

Instructor

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Office: Lab Sciences Animal Facility 272

Office Hours: Tuesdays 1:00PM – 2:00PM in LSE 404 or by appointment

Course Meeting Time

Tuesdays, 2:00PM – 4:30PM, LSE 404

Course Description

Fundamental concepts of forestry for wildlife ecology and management majors, including an introduction to forest ecology, health, silviculture, mensuration, and management (3 credit hours).

Course Evaluation

This is a new course that is being developed for the A-State Department of Biological Sciences, specifically to provide wildlife ecology and management majors with more course options to cover their required botany course. Since this is a newly developed course, I appreciate any feedback that you can provide throughout the semester. My goal is to maximize the applicability of this course to your future careers. Otherwise, standard course evaluations will occur at the end of the semester.

Course Objectives

The objective of this course is to help students better understand the fundamental concepts of forestry. Wildlife biologists often have to work in forested ecosystems to manage wildlife, work with foresters to manage resources, and/or conduct consulting work that requires management of a forest resource for multiple purposes. This course serves as an overview of forestry as an art, science, and profession. Specific goals for this course include:

1. Helping students gain a better understanding about the importance of global forests for ecosystem services, economically important forest products, as well as cultural and social values.
2. Introducing students to basic tree biology and growth, forest measurements, and management strategies.
3. Introducing students to resources available to help them manage forest resources for many management outcomes, including timber, restoration, health, wildlife, and other forest products.

Program Learning Outcomes

This course addresses Program Learning Outcome 2 of the Department of Biological Sciences: Students will be able to distinguish biological mechanisms and relate these mechanisms to overall biological systems and how they work.

Textbook

No single text will be used in this course, though there are many helpful resources for activities and assignments. Please see “Related and Helpful Resources” at the end of this syllabus. Some of the textbooks can be found at the A-State Library or in Ashley’s personal collection. Ashley’s books are available upon request.

Expectations and Policies

1. **Attendance:** If you anticipate the need to miss class and wish to receive an excused absence for either personal or professional reasons, please email the instructor before class. Your participation grade is based on attendance and quality of participation. All material covered in the class may be found on the quizzes and exam. Therefore, if you miss class, it is your responsibility to get class notes and make up other missed work.
2. **Deadlines:** Please refer to the deadlines listed by the assignments in the syllabus. Assignments turned in late will be graded as usual, but the earned scores will be reduced by 10% of the assignment's value for each day the assignment is late. The instructor reserves the right to modify deadlines as needed (see Flexibility Clause).
3. **Course Website:** All course material will be available on A-State Blackboard Learn. Please check Blackboard regularly for course updates and important announcements. The instructor may post readings and/or videos for students to read/watch before class to prepare them for discussion during class.
4. **Nuisance Policy:** Disruptions during class may at times be unavoidable, but it is desirable to keep these to a minimum. Please turn off all loud cell phone ringers and buzzers before entering class. If you anticipate receiving an important call during class, please get up quietly and leave the classroom before answering.
5. **Academic Rights:** As per the A-State Student Handbook, "Students shall be free to take reasoned exception to data and views offered in the classroom, and to express differences of opinion without fear of penalty." The instructor welcomes different perspectives and discussion among students, but expects that any differences in opinion can be discussed in a courteous manner.
6. **Flexibility Clause:** Circumstances may arise over the course of the semester that may prevent the instructor from achieving every component within the syllabus. Therefore, students should view the syllabus as a guide that is subject to change. The instructor will notify students prior to any changes.
7. **Extra Credit:** The instructor reserves the right to provide opportunities for extra credit for all students in the class during the semester. Extra credit opportunities will not be created for individual students. The instructor will inform students of opportunities for extra credit that may arise during the semester.
8. **Special Accommodations:** To request academic accommodations (e.g., a note taker) because of a disability, please talk to the instructor before the second week of class. If a problem occurs during the semester that affects your ability to participate in this course, please contact the instructor immediately. I want you to succeed in this class and as a student, so do not be afraid to ask for help.
9. **Academic Integrity:** All academic work must meet the standards contained in Arkansas State University's academic integrity policy (please see the section on "Academic Misconduct" in the Student Handbook, as well as "Standards of Student Conduct" at <http://www.astate.edu/a/student-conduct/student-standards/>). All students are responsible for informing themselves about the university standards before performing any academic work. The penalties for academic dishonesty are severe, and ignorance is not an acceptable defense.

Words of Wisdom

My goal as your instructor is to stimulate understanding, awareness, and appreciation for forestry. I do not expect you to leave the course wanting to be a professional forester. However, I expect that you will leave with a better understanding of how forests are used and managed for and by people, and how forests provide an array of ecosystem services, as well as economically important products. As future wildlife biologists, ecologists, and even citizens of this world, it is essential for us to understand human dependency on trees and forests for ecological, economic, spiritual, and social goods and services. I will do my best to provide you with a foundational knowledge, as well as incite critical thinking about the principles and practices of forestry. However, this is a two-way street. Students should accept responsibility for their success in this course, and openly communicate with the instructor if any issues arise. If you attend class, ask questions, and turn in exams and assignments on time, you will do well in this course. I look forward to great semester filled with conversations about different aspects of forestry.

