

**FOR570 – Forest Management Decision Making and Planning  
Spring 2011**

**Lectures: TuTh 9:30 – 10:50; 315 Bray  
Labs: Wed 1:50 – 4:50; 210 Walters Hall**

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by appointment

**GUEST LECTURERS**

Dr. David Newman Dr. Eddie Bevilacqua  
Dr. Chris Nowak Dr. Ralph Nyland  
Dr. Rene' Germain Dr. Philippe Vidon  
Mr. Patrick Penfield, SU Whitman School of Mr. Travis Ganter, Ft. Drum Forester  
Management  
Dr. Robert Malmshemer Mr. Bob Davis, ESF Forest Property Manager  
Mr. Matt Smith, FiniteCarbon

**TEXT:**

Bettinger, P., K. Boston, J.P. Siry, and D.L. Grebner. 2009. *Forest Management and Planning*. Elsevier Academic Press, New York, NY.

**SUSTAINABLE FOREST MANAGEMENT:**

This course concentrates on the decision making and planning components of forest management. There is a focus on timber management within in the context of ecological, social, and economic sustainability. The course emphasis is on providing a sustainable forest planning and management framework. Sensitivity analysis of financial and harvest scheduling parameters used in forest management planning.

**OBJECTIVES:**

Concepts

1. Use compound interest in forest management decisions.
2. Use forest growth and yield models and interpret their results.
3. Calculate annual harvest levels based on area and volume control.
4. Develop harvest schedules using decision models such as linear programming.
5. Conduct a sensitivity analysis on the financial and harvest scheduling parameters used in forest decision making and planning.
6. Assess forest management plans.

Skills

1. Ability to employ compound interest in the evaluation of forest management decisions.
2. Ability to execute forest growth and yield models and interpret their results.
3. Ability to determine annual cut levels based on area control and volume control methods.

4. Ability to develop harvest schedules utilizing linear programming techniques.
5. Ability to execute and interpret sensitivity analyses associated with harvest schedules and the financial component of forest management plans.

#### **CLASS ATTENDANCE:**

Class attendance is vital -- absences, for any reason, do not relieve the student of the responsibility for assignments, laboratories, and lecture materials covered during the absence. If you encounter a situation beyond your control in which you will be missing **three (3)** or more days of class, you can contact the Office of Career and Counseling Services (110 Bray, 315-470-6660, Fax: 315-470-4728) and they will contact all your instructors for you. Supportive documentation may be required.

#### **ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES:**

If you have an identified disability and will need accommodation, you should first contact the Office of Career and Counseling Services in 110 Bray Hall. They will discuss the ESF process and work with you to access supportive services. If you have a learning disability, the College will require you to provide supportive documentation and will develop an approved accommodation sheet for you. Accommodations will not be provided until the accommodation sheet is established and we meet to discuss its applicability to this course. Accommodations will not be provided retroactively. If you have any questions about disabilities, please contact me and/or the Office of Career and Counseling Services as soon as possible. All conversations will be confidential.

#### **ESF STUDENT HANDBOOK:**

A PDF version of the ESF Student Handbook can be downloaded from <http://www.esf.edu/students/handbook/>. This handbook serves as an official guidebook for ESF students. It outlines many of ESFs policies and services such as Codes of Student Conduct, Academic Policies, and Academic Grievance Procedures, etc. The Codes of Student Conduct spell out a student's rights as well as responsibilities. Inappropriate behaviors that disrupt the classroom learning environment will not be tolerated.

#### **ESF JUDICIAL HANDBOOK:**

A PDF version of the ESF Judicial Handbook can be downloaded from <http://www.esf.edu/students/handbook/>. This handbook outlines the policies, processes, and procedures of ESFs judicial system. It includes such topics as Philosophy of the Code, Student's Rights/Responsibilities, and Code of Student Conduct, etc. Student's Rights/Responsibilities spell out appropriate and inappropriate behaviors. Inappropriate behaviors that disrupt the classroom learning environment will not be tolerated.

#### **CELL PHONE, BEEPER, AND ETC.:**

All cell phones, beepers, pagers, and similar electronic devices must have the ringer turned on vibrate. The only acceptable use of your electronic devices during class is to receive emergency messages. Texting friends, surfing the web, listening to music, and etc. do not constitute an emergency and will not be tolerated.

#### **LEARNING ADVICE:**

This course will require, on average, three to four hours of study three times a week. The course uses material presented previously as a foundation for new material. Therefore, it is ill advised to try to cram for the exams. Work on understanding the definitions of the economic terms and concepts.

### General Guidelines for Reading the Text (Adapted from Dr. Stehman)

1. Focus, you only want to go through this once, so eliminate distractions. If you are trying to read while watching TV and you know that you really can't do both, then postpone one activity until later.
2. Make it active: have your calculator, pen or pencil, and paper handy. Don't just read it like you would a novel (it obviously isn't a novel). Copy definitions and formulas, calculate examples, and interpret results.
3. Read the examples and descriptive material for motivation. Why do the authors want you to know about this? Do they convince you that this is important? Are there related examples you can think of that are more relevant to what you care about?
4. When you encounter a formula, copy it down. Repetition helps make the notation and formulas familiar. Write a word or words to indicate what this formula represents (e.g., Profit).
5. Think about how to interpret and use the result. For example, a harvest schedule developed using the linear programming solving methodology.
6. Look for information in the book that elaborates on the formula or application.
7. Before you end your study session, conduct a brief mental review of what you covered, and note for future reference any difficult topics you may need to revisit or ask about in class.
8. Reward yourself for accomplishing something. You had the discipline and patience to sit down and work on something that is not often inherently fun.

Work with the book (don't just read them) between each class. This will enhance your understanding of lectures, you will not fall behind, and you will not be faced with the onerous task of trying to do a whole 2-3 weeks work at once (and if you put it off that long, you probably aren't going to do the reading or work anyway). Consistency of effort is helpful with this type of material.

Maintaining a consistent approach to learning a subject is an important general element of learning (whether it is economics or anything else). A little bit of work every day over a long period of time results in major achievements. You will likely find that the hardest part is getting started. I have this problem all the time. When I'm really putting off getting to work, I will decide that if I work 15 minutes or so, I can stop. Sometimes the 15 minutes turns into an hour or two, sometimes it turns into 10 minutes. But whatever the case, 30 minutes is better than 15, 15 minutes is better than 10, 10 minutes is better than 5, and even 5 is better than nothing. The point is, do something!

### **GRADING POLICY:**

Grades will be based on the results of laboratory/homework assignments, forest plan assessment/synthesis/presentation, 2 exams, and a final exam.

All laboratory/homework assignments must be turned in by the assigned due date and time. Late laboratory/homework assignments will be penalized (unless the lateness is due to circumstances beyond the control of the student): **50% loss if turned in up to 24 hours late, 100% loss if turned in over 24 hours late!**

All exams will be comprehensive and will cover materials presented in lectures, readings, and laboratories. Make-up exams will be given only for those students who provide a written,

signed, and approved explanation of extenuating circumstances sufficient to justify their having missed the scheduled exam.

The course grade will be based on the following weighting and course letter-grades will be determined based on the following scale:

Item	Weight
Homework/Laboratory Assignments	30%
Forest Plan Assessment	10%
First Exam	20%
Second Exam	20%
Final	20%

The final grade will be calculated as follows:

A	=	100% - 95%
A-	=	94.999% - 90.000%
B+	=	89.999% - 86.667%
B	=	86.666% - 83.334%
B-	=	83.333% - 80.000%
F	=	79.999% - 0%