



STEPHEN F. AUSTIN STATE UNIVERSITY

Arthur Temple College of Forestry and Agriculture
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FORS 4328-001: Intensive Silviculture, Spring 2023

FORS 5327-001/6327-001: Advanced Intensive Silviculture, Spring 2023

FOR 4028-020: Intensive Silviculture Lab, Spring 2023

FOR 5027-020/6027-020: Advanced Intensive Silviculture Lab, Spring 2023

Course Details

Instructor: Dr. Jeremy Stovall

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Office: 214 Forestry

Phone: (936) 468-2127

Office Hours: By appointment

Generally I maintain an open door policy, and keep a schedule posted by my door. My desk is in the back room, so come on in if the door is open. Please feel free to stop by my office whenever. If you are coming to campus specifically to see me it would be best to make an appointment by email. I check email frequently and reply as soon as possible, within 24 hours M - F at most.

Class: 10:00 – 11:50 am Friday, Forestry 222

Lab: Field trips are required with schedules announced in advance.

Course Description

FORS 4328/5327/6327. Intensive Silviculture - 3 semester hours, 2 hours lecture and 3 hours lab per week. Study of tree improvement in silviculture context. Fundamental concepts of tree breeding, vegetation management and forest fertilization. Prerequisite: Forestry Field Station. Spring odd years.

Program Learning Outcomes

The course is designed to address the following Program Learning Outcomes, as given in the BSF Program Matrix:

1. Demonstrate understanding and competency of forest ecology and biology;
2. Demonstrate understanding and competency in the measurement of forest resources;
3. Demonstrate understanding and competency in managing forest resources;
4. Demonstrate understanding and competency of forest resource policy, economics, and administration.
5. Demonstrate understanding and competency in oral and written communication skills.

*Items #1 - #4 above are required by the Society of American Foresters, the program’s accrediting agency.

*This is not a General Education Core Course

B.S. Forestry Program Learning Outcomes: Proficiency Levels					
Course	PLO 1 Forest Ecology & Biology	PLO 2 Forest Resource Measurement	PLO 3 Forest Resource Management	PLO 4 Forest Resource Policy, Economics, Administration	PLO 5 Oral & Written Communication Skills
FORS 4328	A	A	A	A	A

A – Advanced – FORS 4328 supports Program Learning Outcome by providing students with transitional, high level topic-specific information, activities, and opportunities that enable the students to apply their critical thinking and tactical skills to resolved increasingly challenging strategic situations.

The course is designed to address the following Program Learning Outcomes, as given in the MS Forestry and PhD Forestry Program Matrices:

1. The student will demonstrate proficiency in research design, relative to their field of study.
2. The student will demonstrate proficiency in the process of reviewing scientific literature pertinent to their field of study.
3. The student will demonstrate proficiency in basic statistical analysis; relative to their field of study.
4. The student will demonstrate preparation to pursue a professional career and/or MS degree in subject
5. The student will demonstrate competency in oral and written communication skills.

M.S. Forestry and PhD Forestry Program Learning Outcomes: Proficiency Levels					
Course	PLO 1 Proficiency in Research Design	PLO2 Scientific Literature Review	PLO3 Proficiency in Basic Statistical Analysis	PLO4 Preparation for Pursuit in a Professional Career	PLO5 Competency in Oral and Written Communication Skills
FORS 5327/6327	A	A	A	A	A

Student Learning Outcomes

Upon the completion of this course, successful students will be able to:

1. Explain the ecological underpinnings and technical considerations for forest tree improvement, forest vegetation management, and forest nutrition that are the cornerstones of modern intensive silvicultural systems (PLO 1, 2, 3, 4).
2. Communicate technical material clearly to a variety of audiences by multiple means of written and spoken communication (PLO 5).
3. Create solutions to real-world forest management challenges by applying higher-order thinking skills to their knowledge of silviculture (PLO 1,2,3,4,5).

Text and Materials

There are no required or recommended materials for this course. Students should refer to their notes and text from FORS 3347, as some handouts and lectures from that course will be useful in FORS 4328. New handouts and readings will be provided throughout the semester.

