BOTANY 60 Course Outline as of Fall 2019

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	8	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:

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:
Limits on Enrollment:
Transfer Credit: CSU;

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

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**		Effective:	Inactive:
	C	Natural Sciences	Fall 1981	
CSU GE:	**Transfer Area**		Effective:	Inactive:
	B2	Life Science	Fall 1981	
	B3	Laboratory Activity		
IGETC:	**Transfer Area**		Effective:	Inactive:

CSU Transfer:	Transferable	Effective:	Fall 1981	Inactive:
UC Transfer:		Effective:		Inactive:

CID:

Certificate/Major Applicable:
Both Certificate and Major Applicable

COURSE CONTENT

Student Learning Outcomes:
At the conclusion of this course, the student should be able to:
1. Use vegetative and reproductive morphology to identify plants based on their taxonomic groupings.
2. Synthesize knowledge of evolution, ecology, and natural history with distribution of local flora and vegetation types.
3. Apply knowledge of flora and vegetation types towards an understanding of local and regional environmental issues.

Objectives:
During this course, students will:
1. Use principles of plant classification.
2. Describe basic vegetative and reproductive morphology of seed plants using scientific 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 plant 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:

I. Introduction
   A. Scientific inquiry and the scientific method

B. 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, disturbance
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

All topics are covered in the lecture and lab portions of the course.

Assignment:

Lecture-Related Assignments:
1. Assigned reading, approximately 20 pages per week
2. Written papers (0-2), 3-4 pages each

Lecture- and Lab-Related Assignments:
1. Quizzes (1-5)
2. Exams (1-4)

Lab-Related Assignments:
1. Preparation of plant collection and/or completion of field journal
2. Lab practical exams, including plant identification (1-3)
3. Conduct field survey and analysis

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.

Written papers	Writing 0 - 30%

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, field journal, plant identification practical	Skill Demonstrations 30 - 50%

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

Quizzes and exams	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 Plants: A Guide to Our Iconic Flora. Ritter, Matt. Pacific Street Publishing. 2018
California's Botanical Landscapes. Barbour, Michael and Evens, Julie and Keller-Wolf, Todd. California Native Plant Society. 2016
Plants of the San Francisco Bay Region: Mendocino to Monterey. 3rd edition. Beidleman, Linda and Kozloff, Eugene. UC Press. 2014 (classic)
California Plant Families: West Of The Sierran Crest And Deserts. Keator, Glenn. UC Press. 2009 (classic)