ANALYSIS OF FOREST ECOSYSTEMS

FOR 6934

3 CREDIT HOURS

SPRING 2013

INSTRUCTOR: *Wendell Cropper*

Associate Professor

School of Forest Resources and Conservation

wcropper@ufl.edu

352-846-0859

OFFICE HOURS: *You can send email to the above address and I will try to get back to you within 24 hours. If you need to talk, we can arrange a time for a phone conversation.*

COURSE WEBSITE: *http://lss.at.ufl.edu*

REQUIRED TEXT: *No required text.*

ADDITIONAL RESOURCES: *Narrated power point modules with web links, and readings for each module can be found at http://lss.at.ufl.edu Download the free Wolfram CDF player at* http://www.wolfram.com/cdf/

COURSE DESCRIPTION: *Concepts of the ecosystem, the role of models for understanding ecosystem dynamics, disturbance regimes and stability theory, nutrient cycles and ecosystem energetics*

COURSE GOALS AND/OR OBJECTIVES: *This course is designed to provide an introduction to the ecosystem concept and methods of ecosystem analysis that are relevant to ecological restoration. The following performance goals are expected from the students:*

1. *Summarize and explain key concepts concerning ecosystem dynamics and applications of ecosystem theories.*
2. *Explain dynamic ecosystem models, understand how model outputs depend on parameters, and discuss possible applications of simulation models for management.*
3. *Critically evaluate scientific literature using ecosystem approaches.*

COURSE POLICIES:

Participation is critical for this course. Two important ways that you will participate involve **discussion threads** and **model discussions**. When a discussion thread is scheduled you should be prepared to summarize the main points of the paper(s) add commentary, and raise additional questions. A general discussion thread will always be open for other matters related to the power points or papers. There are a series of web based modeling exercises with specific questions from the power points. You should address those questions in the model discussions.

The major project of this course will be a **written paper that deals with a theoretical or applied aspect of ecosystem science related to forests**. The topic of your paper must be approved by the end of week 3. The literature review of your topic (usually incorporated in the final paper) will be due by the end of week 7.

UF POLICIES:

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES: Students requesting accommodation for disabilities must first register with the Dean of Students Office (http://www.dso.ufl.edu/drc/). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the

instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

UNIVERSITY POLICY ON ACADEMIC MISCONDUCT: Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at http://www.dso.ufl.edu/students.php.

****NETIQUETTE: COMMUNICATION COURTESY:** All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. [Describe what is expected and what will occur as a result of improper behavior] http://teach.ufl.edu/docs/NetiquetteGuideforOnlineCourses.pdf

GETTING HELP:

For issues with technical difficulties for E-learning in Sakai, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- https://lss.at.ufl.edu/help.shtml

** Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Other resources are available at http://www.distance.ufl.edu/getting-help for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints with your experience in this course please visit http://www.distance.ufl.edu/student-complaints to submit a complaint.

GRADING POLICIES:

Late work will be penalized 5 points per day.

Assignment	Points or percentage
Paper Discussions	4 @ 5 points 20
Model Wikis	4 @ 5 points 20
Literature Review (on approved topic)	20
Paper (on approved topic)	35
Paper Summary on VoiceThread	5

GRADING SCALE: *For more information, see:* http://www.isis.ufl.edu/minusgrades.html*]*

Letter grades will be assigned as follows:

Letter Grade	***Numeric Value***
A	93-100
A-	90-92
B+	86-89
B	83-85
B-	80-82
C+	76-79
C	73-75
C-	70-72
D+	66-69
D	63-65
D-	60-62
E	<60

COURSE SCHEDULE:

Week	Topic	Reading	Assignment
1	Ecosystem Concept	Pickett and Cadenasso 2002	Discuss paper
2	Philosophy of Models	Peck 2004	

3	Simulation	Loudermilk et al. 2011	Get approval for paper topic Model Wiki
4	Stability Concepts	Traill et al. 2010	
5	Stability Concepts	Harwell et al. 1977	Model Wiki
6	Alternate Stable States	Beckage et al. 2009	Discuss paper
7	Chaotic Dynamics	Pool 1989	Literature Review Model Wiki
8	Disturbance Regimes	Papaik et al. 2010	
9	Nutrient Cycling	Garcia-Montiel et al. 2001	Discuss paper
10	Nutrients and Competition	Huston and DeAngelis 1994	Model Wiki
11	Trophic dynamics and Energetics	Pace et al. 1999 Teskey et al. 1994	
12	Eddy Flux	Powell et al. 2008	Discuss paper
13	Global Ecology	Finzi et al. 2011	
14	Ecosystem Research Networks	LTER Brochure Neon Breaks Ground Neon Strategy	Final paper due VoiceThread Summary due

Disclaimer: This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.