FOREST SCIENCE, B.S.

Forest ecosystems cover one third of the world’s land area and nearly half of Wisconsin. They provide a range of benefits to society including wood and fiber, wildlife habitat, biological diversity, clean water, carbon storage, recreation, beauty, and cultural values. The Department of Forest and Wildlife Ecology trains foresters to sustainably manage forests toward sustainable ecological, social, and economic outcomes. Forest science students also learn how to respond to forest disturbances from insects, diseases, fire, and other changes. Beyond a core of basic science and forestry coursework, students have flexibility to customize their learning experience within one of three tracks: forest conservation, forests and the environment, and forest management. All three tracks meet accreditation standards of the Society of American Foresters, a key credential that employers seek. Students are also well positioned to pursue graduate training in forestry, ecology, remote-sensing, natural resource policy, and related fields.

Students learn through a mix of classroom, laboratory, and field instruction that emphasizes independent thinking and problem-solving. Students make frequent visits to forests to develop and hone their skills, essential for future job opportunities. Students also engage professional and student-led trainings and networking that further build skills. Graduates go on to jobs in private, public, and non-governmental sectors or pursue graduate degrees.

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/#requirementsforundergraduatestudytext) section of the Guide.

COLLEGE REQUIREMENTS FOR ALL CALS B.S. DEGREE PROGRAMS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>
<td></td>
</tr>
<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>
<td></td>
</tr>
<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>
<td>1</td>
</tr>
<tr>
<td></td>
<td>International Studies (<a href="http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#requirementstext">http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#requirementstext</a>)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Physical Science Fundamentals</td>
<td>4-5</td>
</tr>
<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>
</tr>
<tr>
<td>or CHEM 109</td>
<td>Advanced General Chemistry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Biological Science</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Additional Science (Biological, Physical, or Natural)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Science Breadth (Biological, Physical, Natural, or Social)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CALS Capstone Learning Experience: included in the requirements for each CALS major (see &quot;Major Requirements&quot;) (<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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</tbody>
</table>

MAJOR REQUIREMENTS

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Education</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Breadth—Humanities/Literature/Arts: 6 credits</td>
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<tr>
<td></td>
<td>• 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</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Breadth—Social Studies: 3 credits</td>
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<tr>
<td></td>
<td>• Communication Part A &amp; Part B *</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Ethnic Studies *</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Quantitative Reasoning Part A &amp; Part B *</td>
<td></td>
</tr>
</tbody>
</table>

* 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.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>
</tr>
<tr>
<td>or CHEM 109</td>
<td>Advanced General Chemistry</td>
<td></td>
</tr>
</tbody>
</table>

* 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.
MATH 112 
& MATH 113  
Algebra and Trigonometry  
MATH 114  
Algebra and Trigonometry  
Select one of the following:  
STAT 301  
Introduction to Statistical Methods  
STAT 371  
Introductory Applied Statistics for the Life Sciences (recommended)  

Chemistry  
Select one of the following:  
CHEM 103  
General Chemistry I  
CHEM 108  
Chemistry in Our World  
CHEM 109  
Advanced General Chemistry  

Biology  
Select one of the following options:  
Option 1 (recommended introduction to biology sequence):  
BOTANY/  
BIOLOGY 130  
& ZOOLOGY/  
BIOLOGY 101  
& ZOOLOGY/  
BIOLOGY 102  
& Animal Biology  
General Botany  
and Animal Biology Laboratory  
Introductory Biology  
and Introductory Biology  
Evolution, Ecology, and Genetics  
and Evolution, Ecology, and  
Genetics Laboratory  
and Cellular Biology  
and Cellular Biology Laboratory  
Introduction to Agricultural and  
Applied Economics  
or ECON 101  
Principles of Microeconomics  

Economics  
A A E 215  
Introduction to Agricultural and  
Applied Economics  
or ECON 101  
Principles of Microeconomics  

Conservation  
Select one of the following:  
ENVIR ST/  
LAND ARC 361  
Wetlands Ecology  
F&W ECOL/  
ENVIR ST/  
ZOOLOGY 360  
Extinction of Species  
(recommended)  
F&W ECOL/  
LAND ARC/  
ZOOLOGY 565  
Principles of Landscape Ecology  
F&W ECOL/  
BOTANY/  
ENVIR ST/  
ZOOLOGY 651  
Conservation Biology  
(recommended)  
GEOG/  
ENVIR ST 339  
Environmental Conservation  

