BOTANY 64 Course Outline as of Fall 2024

CATALOG INFORMATION

Dept and Nbr: BOTANY 64   Title: NORTHERN SIERRA PLANTS
Full Title: Plants of the Northern Sierra
Last Reviewed: 1/25/2021

Units			Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	2.00		Lecture Scheduled	1.00	17.5	Lecture Scheduled	17.50
Minimum	2.00		Lab Scheduled	0	2	Lab Scheduled	0
			Contact DHR	3.00		Contact DHR	52.50
			Contact Total	4.00		Contact Total	70.00
			Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 35.00   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:
Formerly: BIO 81.15

Catalog Description:
Field course introducing the plant communities of the Sierra Nevada north of Lake Tahoe, emphasizing the taxonomy and ecology of the ferns, conifers and flowering plants.

Prerequisites/Corequisites:

Recommended Preparation:
Eligibility for ENGL 100 OR EMLS 100 (formerly ESL 100) or appropriate placement based on AB705 mandates

Limits on Enrollment:

Schedule of Classes Information:
Description: Field course introducing the plant communities of the Sierra Nevada north of Lake Tahoe, emphasizing the taxonomy and ecology of the ferns, conifers and flowering plants. (Grade or P/NP)
Prerequisites/Corequisites:
Recommended: Eligibility for ENGL 100 OR EMLS 100 (formerly ESL 100) or appropriate placement based on AB705 mandates

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:
CSU GE:	**Transfer Area**		Effective:	Inactive:
IGETC:	**Transfer Area**		Effective:	Inactive:
CSU Transfer:	Transferable	Effective:	Summer 2014	Inactive:
UC Transfer:		Effective:		Inactive:

CID:

Certificate/Major Applicable:
Not Certificate/Major Applicable

COURSE CONTENT

Student Learning Outcomes:
At the conclusion of this course, the student should be able to:
1. Identify plants based on their taxonomic groupings, using vegetative and reproductive morphology.
2. Apply knowledge of evolution, ecology, and natural history to flora and vegetation types in the northern Sierra Nevada.
3. Make and record observations in a field journal.

Objectives:
At the conclusion of this course, the student should be able to:
1. Identify the major plant indicator species within the habitats studied.
2. Explain the basic plant characteristics useful in plant identification.
3. Use plant identification resources, including dichotomous keys.
4. Explain the major ecological factors affecting the distribution of plant species and their association into plant communities.
5. Differentiate the major vegetation characteristics of the principle plant communities of the Northern Sierra.
6. Maintain a field journal.

Topics and Scope:

I. Overview of the Geology, Soils, Climate, and Physiography of the Sierra Nevada
II. Survey of Plants Common to the Northern Sierra Nevada
III. Taxonomy of the Major Plant Species Characteristic of the Northern Sierran Communities
IV. Association of Ecological Factors with Major Northern Sierran Vegetation Types
V. Biological Characteristics of the Indicator Plant Species
VI. Identification of Vascular Plant Species Using Manuals and Other Resources
VII. Structure and Organization of a Field Journal

The following parts of the course are covered during the Lab hours:
I. Field Experience:
   A. Plants common to the Northern Sierra Nevada
   B. Taxonomy of the plant species discovered during the field trip to Northern Sierran communities
   C. Ecological factors of major Northern Sierran vegetation types
II. Biological Characteristics of the Indicator Plant Species in their Natural, Northern Sierra Nevada Environment
III. Preparation of a Field Journal While Examining Plants in the Northern Sierra Nevada

Assignment:

Lecture-Related Assignments:
1. Ecology or vegetation research paper (4-6 pages)

Lab-Related Assignments:
1. Maintain field journal
2. Plant identification using the dichotomous key and other resources

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.

Research paper and field journal	Writing 40 - 60%

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.

Use of dichotomous key and other plant ID resources	Skill Demonstrations 10 - 30%

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

None	Exams 0 - 0%

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

Participation	Other Category 10 - 30%

Representative Textbooks and Materials:
The Laws Field Guide to the Sierra Nevada. Laws, John Muir. California Academy of Sciences.

2007 (classic)

A Sierra Nevada Flora. Weeden, Norman. Wilderness Press. 1996 (classic)
Plants of the Tahoe Basin. Graf, Michael. CNPS Press. 1999 (classic)