

**BOTANY 60 Course Outline as of Fall 2012****CATALOG INFORMATION**

Dept and Nbr: BOTANY 60 Title: FIELD BOTANY

Full Title: Field Botany

Last Reviewed: 1/28/2019

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	4.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	4.00	Lab Scheduled	3.00	17	Lab Scheduled	52.50
		Contact DHR	0		Contact DHR	0
		Contact Total	6.00		Contact Total	105.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00

Total Student Learning Hours: 210.00

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:

Formerly: BOTANY 30A

**Catalog Description:**

Survey of the vegetation and flora of Northern California. Includes the identification and ecology of species that are representative of local plant communities. Field trips required.

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

Completion of or concurrent enrollment in ENGL 100 or ESL 100.

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

Description: Survey of the vegetation and flora of Northern California. Includes the identification and ecology of species that are representative of local plant communities. Field trips required. (Grade or P/NP)

Prerequisites/Corequisites:

Recommended: Completion of or concurrent enrollment in ENGL 100 or ESL 100.

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:
	C	Natural Sciences	Fall 1981	
<b>CSU GE:</b>	<b>Transfer Area</b>		Effective:	Inactive:
	B2	Life Science	Fall 1981	
	B3	Laboratory Activity		
<b>IGETC:</b>	<b>Transfer Area</b>		Effective:	Inactive:
<b>CSU Transfer:</b>	Transferable	Effective:	Fall 1981	Inactive:
<b>UC Transfer:</b>		Effective:		Inactive:

### **CID:**

### **Certificate/Major Applicable:**

Major Applicable Course

## **COURSE CONTENT**

### **Outcomes and Objectives:**

Upon completion of this course students will be able to:

1. Use principles of plant classification.
2. Describe basic vegetative and reproductive morphology of seed plants, including associated vocabulary.
3. Evaluate the environmental factors influencing plant distribution.
4. Describe the physiography and climate of California.
5. Describe the geological history, evolution and adaptation of the California flora and vegetation.
6. Examine the principles of ecological succession.
7. Identify the major vegetation types (communities) of California, including the ecology and taxonomy of the dominant component species.
8. Recognize major plant families represented in the California flora.
9. Demonstrate methods of vegetation classification, plant identification and vegetative survey assessment.

### **Topics and Scope:**

Topics and Scope:

#### I. Introduction

- A. Scientific inquiry and the scientific method
- B. Influence of this discipline on world civilizations
- C. Plant diversity and classification

#### II. Plant biology

- A. Basic vegetative morphology of seed plants
- B. Reproductive biology and adaptations of seed plants
- C. Plant ecology: distribution and evolution

#### III. California ecology

- A. California environment: physiography, climate, geology

- B. Factors influencing plant distribution in California
  - 1. Environmental tolerances
  - 2. Evolutionary history
- C. Major evolutionary trends in California flora and vegetation
- D. Development of current vegetation patterns: role of ecological succession
- E. Major Northern California vegetation types
  - 1. Coastal grasslands and scrublands
  - 2. Coastal forests
  - 3. Woodlands
  - 4. Chaparral
  - 5. Riparian and wetland
  - 6. Montane
- IV. California flora
  - A. Principal families of the California flora
  - B. Identification of dominant species of perennials and wildflowers
    - 1. Sonoma County
    - 2. The North Bay
- V. Major methods of floristic study
  - A. Floristic and vegetational analysis
  - B. Plant identification
    - 1. Herbaria
    - 2. Dichotomous keys
- VI. Laboratory Exercises
  - A. Plant identification
  - B. Plant collection
  - C. Field survey

**Assignment:**

1. Read text and other assigned reading, approximately 20 pages per week
2. Response papers (2): summaries and analysis of assigned readings, 3-4 pages each
3. Prepare plant collection
4. Plant identification practical
5. Conduct field survey and analysis
6. Assessment: quizzes (3); midterm and final exam with objective and essay 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.

Response papers
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Writing 10 - 30%
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**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.

Field work, plant collection, plant identification practical

Skill Demonstrations  
30 - 40%

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

Multiple choice, completion, written response, essay

Exams  
40 - 60%

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

None

Other Category  
0 - 0%

**Representative Textbooks and Materials:**

California's Changing Landscapes: Diversity And Conservation Of California Vegetation, Barbour, M. et al, 1993, CNPS (Classic)

Plants Of The San Francisco Bay Region, Beidleman, L. and Kozloff, E., 2003, UC Press.(revised edition) (Classic)

Introduction To California Plant Life, Ornduff, R. et al., revised edition 2003, UC Press (Classic)

California Plant Families: West Of The Sierran Crest And Deserts, Keator, G, 2009, UC Press