SYLLABUS
FOR/ENV 209: FOREST ECOLOGY

INSTRUCTOR: Dr. Brian P. Oswald
OFFICE: Forestry RM 201B; OFFICE PH: 468-2275; Email: boswald@sfasu.edu
OFFICE HOURS: M,T, W, Th 1:00 - 4:00, In addition, open door policy and by appointment

TA: Ms. Amy Brennan/ Duncan Hibler
OFFICE: FOR 215 Email: brennanac92@gmail.com / yourtaduncan@gmail.com
OFFICE HOURS: TBA

MEETING TIMES: Lecture: MW 11-11:50, Room 222
Laboratory: M 1:00 to 3:50 pm Room 222; T, TH 2:00 to 4:50 pm


Course Description: Climatic, edaphic, and biotic factors and their relationship to woody plant growth and development. Factors will be discussed at the individual plant and forest community levels.

Program Learning Outcomes: FOR 209 is a core course requirement for all forestry students, regardless of major. ENV 209 is an ENV core substitute for BIO 313 for environmental science students.

The course shall meet the following BSF forestry 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. The matrix below presents the level of proficiency for each of the program learning outcomes (PLOs).

<table>
<thead>
<tr>
<th>B.S. Forestry Program Learning Outcomes</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Proficiency Levels</td>
</tr>
<tr>
<td>Course</td>
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<tr>
<td>FOR 209</td>
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</tbody>
</table>
1. **B – Basic** – course supports Program Learning Outcome by providing students with fundamental information, definitions, concepts, and lab activities relative to the expected outcomes.

2. **I – Intermediate** – course supports Program Learning Outcome by providing students with topic-specific information, concepts, applications, and lab activities that increase the students’ skills in making tactical implementation decisions relative to the expected outcomes.

The course shall meet the following BS Environmental Science learning outcomes:

1. Demonstrate competency in environmental assessment;
2. Demonstrate understanding in environmental management;
3. Demonstrate understanding in environmental policy and professional ethics;
4. Demonstrate competency in critical thinking communicated through effective scientific written reports and oral presentations.
5. Demonstrate preparation to pursue a professional career and/or graduate degree programs.

### B.S. Environmental Science Program Learning Outcomes

<table>
<thead>
<tr>
<th>Course</th>
<th>PLO 1 Environmental Assessment</th>
<th>PLO2 Environmental Management</th>
<th>PLO3 Environmental Policy &amp; Professional Ethics</th>
<th>PLO4 Critical Thinking, Oral &amp; Written Communication</th>
<th>PLO5 Professional Career &amp;/or Graduate Degree Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 313/FOR 209</td>
<td>I</td>
<td>I</td>
<td>B</td>
<td>I</td>
<td>B</td>
</tr>
</tbody>
</table>

1. **B – Basic** – course supports Program Learning Outcome by providing students with fundamental information, definitions, concepts, and lab activities relative to the expected outcomes.

2. **I – Intermediate** – course supports Program Learning Outcome by providing students with topic-specific information, concepts, applications, and lab activities that increase the students’ skills in making tactical implementation decisions relative to the expected outcomes.

**Student Learning Outcomes (SLOs):** Lectures will emphasize the abiotic variables of light, temperature, and water on individual tree survival and growth (FOR/ENV PLO1). Basic concepts in community ecology, diversity and succession will be presented in laboratory and lecture (FOR/ENV PLO1). Laboratory will include practicing various field measurements used to assess the functional status of forest ecosystems (FOR PLO2, ENV PLO1). The autecology and synecology concepts presented will include discussions related to current forest policy, ethics and management issues (FOR PLO3 and PLO4, ENV PLO2 and 3). Technical writing will be practiced through the laboratory reports assigned (FOR PLO5, ENV PLO4 and PLO5).

