

I. Forest Fire	Fire behavior: fuels, topography and weather	7	150
	The role of prescribed fire in forest management and fundamentals of wildfire management.	8	150
II. General Forest Operations	The how and why of operations, the basics of harvesting and the operational nature of forest stands.	7	150
III. Implementing Plans	A detailed look at operations and systems design, and developing an operational plan.	8	150
IV.	Final Lab – (Fire=Oral; Ops=Plan){50pts./section}		100
V.	Final Lecture - Written Comprehensive {50pts./section}		100
Total			800

FINAL EXAMS: Lab (Fire-Oral): Thursday, October 11th; 1:40-4:30pm (final lab period)
Lecture (Fire and Ops): Monday, December 10th; 10:30-12:30pm

UAM will no longer mail grade reports to all students. You may access your grades through Campus Connect on the UAM homepage, <http://www.uamont.edu/>. To have your grades mailed to you, complete the grade request form available in the Registrar's Office in Monticello or the Student Services offices in Crossett and McGehee.

TEXTS:

Fire Weather, Schroeder & Buck, National Wildfire Coordinating Group, NFES Publication 1174.

A Guide for Prescribed Fire in Southern Forests, National Wildfire Coordinating Group, NFES publication 2108.

Smoke Management Guide for Prescribed and Wildland Fire, 2001 Ed., National Wildfire Coordinating Group, NFES publication 1279.

Fire Fighters' Handbook on Wildland Fire-fighting: Strategy, Tactics and Safety, 3rd Ed. W.C. Teie, 2005. Deer Valley Press.

REFERENCES:

Logging Practices-Principles of Timber Harvesting Systems (Rev Ed). S. Conway. 1982. Miller-Freeman Publ., Inc.

PREREQUISITE:

College Algebra or Permission of instructor.

ABSENCES FROM CLASS AND ANNOUNCED EXERCISES:

Although roll will not be called on a regular basis, the class will be counted and absences observed. If you have a large number of unexcused absences (> 5), or if you display a flagrant lack of punctuality, we reserve the right to have you withdrawn from class.

EXAMS

If you expect to miss an exam you should let the instructor know ahead of time. If an emergency occurs, get word to us as soon as possible. An exam day should be considered comparable to an important meeting as a professional. Preparation, punctuality, and participation are expected of employees during work/professional meetings. *With few exceptions, your top priority on exam day should be your exam, just as a presentation at a meeting would be your top priority on a given day of work.* If appropriate, we 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.

Students with Disabilities:

It is the policy of the University of Arkansas at 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.

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

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. the Society of American Foresters Code of Ethics.

Instructors reserve the right to reduce student grades or withdraw the student from class for unprofessional behavior.

OFFICE HOURS AND OUR TIME:

Generally, we will be available for help at any time that we are not in a class. Quick questions can be handled on the spot; larger problems may require an appointment. We do not mind you calling us at home if you need help while you are studying, or before a test. However, if you do call do it before 9:30 PM, or any time over the weekend. If we're not immediately available, we'll call back.

If the class as a whole desires to schedule an extra session, we will arrange our schedules to accommodate. We will generally not take class time to review for tests, or to have a help session. We will not go over tests in class unless we desire to make a teaching point. We will talk to you at any time about your own work, progress, grades or other matters.

<u>Formal Hours:</u> Dr. Ficklin	9:30-11:00am	Tuesday and Thursday
Dr. Thompson	8:00-12:00	Most days

SUBJECT AND TIME SCHEDULES:

Subject and time schedules for the Operations and Fire sections will be handed out separately by each instructor.

LAB REPORTS & REQUIREMENTS:

Requirements for lab reports will be covered by each instructor in a separate handout.

Syllabus Addendum- Core Competencies

Successful completion of the operations component of this course is accomplished by fulfilling two sets of assessment requirements. First, a general understanding of all course materials such that 70% of all coursework is deemed “correct” is required. Second, students must illustrate mastery of key concepts that are central to tree ecophysiology.

Mastery of the materials is shown by successfully completing the following core competencies in the Operations portion of the course:

- a) Be able to identify the most cost-effective harvesting system when given equipment, personnel, inventory, and productivity information;
- b) Be able to use/create maps to locate areas within a harvest area that are suitable for landings/sets, skid roads, and main roads in compliance with Arkansas Best Management Practices (BMPs) for water quality;
- c) Be able to calculate the appropriate size of culvert for a stream crossing.

Mastery of the materials is shown by successfully completing the following core competencies in the Fire portion of the course:


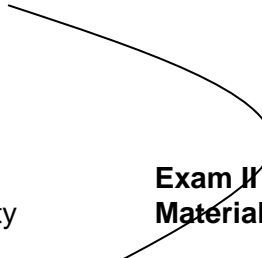
- 1. Know how to use the physics of fire to your advantage.
- 2. Know how fuels & topography influence fire behavior.
- 3. Compare and contrast weather conditions and their influence on fire behavior.
- 4. Know and apply the terminology of wildfire science.

5. Know how to carry out a prescribed fire and why it is used in southern forestry.
6. Know and apply suitable firing systems to meet prescribed burn objectives.
7. Know and apply appropriate smoke management strategies to meet specific burn objectives.
8. Know how to utilize some common methods of preventing wildfires, including using Arkansas' forest fire laws to your advantage.
9. Compare and contrast the direct, parallel, and indirect attacks; know the parts of a wildfire; know the basics of fireline construction and placement; and know how to use the incident command system (ICS) in wildfire suppression.
10. Know how to estimate fuel loading and know the importance of fuel size classes in fire management.
11. Write a prescribed fire plan.

Failure to “pass” any of these core competencies will result in an “I” (Incomplete) being issued for the course. Students will have the opportunity to retry competencies that were not passed during the intersession period. Once all core competencies are completed, the “I” will be replaced with the letter grade that was earned from examinations and other assignments. If the core competencies are not mastered, the “I” grade will be replaced with a grade of “F”.

Operations

Lecture Topics (order of presentation may change to facilitate a smooth flow of information):

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|--|--|---|
| <ol style="list-style-type: none"> 1. Introduction to forest operations 2. Forest Resources and Woods Labor 3. The “Systems Approach” to operations 4. Operations Planning 5. Regional variations in operational systems 6. Felling and Bucking- Manual vs. Mechanized 7. Skidding, forwarding and equipment options 8. Roads and Trails- hardening and water mgmt. 9. Public Relations & Timber Management 10. Personnel management |  | <p>Exam I</p> <p>Materials</p> |
| <ol style="list-style-type: none"> 11. Safety 12. Alternative harvesting systems 13. Transportation 14. Cost accounting and management (10-3) 15. Procurement/ Contracts 16. Planning and scheduling 17. Operations management for sustainable productivity 18. Soil erosion and control |  | <p>Exam II</p> <p>Materials</p> |

Labs:

1. History of Logging in the United States
2. Best Management Practices (BMPs)
3. Logging Plan I- University Forest Tracts (Silvicultural Considerations)
4. Selection of Harvest Method and Equipment
5. Guest Lecture: Cost Accounting and Procurement
6. Field Trip to Local Harvesting Operation (tentative)

7. Logging Plan II- Group Formulation of Logging Plan
8. Logging Plan III- Presentation of Logging Plans

Allocation of Points Used for Grading (Operations):

Two 1-hour exams (150 pts. each)
Logging System Plan (50 pts.) [Laboratory Final]
Final Examination (50 pts.)

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

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