulics [3 cr ET] or Ecological Fluid Mechanics [4 cr ET] | FE 330 or BEE 311 | | 3 or 4 | |
| | Harvesting Process Engineering [4 cr ET] | FE 371 | | 4 | |
| | Forest Watershed Management [2 cr M&S; 2 cr ET] | FE 434 | 2 | 2 | |
| | Forest Mensuration [1 cr M&S; 1 cr ET; 3 cr Other] | FOR 321 | 1 | 1 | 3 |
| | Soil Engineering [4 cr ET] | FE 315 | | 4 | |
| | Forest Operations Analysis [4 cr ET] | FE 440 | | 4 | |
| | Logging Mechanics [4 cr ET] | FE 470 | | 4 | |
| | Forest Resource Economics I [1 cr ET; 3 cr Other] | FOR 329 | | 1 | 3 |
| | Forest Route Surveying [4 cr ET] | FE 310 | | 4 | |
| | Soil Mechanics [4 cr ET] | FE 316 | | 4 | |
| | Forest Resource Economics II | FOR 332 | | 1 | 1 |
| | Harvesting Management [3 cr ET] | FE 471 | | 3 | |
| | Native American Agriculture [CE] [1 cr M&S; 2 cr Other] or Inclusive and Equitable Engineering [CE] [1 cr M&S; 2 cr Other] or Environmental Justice [CE] [1 cr M&S; 2 cr Other] or Sustainability, Justice, and Engagement [CE] [1 cr M&S; 2 cr Other] | AG 311 or ENGR 330 or ENSC/GEOG 333 or SUS 331 | 1 | | 2 |
| | Forest Road Engineering [3 cr ET] | FE 415 | | 3 | |
| | Forestry Remote Sensing & Photogrammetry [4 cr ET] | FE 444 | | 4 | |
| | Techniques for Forest Resource Analysis [4 cr ET] | FE 457 | | 4 | |
| | Forest Management Planning and Design I [4 cr ET] | FE 459 | | 4 | |
| | Forest Policy and Regulation [WIC] [3 cr ET] | FE 463 | | 3 | |
| | Forest Road System Management [4 cr ET] | FE 416 | | 4 | |
| | Forest Management Planning and Design II [4 cr ET] | FE 469 | | 4 | |
| | International Forestry [1 cr M&S; 2 cr Other] | FE 456 | 1 | | 2 |
| | Silviculture Principles [4 cr M&S] | FOR 441 | 4 | | |
| Other Core Education Courses [Core Ed] | | | | | |
| | Transitions | CORE 100 or 300 | | | 2 |
| | Beyond OSU: Engage | FE 008 | | | 0 |
| | Art & Humanities: General | | | | 3 |
| | Arts & Humanities: Global | | | | 3 |
| | Difference/Power/Oppression: Foundations | | | | 3 |
| | Seeking Solutions | | | | 3 |
| | Free Electives (if needed to reach 180 total credits) | | | | |
| Category Credit Totals | | | 54 | 85-86 | 43-44 |

** Pre-Professional Course that must be completed before entering the Professional Program.

DISCLAIMER: Future term data are continually updated. Course descriptions and credits may change from time to time, check the web frequently for current information.