COURSE SYLLABUS AND POLICY STATEMENTS
FORS 2305 -- FOREST BIOMETRICS I
Spring, 2024

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Office: Forestry Building 227
Office Hours: Mon. & Wed.: 9:00 – 11:30 am
Tue. & Thur.: 11:00 am – 12:00 pm
Others by appointment

Department: Forestry
Class meeting time and place:
Lecture: Mon. and Wed., 8:00 – 8:50 am, Forestry Building 222
Lab FORS 2005-020: Wed, 1:00 – 3:50 pm, Forestry Building 221 or by announcement
Lab FORS 2005-021: Thurs, 2:00 – 4:50 pm, Forestry Building 117 or by announcement

Course communication: D2L

COURSE DESCRIPTION

3 semester hours. This course will cover methods of measuring characteristics of individual trees (tree height, diameter, volume and stem form) and stands (per land unit number of trees, basal area and volume), developing forest sampling design, and doing applied statistics/data analysis. Required field trips.

Prerequisite: MTH 138 or 143, MTH 133 (trigonometry) and MTH 220 are useful but not required. A good understanding of algebra, geometry, trigonometry, and statistics is desirable. 100 minutes of lecture and 170 minutes of lab with 6 hours of out of class work per week for 15 weeks.

PROGRAM LEARNING OUTCOMES

Forestry 2305 is one of the forestry core courses required of all forestry majors and thus competency is required. A minimum grade of a “C” must be earned or the course will have to be repeated. The course is designed to address the following Program Learning Outcomes (PLOs), as stated 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, and
5) Demonstrate understanding and competency in oral and written communication skills.

The above PLOs are also recognized as vital components by the Society of American Foresters, program’s accrediting agency.

<table>
<thead>
<tr>
<th>B.S. Forestry Program Learning Outcomes</th>
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<tbody>
<tr>
<td>Proficiency Levels</td>
</tr>
<tr>
<td>Course</td>
</tr>
<tr>
<td>Forest Ecology and Biology</td>
</tr>
<tr>
<td>Forest Resource Measurement</td>
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<tr>
<td>Forest Resource Management</td>
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<tr>
<td>Forest Resource Policy, Economics, Administration</td>
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<tr>
<td>Oral &amp; Written Communication Skills</td>
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FORS 2305: B

B – Basic – FORS 2305 supports Program Learning Outcome by providing students with fundamental information, definitions, concepts, and lab activities relative to the expected outcomes.

I – Intermediate – FORS 2305 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

Upon successful completion of this course, the student will:

1) Understand the connection between basic forest measurements and basic ecological concepts & principles (PLO #1 and 2),
2) Be able to collect, analyze, interpret, and project forest inventory data to assess current & future forest conditions (PLO #1 & 2),
3) Be able to make forest inventory reports that support specific multiple land management objectives & constraints as well as understand the implications of forest management decisions based on quantitative information (PLO #1, 2, 3 and 5),
4) Understand professional ethics, including SAF Code of Ethics, & recognition of ethical responsibility to adhere to those ethical standards in forestry decision making on behalf of clients & public (PLO #4), and
5) Demonstrate competency in oral and written communication skills (PLO #5).

REQUIRED TEXT AND OTHER REFERENCE TEXTS

COURSE REQUIREMENTS, GRADING SYSTEM, & ATTENDANCE POLICY

Grades will be based on the number of points earned in exams and labs. A total of 100 points are possible. On a percentage basis, final grades will be computed as: 90+ = A, 80 – 89 = B, 70 – 79 = C, 60 – 69 = D.

Lectures: Course attendance is required. I will randomly check attendance 4 times; 3 or more unexcused absences from lecture will result in a deduction of 10 points from the final average. If you present at all four, you will get 2 extra points.

Labs: Lab attendance is mandatory! Each person will turn in his/her own lab assignments. However, you will work in groups to collect field data for labs requiring fieldwork. There will be 10 graded labs, 5 points each, for a total of 50 points. Lab assignments are typically due one week following the assignment date by 1pm (unless I or TA assign another due date). Failure to turn in a lab assignment by the due date will result in a deduction (5% every 24 hours delay) for that lab assignment. If you must miss a lab session, let me or TA know BEFORE you miss lab; or, in the case of an emergency, see me or TA immediately when you return to class. If you have to miss lab for another class, field trip, or school sponsored activity, then you must contact me or TA to determine a time for make-up work BEFORE you leave. If you miss lab without a valid excuse, you will receive a “zero” for that lab assignment.