Grade of C or better required in each core course  
SOIL SCI 301  
General Soil Science  
F&W ECOL 300  
Forest Biometry  
GEOG/CIV ENGR/  
ENVIR ST 377  
or F&W ECOL/  
ENVIR ST/G LE/  
GEOG/GEOSCI/  
LAND ARC 371  
F&W ECOL/  
HORT/LAND ARC/  
PL PATH 309  
Diseases of Trees and Shrubs  
F&W ECOL 399  
Coordinative Internship/Cooperative Education  

Electives  
Select one of the following tracks:  
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  

Total Credits  
84-96  

1 A A E 215 only carries QR-B credit if taken fall 2011 or later.  
2 These courses may double count as track electives.  
3 F&W ECOL/ENVIR ST/ZOOLOGY 360 Extinction of Species 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>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 12 credits from any of the following courses:</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

#### 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
- **GEN BUS 310** Fundamentals of Accounting and Finance for Non-Business Majors
- **GEN BUS 311** Fundamentals of Management and Marketing for Non-Business Majors
- **INTL BUS 200** International Business
- **LSC 270** Marketing Communication for the Sciences
- **M H R 300** Managing Organizations
- **M H R 305** Human Resource Management
- **M H R 401** The Management of Teams
- **OTM 300** Operations Management

#### Urban and Wildland Forest Management:
- **ENVIR ST/ PL PATH 368** Environmental Law, Toxic Substances, and Conservation
- **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

### 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/ CIV ENGR/ LAND ARC
- **556** Conservation Biology

**Total Credits: 12**

## FOREST CONSERVATION TRACK

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 3 credits from each of the following areas:</td>
<td></td>
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</tr>
</tbody>
</table>

#### Plant Ecology and Diversity:
- **BOTANY/ PL PATH 332** Fungi
- **BOTANY 401** Vascular Flora of Wisconsin
- **BOTANY 422** Plant Geography
- **BOTANY/ F&W ECOL 455** The Vegetation of Wisconsin
- **GEOG/ BOTANY 338** Environmental Biogeography

#### Animal Ecology and Diversity:
- **ENTOM/ ZOOLOGY 302** Introduction to Entomology
- **ENTOM/BOTANY/ ZOOLOGY 473** Plant-Insect Interactions
- **F&W ECOL 306** Terrestrial Vertebrates: Life History and Ecology
- **F&W ECOL 375** Special Topics (Wildlife-Habitat Relationships)
- **F&W ECOL 655** Animal Population Dynamics
### Forests & Environment Track

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZOOLOGY/ENVIR ST 315</td>
<td>Limnology-Conservation of Aquatic Resources</td>
<td></td>
</tr>
<tr>
<td>ZOOLOGY 316</td>
<td>Laboratory for Limnology-Conservation of Aquatic Resources</td>
<td></td>
</tr>
<tr>
<td>ZOOLOGY/ENVIR ST 510</td>
<td>Ecology of Fishes</td>
<td></td>
</tr>
<tr>
<td>ZOOLOGY/ENVIR ST 511</td>
<td>Ecology of Fishes Lab</td>
<td></td>
</tr>
<tr>
<td>ZOOLOGY/AN SCI/ F&amp;W ECOL 520</td>
<td>Ornithology</td>
<td></td>
</tr>
<tr>
<td>ZOOLOGY/AN SCI/ F&amp;W ECOL 521</td>
<td>Birds of Southern Wisconsin</td>
<td></td>
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#### Conservation Biology: 3

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENVIR ST/LAND ARC 361</td>
<td>Wetlands Ecology</td>
<td></td>
</tr>
<tr>
<td>F&amp;W ECOL/ENVIR ST/ZOOLOGY 360</td>
<td>Extinction of Species</td>
<td></td>
</tr>
<tr>
<td>F&amp;W ECOL/LAND ARC/ZOOLOGY 565</td>
<td>Principles of Landscape Ecology</td>
<td></td>
</tr>
<tr>
<td>F&amp;W ECOL/BOTANY/ENVIR ST/ZOOLOGY 651</td>
<td>Conservation Biology</td>
<td></td>
</tr>
<tr>
<td>GEOG/ENVIR ST 339</td>
<td>Environmental Conservation</td>
<td></td>
</tr>
<tr>
<td>ZOOLOGY/ANTHRO/BOTANY 410</td>
<td>Evolutionary Biology</td>
<td></td>
</tr>
</tbody>
</table>

