

# FOREST SCIENCE, BS

Forests cover one-third of Earth and nearly half of Wisconsin. They provide diverse habitat, wood and fiber, clean water, carbon storage, recreation, beauty, and connections to many cultures. Forest managers and scientists work largely outdoors to conserve and manage forest resources and respond to disturbances from insects, diseases, wildfire, fragmentation, deforestation, and other changes. They also use technology to map and inventory forests.

Students in forest science learn the skills needed for many career paths through a mix of classroom, laboratory, and field instruction. They make frequent visits to forests and engage in professional and student-led trainings and networking. Students have flexibility to customize their learning experience through a variety of different elective options.

The department offers excellent teaching, research, and computing facilities. Classes are sized to ensure that undergraduates receive individual attention. Each student has a faculty adviser, and many students gain experience assisting faculty with research projects.

Students go on to work as foresters, park rangers, conservation scientists, educators, researchers, environmental planners, arborists, and more. Graduates of the program also pursue graduate training in forestry, ecology, natural resource policy, or environmental law. Forest science has an excellent job placement track record.

## LEARN THROUGH HANDS-ON, REAL-WORLD EXPERIENCES

Forest science students learn in many field and laboratory courses, putting their knowledge to work in outdoor, everyday circumstances. They also participate in a variety of opportunities beyond campus, including a three-week introduction to forest ecosystems in northern Wisconsin and summer research opportunities. All forest science undergraduates are required to complete an internship, often with a federal, state, or local government agency, an environmental nonprofit organization, timber industry firm, or environmental consultant.

## BUILD COMMUNITY AND NETWORKS

Students can join a competitive quiz bowl team and the Forestry Club (<https://www.facebook.com/WUMadisonForestryClub/>), UW-Madison's Student Chapter of the Society of American Foresters. Students can attend a national foresters conference and take part in trainings for prescribed burns, chainsaw use, and tree identification. Forest science undergraduates also have opportunities to work with local schools to help kids understand the forests around them.

## CUSTOMIZE A PATH OF STUDY

Forest science students select from a large variety of classes to fit their career goals. Students can customize their learning experience and choose electives in focus areas such as forest conservation, forests and the environment, and forest management. In consultation with advisors, students will choose electives in alignment with their unique professional interests. The program meets accreditation standards of the Society of American Foresters, a key credential for many jobs.

## MAKE A STRONG START

Students can take introductory courses that focus on forest science and the department's curriculum. One course explores forests of the world, as well as threats to forests, their roles in climate change, and strategies to conserve and manage them.

## GAIN GLOBAL PERSPECTIVE

Forest science students are encouraged to complete study abroad experiences. Students can explore studying abroad as a Forest Science major utilizing the Forest Science Major Advising Page (<https://studyabroad.wisc.edu/academics/major-advising-pages-maps/forest-science/>). Students work with their advisor and the CALS study abroad office (<https://cals.wisc.edu/academics/undergraduate-students/studyabroad/>) to identify appropriate programs. The department also offers an international course focused on the extinction of species.

## HOW TO GET IN

### HOW TO GET IN

Requirements	Details
How to get in	No application required. All students who meet the requirements listed below are eligible to declare. For information on how to declare, visit Advising & Careers.
Courses required to get in	None
GPA requirements to get in	None
Credits required to get in	Must have fewer than 86 credits.
Other	Students who do not meet the requirements above or are not in good academic standing should schedule a meeting with CALS Dean on Call ( <a href="https://go.wisc.edu/g85h79">https://go.wisc.edu/g85h79</a> ( <a href="https://go.wisc.edu/g85h79/">https://go.wisc.edu/g85h79/</a> )) to discuss exceptions.

## PROSPECTIVE UW-MADISON STUDENTS

All prospective UW-Madison students must apply through the Office of Admissions and Recruitment (<https://www.admissions.wisc.edu/>).

Students interested in this major should select it as the first choice major on their UW-Madison application. Admitted students who enroll at UW-Madison and attend Student Orientation, Advising, and Registration (SOAR) with the College of Agricultural and Life Sciences have the option to declare this major at SOAR. More information is available here (<https://cals.wisc.edu/academics/undergraduate/future-students/>).

