

**FOR 4621/5626—FOREST ECONOMICS AND MANAGEMENT**  
**UNIVERSITY OF FLORIDA/IFAS/SFRC**

**Instructor:** Dr. Douglas R. Carter

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**Lectures:** WF, 9:35-11:30

**Recommended Text:** Davis, L.S., K.N. Johnson, P.S. Bettinger, and T.E. Howard. 2005. Forest Management to Sustain Ecological, Economic, and Social Values. 4th Edition. Waveland Press. 804 pp. (paperback edition).

**Additional readings:** as assigned.

**Course Description and Objectives:** Forest management decision making includes biological, ecological, economic, and social dimensions. A full curriculum in forest resource management is required to fully appreciate all of these perspectives. This course introduces you to one of those dimensions in some detail, that being the financial and economic aspects of forest management decision making, at both the stand and forest level. This course focuses in large part on timber management, using primarily pine plantation examples due to their prevalence in commercial timber markets in the southern U.S.

Some major topics covered in the course include: concepts of stand and forest growth and development, planning principles, growth and yield models, financial analysis, forest, timber, and nontimber valuation, and forest level timber harvest optimization within various constrained frameworks. Students will be able to analyze forest management alternatives using these tools, and be able to develop comprehensive forest harvest scheduling models.

## **COURSE STRUCTURE:**

This course is presented in a lecture format. Powerpoint presentations will be used in class as an enhancement to the lecture, but are not a substitute for good note taking. Powerpoint presentations will most likely be provided in class or via e-Learning website.

## **INSTRUCTOR EXPECTATIONS:**

To do well in this course, students should:

- Take notes and not rely on the Powerpoint presentations in their entirety
  - o I'll provide a rough outline, but you need to fill in the gaps
  - o Everything I say is important to know for the exams unless I say otherwise
- Always bring a calculator to class and work problems in class when requested
  - o Learning by doing
- When requested, bring a laptop to class
  - o You will use your laptop to run special programs like growth and yield models and learn optimization modeling techniques in Excel
- Pay special attention to doing well on take-home assignments
  - o Some assignments are time consuming, so don't wait till the last minute
- Ask questions of me whenever you feel you need to, please!
  - o If you don't ask questions, I must assume you understand me. I can't read minds!

## **GRADING:**

Grades will be based on a weighted combination of 3 exams, a series of take-home exercises, a midterm project, and a final project. The weights will be distributed as follows:

- 3 exams (60%)
- take-home exercises (15%)
- midterm project assignments (10%)
  - includes data collection field trip
- final project (15%)

Grades will be assigned based on the following percentages:

A	93+%	D+	67-69.99%
A-	90-92.99%	D	63-66.99%
B+	87-89.99%	D-	60-62.99%
B	83-86.99%	E	<60%
B-	80-82.99%		
C+	77-79.99%		
C	73-76.99%		
C-	70-72.99%		

### **COURSE POLICIES:**

#### ***SOFTWARE USE:***

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

#### ***YOUR ACADEMIC HONOR SYSTEM:***

In adopting this Honor Code, the students of the University of Florida recognize that academic honesty and integrity are fundamental values of the University community. Students who enroll at the University commit to holding themselves and their peers to the high standard of honor required by the Honor Code. Any individual who becomes aware of a violation of the Honor Code is bound by honor to take corrective action. A student-run Honor Court and faculty support are crucial to the success of the Honor Code. The quality of a University of Florida education is dependent upon community acceptance and enforcement of the Honor Code.

#### ***The Honor Code:***

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.

#### ***Pledge:***

On all work submitted for credit by students of the University of Florida, the following pledge is either required or implied: "***On my honor, I have neither given nor received unauthorized aid in doing this assignment.***" All students are required to abide by the Student Honor Code. Violations of this Academic Honor System will not be tolerated. Specifically, incidents of plagiarism of any type or incidents of referring to any unauthorized material during examinations will be rigorously pursued. Before submitting any work for this class, please read the academic honesty policies at <http://www.dso.ufl.edu/judicial/> and ask for clarification of any of its expectations that you do not understand.