**Course Objective:** Following the successful completion of the course, the student should be able to demonstrate by written and/or oral presentation a minimum average competency in understanding key autecology and synecology concepts. Knowledge of these concepts will support understanding the advanced material presented in FOR/ENV 300-level and 400-level courses.
**ANTICIPATED LECTURE OUTLINE:**
This is a general outline of lecture materials and topics. Dates/topics are subject to change. This schedule is tentative and I reserve the right to adjust the schedule as needed. You will be kept aware of any changes – but this schedule below will serve as a starting point for lectures this semester.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Chapters</th>
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<tbody>
<tr>
<td>Jan 20: Forest Ecology and the Ecosystem Concepts</td>
<td>1</td>
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<tr>
<td>Jan 27/Feb 1: Forest Ecology and the Ecosystem Concepts</td>
<td>3</td>
</tr>
<tr>
<td>Feb 3/8: Applied Forest Genetics</td>
<td>4</td>
</tr>
<tr>
<td>Feb 10/15: Tree Life Cycle</td>
<td>5, 6</td>
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</tbody>
</table>

**First Lecture Exam on Chapters 1-6**
Feb 22/29: Climate 7
Mar 2/7: Light 8
Mar 9: Temperature 9
Mar 14/16: SPRING BREAK
Mar 21: Temperature 9
Mar 23/30: Physiology and Soil 10, 11

**Second Lecture Exam on Chapters 7-11**
April 11/13: Site Quality 13
April 18/20: Forest Communities 15
April 25/27: Disturbances 12, 14, 16
May 2: Succession 17
May 4: Carbon Balance 18

**Third Lecture Exam on Chapters 12-18 during final exam period**
* Covered during lab periods

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**General Course Policies**

**Cell Phones (including text messaging):** Let’s make it easy-turn them off. If you are an EMT or in a Volunteer Fire Department, you must let me know. Since we know that the clocks in the classrooms are all over the place, I will have my cell phone on silent and I will check the time if needed-no reason for you to do so. If you have the cell phone on and look at it during a test, I will assume you are cheating (See Cheating Policy described below). If you look at your cell phone during class, I will assume you are not interested in the class material and will ask you to leave. In other words, the use of a cell phone, including text messaging, will not be tolerated in the classroom or during a field laboratory. Make sure that cell phones are turned-off and stowed before entering the classroom.

**Attendance Policy:**
Attendance will not be taken for lecture periods, but I will not provide handouts or review the lecture to students missing lecture due to an unexcused absence. If the absence is excused, (health, family emergency, participation in approved University sponsored event), I will clarify any questions regarding the lecture notes and provide any handouts.
Attendance will be taken before each laboratory. If absent from a laboratory, I will not accept the assignment and zero will be assigned for that assignment. There are no make-up laboratories. Students missing a laboratory because of an excused absence are still responsible for completing scheduled assignments. See me as soon as possible, if you missed a laboratory due to an excused absence. Students are responsible for providing documentation for an excused absence. See the SFASU Policy Manual, Class Attendance and Excused Absence, Policy A-10 on SFASU web-site for more information. (http://www.sfasu.edu/policies/class_attendance_excused_abs.asp)

Excessive tardiness/leaving early. Lecture and laboratory will begin promptly at the appointed time. Repeated tardiness will not be tolerated. A student can be late to class twice without penalty. A twenty (20) point reduction in the total point score will be applied for each additional occurrence. Tardiness to laboratory will usually result in the student missing the laboratory. See above for the laboratory attendance policy.

Students that have to leave during lecture/laboratory for a legitimate reason must make prior arrangements. If a student decides to leave during a lecture/laboratory for unexcused reasons, do not return during that particular period. A twenty (20) point reduction in a student's final point total will be applied for each occurrence.

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.

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.

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

Cheating or plagiarism may result in at least a “zero” on the assignment in question, and possibly an “F” for the course. Students are urged to make sure they do their own work, make sure the papers they write are cited correctly, and most importantly, are in their own words! SFA Policy A-9.1 defines what constitutes cheating and plagiarism. While the policy does appear to allow for the cutting and pasting of information from a published source as long as proper credit is given, those actions will not be allowed.

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/.

Assignments and Grades: FORESTRY and ENVIRONMENTAL SCIENCE STUDENTS: A minimum course grade of "C" shall be earned, or the student will need to repeat the course. Point totals from lecture and laboratory will be combined to determine the final course grade.

Grading:
Lecture Exams Three, one-hour lecture exams. 100-points each, together worth 60% of overall class grade.
Laboratory Assignments Each assignment will be worth 20 points and the sum of all of the lab assignments (memos, reports, etc.) together will be worth 40% of the overall class grade.