## REQUIREMENTS

### UNIVERSITY GENERAL EDUCATION REQUIREMENTS

All undergraduate students at the University of Wisconsin-Madison are required to fulfill a minimum set of common university general education requirements to ensure that every graduate acquires the essential core of an undergraduate education. This core establishes a foundation for living a productive life, being a citizen of the world, appreciating

aesthetic values, and engaging in lifelong learning in a continually changing world. Various schools and colleges will have requirements in addition to the requirements listed below. Consult your advisor for assistance, as needed. For additional information, see the university Undergraduate General Education Requirements (<https://guide.wisc.edu/undergraduate/#requirementsforundergraduatestudytext>) section of the Guide.

General Education	<ul style="list-style-type: none"> <li>• Breadth–Humanities/Literature/Arts: 6 credits</li> <li>• Breadth–Natural Science: 4 to 6 credits, consisting of one 4- or 5-credit course with a laboratory component; or two courses providing a total of 6 credits</li> <li>• Breadth–Social Studies: 3 credits</li> <li>• Communication Part A &amp; Part B *</li> <li>• Ethnic Studies *</li> <li>• Quantitative Reasoning Part A &amp; Part B *</li> </ul>
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\* The mortarboard symbol appears before the title of any course that fulfills one of the Communication Part A or Part B, Ethnic Studies, or Quantitative Reasoning Part A or Part B requirements.

## COLLEGE OF AGRICULTURAL AND LIFE SCIENCES REQUIREMENTS

In addition to the University General Education Requirements, all undergraduate students in CALS must satisfy a set of college and major requirements. Courses may not double count within university requirements (General Education and Breadth) or within college requirements (First-Year Seminar, International Studies, Science, and Capstone), but courses counted toward university requirements may also be used to satisfy a college and/or a major requirement; similarly, courses counted toward college requirements may also be used to satisfy a university and/or a major requirement.

### COLLEGE REQUIREMENTS FOR ALL CALS BS DEGREE PROGRAMS

Code	Title	Credits
Quality of Work: Students must maintain a minimum cumulative grade point average of 2.000 to remain in good standing and be eligible for graduation.		
Residency: Students must complete 30 degree credits in residence at UW–Madison after earning 86 credits toward their undergraduate degree.		
	First year seminar ( <a href="https://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSThirdYearSeminarCourses">https://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSThirdYearSeminarCourses</a> )	1
	International studies ( <a href="https://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSThirdYearSeminarCourses">https://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSThirdYearSeminarCourses</a> )	3
	Physical science fundamentals	4-5
	CHEM 103 General Chemistry I	
	or CHEM 108 Chemistry in Our World	
	or CHEM 109 Advanced General Chemistry	
	Biological science	5
	Additional science (biological, physical, or natural)	3
	Science breadth (biological, physical, natural, or social)	3

CALS Capstone Learning Experience: included in the requirements for each CALS major (see "major requirements") (<https://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSCapstoneRequirement>)

## MAJOR REQUIREMENTS

Code	Title	Credits
	Mathematics	5-6
	Statistics	3
	Chemistry	4-5
	Biology	10
	Wildlife Ecology	3
	Core	38-39
	Major Electives	12
	Capstone	3
	Additional credits required to meet University General Education and College specific requirements	42
<b>Total Credits</b>		<b>120</b>

### MATHEMATICS

Complete one of the following (or may be satisfied by placement exam):

Code	Title	Credits
MATH 112 & MATH 113	College Algebra and Trigonometry	6
MATH 114	Precalculus	5

### STATISTICS

Complete one of the following:

Code	Title	Credits
STAT 301	Introduction to Statistical Methods	3
STAT 371	Introductory Applied Statistics for the Life Sciences	3

### CHEMISTRY

Complete one of the following:

Code	Title	Credits
CHEM 103	General Chemistry I	4
CHEM 108	Chemistry in Our World	5
CHEM 109	Advanced General Chemistry	5

### BIOLOGY

Complete one of the following sequences:

Code	Title	Credits
BIOLOGY/ BOTANY 130 & BIOLOGY/ ZOOLOGY 101 & BIOLOGY/ ZOOLOGY 102	General Botany and Animal Biology and Animal Biology Laboratory	10

BIOLOGY/BOTANY/ ZOOLOGY 151 & BIOLOGY/ BOTANY/ ZOOLOGY 152	Introductory Biology and Introductory Biology	10
BIOCORE 381 & BIOCORE 382 & BIOCORE 383 & BIOCORE 384	Evolution, Ecology, and Genetics and Evolution, Ecology, and Genetics Laboratory and Cellular Biology and Cellular Biology Laboratory	10

## WILDLIFE ECOLOGY

Complete one of the following courses. Courses completed beyond the requirement may count as major electives.

