NR4 – 50032,50033 Forest Ecosystems

Course Syllabus for Fall 2011

Lecture TTh 1:00-1:50

# Lab: T or TH: 2:00-4:50

**Instructor**: Julie Constable

Phone: (559) 638-3641 Ext.3525,

or (559) 903-8772 to text a message.

Office: FEM 10

Office Hours: MWF 12-1:00pm, or by appointment

Email: julie.constable@reedleycollege.edu

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

You may buy a new or used copy, or use the ebook version.

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

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

**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

**Lecture**

**Week 1** (T 8/16) Characteristics of Life (1)   
(Th 8/18) Cells, building blocks of life (2,(3),4)

**Week 2** (T 8/23) Cells, building blocks of life (2,(3),4)

(Th 8/25) Osmosis, diffusion (5)

**Week 3** (T 8/30) Energy and cellular respiration (6,7)

(Th 9/1) Energy and cellular respiration (6,7)

**Week 4** (T 9/6) Photosynthesis (8)

(Th 9/8) Photosynthesis (8)

**Week 5** **(T 9/13) Exam 1. NO LAB.**

**(Th 9/15)** **NO CLASS.** **Intro to Fieldwork at Sequoia**

**Week 6** (T 9/20) Cell Division (9)

(Th 9/22)Genetics (11)

**Week 7** (T 9/27) Inheritance, Biotechnology (12,15)   
(Th 9/29) Evolution (16)

**Week 8** (T 10/4) Microevolution (17)

(Th 10/6) Macroevolution (18)

**Week 9** **(T 10/11)** **Exam 2 . NO LAB.**   
**(Th 10/13) NO CLASS. Forest Field Study at Sequoia**

**Week 10** (T 10/18) Earth history (19)

(Th 10/20) Flowering plant structure (23)

**Week 11** (T 10/25) Plant function (24)

(Th 10/27) Population Ecology (31)

**Week 12** (T 11/1) Community Ecology (31)

(Th 11/3) Forest succession (31)

**Week 13** (T 11/8) CA plant communities

**(Th 11/10)** **Exam 3**

**Week 14** (T 11/15) Ecosystems, biosphere (32)

(Th 11/17) Nutrient cycling, Physical environment (32)

**Week 15** (T 11/22) Sierra Nevada history. **NO LAB**

**(Th 11/24) Thanksgiving Holiday**

**Week 16** (T 11/29) Forest disease

(Th 12/1) Global forest issues

**Week 17** (T 12/6) Fire ecology

(Th 12/8) Review

**Week 18 Final Exam Tu 12/13 (1 – 2:50)**

**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.) 300

Lab Assignments (16 @ 20 pts.) 320

Participation 30

Final Exam 125

###### Total 775 Points

**One final note**: Please be certain that your **pagers and 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.”

**Final drop date:** 10/14. Last day to drop for refund is 8/26. Last day to drop to avoid a “W” is 9/02.

**Lab schedule:**

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. Chromatography

Lab 7. Genetics

Lab 8. Library Research Lab

Lab 9. Flatland: Predator/Prey/Evolution

Lab 10. Forest Structure Calculations

Lab 11. Forest Disease Lab

Lab 12. Ecology Scavenger Hunt

Lab 13. Pattern Analysis in Communities

Lab 14. Forest Soils

Lab 15. Ecology Presentation in Powerpoint Format (40 pts.)