Make up exams must be completed within 1 week of excused absence of the test. Participation and attitude will be used on borderline cases. There are no make-up exams for unexcused absences. Unless specified otherwise, laboratory reports are due at the beginning of laboratory one week after assigned. No laboratory assignments will be accepted after the due date and time, unless late because of an excused absence. The student is responsible for providing documentation as evidence for an excused absence. I will make every effort to return tests and assignments within 1 week of the due date. Because I do travel as part of my faculty responsibilities, I may not be able to reach these goals. Since the weight of each assignment is listed, a student should be able to determine their own performance in the class. Do not expect me to do this for you!
Exams will consist of definitions, and short answer. Exam material will come from lecture notes and textbook readings. Failure to read the textbook assignments will result in a poor performance on the exam. Students shall be held reasonably accountable for proper spelling, sentence structure, and legibility during the written exams.

**Laboratory Reports and Assignments:**
In addition to the assigned textbook readings, handouts will accompany each laboratory. The laboratory tests shall include information from the assigned textbook readings and handouts. Each student will have their lowest attempted laboratory assignment dropped at end of the semester prior to grade determination. Zeros (0) may not be dropped. Attempted means a cover sheet, the correct sections required for that assignment, and at least 1 paragraph of writing. Students caught cheating on a lab will receive a zero, but that assignment will not be dropped.

**Field Laboratories:** Students will meet the instructor in the Forestry Building garage, located at the east end of building, prior to departure for the field. Unless notified, field dress will include long pants, work boots, hard hat and compass. Students not dressed in appropriate field attire will not be allowed to attend laboratory. Missing laboratory for improper dress will count as an unexcused absence. Vans will leave promptly at the scheduled time.

**Laboratory Report Format:** The reports should be typed, double-spaced, and, if multiple pages, the pages attached with a staple in the upper left-hand corner. Unless other instructions are provided, each report should have a cover sheet (assignment title, name, lab instructor, lab section, date). The format of each report should follow the ATCOFA format guidelines provided. Improper sentence structure and poor spelling will result in significant point reductions on written assignments.
**Tentative schedule** for FOR/ENV 209 laboratory for the Spring 2016 semester. **Subject to change.**
Monday Lab: 1:00 pm to 3:50 pm. Tuesday/Thursday Labs: 2:00 pm to 4:50 pm.

<table>
<thead>
<tr>
<th>Week of</th>
<th>Topic</th>
<th>Location</th>
<th>Due Date</th>
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<tbody>
<tr>
<td>Jan 20</td>
<td>No Lab</td>
<td></td>
<td></td>
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<tr>
<td>Jan 25</td>
<td>Review of Lab Report Style</td>
<td>Room 222</td>
<td>(Due week of Feb 22)*</td>
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<tr>
<td>Feb 1</td>
<td>Seed Ecology</td>
<td>Room 240</td>
<td>(Due week of Feb 15)</td>
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<tr>
<td>Feb 8</td>
<td>Arborgen Seed Center</td>
<td>Field</td>
<td>(Due week of Feb 22)*</td>
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<tr>
<td>Feb 15</td>
<td>Soils</td>
<td>Field</td>
<td>(Due week of Feb 29)</td>
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<tr>
<td>Feb 22</td>
<td>Microclimate</td>
<td>Field</td>
<td>(Due week of Mar 7)</td>
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<tr>
<td>Feb 29</td>
<td>Hydrology</td>
<td>Field</td>
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<tr>
<td>Mar 7</td>
<td>Dendrochronology</td>
<td>Room 222</td>
<td>(Due on March 23 for all)</td>
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<td>Mar 14</td>
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<tr>
<td>Mar 21/28</td>
<td><strong>Spring Break-No Labs</strong></td>
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<tr>
<td>Apr 4</td>
<td>Fire</td>
<td>Field</td>
<td>(Due week of Apr 11)</td>
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<tr>
<td>Apr 11</td>
<td>Diversity Intro</td>
<td>Room 222</td>
<td>(Due week of May 2)*</td>
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<tr>
<td>Apr 18</td>
<td>Diversity Assessment</td>
<td>Field</td>
<td>(Due week of May 2)*</td>
</tr>
<tr>
<td>Apr 25</td>
<td>BMP</td>
<td>Field</td>
<td></td>
</tr>
<tr>
<td>May 2</td>
<td>Makeup/Lecture</td>
<td>Room 222</td>
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*2 labs due this week

**Finals Week no labs**