Code	Title	Credits
F&W ECOL 110	Living with Wildlife - Animals, Habitats, and Human Interactions	3
F&W ECOL/ ENVIR ST/ ZOOLOGY 360	Extinction of Species	3
F&W ECOL 379	Principles of Wildlife Management	3
F&W ECOL/AN SCI/ ZOOLOGY 520	Ornithology	3

## CORE

Complete all of the following courses. A grade of C or better is required in each core course. Students who receive a grade of D or below will be required to retake the course to qualify for graduation.

Code	Title	Credits
SOIL SCI 301 or SOIL SCI/ ENVIR ST/ GEOG 230	General Soil Science Soil: Ecosystem and Resource	3
F&W ECOL 300	Forest Measurements	4
BOTANY/F&W ECOL 402	Dendrology: Woody Plant Identification and Ecology	3
F&W ECOL 395 or GEOG/ CIV ENGR/ ENVIR ST 377 or F&W ECOL/ ENVIR ST/G L E/ GEOG/GEOSCI/ LAND ARC 371	Data and GIS Tools for Ecology An Introduction to Geographic Information Systems Introduction to Environmental Remote Sensing	3-4
F&W ECOL 305	Forest Operations	2
F&W ECOL 390	Learning to Action: Professional Development	1
F&W ECOL 410 & F&W ECOL 411	Silviculture: Applied Forest Ecology and Practices of Silviculture	4
F&W ECOL/ A A E 430	Decision Methods for Natural Resource Managers	3
F&W ECOL 448 & F&W ECOL 449 & F&W ECOL 450	Disturbance Ecology and Disturbance Ecology Lab (I): Herbivores and Fire and Disturbance Ecology Lab (II): Forest Pathogens	5

ENVIR ST/F&W ECOL 515 or ENVIR ST/ ECON/POLI SCI/ URB R PL 449 or ENVIR ST/ GEOG 439 or ENVIR ST/ HISTORY/ LEGAL ST 430	Natural Resources Policy (recommended, satisfies Communications B requirement) Government and Natural Resources US Environmental Policy and Regulation Law and Environment: Historical and Contemporary Perspectives	3
F&W ECOL 550 & F&W ECOL 551	Forest Ecology and Forest Ecology Lab	4
F&W ECOL 658	Forest Resources Practicum	3

**Total Credits 38-39**

## MAJOR ELECTIVES

Complete at least 12 credits from the following courses.

### Soils and Landscapes

Code	Title	Credits
F&W ECOL/ LAND ARC/ ZOOLOGY 565	Principles of Landscape Ecology	2
LAND ARC 668	Restoration Ecology	3
SOIL SCI 302	Meet Your Soil: Soil Analysis and Interpretation Laboratory	1
SOIL SCI/ F&W ECOL 451	Environmental Biogeochemistry	3

### Economics and Business

Code	Title	Credits
A A E 101	Introduction to Agricultural and Applied Economics	4
A A E/ENVIR ST 244	The Environment and the Global Economy	4
A A E/ECON/ ENVIR ST 343	Environmental Economics	3-4
A A E/ECON 371	Energy, Resources and Economics	3
A A E 419	Agricultural Finance	3
ECON 101	Principles of Microeconomics	4
GEN BUS 310	Fundamentals of Accounting and Finance for Non-Business Majors	3
GEN BUS 311	Fundamentals of Management and Marketing for Non-Business Majors	3
INTL BUS 200	International Business	3
LSC 270	Marketing Communication for the Sciences	3
M H R 300	Managing Organizations	3
M H R 305	Human Resource Management	3
M H R 401	Leading Teams	3
OTM 300	Operations and Supply Chain Management	3

