
Syllabus: Forest Ecology

BIOSC 1160
Dr. Walter P. Carson
TA: Will Brogan
Summer 2011

Course requirements:

I. Two scientific papers and one class presentation

1. Allegheny National Forest scientific paper – May 17 (30%).
2. Class presentation of your Independent Project – May 26 (10%).
3. Independent Project scientific paper – May 27 (35%).

Note: You may work alone or in pairs on each assignment. Students may choose to hand in one co-authored paper.

II. Final exam:

Final exam – May 27th (25%). You are responsible for information presented during all field trips, all lectures, and all the chapters in the textbook.

Late assignments handed in after the deadline immediately lose one letter grade, followed by the loss of one additional letter grade per day.

Text: Yahner, Richard. 2000. Eastern Deciduous Forest: Ecology and Wildlife Conservation. University of Minnesota Press, 2nd Edition. *You are required to read this book cover to cover.*

Meeting place: The vans will leave the housing site at 8:45 am. Unless otherwise specified on the syllabus. Commuters should go directly to the main office site.

Schedule

Monday, May 9:

9:00 am – 9:30 am	Introduction to PLE by the Director, Dr. Rick Relyea
9:30 am – 12:00 am	1. Introduction to the course. 2. What are hypotheses and what are experiments: learning to ask field based scientific questions.
1:15 pm – 3:00 pm	Exercise: What has caused eastern forests to change over the last 150 years?
3:00 pm – 5:00 pm	Work on Independent Projects.
7:00 pm – 9:00 pm	Meetings with Will Brogan and Dr. Carson in the dining hall on Independent Projects. Everyone should schedule 20-minute appointments.

Tuesday, May 10:

- 9:00 am – 12:00 pm Ecology of the eastern deciduous forest
- 1:00 pm – 3:00 pm Introduction to Statistics Part I and II
- 3:30 pm - 5:00 pm Independent Projects
- Tuesday evening: Will Brogan will be available to work with students in the dining hall

Wednesday, May 11:

- 8:00 am – 10:30 am Depart from dining hall for Allegheny National Forest.
- 10:30 am – 12:00 pm Field excursion: Heart's Content old growth forest.
- 1:00 pm – 4:30 pm Field excursion: Tionesta Scenic Area and refugia gardens.
- 4:30 pm – 6:00 pm Seminar: The Ecology of Forest Birds, Dr. Scott Stoleson, U. S. Forest Service.
- 7:30 pm – 8:30 pm Seminar: The Ecology of Herbaceous Forest Species, Dr. Todd Risteau, U. S. Forest Service.

Thursday, May 12:

- 9:00 am – 10:00 am Seminar: The Dynamics of Forest Herbs in the Monongahela National Forest, West Virginia, Dr. Alex Royo, U. S. Forest Service.
- 11:30 am – 9:00 pm Field excursion: The implications of 60 years of deer exclusion on insect abundance and diversity in north central Pennsylvania. We will sort and count the insects after collecting them in nets.

Friday, May 13:

- 9:00 am – 10:00 am Lecture: Trophic ricochets in overbrowsed forests.
- 10:30 pm – 2:30 pm Return to PLE.
- Have a nice weekend!

Saturday and Sunday, May 14-15:

Homework: Work on Independent Projects. Will Brogan will be available on and off to work with students. It is critical that you use this time wisely.

Monday May 16:

All Day Work on Allegheny National Forest scientific paper.

7:00 pm – 10:00 pm Will Brogan will be available to answer questions about the Allegheny National Forest scientific paper.

Tuesday, May 17:

9:00 am – 12:00 pm Work on Allegheny National Forest scientific paper.

Allegheny National Forest paper due Tuesday, may 17 at noon.

1:00 pm – 4:00 pm Field Excursion and Lecture: The Ecology and Restoration of Stream Riparian Zones. Brian Pilarcik, Crawford County Conservation District.

Wednesday, May 18:

All Day Work on Independent Projects.

7:30 pm - 8:30 pm Seminar: Dr. Dan Johnson, Ohio University. Leaves as safety valves: Does leaf embolism protect the hydraulic pipeline in plants?

Thursday, May 19:

9:00 am – 10:15 am Lecture: Dr. Dan Johnson: Plant ecophysiology.

10:15 – 1:00 pm Field trip: Tryon Webber Woods, beech-maple old-growth forest.

1:00 pm – 5:00 pm Work on Independent Projects.

Friday, May 20:

9:00 am – 12:00 pm The Private Life of Plants and Chemistry of a Forest.

1:00 pm – 5:00 pm Independent Projects.

Saturday and Sunday June 12-13:

Homework: Work on Independent Projects, read textbook and study for final exam. Will Brogan will be available to meet on and off all weekend.

Monday, May 23:

7:00 am – 12:00 pm Leave for Monongahela National Forest, West Virginia. Depart from dining hall area.

12:00 pm – 4:00 pm Field excursion and lecture: Experimental Studies of Eutrophication at the Fernow Experiment Station, Dr. Beth Adams, US Forest Service.

Tuesday, May 24:

8:00 am – 12:00 pm Field excursion: The Ecology of fire and logging on the Allegheny National Forest, Dr. Tom Schuler and Melissa Thomas-Van Gundy, US Forest Service.

1:00 pm – 6:00 pm Return to PLE.

Wednesday, June 16:

9:00 am – 5:00 pm Work on Independent Projects, class presentations and study for final exam.

Thursday, June 17:

9:00 am – 12:00 pm Work on Independent Projects and class presentations.

1:00 am – 4:00 pm Class presentations.

Friday, June 18:

10:00 am – 12:00 pm Final Exam.

Independent Project paper due Friday, June 18th at 3:00 pm.