

# FOR 103: PLANT IDENTIFICATION

## Citrus College Course Outline of Record

Heading	Value
Effective Term:	Fall 2023
Credits:	3
Total Contact Hours:	54
Lecture Hours :	54
Lab Hours:	0
Hours Arranged:	0
Outside of Class Hours:	108
Strongly Recommended:	ENGL 101.
Transferable to CSU:	Yes
Transferable to UC:	Yes - Approved
Grading Method:	Standard Letter, Pass/No Pass

## Catalog Course Description

A course examining the identification of established native and non-native wildland plants of California. Other topics include photosynthesis, taxonomy, edibility, medicinal properties, plant communities and plant adaptations. 54 lecture hours.

## Course Objectives

- identify plant families and plant species using dichotomy keys
- cross reference taxonomic names with common names
- explain basic plant physiology
- explain the law of tolerance as it relates to plant life
- Employ and demonstrate accurate plant collecting techniques, plant preservation and plant collection labeling

## Major Course Content

1. Introduction (biodiversity, taxonomy, dichotomous keys, and Internet)
2. Plant Groups: Gymnosperm vs. Angiosperm (monocots and dicots)
3. Plant Structures, California Floristic Areas & Common Plant Families
4. Basic Plant Physiology (photosynthesis)
5. Understanding Scientific Plant Identification (taxonomy)
6. Plant Identification (3 to 10 plants per class meeting)
7. Plant Collection
8. Field Trips

## Suggested Reading Other Than Required Textbook

Dichotomy keys

## Examples of Required Writing Assignments

Exam with short answer and essay questions. Example question: If plants evolved to use H<sub>2</sub>S instead of H<sub>2</sub>O to replenish the electrons in chlorophyll during photosynthesis how would this effect humans?

## Examples of Outside Assignments

### PLANT COLLECTION PROJECT

Plant collection is worth 300 points – NO LATE PROJECTS (25 pt deduction/day). Collection will be 40 - 50 plants (depending on winter rainfall, each plant worth 5 points each, 250 points total); more plants = better grade! All plants will be identified to family, genus and species. Points are deducted for spelling errors! Points are achieved for each correct genus, species, and plant family; each correctly filled out plant label (typed); and for each plant "presentation" (how it is preserved, flowers, fruits, etc., glued on paper). Each plant species must include not only enough leaves & stem(s) to observe characteristics, but also EITHER a flower or fruit, or both if available. Plants must be from a total of 25 or more different plant families. Each plant species must be mounted on heavy card-stock, "biology" or "botany" paper. Plants are to be mounted on 8 1/2" x 11" paper & presented in some kind of binder, or notebook. White glue is fine for our purposes. Each plant species must be collected within the "range" of our books and must be in our plant keys. If it is not in the Jepson Manual, it will not be count. No more than 15 species can be from plant species identified for quizzes in class. Labels must be typed. Plant presses will be checked out to each student. Collection techniques will also be discussed in class. Mandatory - Bring your plants to class! There will be time (after quizzes) in class to key out plants from your study sites. Feel free to collect in an area where it is allowed and legal, but be aware that many areas do not allow plant collecting. NO COLLECTIONS FROM THE BOTANIC GARDENS, ARBORETUM, NATIONAL AND STATE PARKS, ETC.! MANDATORY – Title page & Table of Contents (50 points) at the beginning in alphabetical order by group (Fern, Gymnosperm, Angiosperm (Dicot, then Monocot), family, genus, and species.

## Instruction Type(s)

Lecture, Online Education Lecture