**Urban and Wildland Forest Management**

Code	Title	Credits
F&W ECOL 455		4
PLANTSCI/ LAND ARC 263	Woody Landscape Plant Identification, Culture, and Use	4
SOIL SCI 326	Plant Nutrition Management	3

**GIS/Remote Sensing**

Code	Title	Credits
ENVIR ST/ CIV ENGR/ LAND ARC 556	Remote Sensing Digital Image Processing	3
ENVIR ST/ SOIL SCI 575	Assessment of Environmental Impact	3
ENVIR ST/ LAND ARC/ SOIL SCI 695	Applications of Geographic Information Systems in Natural Resources	3
GEOG 370	Introduction to Cartography	4
ENVIR ST/ CIV ENGR/ GEOG 377	An Introduction to Geographic Information Systems	4
GEOG 378	Introduction to Geocomputing	4

**Wildlife and Fisheries Ecology**

Code	Title	Credits
GEOG/BOTANY 338	Environmental Biogeography	3
F&W ECOL 306	Terrestrial Vertebrates: Life History and Ecology	4
F&W ECOL 318	Principles of Wildlife Ecology	3
F&W ECOL 379	Principles of Wildlife Management	3
F&W ECOL 655	Animal Population Dynamics	3
ZOOLOGY/ ENVIR ST 315	Limnology-Conservation of Aquatic Resources	2
ZOOLOGY 316	Laboratory for Limnology- Conservation of Aquatic Resources	2-3
ZOOLOGY/ ENVIR ST 510	Ecology of Fishes	3
ZOOLOGY/ ENVIR ST 511	Ecology of Fishes Lab	2
ZOOLOGY/AN SCI/ F&W ECOL 520	Ornithology	3
ZOOLOGY/AN SCI/ F&W ECOL 521	Birds of Southern Wisconsin	3

**Ecology and Biological Diversity**

Code	Title	Credits
AGROECOL 370	Grassland Ecology	3
ENTOM/ ZOOLOGY 302	Introduction to Entomology	4
ENTOM/BOTANY/ ZOOLOGY 473	Plant-Insect Interactions	3
BOTANY/ PL PATH 332	Fungi	4
BOTANY/ PL PATH 333	Biology of the Fungi	2
BOTANY 401	Vascular Flora of Wisconsin	4
BOTANY 422	Plant Geography	3

BOTANY/ F&W ECOL/ ZOOLOGY 460	General Ecology	4
F&W ECOL 458	Environmental Data Science	3
LAND ARC/ F&W ECOL/ ZOOLOGY 565	Principles of Landscape Ecology	2

**Conservation Biology**

Code	Title	Credits
F&W ECOL/ ENVIR ST 100	Forests of the World	3
F&W ECOL/ ENVIR ST/ ZOOLOGY 360	Extinction of Species	3
F&W ECOL/ BOTANY/ENVIR ST/ ZOOLOGY 516	Conservation Biology	3
F&W ECOL/ ZOOLOGY 660	Climate Change Ecology	3
GEOG/ ENVIR ST 339	Environmental Conservation	4
LAND ARC/ ENVIR ST 361	Wetlands Ecology	3
ZOOLOGY/ ANTHRO/ BOTANY 410	Evolutionary Biology	3

**Natural Resource Management and Policy**

Code	Title	Credits
A A E/ECON/ F&W ECOL 531	Natural Resource Economics	3
BSE/ENVIR ST 367	Renewable Energy Systems	3
ENVIR ST/ GEOSCI 411	Energy Resources	3
ENVIR ST/ ECON/POLI SCI/ URB R PL 449	Government and Natural Resources	3-4
ECON/A A E/ ENVIR ST/ URB R PL 671	Energy Economics	3
F&W ECOL 561	Wildlife Management Techniques	3
LAND ARC/ ENVIR ST 581	Prescribed Fire: Ecology and Implementation	3
PL PATH 300	Introduction to Plant Pathology	4

**Earth and Atmospheric Science**

Code	Title	Credits
ATM OCN 100	Weather and Climate	3
ATM OCN 101	Weather and Climate	4
ATM OCN/ ENVIR ST 171	Global Change: Atmospheric Issues and Problems	2-3
ATM OCN/ ENVIR ST/ GEOG 332	Global Warming: Science and Impacts	3
F&W ECOL/ SOIL SCI 451	Environmental Biogeochemistry	3
GEOG 342	Geography of Wisconsin	3

