FOREST SCIENCE, B.S.

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. 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. 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. The department also offers an international course focused on the extinction of species.

HOW TO GET IN

To declare this major, students must be admitted to UW–Madison and the College of Agricultural and Life Sciences (CALS). For information about becoming a CALS first-year or transfer student, see Entering the College (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#enteringthecollegetext).

Students who attend Student Orientation, Advising, and Registration (SOAR) with the College of Agricultural and Life Sciences have the option to declare this major at SOAR. Students may otherwise declare after they have begun their undergraduate studies. For more information, contact the advisor listed under the Advising and Careers tab.

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 (http://guide.wisc.edu/undergraduate/#requirementsforundergraduatesudytetext) section of the Guide.

General Education

- Breadth—Humanities/Literature/Arts: 6 credits
- 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
- Breadth—Social Studies: 3 credits
- Communication Part A & Part B *
- Ethnic Studies *
- Quantitative Reasoning Part A & Part B *

* 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 B.S. DEGREE PROGRAMS**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td></td>
<td>Residency: Students must complete 30 degree credits in residence at UW–Madison after earning 86 credits toward their undergraduate degree.</td>
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<tr>
<td></td>
<td>First Year Seminar (<a href="http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#requirementstext">http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#requirementstext</a>)</td>
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<tr>
<td></td>
<td>Physical Science Fundamentals</td>
<td>4-5</td>
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<tr>
<td>CHEM 103</td>
<td>General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>or CHEM 108</td>
<td>Chemistry in Our World</td>
<td></td>
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<tr>
<td>or CHEM 109</td>
<td>Advanced General Chemistry</td>
<td></td>
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<tr>
<td></td>
<td>Biological Science</td>
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<td></td>
<td>Additional Science (Biological, Physical, or Natural)</td>
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<tr>
<td></td>
<td>Science Breadth (Biological, Physical, Natural, or Social)</td>
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<tr>
<td></td>
<td>CALS Capstone Learning Experience: included in the requirements for each CALS major (<a href="">see &quot;Major Requirements&quot;</a>)</td>
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**MAJOR REQUIREMENTS**