Course Website

All course materials will be posted on Brightspace this semester.

Course Requirements

Weekly Quizzes: Quizzes will typically be given at the beginning (10:00 am) of regularly scheduled lecture times. Expect a quiz every week, although some weeks may not include a quiz. Quizzes will be closed book and note, timed, and an individual effort. Following the quiz, we will go over any questions you might have. Quizzes will be graded and returned to you by the next class session. For asynchronous course content, a drop-box will be available to upload your notes or outline of the video. These documents will count as a quiz grade for those weeks.

Weekly Reflective Summaries: A one-page summary is required for selected course readings. A format guide and grade rubric will be provided. Each summary will be weighted equally for this portion of your grade. Summaries for the week are due by Thursday at 9:15am (unless otherwise noted in class), and must be submitted in the appropriate drop-box in Brightspace. Late summaries will receive a 0.

Presentation: This will be an 8-minute presentation on a one of the aspects of intensive silviculture as applied to a species not commonly managed in the US South. Topics and presentation dates will be discussed on the first day of class. A rubric will be provided. You may present on any scheduled synchronous class day (but not on lab days).

Graduate Requirements: Students enrolled in FORS 5327 or FORS 6327 will be required to complete additional paper assignments following a discussion with the instructor to tailor said assignments to the student's research interests. For the 6000 section, the paper is expected to be greater in both breadth and depth appropriate to the doctoral level.

Grading Policy

Grades may be made available on Brightspace throughout the semester. Final grades or individual assignments MAY be curved if deemed appropriate by the instructor. Applying a curve will NOT result in the lowering of any student's grade. Limited bonus opportunities may be offered to the entire class. A grade of 0 will be given to all involved parties on any assignment or quiz on which cheating occurs. A second instance of any type of involvement in cheating by any individual will result in an F in the course.

Item	Percentage	Percent Grade	Letter Grade
Weekly Quizzes	45%	>89.44%	A
Reflective Summaries	25%	79.45 – 89.44%	B
Presentation	15%	69.45 – 79.44%	C
Participation (Lab + Lect)	15%	59.45 – 69.44%	D
COURSE GRADE	100%	<59.45%	F

Field Trips (this is the lab component)

1. **SAF Meeting and Bare-Root Seedling Nursery Tour**
 - a. Friday, February 3 from 10:00am to 2:00pm (approximate end time)
 - b. Richard O Barham SuperTree Nursery at 1235 FM3198, Bullard, TX 75757
 - c. Vans leave forestry building at 8:40am, or meet us there by 10:00am.
 - d. Wear pants and boots (field clothes), plan to take notes as we tour, no hard hats needed
 - e. Lunch will be provided by Arborgen
2. **Forest Pest Seminar** (*no registration needed for students*)
 - a. Friday, February 10 from 8:00am to 3:00pm (approximate end time)
 - b. Lufkin Convention Center at 601 N 2nd St, Lufkin, TX 75901
 - c. Vans leave forestry building at 7:30am, or meet us there at 8:00am
 - d. Plan to take notes on a number of presentations, professional attire (business casual), no PPE
 - e. Light breakfast, lunch, and refreshments (coffee) are usually provided
3. **Biennial Southern Silvicultural Research Conference** (*no registration needed for students*)
 - a. Wednesday, March 22 from 9:45am to 11:30am and 1:15pm – 3:00pm
 - b. Fredonia Convention Center in downtown Nacogdoches
 - c. Vans leave the forestry building at 9:30am, or meet us there at 9:45am
 - d. Plan to take notes on a number of presentations, professional attire (business casual), no PPE
 - e. Choose sessions in either Ballroom A (loblolly mgmt.) or Ballroom B (competition control)
 - f. Lunch and snacks are on your own (none provided)
4. **Weyerhaeuser Field Tour**
 - a. Friday, March 24 from 5:00am to 7:00pm (approximate end time)
 - b. Weyerhaeuser Timberlands, 4188 US-259, Broken Bow, OK 74728
 - c. Vans leave forestry building at 5:00am, no option for personal vehicles; 3.5 hour drive one-way
 - d. PPE required includes boots, pants, hard hat, orange vest, safety glasses, wear field clothes
 - e. Bring breakfast (or gas station stop), they usually feed us lunch (sub sandwiches), we can discuss food on way home as a group