MICROBIO 303	Biology of Microorganisms	3
MICROBIO 304	Biology of Microorganisms Laboratory	2
SOIL SCI 323	Soil Biology	3
SOIL SCI 621	Soil and Environmental Chemistry	3

### Human and Social Dimensions of Ecology

Code	Title	Credits
AMER IND/ ENVIR ST 306	Indigenous Peoples and the Environment	3
AMER IND/ ENVIR ST 341	Indigenous Environmental Communicators	3
AMER IND/ ENVIR ST/ GEOG 345	Caring for Nature in Native North America	3
AMER IND/ GEOG 410	Critical Indigenous Ecological Knowledges	3
AMER IND/ ANTHRO/ BOTANY 474	Ethnobotany	3-4
C&E SOC/ F&W ECOL/ SOC 248	Environment, Natural Resources, and Society	3
C&E SOC/CURRIC/ ENVIR ST 405	Education for Sustainable Communities	3
C&E SOC/SOC 541	Environmental Stewardship and Social Justice	3
ENVIR ST 307	Literature of the Environment: Speaking for Nature	3
ENVIR ST/ PHILOS 441	Environmental Ethics	3-4
ENVIR ST/GEOG/ HISTORY 460	American Environmental History	4

### CAPSTONE

Students are required to receive a grade of C or higher on the forest science capstone. Students who receive a grade of D or below will be required to retake the course for graduation.

Code	Title	Credits
F&W ECOL 590	Integrated Resource Management	3

## HONORS IN THE MAJOR

Students admitted to the university and to the College of Agricultural and Life Sciences are invited to apply to be considered for admission to the CALS Honors Program.

#### Admission Criteria for New First-Year Students:

- Complete program application including essay questions

#### Admission Criteria for Transfer and Continuing UW-Madison Students:

- UW-Madison cumulative GPA of at least 3.25
- Complete program application including essay questions

## HOW TO APPLY

The application is available on the CALS Honors Program website (<https://cals.wisc.edu/academics/undergraduate/current-students/honors-program/>). Applications are accepted at any time.

New first-year students with accepted applications will automatically be enrolled in Honors in Research. It is possible to switch to Honors in the Major in the student's first semester on campus after receiving approval from the advisor for that major. Transfer and continuing students may apply directly to Honors in Research or Honors in the Major (after approval from the major advisor).

## REQUIREMENTS

All CALS Honors programs have the following requirements:

- Earn at least a cumulative 3.25 GPA at UW-Madison (some programs have higher requirements)
- Complete the program-specific requirements listed below
- Submit completed thesis documentation to CALS Academic Affairs

## REQUIREMENTS

To earn honors in the major, students are required to take at least 20 honors credits. In addition, students must take F&W ECOL 681 and F&W ECOL 682 when completing their thesis project; please see the honors program page (<https://cals.wisc.edu/academics/undergraduate/current-students/honors-program/>) for more information.

## UNIVERSITY DEGREE REQUIREMENTS

**Total Degree** To receive a bachelor's degree from UW-Madison, students must earn a minimum of 120 degree credits. The requirements for some programs may exceed 120 degree credits. Students should consult with their college or department advisor for information on specific credit requirements.

**Residency** Degree candidates are required to earn a minimum of 30 credits in residence at UW-Madison. "In residence" means on the UW-Madison campus with an undergraduate degree classification. "In residence" credit also includes UW-Madison courses offered in distance or online formats and credits earned in UW-Madison Study Abroad/Study Away programs.

**Quality of Work** Undergraduate students must maintain the minimum grade point average specified by the school, college, or academic program to remain in good academic standing. Students whose academic performance drops below these minimum thresholds will be placed on academic probation.

## LEARNING OUTCOMES

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1. (Ecology) Understanding of taxonomy and ability to identify forest and other tree species, their distribution, and associated vegetation and wildlife.
2. (Ecology) Understanding of soil properties and processes, hydrology, water quality, and watershed functions.
3. (Ecology) Understanding of ecological concepts and principles including the structure and function of ecosystems, plant and animal

communities, competition, diversity, population dynamics, succession, disturbance, and nutrient cycling.