#### Natural Resources Management and Policy: 3

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>A A E/ENVIR ST 244</td>
<td>The Environment and the Global Economy</td>
<td></td>
</tr>
<tr>
<td>A A E/ECON/ENVIR ST 343</td>
<td>Environmental Economics</td>
<td></td>
</tr>
<tr>
<td>A A E/ECON/F&amp;W ECOL 531</td>
<td>Natural Resource Economics</td>
<td></td>
</tr>
<tr>
<td>ENVIR ST/PL PATH 368</td>
<td>Environmental Law, Toxic Substances, and Conservation</td>
<td></td>
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<tr>
<td>ENVIR ST/ECON/POLI SCI/URB R PL 449</td>
<td>Government and Natural Resources</td>
<td></td>
</tr>
<tr>
<td>ENVIR ST/SOIL SCI 575</td>
<td>Assessment of Environmental Impact</td>
<td></td>
</tr>
<tr>
<td>F&amp;W ECOL 379</td>
<td>Principles of Wildlife Management</td>
<td></td>
</tr>
<tr>
<td>F&amp;W ECOL 561</td>
<td>Wildlife Management Techniques</td>
<td></td>
</tr>
<tr>
<td>F&amp;W ECOL/LAND ARC/ZOOLOGY 565</td>
<td>Principles of Landscape Ecology</td>
<td></td>
</tr>
<tr>
<td>GEOG/CIV ENGR/ENVIR ST 377</td>
<td>An Introduction to Geographic Information Systems</td>
<td></td>
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<tr>
<td>LAND ARC 668</td>
<td>Restoration Ecology</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATM OCN 100</td>
<td>Weather and Climate</td>
<td></td>
</tr>
<tr>
<td>ATM OCN/ENVIR ST 171</td>
<td>Global Change: Atmospheric Issues and Problems</td>
<td></td>
</tr>
<tr>
<td>ATM OCN/ENVIR ST/GEOG 332</td>
<td>Global Warming: Science and Impacts</td>
<td></td>
</tr>
<tr>
<td>ATM OCN/ENVIR ST 535</td>
<td>Atmospheric Dispersion and Air Pollution</td>
<td></td>
</tr>
<tr>
<td>GEOG 329</td>
<td>Landforms and Landscapes of North America</td>
<td></td>
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<tr>
<td>GEOG 342</td>
<td>Geography of Wisconsin</td>
<td></td>
</tr>
<tr>
<td>MICROBIO 303</td>
<td>Biology of Microorganisms</td>
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<tr>
<td>MICROBIO 304</td>
<td>Biology of Microorganisms Laboratory</td>
<td></td>
</tr>
<tr>
<td>SOIL SCI 321</td>
<td>Soils and Environmental Chemistry</td>
<td></td>
</tr>
<tr>
<td>SOIL SCI/PL PATH 323</td>
<td>Soil Biology</td>
<td></td>
</tr>
<tr>
<td>SOIL SCI 325</td>
<td>Soils and Landscapes</td>
<td></td>
</tr>
<tr>
<td>SOIL SCI/F&amp;W ECOL 451</td>
<td>Environmental Biogeochemistry</td>
<td></td>
</tr>
<tr>
<td>BOTANY/BOTANY/ ZOOLOGY 460</td>
<td>General Ecology</td>
<td></td>
</tr>
<tr>
<td>ENTOM/ZOOLOGY 302</td>
<td>Introduction to Entomology</td>
<td></td>
</tr>
<tr>
<td>ENTOM/BOTANY/ZOOLOGY 473</td>
<td>Plant-Insect Interactions</td>
<td></td>
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<td>ENVIR ST/LAND ARC 361</td>
<td>Wetlands Ecology</td>
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<td>F&amp;W ECOL 306</td>
<td>Terrestrial Vertebrates: Life History and Ecology</td>
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<td>F&amp;W ECOL 375</td>
<td>Special Topics (Wildlife-Habitat Relationships)</td>
<td></td>
</tr>
<tr>
<td>F&amp;W ECOL/ZOOLOGY 565</td>
<td>Principles of Landscape Ecology</td>
<td></td>
</tr>
<tr>
<td>F&amp;W ECOL/BOTANY/ENVIR ST/ZOOLOGY 651</td>
<td>Conservation Biology</td>
<td></td>
</tr>
<tr>
<td>F&amp;W ECOL 655</td>
<td>Animal Population Dynamics</td>
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</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Fall Credits</th>
<th>Spring Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>F&amp;W ECOL/ENVI R ST 100</td>
<td>3</td>
<td>MATH 113 or 114</td>
</tr>
<tr>
<td>Economics Course</td>
<td>3-4</td>
<td>CHEM 103, 108, or 109</td>
</tr>
<tr>
<td>MATH 112, 113, or 114</td>
<td>3</td>
<td>BOTANY/BIOLOGY 130</td>
</tr>
<tr>
<td>COMM A Course</td>
<td>3 Electives (to reach ~15 credits)</td>
<td>0-4</td>
</tr>
<tr>
<td>INTER-AG 155 (First Year Seminar)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Electives (to reach ~15 credits)</td>
<td>0-3</td>
<td></td>
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<td><strong>Total Credits</strong></td>
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<td><strong>12-17</strong></td>
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<tr>
<th>Sophomore</th>
<th>Fall Credits</th>
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<tr>
<td>ZOOLOGY/BIOLOGY 101</td>
<td>5</td>
<td>F&amp;W ECOL 300</td>
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<td>&amp; ZOOLOGY/BIOLOGY 102</td>
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<td>SOIL SCI 301</td>
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<td>GEOG/CIV ENGR/ENVIR ST 377</td>
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<td>F&amp;W ECOL/BOTANY 402</td>
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<td>Statistics Courses</td>
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<td>F&amp;W ECOL 415</td>
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<th>Junior</th>
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<td>F&amp;W ECOL 550</td>
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<td>F&amp;W ECOL 410</td>
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<td>F&amp;W ECOL/ENTOM 500</td>
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<td>F&amp;W ECOL 501 (odd falls only)</td>
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<tr>
<td>(odd falls only)</td>
<td></td>
<td>springs only)</td>
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<tr>
<td>Track Course</td>
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<tr>
<td>Elective Courses</td>
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<td><strong>Total Credits</strong></td>
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Junior

