

Syllabus for Advanced Forest Soils- FRS 5033
(Fall 2006)

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Lecture Time and Location: TBA
H.H. Chamberlin, TBA

Office Hours: 8:00 to 10:00 a.m. Tuesday and Thursday. I also am available after class and by appointment.

Course Objectives: To prepare future forest resource professionals for forest soils or forest resources research. Upon completion of the course, students will have an understanding of the patterns and processes of soil formation and their relation to forest productivity. Additionally, students will be familiar with soil/ plant interactions, water relationships, and forest soil management for sustainable productivity and environmental quality. Critical evaluation of scientific literature is expected, and active, constructive participation is required.

Evaluation Criteria: Midterm Exam (30%)
Comprehensive Final Exam (30%)
Exposition/ Critical Review (20%)
Presentation/ Peer Critique (20%)

Scale: A=90-100 B=80-89 C=70-79 D=60-69 F<60

Expectations:

Absences from Class and Announced Exercises:

Roll will not be called on a regular basis, but absences will be observed and noted. If you have a large number of unexcused absences (> 5), or if you display a flagrant lack of punctuality, the instructor reserves the right to have you withdrawn from class.

If you expect to miss an exam you should let the instructor know ahead of time. If an emergency occurs, get word to me as soon as possible. If appropriate, I will arrange for make up work. Unexcused absences from exams are counted as a zero.

Late Assignments:

Assignments will not be accepted late. If the instructor does accept an assignment late, a 10% per day penalty will be assessed.

Student Conduct:

The School of Forest Resources expects its students to comply with all parts of the Student Conduct code. This includes an academic atmosphere free from disorderly conduct. Disorderly conduct is defined in the student handbook as; "any behavior which disrupts the regular or normal functions of the University community, including behavior which breaches the peace or violates the rights of others".

Professionalism: Students in the School of Forest Resources are pursuing courses of study that prepare them for careers as natural resources professionals. Professional education is much more than technical training and encompasses professional resource education as well as general education, social science and humanities courses. Collectively, these subjects constitute professional education.

Because the School is dedicated to professional education rather than technical training, the faculty and staff have certain expectations of themselves and of SFR students with regard to professionalism and personal conduct in their preparation for careers in the natural resource professions. Thus, SFR students and faculty are expected to exhibit conduct and attitudes appropriate to professionals.

Conduct and attitudes appropriate for professionals include, but are not restricted to:

1. The UA-M Code of Student Conduct published in the University catalog,
2. Attitudes appropriate for resource professionals of the 21st Century:
 - a. Respect for others and for their ideas;
 - b. Appreciation for ethnic and gender diversity in the workplace;
 - c. Sensitivity to environmental quality;
 - d. Adherence to professional ethics, e.g. SSSA or SAF Codes of Ethics.

The instructor reserves the right to reduce student grades or withdraw the student from class for unprofessional behavior.

Prerequisites: FOR 2264- Forest Soils or graduate standing and permission of the instructor.

Texts:

(Optional)

Brady, N.C. & R.R. Weil. The Nature and Properties of Soils, 13th Edition. 2001. Prentice Hall.

(Required)

Fisher, R.F. & D. Binkley. Ecology and Management of Forest Soils, 3rd Edition. 2000. John Wiley & Sons, Inc.

Thanksgiving Break: November 23rd and 24th

Final Exam:December 11th to 15th , TBA

Lecture Topics and Reading Assignments (Subject to change to address issues of student projects & interests):

<u>Week</u>	<u>Topic(s)</u>	<u>Chapter(s)</u>
1	Introduction, Forest Soils and Vegetation	1,2
2	Soils Associated with Major Forest Biomes	3
3	Forest Floor and Soil Biology	4,5
4	Physical Properties of Forest Soils	7
5	Chemical Properties of Forest Soils	6
6	Soil Water and the Hydrologic Cycle	8,9
7	Soil, Roots, and Mycorrhizae	10,11
8	Nutrient Cycling in Forest Ecosystems	12
9	Soil Properties & Productivity- Classification	13,14
10	Soils & Silviculture, Nursery Management	15,16
11	Nutrient Deficient and Problem Soils	17,18
12	Fertilizers- Forms, Functions, and Reactions	19
13	Forest Fertilization Techniques	20
14	Effects of Forest Fertilization- On Site and Off	21
15	Effects of Fire on Soils- Physical and Chemical	22
16	Intensive Forest Management and Sustainable Productivity	23
17	Preparation for Comprehensive Final Examination	

Exposition/ Critical Review

During the first month of class, each student must select and receive instructor approval of a topic relevant to forest soils management or research. Students are encouraged to use this review as a component of the literature review for their thesis. As a part of the critical review process, a minimum of 10 refereed journal articles must be cited and discussed in the final paper. The paper must be a minimum of 7 pages, but it should not exceed 10 pages. Students will submit their papers to the instructor, and the

instructor will redistribute the papers for peer evaluation. Peer evaluations will consist of both a writing and an oral component. The written evaluation will not exceed two pages, and the oral comments must be framed in a *constructive* manner. The purpose of these exercises is to develop the skills necessary for graduate level writing and research.