TENTATIVE SCHEDULE			
WEEK	DATE	LECTURE	READING ASSIGNMENT
1	13-Jan	Intro to Intensive Silviculture	Zhang et al., 2012 Sass et al., 2021
2	20-Jan	FVM: Intro, Application Considerations, & Prescriptions <i>Guest Speaker: Dr. John Lock</i>	Zimdahl 351-374 Minogue et al., 1991
3	27-Jan	ASYNCHRONOUS DAY 1 (no class meeting) 01 Bieber 02 Sutherland	Tappeiner & Wagner, 1987 Miller et al., 1-43
4	3-Feb	Friday All Day Field Trip	Kingelhofer et al., 2021 Clabo & Dickens 2022
5	10-Feb	Friday All Day Field Trip	Shepard et al., 2004 Tatum, 2004
6	17-Feb	FVM: Productivity Gains & Alternative Treatments	Walstead et al., 1987 Wagner et al., 2006
7	24-Feb	Forest Tree Improvement (FTI) Intro	Zobel & Talbert, 1-38
8	3-Mar	FTI: Genetics, Gain, Selection, Testing, & Breeding	White et al., 303-328 White (1987)
9	10-Mar	NO CLASS: SPRING BREAK, FORESTRY CONCLAVE	
10	17-Mar	FTI: Seed Orchard & Nursery Management	Zobel & Talbert, 167-215 Boyer & South, 1984 (No Ref Sum) Mexal & South, 1991
11	22-Mar	Wednesday All-Day Field Trip	NONE
	24-Mar	Friday All-Day Field Trip	
12	31-Mar	ASYNCHRONOUS DAY 2 (no class meeting) 03 Charlton 04 Walker	NONE
13	7-Apr	ASYNCHRONOUS DAY 3 (no class meeting) 05 Blazier 06 Rousseau	NONE
14	14-Apr	FTI: Clonal Forestry & Biotech	Bettinger et al., 2009 Whetten & Kellison, 2010
15	21-Apr	FN: Fertilizer History & Nutrient Cycling	Albaugh et al. 2007 Fox 2000
16	28-Apr	FN: Fertilizer Uptake & Testing for Nutrient Deficiencies, Fertilizer Rates	Binkley, 1 - 73
17	5-May	Presentations 1 – 3pm	Waring et al., 157-180 (optional ref sum) Jokela, 2004 (optional ref sum)

Attendance Policy

Attendance is important to successfully achieve the student learning outcomes described above. Attendance will be taken within the first 5 minutes of all classroom and lab sessions. An unexcused lab absence will result in a grade of zero for any assignments missed. Please make every effort to attend all labs. It is university policy to excuse students from attendance for certain reasons. Among these are absences related to health, family emergencies and student participation in university-sponsored events. Students are responsible for providing documentation satisfactory to the instructor for each class missed prior to the absence. Class session attendance is mandatory, and unexcused absences may result in lowered grades on individual assignments.

Student Academic Dishonesty Policy (4.1)

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism. Definition of Academic Dishonesty: Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit. Please read the complete policy at <http://www.sfasu.edu/policies/4.1-student-academic-dishonesty.pdf>

Course Grades Policy (5.5)

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average. Please read the complete policy at http://www.sfasu.edu/policies/5.5_course-grades.pdf

Academic Accommodation for Students with Disabilities Policy (6.1)

To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to <http://www.sfasu.edu/disabilityservices/>

Responsible Use of Technology

It is expected that all students will only use cell phones, PDAs, laptop computers, MP3 players and other technology outside of class time or when appropriate in class. Answering a cell phone, texting, listening to music or using a laptop computer for matters unrelated to the course may be grounds for dismissal from class or other penalties.

Acceptable Student Behavior

Classroom behavior should not interfere with the instructor's ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy 10.4). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed. Please read the complete policy at <http://www.sfasu.edu/policies/student-code-of-conduct-10.4.pdf>