4. (Ecology) Ability to make ecosystem, forest, and stand assessments.
5. (Ecology) Understanding of tree physiology and the effects of climate, fire, pollutants, moisture, nutrients, genetics, insects and diseases on tree and forest health and productivity.
6. (Forest Resources Measurement and Management) Ability to identify and measure land areas and conduct spatial analysis.
7. (Forest Resources Measurement and Management) Ability to design and implement comprehensive inventories that meet specific objectives using appropriate sampling methods and units of measurement.
8. (Forest Resources Measurement and Management) Ability to analyze inventory data and project future forest, stand, and tree conditions.
9. (Forest Resources Measurement and Management) Ability to develop and apply silvicultural prescriptions appropriate to management objectives, including methods of establishing and influencing the composition, growth, and quality of forests, and understand the impacts of those prescriptions.
10. (Forest Resources Measurement and Management) Ability to analyze the economic, environmental, and social consequences of forest resource management strategies and decisions.
11. (Forest Resources Measurement and Management) Ability to develop management plans with specific multiple objectives and constraints.
12. (Forest Resources Measurement and Management) Understanding of the valuation procedures, market forces, processing systems, transportation and harvesting activities that translate human demands for timber-based and other consumable forest products into the availability of those products.
13. (Forest Resources Measurement and Management) Understanding of the valuation procedures, market, and non-market forces that avail humans the opportunities to enjoy non-consumptive products and services of forests.
14. (Forest Resources Measurement and Management) Understanding of the administration, ownership, and organization of forest management enterprises.
15. (Forest Resource Policy, Economics, and Administration) Understanding of forest policy and the processes by which it is developed.
16. (Forest Resource Policy, Economics, and Administration) Understanding of how federal, state, and local laws and regulations govern the practice of forestry.
17. (Forest Resource Policy, Economics, and Administration) Ability to understand the integration of technical, financial, human resources, and legal aspects of public and private enterprises.

## FOUR-YEAR PLAN

### FOUR-YEAR PLAN

The four-year plan is a tool to assist you and your advisor in planning your academic career. Use it along with your DARS report and Course Search & Enroll to determine your program of study. Your program of study will likely look different from this sample four-year plan. Consult with your advisor to determine the best path for you. Courses may not be offered every year, so plan ahead with your advisor. Students must complete at least 120 total credits to be eligible for graduation.

## SAMPLE FOREST SCIENCE FOUR-YEAR PLAN

### First Year

Fall	Credits	Spring	Credits
MATH 112 <sup>1</sup>	3	MATH 113 <sup>1</sup>	3
F&W ECOL/ ENVIR ST 100 (recommended for CALS International Studies requirement)	3	CHEM 103, 108, or 109	4-5
INTER-AG 155 (CALS First Year Seminar)	1	BIOLOGY/ BOTANY 130 <sup>2</sup>	5
COMM A Course	3	Ethnic Studies	3
Elective	3		
	<b>13</b>		<b>16</b>

### Second Year

Fall	Credits	Spring	Credits	Summer	Credits
BIOLOGY/ ZOOLOGY 101 & BIOLOGY/ ZOOLOGY 102	5	F&W ECOL 300	4	F&W ECOL 658 <sup>3</sup>	3
SOIL SCI 301	3	F&W ECOL 395	3		
F&W ECOL/ BOTANY 402	3	Electives	6-7		
STAT 371 or 301	3				
	<b>14</b>		<b>14</b>		<b>3</b>

### Third Year

Fall	Credits	Spring	Credits
F&W ECOL/ ENVIR ST 515	3	F&W ECOL 305	2
F&W ECOL 550 & F&W ECOL 551	4	F&W ECOL 410 & F&W ECOL 411	4
Major Electives	6	F&W ECOL/ A A E 430 (Counts as Social Science)	3
Humanities	3	F&W ECOL 448	3
		F&W ECOL 449	1
	<b>16</b>		<b>13</b>

### Fourth Year

Fall	Credits	Spring	Credits
F&W ECOL 390 <sup>3</sup>	1	Electives	9
F&W ECOL 590	3	Major Electives	6
F&W ECOL 450	1		
Major Electives	3		
Humanities	3		
Electives	5		
	<b>16</b>		<b>15</b>

**Total Credits 120**

<sup>1</sup> MATH course dependent on placement score and transfer credit evaluation.

