



## STEPHEN F. AUSTIN STATE UNIVERSITY

**Arthur Temple College of Forestry and Agriculture**  
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### FOR 464-003 / 564-003: Forest Ecosystem Dynamics, Spring 2013

#### Course Details

**Instructor:** Dr. Jeremy Stovall

Phone: (936) 468-2127

Email: [stovalljp@sfasu.edu](mailto:stovalljp@sfasu.edu)

Office: 203B Forestry

Office Hours: T: 9:30-noon, W: 10:00-noon

Generally I maintain an open door policy. Please feel free to stop by outside of office hours, but if you are coming to campus specifically to see me it would be best to make an appointment by email.

**Class: 5:45 pm – 8:30 pm Wednesday, Forestry 222**

There will be one required all-day field trip on a Saturday in April. Attendance is mandatory. Several months of advance notice will be provided for the field trip.

#### Course Description

FOR 464/564. Forest Ecosystem Dynamics - 3 semester hours, 3 hours lecture per week. Effects of genetics, nutrition, competition, and silviculture on stand level carbon cycling, biomass partitioning, respiration, and canopy-level photosynthesis. Prerequisite: FOR 347, graduate standing, or instructor permission.

#### Program Learning Outcomes

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
FOR 464-003	A	A	A	A	A

A – Advanced – course 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.

#### Student Learning Outcomes

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

1. describe and correctly use terminology relating to the storage and movement of carbon in forests (PLO 1, 2, 3, 4, 5).
2. explain the biotic and abiotic factors that influence the storage and movement of carbon in forests (PLO 1, 2, 3, 4, 5).
3. evaluate and critique common methods described in the literature that are used to quantify carbon storage and movement in forests (PLO 1, 2, 4, 5).
4. create figures that illustrate an understanding of carbon storage and movement in forests (PLO 1, 5).
5. interpret, synthesize, critique, and clearly communicate the content of scientific journal articles to a technically literate audience (PLO 1, 2, 5).

## Text and Materials

Readings will be provided. No text is required. Students will need a hard hat and boots for the field trip.

## Course Website

Forest ecosystem dynamics will be managed through the SFA Silviculture website, which can be found at: <http://forestry.sfasu.edu/faculty/jstovall/silviculture> (it comes up first by googling 'SFA silviculture').

Lecture slides, course documents, and information relating to grades will all be available on the site once you log in. Details on logging in can be found on the last page. There is some background material available in the online silviculture textbook section of the website that may be helpful to students who have not taken FOR 347.

## Course Requirements

Participation: Participation of each student in class discussions is essential to meet the learning outcomes of this course. Attendance will be taken weekly, along with instructor notes on the number and quality of contributions each student makes in discussions. There are no objective criteria relating these contributions to a grade for participation. In general though, at least one high quality contribution per class period is expected. If you have questions about your participation grade, please ask.

Weekly Reflective Summaries: A one-page summary is required for each journal article that we read this semester. A format guide and grade rubric will be provided. Each summary will be weighted equally for this portion of your grade. Summaries will be due each week by Tuesday morning at 9:15 am, and must be submitted by email (send to [stovalljp@sfasu.edu](mailto:stovalljp@sfasu.edu)) as a Microsoft word document (\*.docx preferred, \*.doc acceptable).

Weekly Discussion Leader: Undergraduate students will be responsible for leading the class discussion of one scientific journal article. Graduate students will lead discussions for two articles. Articles must be approved by the instructor prior to the discussion. You will select the topic and date of your discussion on the first day of class. Evaluation of your discussion leading will be subjective, and will be based on the extent to which 1) you appear to understand the article, 2) you keep the discussion flowing and on topic, and 3) your discussion contributes toward the student learning outcomes.

Course Notebook: At the end of the last regular class period each student will turn in their course notebook for evaluation. The notebook should be a three-ring binder that contains 1) an article list, 2) all articles, 3) any notes on articles, 4) reflective summaries for each article, 5) a glossary of terms, and 6) any other course materials as appropriate. Criteria will be discussed further in class. Evaluation will be based on organization and completeness.

## Grading Policy

Item	Percentage	Percent Grade	Letter Grade
Reflective Summaries	50%	>89.5%	A
Discussion Leader	30%	79.5 – 89.4%	B
Participation	10%	69.5 – 79.4%	C
Course Notebook	10%	59.5 – 69.4%	D
<b>COURSE GRADE</b>	<b>100%</b>	<59.5%	F

## Attendance Policy

Attendance is important to successfully achieve the student learning outcomes described above. Class session attendance is mandatory. 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. If the absence is excused and you have discussed it with me prior to class, your participation grade will not be negatively affected.

**TENTATIVE SCHEDULE\*\*\***

WEEK	DATE	TOPIC	READINGS
1	1/16	Intro and course logistics	
2	1/23	Carbon allocation 1	Litton et al. 2007, Bown et al. 2009, Gough et al. 2008
3	1/30	Carbon allocation 2	Student-Led Discussion
4	2/6	Biomass partitioning 1	McCarthy & Enquist 2007, King et al. 1999, Coyle et al. 2008
5	2/13	Biomass partitioning 2	Student-Lead Discussion
6	2/20	Canopy dynamics 1	Binkley et al. 2013, Brown & Parker 1994, Chmura & Tjoelker 2008
7	2/27	Canopy dynamics 2	Student-Lead Discussion
8	3/6	<i>Silviculture Conference</i>	<i>No Class</i>
9	3/13	<i>Spring Break</i>	<i>No Class</i>
10	3/20	Soil Carbon 1	Jobbagy & Jackson 2000, Schimel et al. 1994, Lal 2005
11	3/27	Soil Carbon 2	Student-Lead Discussion
12	4/3	Soil CO <sub>2</sub> efflux 1	Raich and Schlesinger 1992, Bond-Lamberty et al. 2004
13	4/10	Soil CO <sub>2</sub> efflux 2	Hogberg et al. 2001, Kuzyakov 2006, Letters
14	4/17	Soil CO <sub>2</sub> efflux 3	Student-Lead Discussion
	4/20	<i>Tentative Date: Crossett, LA Tech Saturday Field Trip</i>	
15	4/24	Stand-Level Respiration 1	Maier et al. 2004; Aubrey & Teskey 2009, Ryan 1991
16	5/1	Stand-Level Respiration 2	Student-Lead Discussion
17	5/8	Finals Week	Wrap Up (discussion, not an exam)

\*\*\*This schedule (including lab locations) is subject to change without notice. However, I will notify you in class and in writing or by email as soon as possible of any substantive changes.

**Academic Integrity (A-9.1)**

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/academic\\_integrity.asp](http://www.sfasu.edu/policies/academic_integrity.asp)

**Withheld Grades Semester Grades Policy (A-54):**

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.

**Students with Disabilities**

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 D-34.1). 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.