<table>
<thead>
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<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
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<td>Select one of the following (or may be satisfied by placement exam):</td>
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<tr>
<td></td>
<td>MATH 112</td>
<td>Algebra</td>
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<tr>
<td>&amp; MATH 113</td>
<td>and Trigonometry</td>
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<tr>
<td>MATH 114</td>
<td>Algebra and Trigonometry</td>
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<td>Select one of the following:</td>
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<td>STAT 301</td>
<td>Introduction to Statistical Methods</td>
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<tr>
<td>STAT 371</td>
<td>Introductory Applied Statistics for the Life Sciences (recommended)</td>
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<tr>
<td></td>
<td>Chemistry</td>
<td>4-5</td>
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<tr>
<td>CHEM 103</td>
<td>General Chemistry I</td>
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<tr>
<td>CHEM 108</td>
<td>Chemistry in Our World</td>
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<td>CHEM 109</td>
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<td>Select one of the following options:</td>
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<td>Option 1 (recommended introduction to biology sequence):</td>
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<tr>
<td>BOTANY/</td>
<td>General Botany</td>
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<tr>
<td>BIOLOGY 130</td>
<td>and Animal Biology</td>
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<tr>
<td>&amp; ZOOLOGY/</td>
<td>and Animal Biology Laboratory</td>
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<td>BIOLOGY 101</td>
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<tr>
<td>&amp; ZOOLOGY/</td>
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<td>BIOLOGY 102</td>
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<td>Option 2:</td>
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<td>BIOLOGY/</td>
<td>Introductory Biology</td>
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<td>BOTANY/</td>
<td>and Introductory Biology</td>
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<td>ZOOLOGY 151</td>
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<td>&amp; BIOLOGY/</td>
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<tr>
<td>BOTANY/</td>
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<td>ZOOLOGY 152</td>
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<td>Option 3:</td>
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<tr>
<td>BIOCORE 381</td>
<td>Evolution, Ecology, and Genetics</td>
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<tr>
<td>&amp; BIOCORE 382</td>
<td>and Evolution, Ecology, and Genetics Laboratory</td>
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<tr>
<td>&amp; BIOCORE 383</td>
<td>Genetics Laboratory</td>
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<tr>
<td>&amp; BIOCORE 384</td>
<td>Cellular Biology and Cellular Biology Laboratory</td>
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<tr>
<td></td>
<td>Economics</td>
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<tr>
<td>A A E 215</td>
<td>Introduction to Agricultural and Applied Economics</td>
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<tr>
<td>or ECON 101</td>
<td>Principles of Microeconomics</td>
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<tr>
<td></td>
<td>Conservation</td>
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<td>Select one of the following:</td>
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<tr>
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<td>F&amp;W ECOL/ENVIR ST 100</td>
<td>Forests of the World</td>
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<tr>
<td>ENVIR ST/</td>
<td>Wetlands Ecology</td>
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<td>LAND ARC 361</td>
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<td>F&amp;W ECOL/ENVIR ST/ZOOLOGY 360</td>
<td>Extinction of Species (recommended)</td>
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<td>F&amp;W ECOL/LAND ARC/ZOOLOGY 565</td>
<td>Principles of Landscape Ecology</td>
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<tr>
<td>F&amp;W ECOL/BOTANY/ENVIR ST/ZOOLOGY 651</td>
<td>Conservation Biology (recommended)</td>
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<tr>
<td>GEOG/ENVIR ST 339</td>
<td>Environmental Conservation</td>
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<tr>
<td></td>
<td>Core</td>
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<td>Grade of C or better required in each core course</td>
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<tr>
<td>SOIL SCI 301</td>
<td>General Soil Science</td>
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<tr>
<td>F&amp;W ECOL 300</td>
<td>Forest Biometry</td>
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<tr>
<td>GEOG/CIV ENGR/ENVIR ST 377</td>
<td>An Introduction to Geographic Information Systems</td>
<td>3-4</td>
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<tr>
<td>or F&amp;W ECOL/ENVIR ST/G L E/GEOG/GEOSCI/LAND ARC 371</td>
<td>Introduction to Environmental Remote Sensing</td>
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<tr>
<td>F&amp;W ECOL/HORT/LAND ARC/PL PATH 309</td>
<td>Diseases of Trees and Shrub</td>
<td>3</td>
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<tr>
<td>BOTANY/F&amp;W ECOL 402</td>
<td>Dendrology</td>
<td>2</td>
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<tr>
<td>F&amp;W ECOL 305</td>
<td>Forest Operations</td>
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</table>
F&W ECOL 390  Learning to Action: Professional Development  1
F&W ECOL 410  Principles of Silviculture  4
& F&W ECOL 411  and Practices of Silviculture
F&W ECOL/ ENTM 500  Insects in Forest Ecosystem  2
F&W ECOL 501  Forest Fire Behavior and Management  1
ENVIR ST/F&W ECOL 515  Natural Resources Policy  3
F&W ECOL 550  Forest Ecology  4
& F&W ECOL 551  and Forest Ecology Lab
A A E/ENVIR ST/F&W Decision Methods for Natural ECOL 652  Resource Managers  4
F&W ECOL 658  Forest Resources Practicum  3
Electives
Select one of the following tracks:  12
Forest Management Track
Forest Conservation Track
Forests & Environment Track
Capstone
Grade of C or better required in Capstone
F&W ECOL 590  Integrated Resource Management  3
Total Credits  83-88

1
These courses may double count as track electives.
2
May also fulfill CALS International Studies requirement.

MINIMUM GRADE REQUIREMENT
Students who declare the major in fall 2012 or later will be required to receive a grade of C or higher on all of the Forest Science Core courses and the Capstone. Students who receive a grade of D or below will be required to retake the course for graduation.