Summertime Credits
F&W ECOL 399 1

Total Credits 1

Senior

Fall Credits Spring Credits
F&W ECOL 590 3 F&W ECOL/A A E/ENVIR ST 652 4
F&W ECOL/HORT/LAND ARC/PL PATH 309 3 F&W ECOL/ENVIR ST 515 3
Conservation Course (or spring) 2-4 Track Course 3
Track Course 3 Electives 6
Electives (to reach ~15 credits) 3

Total Credits 30-32

When choosing electives, students should first consider UW and CALS requirements (ethnic studies, humanities, social science, international studies, etc.)

BOTANY/BIOLOGY 130 + ZOOLOGY/BIOLOGY 101 & ZOOLOGY/BIOLOGY 102 are strongly recommended to satisfy the introductory biology requirement for forest science, but students may use ZOOLOGY/BIOLOGY 101 & ZOOLOGY/BIOLOGY 102.

F&W ECOL/ENVIR ST/G L E/GEOG/GEOSCI/LAND ARC 371 is available in fall semesters only.

Summer (following second or third year): F&W ECOL 658 (3 cr., even-numbered summers) and F&W ECOL 399 (1 cr.)—4 cr. total. Students may reduce the number of required courses via: testing out of Comm-A; using ZOOLOGY/BIOLOGY/BOTANY 152 to satisfy Comm-B; testing out of Quantitative Reasoning, Part A; earning AP/IB credits; and/or using F&W ECOL/ENVIR ST/ZOOLOGY 360 to satisfy International Studies requirement.

