

FOR570 – Forest Management Decision Making and Planning
Spring 2013
Lectures: TuTh 9:30 – 10:50; 315 Bray
Labs: Wed 2:55 – 5:55; 210 Walters Hall/310 Baker Computer Lab

Professor:	Dr. John E. Wagner	Office:	304 Bray Hall
Office Phone:	470-6971	e-mail:	jewagner@esf.edu
Office Hours:	Open Door Policy; however, Appointments are Preferred		

Graduate Assistant:	Dan Clark	Office:	411 Bray
email:	dgclar01@syr.edu	Office Hours:	Tu & Th 11:00 – 12:00

GUEST LECTURERS

Dr. David Newman	Dr. Eddie Bevilacqua
Dr. Chris Nowak	Dr. Ralph Nyland
Dr. Rene' Germain	Dr. John Stella
Mr. Patrick Penfield, SU Whitman School of Management	Ft. Drum Forester, TBA
Dr. Robert Malmshiemer	Mr. Bob Davis, ESF Forest Property Manager
Mr. Matt Smith, FiniteCarbon	Mr. Leonard J. Cronin - Finch Paper LLC

TEXT:

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

FOR370/570 Forest Management Decision Making and Planning Reader

SUSTAINABLE FOREST MANAGEMENT:

This course concentrates on the decision making and planning components of forest management. There is a focus on forest resources 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.

The grade you earn on any homework, project, or exam will be based on your ability to demonstrate an analysis level of knowledge.

CLASS VS. LABS

While the material presented in class and labs are related there is a philosophical difference between them. The material presented in class introduces concepts and is in part a synthesis of your professional degree program to date. The material presented in labs is more skills and tool oriented. Due to scheduling there may appear to be a disconnect between them.

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.

CLASS VIDEO OR AUDIO RECORDING POLICY:

Students are prohibited from recording classes using any medium.

OBSERVING RELIGIOUS HOLY DAYS:

Please notify me as early as possible if any scheduled exam or homework assignment due date conflicts with observing a religious holy day. We will work with you to set up alternative times to take exams or turn in homework assignments.

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!** If you turn in homework late, the homework must be physically given to the Graduate Teaching Assistant either during office hours or by appointment.

All exams will be comprehensive and will cover materials presented in lectures, readings, and laboratories. Exams are open notes and open book or take home. *All exams grades will be curved due to the structure of class (i.e. this will be the first class that will require you to synthesize the courses from your degree program's professional core) and the nature of the exam questions (i.e., essay). The exam questions are written to test the extent of your knowledge of the material present.* The curving will be done statistically based on the distribution of the exam scores. 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%