<sup>2</sup> BIOLOGY/BOTANY 130, BIOLOGY/ZOOLOGY 101 & BIOLOGY/ZOOLOGY 102 are strongly recommended to satisfy the introductory biology requirement for forest science, but students may use BIOLOGY/BOTANY/ZOOLOGY 151 & BIOLOGY/BOTANY/ZOOLOGY 152.

<sup>3</sup> Students should plan ahead for this course with their advisor, as it may not be offered every year.

## ADVISING AND CAREERS

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#### ADVISING

Students are assigned an academic advisor as well as a faculty advisor. Faculty members lead undergraduate research, advise students on career planning, and help students with critical thinking. Professional academic advisors help students plan their coursework and identify internship opportunities, as well as ways to get involved in department and campus activities.

#### CAREER OPPORTUNITIES

Undergraduates in forest science prepare for a variety of career opportunities. They can work as foresters, arborists, park rangers, conservation scientists, environmental educators, geospatial analysts, researchers, and more. They also pursue graduate training in forestry, ecology, natural resource policy, or environmental law. Graduates of the program work for many organizations including the U.S. Forest Service, the Wisconsin Department of Natural Resources, the Society of American Foresters, the Aldo Leopold Foundation, environmental consultants, and private corporations.

## WISCONSIN EXPERIENCE

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#### INTERNSHIPS

All forest science undergraduates are required to complete an internship. Students find positions outdoors, as well as laboratory and analytical positions. See the Internship & Job Resources (<https://forestandwildlifeecology.wisc.edu/academics/undergraduate-programs/internship-job-resources/>) page for more information.

#### RESEARCH EXPERIENCE

Forest science undergraduates can undertake independent research by joining a professor's field- or lab-based research activities. In their research experiences, students gain skills in a variety of forest science areas including forest structure and function, forest policy, human dimensions of forest management, forest economics, and plant species identification.

#### STUDENT ORGANIZATIONS

Students can join the Forestry Club, UW-Madison's Student Chapter of the Society of American Foresters. The club organizes the annual holiday tree sale, and students can attend a national foresters conference and take part in trainings for prescribed burns, chainsaw use, and tree identification.

### COMPETITIVE TEAMS

Students can join a quiz bowl team that competes at the national Society of American Foresters annual conference.

### GLOBAL ENGAGEMENT

Forest science students are encouraged to complete a study abroad experience. The department also offers an international course focused on the extinction of species that meets the CALS International Studies requirement. Students can find more information on the CALS study abroad advising page (<https://cals.wisc.edu/academics/undergraduate-students/international-programs/study-abroad-advising/>).

### COMMUNITY ENGAGEMENT AND VOLUNTEERING

Students involved in the Forestry Club volunteer at a number of activities including the annual holiday tree sale. Forest science undergraduates also have opportunities to work with local schools to help kids understand the forests around them.

On campus, the Morgridge Center for Public Service (<https://morgridge.wisc.edu/>) provides resources to help students connect with volunteer opportunities based on their interests and goals.

## RESOURCES AND SCHOLARSHIPS

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There are five scholarships available to forest science students and fellowships are available for students to conduct research with professors. Students across the College of Agricultural and Life Sciences receive more than \$1.25 million in scholarships annually. Learn more about college scholarships here (<https://cals.wisc.edu/academics/undergraduate-students/financing-your-education/cals-scholarships/>).

UW-Madison offers a special practicum course for majors known as "Forestry Camp." The Forest Resources Practicum is an intensive, three-week field course at the Kemp Natural Resources Station (<https://kemp.wisc.edu/>) in Woodruff, Wisconsin. Students learn firsthand about forest ecosystem structure, function, processes, and services. Subject areas include basic field skills, plant identification, GPS, forest soils, wildlife survey methods, and forest ecology. Students at Forestry Camp work closely with faculty and natural resource professionals.

## ACCREDITATION

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Society of American Foresters (<https://www.eforester.org/>)

Accreditation status: Accredited. Next accreditation review: 2027.