1 When choosing electives, students should first consider UW and CALS requirements (ethnic studies, humanities, social science, international studies, etc.)
2 BOTANY/BIOLOGY 130 + ZOOLOGY/BIOLOGY 101 & ZOOLOGY/BIOLOGY 102 are strongly recommended to satisfy the introductory biology requirement for forest science, but students may use ZOOLOGY/BIOLOGY 101 & ZOOLOGY/BIOLOGY 102.
3 F&W ECOL/ENVIR ST/G L E/GEOG/GEOSCI/LAND ARC 371 is available in fall semesters only.
4 Summer (following second or third year): F&W ECOL 658 (3 cr., even-numbered summers) and F&W ECOL 399 (1 cr.)—4 cr. total. Students may reduce the number of required courses via: testing out of Comm-A; using ZOOLOGY/BIOLOGY/BOTANY 152 to satisfy Comm-B; testing out of Quantitative Reasoning, Part A; earning AP/IB credits; and/or using F&W ECOL/ENVIR ST/ZOOLOGY 360 to satisfy International Studies requirement.

**ADVISORY AND CAREERS**

**UNDERGRADUATE ADVISING IN FOREST SCIENCE**

All undergraduate students in forest science are assigned to an advisor when they declare the major. Students in the forest science major are required to meet with their advisor before they can enroll for the upcoming term. Undergraduate students are assigned to a faculty advisor and Allee Hochmuth, the Student Services Coordinator. If you have questions about advising or declaring the major, please contact Allee Hochmuth at abhochmuth@wisc.edu.

For more information about the forest science B.S. or the department in general, please contact Dr. Adena Rissman (adena.rissman@wisc.edu).

**CAREERS AND PROFESSIONAL DEVELOPMENT**

For more information on careers available to forest science and wildlife ecology students, please visit our Internship & Job Resources page (https://forestandwildlifeecology.wisc.edu/academics/undergraduate-programs/internship-job-resources/). For more information on other academic, co-curricular, financial aid, and career opportunities and services available to forest science B.S. students, please visit the CALS Career Services page (https://cals.wisc.edu/academics/undergraduate-students/career-services/). Students in the major are welcome to make an individual appointment with their advisor to discuss a number of career-related topics such as career exploration, search strategies, graduate school, and review of application materials (resume, CV, letters, etc.).

The federal Bureau of Labor Statistics updated its Career Outlook: Careers in Forestry (http://www.bls.gov/careeroutlook/2016/article/forestry-careers.htm) page in August 2016 and it gives a great overview of the types of jobs related to forestry. This website is an excellent way to learn more about careers in forestry, upcoming trends, and related careers.

**PEOPLE**

**FACULTY**

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

**AFFILIATED FACULTY**

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

**FACULTY ASSOCIATE**

Berkelman, James

**WISCONSIN EXPERIENCE**

**FORESTRY FIELD CAMP AT THE KEMP NATURAL RESOURCES STATION**

F&W ECOL 658 Forest Resources Practicum is an intensive, three-week field course conducted in even-numbered years at the Kemp Natural Resources Station (http://www.kemp.wisc.edu/) in Woodruff, Wisconsin. Affectionately known as Forestry Camp, F&W ECOL 658 Forest Resources Practicum introduces students to the complexities of forest ecosystems. Through a series of integrated exercises, students learn firsthand about forest ecosystem structure, function, processes, and services. Along the way students develop the knowledge necessary
to conduct a comprehensive forest resource assessment. Subject areas include: basic field skills, plant identification, GPS & GIS, timber cruising, forest soils, wildlife identification and survey methods, forest ecology, and forest habitat classification. Forestry Camp also provides students with opportunities to work closely with faculty and "real world" natural resource professionals in a beautiful north woods setting.

**INTERNSHIPS**

All forest science students are required to complete either an internship or professional work experience for their degree. Students are encouraged to talk to their advisor about internship possibilities and departmental internship policies. In order to receive credit for an internship for the forest science major, students must find an internship and have it approved by their advisor. Students who have questions about the internship can also talk to Allee Hochmuth, the student services coordinator.

**FORESTRY CLUB**

Forest science undergraduates have an active student organization called the Forestry Club. For more information on the club and their activities, please see their Facebook Page (http://go.wisc.edu/pq634x/).

**ACCREDITATION**

Accreditation

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