Field and Lab Ecology
BIOL 3114

Spring 2010, Index No. 11008 (Thur) and 11007 (Fri)

Tentative

Time and Place: 2:00 - 4:50 Thursday, Friday, 1065 Derring

Instructor: Dr. J. R. Webster, 1000 Derring (231-8941, jwebster@vt.edu)

Teaching Assistant: Erika Kratzer (ekratzer@vt.edu)

Project Reports: Each student will be required to turn in a report on each project one week (or the next class) after completion of the project. This usually includes graphs, statistical calculations, and brief discussion. These reports are given a grade from 0 to 10, though 10's are extremely rare (given only for exceptional, above-and-beyond-expectations reports). Grades are reduced 1 point per week for late submission. If you get less than 8, you can resubmit, but 8 is maximum for a resubmission. Resubmissions are due one week after the reports are returned to you, and the maximum grade on a resubmission is reduced 1 point per week. **You must turn in your previous version with any resubmission.**

Journal/Field Notebook: Buy a waterproof field notebook for use in this course. You will be expected to use it for taking notes and recording data on all field trips. It will be checked periodically and turned in at the last class. It will be graded and count as one project report. Journals will be turned in for checking on 19, 20 Feb and 19, 20 Mar.

Grade		
	Project reports	60% (We will drop your lowest project grade)
	Assignments	10%
	Final exam	20%
	Class participation	10% (see note below)

Prerequisites: Ecology (co-requisite). Knowledge of statistics and facility with computers are also useful.

Schedule (TENTATIVE):

21, 22 Jan	Plant competition I; Leaf decomposition I; Statistics and graphics
28, 29 Jan	Leaf decomposition II; Human population demography I (field trip)
4, 5 Feb	Human demography II
11, 12 Feb	Ecosystem response to stress I (field trip)
18, 19 Feb	Ecosystem response to stress II
25, 26 Feb	Vegetation analysis I (field trip)
4, 5 Mar	Vegetation analysis II
18, 19 Mar	Population estimation I (field trip)
25, 26 Mar	Animal energetics I, Population estimation II, Plant competition II
1-2 Apr	Population dispersion (field trip), Animal energetics II
9-11 Apr	Weekend field trip to Coweeta and Great Smoky Mountains Depart 12:00 noon Friday, return late Sunday (no regular class meetings)
15-17 Apr	Weekend field trip to Eastern Shore of Virginia Depart 10:45 a.m. on Thursday, return late Saturday (no regular class meetings)
22, 23 Apr	Leaf decomposition III (field trip)
29, 30 Apr	Data analysis from weekend field trips.
10 May	Final exam: 12:00-5:00 (Be sure you are available for 2 hours sometime during that morning)

Notes:

You are expected to participate in at least one of the two weekend field trips, and you are encouraged to go on both if room is available in the vans. If you miss both, you will lose the full 10 point class participation grade.

Class attendance is expected. You are required to turn in all project reports (except the one we drop), so if you miss a class, it is up to you to get the information needed for the project report.

On field trip days, come prepared to be out in the weather. Hip boots or waders would be useful for some of the field trips including the Eastern Shore weekend field trip. On normal field trip days, meet in the lab. On weekend field trips, meet at the northeast end of Derring. Don't be late! On days when we are working in the lab, bring a memory stick to store your data and lab reports (or use filebox or **bring your own laptop computer**).

You will be expected to learn the common forest trees of this area, the common birds and mammals that we see on our field trips, and some of the important exotic plants and animals in this area. It would be very helpful if you bring a pair of binoculars on all field trips.

Alcoholic beverages will not be allowed on any field trip. The Island House bar will be strictly off limits. No exceptions – please don't even ask.

This course operates on the Virginia Tech Honor Code.

Objectives of Field and Lab Ecology:

1. Reinforce principles learned in general ecology.
2. Provide an opportunity to visit a variety of ecosystems.
3. Give students hands-on experience in techniques for quantifying various ecological parameters.
4. Teach students to summarize, display, and interpret ecological data. Students should be able to use a computer spreadsheet for simple data manipulations, make tables using word processing software, and use a computer to make figures.
5. Teach students the application of simple statistics to ecological data. Students should be able to apply descriptive statistics (mean, standard error) and basic statistical tests (t-test, regression, correlation, analysis of variance). Students should also know appropriate statistical tests to use in specific situations.

The most important thing you can do to be sure we accomplish these objectives is to pay attention. If you did not get a 9 on a report, be sure you know why. Read e-mails from me and our TA. Check Scholar for announcements and handouts. Pay attention in class.