# NR4 - Forest Ecosystems

Course Syllabus for Spring 2010 Lecture MW 1:00-1:50 Lab: M: 2:00-4:50

Instructor: Rob Cannell

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Books: "Biology, a Guide to the Natural World", Krogh, Custom Core

Edition. (Required)

Course Objectives: Students will gain an understanding of basic biological principles, which will serve as building blocks in the comprehension of forest ecosystem structure and processes.

#### Tentative Schedule

Week 1	Lecture (M) Characteristics of Life (1) (W) Cells, building blocks of life (2,4)	Lab (1) Scientific method, Field observations
Week 2	<ul><li>(M) Cells, building blocks of life (2,4)</li><li>(W) Osmosis, diffusion (5)</li></ul>	(2) The cell
Week 3	<ul><li>(M) Energy and cellular respiration (6,7)</li><li>(W) Photosynthesis (8)</li></ul>	(3) Classification and keys
Week 4	<ul><li>(M) Cell Division (9)</li><li>(W) Cell division (9)</li></ul>	(4) Photosynthesis and LAI
Week 5	<ul><li>(M) Genetics (11)</li><li>(W) Inheritance, Biotechnology (12,15)</li></ul>	(5) Genetics
Week 6	(M) Evolution (16) (W) Exam 1	(6) Research
Week 7	<ul><li>(M) Evolution (16)</li><li>(W) Microevolution (17)</li></ul>	(7) Evolution
Week 8	(T) Macroevolution (18) (Th) Earth history (19)	(8) Forest measurements I

Week 9	<ul><li>(M) Flowering plant structure (23)</li><li>(W) Plant function (24)</li></ul>	(9) Data collection II (FT)	
Week 10	<ul><li>(M) Population Ecology (31)</li><li>(W) Population ecology (31)</li></ul>	(10) Plant/Animal Classification	
Week 11	<ul><li>(M) Community Ecology (31)</li><li>(W) Exam 2</li></ul>	(11) Ecology scavenger hunt (FT)	
Week 12	<ul><li>(M) Forest succession (31)</li><li>(W) Ecosystems, biosphere (32)</li></ul>	(12) Calculations, scientific lab reports	
Week 13	<ul><li>(M) Nutrient cycling (32)</li><li>(W) CA plant communities</li></ul>	(13) Plant communities (FT)	
Week 14	<ul><li>(M) Physical environment (32)</li><li>(W) Physical environment (32)</li></ul>	(14) Pattern analysis	
Week 15	(M) Exam 3	(15) Soil and Erosion	
Week 16	<ul><li>(M) SN history</li><li>(W) Global forest issues</li></ul>	(16) Presentations	
Week 17	(M) Fire ecology (W) Review	(17) Presentations	
Week 18	Final Exam TBA		

If you have a need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act(ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible.

## Attendance and Grading Policy:

If you miss a lecture, you are responsible for obtaining notes from a classmate. The success of this or of any class depends on the presence and active participation of each student. Therefore, you are expected to attend every class. Your attendance record will be considered when assigning your final grade.

Individual exam grades may be curved and final grades will be assigned based on a straight percentage system according to the following scale:

Course Grade	<b>Cumulative Percent</b>		
Α	90-100		
В	80-89		
С	70-79		
D	60-69		
F	< <b>5</b> 9		

## Breakdown of Grades

Total	630 Points
Final Exam	<u> 125</u>
Participation	25
Ecology Presentation	50
Lab Assignments (12 @ 20 pts.)	240
Exams (3 @ 100 pts.)	300

### Field Trips:

There may be several required field trips taken during the semester. These trips will generally be taken during scheduled lab times but we may return to the college after 5:00pm on occasion. Field trips and labs will happen rain or shine so come prepared for the worst possible weather situations.

Always come prepared to go outside during lab. My definition of "Being Prepared" means to wear hiking boots or work boots, wear long pants, and to bring other items such as water, bug repellent, rain gear (even if there is a slight chance of rain), and plenty of warm clothes.

<u>One final note</u>: Please be certain that your pagers and cell phones are turned off during class time. Failure to follow this procedure may result in removal from class for the day. Thank you.