			FOR370/570 Lecture Schedule	Spring 2013	25-Jan-2013
Date	Day	Lecture #	Topic	Reading Assignment	Lecturer
15-Jan	Tue	1	Course Introduction - Syllabus, Format, Instructor(s), etc.	2 - 13	Wagner
17-Jan	Thur	2	What is "Sustainable" Forest Management?	185 - 198; Reader #12; #14 & #15	Wagner
22-Jan	Tue	3	Management Plan In-Class Analysis (PA Plan)	185 - 198; Reader #14 & #15	Wagner
24-Jan	Thur		Forest Management Planning: Strategic, Tactical, Operational	258 - 265	Wagner
29-Jan	Tue	4	Describing Forest Resources	15 - 56	Nowak
31-Jan	Thur	5	<i>Class Canceled - NYSAF</i>		
5-Feb	Tue	6	<i>Guest Lecturer: Bob Davis, Director of Forest Properties at ESF</i>		
7-Feb	Thur	7	Even-aged Growth – Stand Table Projection		Nyland
12-Feb	Tue	8	Growth Models	15 - 29; 75 - 102	Bevilacqua
14-Feb	Thur	9	Uneven-aged Growth – Q Factors	Reader #17	Nyland
19-Feb	Tue	10	Classical Even-Aged Forest Regulation/Area & Volume Control	199 - 233; Reader #13 & #18	Wagner
21-Feb	Thur	11	Uneven-Aged Harvest Scheduling Approaches	Reader #13; #17; #19 & #18	Wagner
26-Feb	Tue		<i>Exam #1</i>		
28-Feb	Thur	12	Monitoring and Reporting	Reader #15	Nowak
5-Mar	Tue	13	Sustainability, Certification	282 - 290; Reader #6; #11 & #21	Nowak
7-Mar	Thur	14	Spatial and Temporal	58 - 74; 235 - 256; Reader #1 & #5	Wagner
12-Mar	Tue		<i>Spring Break</i>		
14-Mar	Thur		<i>Spring Break</i>		
19-Mar	Tue	15	Ordinances		Malmsheimer
21-Mar	Thur	16	Water Issues in Forest Management	Reader #3, #5, #7, #9	Stella
26-Mar	Tue	17	Property Taxes	44 -45; 480a Handout	Newman
28-Mar	Thur	18	Valuation of Forest Based Ecosystem Services	185 - 198; 290 - 295; Reader #4; #6; #8; #12 & #21	Newman/Wagner
2-Apr	Tue	19	<i>Guest Lecture: Amy Stiefel, Forester - Ft. Drum</i>		
4-Apr	Thur		<i>Exam #2</i>		
9-Apr	Tue	20	Land Ownership and Tenure; Parcelization	Reader #2 & #16	Gremain
11-Apr	Thur	21	<i>Guest Lecturer: Matt Smith, FiniteCarbon</i>		
16-Apr	Tue	22	<i>Guest Lecture: Prof. Penfield, SU - Supply Chain Management</i>	268 - 279	
18-Apr	Thur	23	<i>Guest Lecture: Leonard J. Cronin - Finch Paper LLC</i>		
23-Apr	Tue	24	SII Assessment Tool/Handout Management Plans	Reader #20	Wagner/Nowak
25-Apr	Thur	25	Management Plans Presentations & Written Assessment	Reader #20	Wagner/Nowak
30-Apr	Tue	26	Wrap-up & Synthesis - Critique of Student Presentations		Wagner/Nowak

			FOR370/570 Lab Schedule	Spring 2013	25-Jan-2013
Date	Day	Lab #	Topic	Reading Assignment	Lecturer
16-Jan	Wed	1	Dubuar Forest Management Plan/Allegheny National Forest Plan		Nowak/Wagner
23-Jan	Wed	2	Compounding & Discounting - Computer Lab (310 Baker)	29 - 44	Wagner
30-Jan	Wed	3	Growth and Yield - Computer Lab (310 Baker)	15 - 29; 75 - 102	Wagner
6-Feb	Wed	4	Stand Table Projections		Wagner
13-Feb	Wed	5	Growth Models - Computer Lab (310 Baker)	15 - 29; 75 - 102	Bevilacqua
20-Feb	Wed	6	Introduction to Linear Program - Computer Lab (310 Baker)	125 - 140; 141 - 162	Wagner
27-Feb	Wed	7	LP Harvest Schedule - Computer Lab (310 Baker)	125 - 140; 141 - 162	Wagner
6-Mar	Wed	8	Sensitivity Analysis (Graduate Students) - Computer Lab (310 Baker)		Wagner
13-Mar	Wed		<u>Spring Break</u>		
20-Mar	Wed	9	Spatial Analysis and LP I - Computer Lab (310 Baker)	58 - 74; 235 - 256; Reader #1 & #5	Bevilacqua/Wagner
27-Mar	Wed	10	Spatial Analysis and LP II - Computer Lab (310 Baker)	58 - 74; 235 - 256; Reader #1 & #5	Wagner/Bevilacqua
3-Apr	Wed	11	<i>Field Trip - Bob O'Brian</i>		Wagner/Davis
10-Apr	Wed	12	<i>Field Trip - John Gibbs (DEC)</i>		Wagner/Davis
17-Apr	Wed	13	<i>Field Trip - Sturgis Lot</i>		Wagner/Davis
24-Apr	Wed	14	Work on critique of management plans/presentations		Wagner/Nowak