TRACKS

FOREST MANAGEMENT TRACK

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>GEN BUS 310</td>
<td>Fundamentals of Accounting and Finance for Non-Business Majors</td>
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<tr>
<td>GEN BUS 311</td>
<td>Fundamentals of Management and Marketing for Non-Business Majors</td>
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<tr>
<td>INTL BUS 200</td>
<td>International Business</td>
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<tr>
<td>LSC 270</td>
<td>Marketing Communication for the Sciences</td>
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<tr>
<td>M H R 300</td>
<td>Managing Organizations</td>
<td></td>
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<tr>
<td>M H R 305</td>
<td>Human Resource Management</td>
<td></td>
</tr>
<tr>
<td>M H R 401</td>
<td>The Management of Teams</td>
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<tr>
<td>OTM 300</td>
<td>Operations Management</td>
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Urban and Wildland Forest Management:

F&W ECOL 375  Special Topics (Tree Stability Analysis)
HORT/LAND ARC 263  Landscape Plants I
HORT/AGRONOMY/SOIL SCI 326  Plant Nutrition Management
HORT 375  Special Topics (Aboriculture)

GIS/Remote Sensing:

ENVIR ST 400  Special Topics in the Environment: Biological Aspects of Envir St (Fieldcraft & Field Methods for Environmental Researchers)
ENVIR ST/CIV ENGR/LAND ARC 556  Remote Sensing Digital Image Processing
ENVIR ST/SOIL SCI 575  Assessment of Environmental Impact
ENVIR ST/LAND ARC/SOIL SCI 695  Applications of Geographic Information Systems in Natural Resources
GEOG 370  Introduction to Cartography
GEOG/CIV ENGR/ENVIR ST 377  An Introduction to Geographic Information Systems
GEOG 378  Introduction to Geocomputing

Wildlife and Fisheries Ecology:

F&W ECOL 306  Terrestrial Vertebrates: Life History and Ecology
F&W ECOL 318  Principles of Wildlife Ecology
F&W ECOL/ENVIR ST/ZOOLOGY 360  Extinction of Species
F&W ECOL 379  Principles of Wildlife Management
F&W ECOL 404  Wildlife Damage Management
F&W ECOL 655  Animal Population Dynamics
ZOOLOGY/ENVIR ST 315  Limnology-Conservation of Aquatic Resources
ZOOLOGY 316  Laboratory for Limnology-Conservation of Aquatic Resources
ZOOLOGY/ENVIR ST 510  Ecology of Fishes
ZOOLOGY/ENVIR ST 511  Ecology of Fishes Lab

Soils and Landscapes:

F&W ECOL/LAND ARC/ZOOLOGY 565  Principles of Landscape Ecology
GEOG 329  Landforms and Landscapes of North America
SOIL SCI 325  Soils and Landscapes
SOIL SCI/F&W ECOL 451  Environmental Biogeochemistry

Economics and Business:

A A E/ENVIR ST 244  The Environment and the Global Economy
A A E/ECON/ENVIR ST 343  Environmental Economics
A A E 419  Agricultural Finance
<table>
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<tr>
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<tbody>
<tr>
<td>ZOOLOGY/AN SCI/ F&amp;W ECOL 520</td>
<td>Ornithology</td>
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<tr>
<td>ZOOLOGY/AN SCI/ F&amp;W ECOL 521</td>
<td>Birds of Southern Wisconsin</td>
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<tr>
<td>ZOOLOGY/BOTANY/ ENVIR ST/ F&amp;W ECOL 651</td>
<td>Conservation Biology</td>
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**Total Credits**: 12

