

**BIO 85.2 Course Outline as of Fall 2009****CATALOG INFORMATION**

Dept and Nbr: BIO 85.2      Title: PEPPERWOOD- BIOTIC ENVT  
 Full Title: Pepperwood Natural History- Biotic Environment  
 Last Reviewed: 9/14/2020

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	2.00	Lecture Scheduled	1.50	17.5	Lecture Scheduled	26.25
Minimum	2.00	Lab Scheduled	0	8	Lab Scheduled	0
		Contact DHR	1.50		Contact DHR	26.25
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 52.50

Total Student Learning Hours: 105.00

Title 5 Category: AA Degree Applicable

Grading: Grade or P/NP

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As: ERTHS 85.2

Formerly:

**Catalog Description:**

A survey of the natural history of the Pepperwood Preserve, emphasizing the flora, fauna, and ecology (offered Spring semester only). Laboratory hours are primarily in the field and will include hiking over uneven terrain. This course (along with BIO/ERTHS 85.1) is a component of the Pepperwood Preserve Steward training program

**Prerequisites/Corequisites:****Recommended Preparation:**

Eligibility for ENGL 1A or equivalent

**Limits on Enrollment:****Schedule of Classes Information:**

Description: A survey of the natural history of the Pepperwood Preserve, emphasizing the flora, fauna, and ecology (offered Spring semester only). Laboratory hours are primarily in the field and will include hiking over uneven terrain. This course (along with BIO/ERTHS 85.1) is a component of the Pepperwood Preserve Steward training program. (Grade or P/NP)

Prerequisites/Corequisites:

Recommended: Eligibility for ENGL 1A or equivalent  
Limits on Enrollment:  
Transfer Credit: CSU;  
Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>	Effective:	Inactive:
<b>CSU GE:</b>	<b>Transfer Area</b>	Effective:	Inactive:
<b>IGETC:</b>	<b>Transfer Area</b>	Effective:	Inactive:
<b>CSU Transfer:</b>	Transferable	Effective: Fall 2009	Inactive:
<b>UC Transfer:</b>		Effective:	Inactive:

**CID:**

**Certificate/Major Applicable:**

Major Applicable Course

## **COURSE CONTENT**

### **Outcomes and Objectives:**

Upon successful completion of the course, students will be able to:

1. Explain the discipline and scope of natural history.
2. Interpret the land use and natural history of the Pepperwood Preserve.
3. Orient themselves to the geography of the Pepperwood Preserve.
4. Record field observations in a field notebook.
5. Integrate and differentiate the ecological and adaptive characteristics of riparian and wetland ecosystems, woodlands and forests.
6. Evaluate and differentiate the ecological and adaptive traits of wildflowers, vertebrates and invertebrates, and identify a selection of common species.
7. Employ and interpret techniques for sampling and monitoring flora and fauna.
8. Demonstrate naturalist and/or land steward skills.

### **Topics and Scope:**

#### **I. Introduction to Natural History**

- A. The discipline of natural history and the scientific method
- B. Natural history of Pepperwood
  1. Overview of regional and local history at Pepperwood
  2. Land use history at Pepperwood
  3. Orientation to the preserve
- C. Writing a field notebook

#### **II. Community Ecology**

- A. Overview of species interactions, adaptation, and the ecological niche
- B. Vegetation factors
  1. Components of community structure
  2. Ecosystem function
- C. Plant communities at Pepperwood

- D. Management issues at Pepperwood
- III. Plants
  - A. General characteristics of plants
  - B. Overview of major taxonomic groups
  - C. Seed plants: morphology and reproduction
  - D. Common plants at Pepperwood
  - E. Evolutionary processes in wildflowers
- IV. Animals
  - A. General characteristics of animals
  - B. Overview of major taxonomic groups, emphasizing terrestrial arthropods and chordates
  - C. Animal adaptations to life on land
  - D. Common animals at Pepperwood
  - E. Methods of observing and identifying animals
- V. Methods of Natural History Interpretation
  - A. Effective oral communication for target audience
  - B. Use of demonstration materials
  - C. Planning of interpretation event for target audience

### Assignment:

1. Reading from selected journal papers and texts: 20-30 pages per week
2. Quizzes: (3- 5) multiple choice and short answer questions
3. Oral presentation demonstrating skills as a natural history interpreter
4. Completion of a field notebook
5. Final exam: multiple choice and short answer questions

### Methods of Evaluation/Basis of Grade:

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Field notebook

Writing  
20 - 40%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

None

Problem solving  
0 - 0%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Oral presentation

Skill Demonstrations  
10 - 20%

**Exams:** All forms of formal testing, other than skill performance exams.

Quizzes and final exam

Exams  
40 - 50%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

Participation and attendance
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Other Category 10 - 20%
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**Representative Textbooks and Materials:**

An Island called California, Bakker, E., University of California Press, 1984 (classic)

A Natural History of California, Schoenherr, A.A., University of California Press, 1992 (classic)

The Sibley Field Guide to Birds of Western North America, Sibley, D.A., Knopf Publishing, 2003

Trees and Shrubs of California Coast (California Natural History Guides, 62), Stuart, J.D., and J.O. Sawyer, University of California Press, 2001

Introduction to California Plant Life (California Natural History Guides, 69), Ornduff, R., et al., University of California Press, 2003

Spring Wildflowers of California of the Foothills, Valley and Coast (California Natural History Guides, 75), Munz, P.A., University of California Press, 2004

Mammals of California (California Natural History Guides, 66), Jameson, E.W., and Peeters, H.J., University of California Press, 2004