## ***GATORLINK E-MAIL***

Students in this class are required to have and use their GatorLink E-mail address for all UF related e-mail functions. Official university communications and all communications for this class are sent to students at this e-mail address. Forwarding your GatorLink account to another e-mail account may result in important e-mails being rejected. Please visit <http://www.gatorlink.ufl.edu/> to obtain your account and for additional information. Points of information will often be sent via the FOR4621/5626 list-servs which is sent to your UF account. **All e-mail correspondence with Dr. Carter must be through your Gatorlink account.**

## ***ATTENDANCE***

Class attendance is required. Regular class attendance will assist you in meeting the objectives of this course. Make-up exams will be offered **ONLY** if your absence is a result of one of the following UF excused absences and **must be requested prior to the scheduled exam:**

**Required student participation in a University sponsored event:** These events will be excused with official documentation from the appropriate faculty or staff member. Documentation should be received **PRIOR** to the event;

**Religious Holidays:** Religious holidays are always excused; however, please notify the instructor, in writing, within the first two weeks of class so that appropriate accommodations may be made;

**Medical Emergencies:** Medical emergencies are excused with appropriate documentation from a health care provider;

**Family Emergencies:** These emergencies are only excused with written documentation.

## ***STUDENTS WITH DISABILITIES:***

The University of Florida provides high-quality services to students with disabilities, and we encourage you to take advantage of them. The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Appropriate documentation regarding the student's disability is necessary to obtain any reasonable accommodation or support service. Students with disabilities needing academic accommodations should 1) Register with and provide documentation to the Disability Resources Center (352-392-8565, Room 00001, Building 0020, Reid Hall) and 2) Bring a letter to the instructor from that office indicating that you need academic accommodations. Please do this as soon as possible, preferably within the first week of class.

### ***HELPING RESOURCES AT UF:***

Students experiencing crisis or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. Both the Counseling Center and Student Mental Health Services provide confidential counseling services at no cost for currently enrolled students. Resources are also available on campus for students lacking clear career and academic goals or students needing academic assistance.

1. Wellness Counseling: University Counseling Center, 301 Peabody Hall, 392.1575; [www.counsel.ufl.edu](http://www.counsel.ufl.edu)
2. Personal Counseling: Student Mental Health Services, Rm. 245 Student Health Care Center, 392-1171, [www.shcc.ufl.edu/smhs/](http://www.shcc.ufl.edu/smhs/) Includes: Alcohol and Substance Abuse Program (ASAP); Center for Sexual Assault / Abuse Recovery & Education (CARE); Eating Disorders Program; Employee Assistance Program; Suicide Prevention Program
3. Career Assistance: Career Resource Center, 1st Floor, Reitz Union; 392.1601; [www.crc.ufl.edu](http://www.crc.ufl.edu)
4. Academic Assistance: The Teaching Center, Ground-level Southwest Broward Hall <http://www.teachingcenter.ufl.edu>

### ***COURSE PROTOCOLS:***

**Classroom Demeanor:** I intend for classroom lectures and discussions to be held within a "light and cheerful" atmosphere. I welcome impromptu questions and interaction related to the subject matter of the course. However, students are expected to respect the dignity of the educational experience in the classroom at UF.

Notebook computers may not be used during class lectures unless requested by the instructor ahead of time. Cell phones should be turned off at the beginning of class, no text messaging during lectures, and if you choose to leave class to answer a phone call, do not bother to return. Sidebar conversations, **reading newspapers**, or other disruptive or distracting behavior will not be allowed.

**Assignments:** All take-home exercises are weighted equally. All assignments are due by class time on the scheduled due date unless otherwise specified. No late work will be accepted unless prior approval is given. A missed exam can be made up within one week of the original exam date if the student's absence is due to a University recognized excuse. Otherwise, the student will receive a grade of zero on the exam. It is the student's responsibility to see the instructor if problems arise with homework, projects, or missed exams.

I encourage students to work together on take-home exercises, since students tend to teach each other, but each student must turn in their own work. "Replications" of another student's work is not acceptable and will not receive a grade.