Evaluation and Grading

Course grades will be assigned based on the following **tentative** activities:

Participation (attendance + contribution to class discussion): 100 points

Assignments: 200 points

Forest Product Short Report + Short Presentation (50 points)

Forest Mgmt. for Wildlife/Health Short Report + Short Presentation (50 points)

Forest Management Report + Presentation (group project; 100 points)

Quizzes: 5 @ 20 points = 100 points

Quizzes will be posted on Blackboard and will be open for one week. Quizzes are due by 2:00PM on the Tuesday after they are opened. For example, Quiz 1 will be opened on August 28th, and closed at 2:00PM on September 4th. Do not work on quizzes with your peers. Quizzes are open note, so be sure to take good notes in class.

Exam (comprehensive): 1 @ 100 points = 100 points

Total points possible: 500 points

A	B	C	D	F
90-100%	80-89%	70-79%	60-69%	0-59%
450-500 points	400-449 points	350-399 points	300-349 points	< 300 points

Grades Due: December 13th (for graduating students) or December 14th (for all students)

Tentative Course Schedule

Class Date	Topic	Assignment(s) Due
Week 1: Aug 21	History of forestry, natural resource ideologies	
Week 2: Aug 28	Dendrology, tree physiology and anatomy What is a forest? Global forest biomes	
Week 3: Sept 4	Forest ecology overview Silviculture (aka: applied forest ecology)	Quiz 1 (covers weeks 1-2) due by 2:00PM today
Week 4: Sept 11	Forest Inventory and Measurements	Quiz 2 (covers week 3) due by 2:00PM today
Week 5: Sept 18	Management I: Management Overview and Planning	
Week 6: Sept 25	Management II: Forest restoration and preservation	Quiz 3 (covers weeks 4-5) due by 2:00PM today
Week 7: Oct 2	Management III: Production forestry, agroforestry, permaculture, and other forest products	Forest Product Short Report + Short Presentation
Week 8: Oct 9	Biometrics and Prescribed Fire (or field day)	Quiz 4 (covers weeks 6-7) due by 2:00PM today
Week 9: Oct 16	Management IV: Managing for wildlife and forest health AND review for exam	Forest Wildlife/Health Short Report + Short Presentation
Week 10: Oct 23	Final exam	Quiz 5 (covers weeks 8-9) due by 2:00PM today
Week 11: Oct 30	Management report work day	
Week 12: Nov 6	Management report work day	
Week 13: Nov 13	Career panel and management report work day	Report draft check-up
Week 14: Nov 20	Fall Break and Thanksgiving Holiday	
Week 15: Nov 27	Final management report presentations	Final management report + presentation
Week 16: Dec 4	Study Day (no class)	<i>*Have a great winter break!*</i>

Related and Helpful Resources

Overview of Forestry

- Grebner, D.L., Bettinger, P., and Siry, J.P. 2012. Introduction to Forestry and Natural Resources. Academic Press.
- Hendee, J.P., Dawson, C.P., and Sharpe, W.F. 2012. Introduction to Forests and Renewable Resources, 8th Ed. Waveland Press.

Biometrics and Forest Mensuration

- Husch, B., Beers, T.W., and Kershaw, J.A. 2003. Forest Mensuration. 4th Ed. John Wiley & Sons.

Forest Health

- Agrios, G.N. 2004. Plant Pathology, 5th edition. Academic Press, New York. 952 pp.
- Castello, J.D. and Teale, S.A. eds., 2011. Forest Health: An Integrated Perspective. Cambridge University Press.
- Edmonds, R.L., Agee, J.K., and Gara, R.I. 2011. Forest Health and Protection. 2nd Ed. McGraw-Hill.

Forest Resource Management

- Bettinger, P., Boston, K., Siry, J.P., and Grebner, D.L., 2010. Forest Management and Planning. Academic Press.
- Siry, J.P., Bettinger, P., Merry, K., Grebner, D.L., Boston, K., and Cieszewski, C. (eds.) 2015. Forest Plans of North America. Academic Press.

Production Forestry

- Shmulsky, R. and Jones, P.D. 2011. Forest Products and Wood Science. 6th Ed. John Wiley & Sons.

Silviculture

- Barrett, J.W. 1995. Regional Silviculture of the United States. John Wiley & Sons.
- O'Hara, K. 2014. Multiaged Silviculture: Managing For Complex Forest Stand Structures. Oxford University Press.
- Smith, D.M., Larson, B.C., Kelty, M.J., and Ashton, P.M.S. 1997. The Practice of Silviculture: Applied Forest Ecology. 9th Ed. John Wiley and Sons, Inc.

Online Resources

- Forestry and Natural Resource Webinars (www.forestrywebinars.net)
- Society of American Foresters (www.eforester.org)