NR4 –52457 and 52458 Forest Ecosystems

Course Syllabus for Fall 2012

Lecture T/Th 1:00-1:50

# Lab: T/Th 2:00-4:50

**Instructor**: Jennifer Phillips, M.S.

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Office: FEM 10

Office Hour: Th 11-12:00pm, or by appointment

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**Books**: “Biology, a Guide to the Natural World”, Krogh. (Required)

You may buy a new or used copy, or use the ebook version. If you need extra help, I recommend buying the book with Mastering Biology CD bundled with it.

Biology: A Guide to the Natural World, CourseSmart eTextbook, 5/E  
Krogh  
©2011  |  Benjamin Cummings  |  Electronic Book; 856 pp  |  Available  
ISBN-10: 0321682823  |  ISBN-13: 9780321682826  
**Online purchase price:** $69.35-$75.00

<http://www.mypearsonstore.com/bookstore/product.asp?isbn=0321682823>

\*\*\*\*The **lab book** is also required and available in the bookstore for a couple of dollars. All lab activities are due that day unless otherwise stated (20pts each). \*\*\*\*

**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: \*classes may be shifted\*

**Lecture**

**Week 1** (T 8/14) Characteristics of Life (1)   
(Th 8/16) Cells, building blocks of life (4)

**Week 2** (T 8/21) Cells, building blocks of life continued

(Th 8/23) Osmosis, diffusion (5)

**Week 3** (T 8/28) Energy and cellular respiration (7)

(Th 8/30) Energy and cellular respiration continued

**Week 4** (T 9/4) Photosynthesis (7)

(Th 9/6) Photosynthesis continued

**Week 5** (T 9/11) **Exam 1 (no labs this week!)**

(Th 9/13) **No class!**

**Week 6** (T 9/18) Cell Division (9)

(Th 9/20) Cell Division continued

**Week 7** (T 9/25) Genetics   
(Th 9/27) Inheritance

**Week 8** (T 10/2) Biotechnology

(Th 10/4) Evolution (16)

**Week 9** (T 10/9) Microevolution **(Library lab for everyone?!)**  
(Th 10/11) **No Class!**

**Week 10** (T 10/16) Macroevolution

(Th 10/18) **Exam 2!**

**Week 11** (T 10/23) Earth history (19)

(Th 10/25) Flowering plant structure (25)

**Week 12** (T 10/30) Plant function (25)

(Th 11/1) Plant function continued

**Week 13** (T 11/6) Population Ecology (34)

(Th 11/8) Community Ecology (35)

**Week 14** (T 11/13) Forest succession (35)

(Th 11/15) Ecosystems, biosphere (36)

**Week 15** (T 11/20) **Exam 3 (no labs this week)**

(T 11/22) **Thanksgiving, no class!**

**Week 16** (T 11/27) Nutrient cycling, Physical environment

(Th 11/29) Sierra Nevada history

**Week 17** (T 12/4) ) Forest disease

(Th 12/6) Fire Ecology

**Week 18** (T 12/10-Th 12/14) FINALS WEEK!!!

**Final Exam December 13, 1:00-2:50pm**

**Accommodations for students with disabilities:** 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, if you are on the borderline.

If you must be absent during a lab or exam, you must notify me well in advance.  **If you contact me after the exam, you will not be allowed to make it up.** You may make up a lab on the alternate lab time for the week, but otherwise, most labs are too difficult to make up at a later time.

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** **Cumulative Percent**

A 90-100

B 80-89

C 70-79

D 60-69

F < 59

Breakdown of Grades

Exams (3 @ 100 pts.) Lowest dropped 200

Lab Assignments (15 @ 20 pts.) 300

Final Exam 125

###### Total 625 Points

**One final note**: Please be certain that your **cell phones are turned off** during class time.

**Academic Dishonesty Policy**

“Because cheating, plagiarism, and collusion in dishonest activities erode the integrity of the college, each student is expected to exert an entirely honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences.”

**Deadline to drop is the end of 9th week.**

**Lab schedule (subject to change):**

Lab 1. Observation and the scientific method

Lab 2. Cell Lab

Lab 3. Taxonomic Keys

Lab 4. Morphological Analysis of Terrestrial Plants: The Leaf and LAI

Lab 5. Stems, Roots and Leaves

Lab 6. Genetics

Lab 7. Library Research Lab

Lab 8. Forest Conservation Days at Sequoia Lake

Lab 9. Flatland: Predator/Prey/Evolution

Lab 10. Forest Structure Calculations

Lab 11. Forest Disease Lab

Lab 12. Pattern Analysis in Communities

Lab 13. Forest Soils

Lab 14. Ecology Scavenger Hunt

Lab 15. Ecology Presentation in Powerpoint Format