### FOREST CONSERVATION TRACK

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<tr>
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<tr>
<td>BOTANY/ PL PATH 332</td>
<td>Fungi</td>
<td>3</td>
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<tr>
<td>BOTANY 401</td>
<td>Vascular Flora of Wisconsin</td>
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<tr>
<td>BOTANY 422</td>
<td>Plant Geography</td>
<td></td>
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<tr>
<td>F&amp;W ECOL 455</td>
<td>The Vegetation of Wisconsin</td>
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<tr>
<td>GEOG/BOTANY 338</td>
<td>Environmental Biogeography</td>
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**Animal Ecology and Diversity**: 3

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<tr>
<td>ENTOM/ ZOOLOGY 302</td>
<td>Introduction to Entomology</td>
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<tr>
<td>ENTOM/BOTANY/ ZOOLOGY 473</td>
<td>Plant-Insect Interactions</td>
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<tr>
<td>F&amp;W ECOL 306</td>
<td>Terrestrial Vertebrates: Life History and Ecology</td>
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<tr>
<td>F&amp;W ECOL 375</td>
<td>Special Topics (Wildlife-Habitat Relationships)</td>
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<tr>
<td>F&amp;W ECOL 655</td>
<td>Animal Population Dynamics</td>
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<td>ZOOLOGY/ ENVIR ST 315</td>
<td>Limnology-Conservation of Aquatic Resources</td>
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<tr>
<td>ZOOLOGY 316</td>
<td>Laboratory for Limnology-Conservation of Aquatic Resources</td>
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<td>ZOOLOGY/ ENVIR ST 510</td>
<td>Ecology of Fishes</td>
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<td>ZOOLOGY/ ENVIR ST 511</td>
<td>Ecology of Fishes Lab</td>
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<tr>
<td>ZOOLOGY/ AN SCI/ F&amp;W ECOL 520</td>
<td>Ornithology</td>
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<td>ZOOLOGY/ AN SCI/ F&amp;W ECOL 521</td>
<td>Birds of Southern Wisconsin</td>
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**Total Credits**: 12

### FORESTS & ENVIRONMENT TRACK

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<tr>
<td>ATM OCN 100</td>
<td>Weather and Climate</td>
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<tr>
<td>ATM OCN/ ENVIR ST 171</td>
<td>Global Change: Atmospheric Issues and Problems</td>
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<tr>
<td>ATM OCN/ ENVIR ST/ GEOG 332</td>
<td>Global Warming: Science and Impacts</td>
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<tr>
<td>ATM OCN/ ENVIR ST 535</td>
<td>Atmospheric Dispersion and Air Pollution</td>
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<tr>
<td>GEOG 329</td>
<td>Landforms and Landscapes of North America</td>
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<td>GEOG 342</td>
<td>Geography of Wisconsin</td>
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<td>MICROBIO 303</td>
<td>Biology of Microorganisms</td>
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<td>MICROBIO 304</td>
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<td>SOIL SCI 321</td>
<td>Soils and Environmental Chemistry</td>
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<tr>
<td>SOIL SCI/ PL PATH 323</td>
<td>Soil Biology</td>
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<tr>
<td>SOIL SCI 325</td>
<td>Soils and Landscapes</td>
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</table>

**Total Credits**: 12
FOREST SCIENCE, B.S.

SOIL SCI/ F&W ECOL 451 Environmental Biogeochemistry

Plant and Animal Ecology:

BOTANY/ PL PATH 332 Fungi

BOTANY 401 Vascular Flora of Wisconsin

BOTANY 422 Plant Geography

BOTANY/ F&W ECOL 455 The Vegetation of Wisconsin

BOTANY/ F&W ECOL/ ZOOLOGY 460 General Ecology

ENTOM/ ZOOLOGY 302 Introduction to Entomology

ENTOM/BOTANY/ ZOOLOGY 473 Plant-Insect Interactions

ENVIR ST/ LAND ARC 361 Wetlands Ecology

F&W ECOL 306 Terrestrial Vertebrates: Life History and Ecology

F&W ECOL 318 Principles of Wildlife Ecology

F&W ECOL/ ENVIR ST/ ZOOLOGY 360 Extinction of Species

F&W ECOL 375 Special Topics (Wildlife-Habitat Relationships)