For both lecture and lab, excused absences include participation in University-sponsored events, health problems, or family emergencies.

All written reports will be submitted in hard copy. Reports must be written in a professional manner, free from typographical, spelling, and grammatical errors. Please consult with TA about report format.

Each student must work faithfully on his/her lab reports. Copying results from someone else (even from an earlier semester) will result in a zero grade. Do not use AI to generate any part of the report. Doing so is academic dishonesty.

Lab equipment: You will need to provide your personal field gear (boots, hardhat, sturdy clothing, water bottle, and insect repellant), a scientific calculator that provides basic statistics and trigonometry functions, an engineer’s scale, drafting triangle, and a protractor.

Exams: There will be two exams (each worth 25 points). Exams will be given on regular class time. You must take the exam at the scheduled time, unless you have an excused absence. Exams may be returned only to review grades, but you will not be able to keep the exams permanently.
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. Penalties may include, but are not limited to, no credit for the assignment or exam, failure of the course, or expulsion from the university.

STUDENT ACADEMIC DISHONESTY POLICY (4.1)

The Code of Student Conduct and Academic Integrity outlines the prohibited conduct by any student enrolled in a course at SFA. It is the responsibility of all members of all faculty, staff, and students to adhere to and uphold this policy.

Articles IV, VI, and VII of the new Code of Student Conduct and Academic Integrity outline the violations and procedures concerning academic conduct, including cheating, plagiarism, collusion, and misrepresentation. Cheating includes, but is not limited to: (1) Copying from the test paper (or other assignment) of another student, (2) Possession and/or use during a test of materials that are not authorized by the person giving the test, (3) Using, obtaining, or attempting to obtain by any means the whole or any part of a non-administered test, test key, homework solution, or computer program, or using a test that has been administered in prior classes or semesters without permission of the Faculty member, (4) Substituting for another person, or permitting another person to substitute for one’s self, to take a test, (5) Falsifying research data, laboratory reports, and/or other records or academic work offered for credit, (6) Using any sort of unauthorized resources or technology in completion of educational activities.

Plagiarism is the appropriation of material that is attributable in whole or in part to another source or the use of one’s own previous work in another context without citing that it was used previously, without any indication of the original source, including words, ideas, illustrations, structure, computer code, and other expression or media, and presenting that material as one’s own academic work being offered for credit or in conjunction with a program course or degree requirements. Collusion is the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any provision of the rules on academic dishonesty, including disclosing and/or distributing the contents of an exam.

Misrepresentation is providing false grades or résumés; providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment for the purpose of obtaining an academic or financial benefit for oneself or another individual or to injure another student academically or financially.
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/course-grades-5.5.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/.

MENTAL HEALTH AND WELNESS

SFA values students’ mental health and the role it plays in academic and overall student success. SFA provides a variety of resources to support students’ mental health and wellness. Many of these resources are free, and all of them are confidential.

On-campus Resources:
SFA Counseling Service www.sfasu.edu/counselingservices
Health and Wellness Hub (corner of E. College and Raguet) 936.468.2401

SFA Human Services Counseling Clinic www.sfasu.edu/humanservices/139.asp Human Services, Room 202 936.468.1041

Crisis Resources:
Burke 24-hour crisis line: 1.800.392.8343S
National Suicide Crisis Prevention: 9-8-8
Suicide Prevention Lifeline: 1.800.273.TALK (8255) Crisis Text Line: Text HELLO to 741-741

RESPONSE 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

SOCIAL JUSTICE STATEMENT

The Arthur Temple College of Forestry and Agriculture at SFASU is committed to social justice. I concur with that commitment and expect to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. Our University does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration.

COURSE CONTENT AND TENTATIVE SCHEDULE

Topic 1: Introduction
Topic 2: Basic statistical concepts Lab 1: Statistics using Excel
Topic 3: Measurement of tree diameter Lab 2: Diameter measurements
Topic 4: Measurement of tree height Lab 3: Height measurements
Topic 5: Determine tree volume and weight Lab 4: Log cubic-foot volume
Topic 6: Determine primary forest products Lab 5: Log board-foot content
Exam 1
Topic 7: Measure other tree traits Lab 6: Cruise design and layout
Topic 8: Cruise design and layout Labs 7/8: Fixed-area plot timber cruise
Topic 9: Line-plot inventory Labs 9/10: Point sampling timber cruise
Topic 10: Inventory with point samples
Topic 11: Stand parameters
Topic 12: Growth of the tree and stand Exam 2