**Attendance:** Class attendance is required.

**Field Trips:** There is one scheduled half-day field trip in this course for data collection. Attendance is required.

**Computer Lab Facilities:** UF has several high quality personal computer labs available for students. Most assignments will be aided by the use of personal computers. Students should be adept at the use of commonly used word processing, graphics, and spreadsheet software such as Microsoft Excel, Microsoft Word, etc. Students should familiarize themselves with these facilities and software early in the semester, and/or "tag up" with more experienced students.

Students should rely upon either their own computers, or computers in McCarty Hall and Fifield Hall to complete their assignments. UF policy requires students to have their own personal computing capabilities.

Students must have access to Microsoft Excel and the "Solver" add-in to successfully complete assignments in this course.

**Field Visits:** If you are prone to irritations or allergies by mosquitoes, fireants, wasps, chiggers, ticks and poisonous plants, it is strongly recommended that you always use repellents and take precautions during and after each laboratory session. If you are allergic to insect bites, or if you have other medical conditions for which emergency treatment may be required, it is your responsibility to: (1) inform the instructors about the condition during the first day of class, (2) tell them where you keep your medicine; and (3) how to administer emergency treatment should the situation arise. Lyme disease, which may be contracted through tick bites, is a condition that all natural resource professionals should be knowledgeable of. While not fatal, it can be very painful and even debilitating. Therefore, it is your personal responsibility to wear protective clothing and repellents that will minimize your chances of contracting this disease -- even with these precautions, you should conduct a self-examination for ticks after each field session. (the above notice courtesy of Dr. Eric Jokela)

## Course Outline (Tentative—Subject to Modification)

Date	Lecture	Readings
Aug 24 <sup>th</sup>	Course Intro.	Chapters 1,2
Aug 26 <sup>th</sup>	Course Intro.	Chapter 3 (to page 81)
Aug 31 <sup>st</sup>	Land Classification	Chapter 3 (to page 81)
Sept 2 <sup>nd</sup>	Fundamentals of Structure, Growth and Development	Chapter 4
Sept 7 <sup>th</sup>	Fundamentals of Structure, Growth and Development	Chapter 4
Sept 9 <sup>th</sup>	Data Collection Lab	Field Work
Sept 14 <sup>th</sup> Sept 16 <sup>th</sup>	Growth and Yield Models	Chapter 5
Sept 21 <sup>st</sup> Sept 23 <sup>rd</sup>	Financial Analysis  *****Exam #1*****	Chapter 7
Sept 28 <sup>th</sup> Sept 30 <sup>th</sup>	Decision Criteria  Optimal Rotation Age	Handouts  Chapter 8 and Handouts
Oct 5 <sup>th</sup> Oct 7 <sup>th</sup>	Timber Valuation  Forest and Immature Stand Valuation	Chapter 8  Handouts
Oct 12 <sup>th</sup> Oct 14 <sup>th</sup>	Nonmarket Valuation  <b>TBA</b>	Chapter 8

Oct 19 <sup>th</sup> Oct 21 <sup>st</sup>	Classical Approaches to Planning—Area and Volume Control	Chapter 10
Oct 26 <sup>th</sup> Oct 28 <sup>th</sup>	Basics of LP	Chapter 6
Nov 2 <sup>nd</sup> Nov 4 <sup>th</sup>	**** Exam #2****  No Classes (Homecoming)	
Nov 9 <sup>th</sup> Nov 11 <sup>th</sup>	Timber Harvest Scheduling Using LP  No Classes (Veterans Day)	Chapter 11
Nov 16 <sup>th</sup> Nov 18 <sup>th</sup>	Timber Harvest Scheduling Using LP	Chapter 11
Nov 23 <sup>rd</sup> Nov 26 <sup>th</sup>	Modeling Spatial Constraints  No Classes (Thanksgiving)	
Nov 30 <sup>th</sup> Dec 2 <sup>nd</sup>	Timber Taxes  Final Project Presentations	Handouts
Dec 7 <sup>th</sup>	*****Exam #3*****	