Students With Disabilities:

It is the policy of the University of Arkansas--Monticello to accommodate individuals with disabilities pursuant to federal law and the University's commitment to equal educational opportunities. It is the responsibility of the student to inform the instructor of any necessary accommodations at the beginning of the course. Any student requiring accommodations should contact the Office of Special Student Services located in Harris Hall Room 120; phone 870 460-1026; TDD 870 460-1626; fax 870 460-1926.

Please note that the last line would change for technical campuses to include:
McGehee: Office of Special Student Services representative on campus; phone 870 222-5360; fax 870 222-4709.

Crossett: Office of Special Student Services representative on campus; phone 870 364-6414; fax 870 364-5707.

Cheating and Plagiarism Requirement

Cheating: The possession, receipt, use, buying or selling, or furnishing of unauthorized help while doing any of the following, but not limited to:

- assignments
- reports
- term papers
- quizzes
- tests
- providing answers
- homework (e.g., copying homework assignments and/or answers)
- use of pre-programmed calculators (e.g., formulas)

When in doubt about the acceptance of providing or getting help for the activities mentioned above, consult your instructor.

Plagiarism: The use of writings, concepts, or thoughts of **another**, which are specific information and not common knowledge, without acknowledging the source(s). As used above, **another** is any of the following, but not limited to:

- any person
- any text from a book, journal, magazine, or other printed material
- any electronic source (internet source, word document file, or any digital data)

Examples of common knowledge compared to specific information are:

- The sun will rise tomorrow is common knowledge.
- The sun will rise at 6:01 a.m. on 1 July 2004 (NWS 2003) is specific knowledge.
- Florida, as a retirement state, has a lot of older people is common knowledge.
- As of 2002, 2,854,838 people over the age of 65 lived in Florida (U.S. Census Bureau 2003) is specific knowledge.

Direct quotations should be indicated using quotation marks and proper acknowledgement of the source. Paraphrasing is the use of writings, concepts, or thoughts of another rephrased in your words that captures the meaning of the original author. Cite the source of paraphrases also.

Examples using quotations and paraphrasing:

The original text from Leopold (1933) reads: In hoofed mammals there is so far no visible evidence of any density limit except the carrying capacity of food.

Correct direct quotation reads: “In hoofed mammals there is so far no visible evidence of any density limit except the carrying capacity of food.” (Leopold 1933)

Correct paraphrase reads: Ungulates are density-dependent only in relation to forage (Leopold 1933).

Plagiarized/incorrect quote reads: In hoofed mammals there is so far no visible evidence of any density limit except the carrying capacity of food.

Plagiarized/incorrect paraphrase may read: Ungulates are density-dependent only in relation to forage.

Other examples of plagiarism include, but are not limited to:

- Failing to provide a reference (attribution).
- Copying graphics and pictures from the internet without a reference (attribution).
- Paraphrasing without a reference (attribution).
- Submitting someone else’s work.

When in doubt about plagiarism consult your instructor

By typing or signing your name in the box below, you are stating, without condition, your compliance with the following in regard to all required coursework:

(1.) all aspects of the UA-M Conduct Code have been followed with respect to all assignments, laboratory reports, or exams to be completed during this semester;

(2.) the work you submit is yours and yours alone unless part of a group assignment or group laboratory report;

(3.) you will not cheat or plagiarize at any time while completing your assignments, laboratory reports, or exams; and

(4.) for exams, you will not discuss their content with any other student in the class until all students have completed the exam and the answers are made available.

Violation of any or all of these conditions, whether they are discovered or witnessed before, during, or after any assignments, laboratory reports, or exams have been taken and/or completed and submitted for grade, will constitute a violation of the UA-M conduct code and will be reported to and punishable by the UA-M Judicial System. The process is initiated through the Dean's office.

Signing or printing your name on assignments, lab reports, and exams during this semester means that you understand what you signed today in class and will be liable for your actions.

Signature:	Date:
Printed Name:	

*See the body of the syllabus for definitions and examples.