

### Syllabus

Instructor: Kenneth W. Farrish  
Room 108 Forestry Lab Building  
(936) 468-2475 or 2331  
kfarrish@sfasu.edu  
Office hours 8:00 am to 11:00 am Mon. and Wed.  
8:00 am to 11:00 am Friday

Department: Environmental Science

Lecture Room: Forestry Laboratory Building, Room 103

Laboratory Room: Forestry laboratory Building, Room 109

Laboratory Instructors: Jodi Hill and Kenneth W. Farrish  
Room 108 Forestry Laboratory Building  
(936) 468-2475 or 2331

Text: Soils in Our Environment. Gardiner and Miller. Eleventh Edition.  
ISBN 0-13-048195-5 (optional)

Course Description: Three semester hours, two hours lecture and three hours laboratory per week. The physical, chemical and biological properties of soils, the role of soils in environmental quality, biogeochemical cycles, and soil management techniques. Required field trips.  
Prerequisite: CHE 134

Program Learning Outcomes: BS Environmental Science

1. Demonstrate competency in environmental assessment;
2. Demonstrate understanding in environmental management;
3. Demonstrate understanding in environmental policy and professional ethics;
4. Demonstrate competency 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					
Proficiency Levels					
Course	PLO 1 Environmental Assessment	PLO2 Environmental Management	PLO3 Environmental Policy & Professional Ethics	PLO4 Critical Thinking, Oral & Written Communication	PLO5 Professional Career &/or Graduate Degree Program
ENV 349	A	A	I	A	A

N/A – Not Applicable

B-Basic

I-Intermediate

A-Advanced

M-Mastery

Definition of Rating Categories:

1. **N/A** – Not Applicable – course does not support the Program Learning Outcome.
2. **B** – Basic – course supports Program Learning Outcome by providing students with fundamental information, definitions, concepts, and lab activities relative to the expected outcomes.
3. **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.
4. **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.
5. **M** – Mastery – course supports Program Learning Outcome by providing students with opportunities to independently apply tactical and strategic planning skills to successfully accomplish real-world, non-academic management objectives. Completes students’ preparedness for entry-level professional activity accomplishment.

**Student Learning Outcomes:** The primary objective of this course is to make the student aware of the importance of soils as a major component of the environment. The course will cover aspects of the physical, chemical and biological properties of soils and how these relate to land management. This required course will address the needs of environmental science majors and the subject matter supports courses in hydrology, wetland delineation and function, environmental planning, remediation and reclamation of disturbed land, and environmental assessment and management.

**Course Outline:**

Lecture Topics	Text Chapters	Dates*
Soil Composition and Importance	1	8/27, 8/29
<b>Labor Day Holiday</b>		9/3
Soil Formation and Morphology	6	9/5, 9/10, 9/12
Soil Physical Properties (through soil consistence)	2	9/17, 9/19
<b>EXAM 1</b>		9/24
Soil Physical Properties (contd.)	2	9/26, 10/1, 10/3
Soil Water	3	10/8, 10/10
Soil Chemical Properties	4	10/15, 10/17, 10/22
<b>EXAM 2</b>		10/24
Soil Organisms	5	10/29, 10/31
Organic Residues	5	11/5, 11/7
Soil Taxonomy	7	11/12, 11/14
<b>EXAM 3</b>		11/19
<b>Thanksgiving Break</b>		11/21

Plant Nutrients and Fertility Mgmt.	9,10	11/26, 11/28
Soil Management	11,14	12/3
Soil Management	15,19	12/5
<b>EXAM 4</b>		12/10

\* Subject to change

Course Policies:

- A. Grading System - Four exams together will comprise 80 percent (each 20 percent) of the final grade. The overall laboratory grade will comprise the remaining 20 percent of the final grade. The overall laboratory grade is calculated as the mean of the four laboratory reports, three quizzes, and one assignment. **All students entering the environmental science and forestry undergraduate degree programs during or after fall semester of 2008 must make a grade of C or better in each core environmental science (ENV) or forestry (FOR) courses to have the course count toward graduation. This course is a core environmental science course.**
- B. Grading Scale - The following scale is adhered to strictly. Individual overall means are calculated to the first decimal place.
- 90.0 - 100 = A  
80.0 - 89.9 = B  
70.0 - 79.9 = C  
60.0 - 69.9 = D  
< 60.0 = F
- C. Late Assignments - Make-up exams will only be given if arrangements are made with the instructor before missing the scheduled exam. A documented excuse will be required. Otherwise, missing exams will be counted as zeroes in the overall grade computation. Late laboratory assignments will not be accepted.
- D. Attendance - Attendance in the laboratory section is mandatory. The final laboratory grade will be reduced by one letter grade per absence.
- E. Other Policies - Student must complete the on-line course evaluation for the course. **Grades will be withheld until the course evaluation is completed.** All classroom conduct and performance should be compatible with the code of ethics stated in the current SFA Student Handbook. Students with documented disabilities who need course adaptations or accommodations should make an appointment to discuss their needs with the course instructor as soon as possible.

F. 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.

Read the complete policy at

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

G. 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.

H. 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.

#### I. 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/>.

## LABORATORY SCHEDULE\*

<u>Week</u>	<u>Lab</u>	<u>Activity</u>
Sep. 10	1	Introduction PowerPoint set – <i>Soil and Its Properties</i> Lab Reports-Soil Science Society of America (SSSA) format Assignment 1: Constructing scientific tables and figures
17	2	Soil Formation and Landscapes Soil-forming Factors Video Walking Tour: Soils and landforms near Lanana Creek <b>Assignment 1 due</b>
24	3	SFA Experimental Forest Woden soil profile description (Typic Paleudalf) <b>Quiz (Lab 2)</b>
Oct. 1	4	SFA Experimental Forest Mantachie soil profile description (Fluventic Endoaquept) View Bowie soil profile (Plinthic Paleudult) View Nacogdoches soil profile (Rhodic Paleudalf)
8	5	Laboratory Soil texture <b>Report Due (Labs 3 and 4)</b>
15	6	Laboratory Bulk density, particle density, pore space Water movement video

	22	7	Tonkawa Area Tonkawa Soil Profile Description (Typic Quartzipsamment) View Typic Psammaquent View Naconiche Soil Profile (Cumulic Humaquept) <b>Report Due (Labs 5 and 6)</b>
	29	8	Laboratory Soil microorganisms-start Soil nutrient video <b>Quiz (Lab 7)</b>
Nov.	5	9	Laboratory SFA Soil, Water, Plant Materials Testing Laboratory Finish microorganisms Soil Survey Report Assigned
	12	10	Laboratory Soil moisture determinations <b>Report Due (Lab 8)</b>
	19		No Labs – Thanksgiving
	26	11	USDA Natural Resources Conservation Service-East Texas Plant Materials Center
Dec.	3	12	Laboratory <b>Soil Survey Report Due</b> <b>Quiz (Labs 9, 10 and 11)</b> Lab evaluation
	10		Final Exam Week

\*Schedule subject to change.