F&W ECOL/ LAND ARC/ ZOOLOGY 565 Principles of Landscape Ecology

F&W ECOL/ BOTANY/ ENVIR ST/ ZOOLOGY 651 Conservation Biology

F&W ECOL 655 Animal Population Dynamics

ZOOLOGY/ ENVIR ST 315 Limnology-Conservation of Aquatic Resources

ZOOLOGY 316 Laboratory for Limnology-Conservation of Aquatic Resources

ZOOLOGY/ ENVIR ST 510 Ecology of Fishes

ZOOLOGY/ ENVIR ST 511 Ecology of Fishes Lab

ZOOLOGY/ AN SCI/ F&W ECOL 520 Ornithology

ZOOLOGY/ AN SCI/ F&W ECOL 521 Birds of Southern Wisconsin

Natural Resources Management:

ENVIR ST/ BSE 367 Renewable Energy Systems

ENVIR ST/ GEOSCI 411 Energy Resources

ENVIR ST/ SOIL SCI 575 Assessment of Environmental Impact

ENVIR ST/ A A E/ECON/ URB R PL 671 Energy Economics

F&W ECOL 379 Principles of Wildlife Management

GEOG/CIV ENGR/ ENVIR ST 377 An Introduction to Geographic Information Systems

PL PATH 300 Introduction to Plant Pathology

LAND ARC 668 Restoration Ecology

Human Dimensions of Resources:

A A E/ ENVIR ST 244 The Environment and the Global Economy

A A E/ECON/ ENVIR ST 343 Environmental Economics

A A E/ECON/ F&W ECOL 531 Natural Resource Economics

C&E SOC/ F&W ECOL/ SOC 248 Environment, Natural Resources, and Society

ENVIR ST 307 Literature of the Environment: Speaking for Nature

ENVIR ST/ HIST SCI 353 History of Ecology

ENVIR ST/ PHILOS 441 Environmental Ethics

ENVIR ST/ GEOG/ HISTORY 460 American Environmental History

GEOG/ ENVIR ST 339 Environmental Conservation

Total Credits: 12

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-students/outside-the-classroom/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 Senior Honors Thesis and F&W ECOL 682 Senior Honors Thesis when completing their thesis project; please see the Honors in Major Checklist (http://www.cals.wisc.edu/academics/undergraduate-programs/get-involved/honors-program/honors-in-the-major/) 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
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

SAMPLE FOREST SCIENCE FOUR-YEAR PLAN

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<th>Year</th>
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<th>Spring Credits</th>
<th>Summer Credits</th>
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<td>CHEM 103, 108, or 109</td>
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<td>3. INTER-AG 155</td>
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<td>4. ECON 101A</td>
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<td>Ethnic Studies</td>
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<td>8. BIOLOGY/ZOOLOGY 65B</td>
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### Advising and Careers

**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, 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.

### People

**Professors**

Bowe, Scott  
Burivalova, Zuzana  
Chen, Min  
Drake, David  
Karasov, William  
Kruger, Eric (chair)  
Ozdogan, Mutlu  
Pauli, Jonathan  
Peery, M. Zach  
Pidgeon, Anna  
Radeloff, Volker  
Ribic, Christine  
Rickenbach, Mark  
Rissman, Adena  
Townsend, Philip  
Van Deelen, Timothy  
Zuckerberg, Benjamin  

**Affiliated Faculty**

Balster, Nick (Soil Science)  
Marin-Spiotta, Erika (Geography)  

**Instructors**

Berkelman, James  
Nack, Jamie  

**Advisor**

Hochmuth, Allee  

For faculty and staff profiles, visit https://forestandwildlifeecology.wisc.edu/people/faculty-and-staff/
Forest Science, B.S.

WISCONSIN EXPERIENCE

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

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

Accreditation

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