BIO 112: PLANT TAXONOMY

In Workflow

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Approval Path

1. 2026-09-24T16:47:32Z
   Jonathan Gilkerson (gilkerson): Rollback to Initiator
2. 2026-10-06T18:31:17Z
   Jonathan Gilkerson (gilkerson): Approved for BIO Committee Chair
3. 2026-10-06T18:41:09Z
   Thomas Peavy (trpeavy): Approved for BIO Chair
4. 2026-10-08T01:14:08Z
   Mikkel Jensen (mikkel.jensen): Approved for NSM College Committee Chair
5. 2026-10-08T15:32:42Z
   Chris Taylor (ctaylor): Approved for NSM Dean

Date Submitted: 2026-09-30T22:37:01Z

Viewing: BIO 112 : Plant Taxonomy

Last edit: 2026-09-30T22:36:59Z

Changes proposed by: Marina LaForgia (223024932)

Contact(s):

Name (First Last)	Email	Phone 999-999-9999
Marina LaForgia	marina.laforgia@csus.edu	805-279-8803

Catalog Title:
Plant Taxonomy

Class Schedule Title:
Plant Taxonomy

Academic Group: (College)
NSM - Natural Sciences & Mathematics

Academic Organization: (Department)
Biological Sciences

Will this course be offered through the College of Continuing Education (CCE)?
No

Catalog Year Effective:
Spring 2027 (2026/2027 Catalog)

Subject Area: (prefix)
BIO - Biological Sciences

Catalog Number: (course number)
112

Course ID: (For administrative use only.)
105836

Units:
4

Is the ONLY purpose of this change to update the term typically offered or the enforcement of existing requisites at registration?
No

In what term(s) will this course typically be offered?
Spring term only

Does this course require a room for its final exam?
Yes, final exam requires a room

This course complies with the credit hour policy:
Yes

Justification for course proposal:
We are removing Bio 2 (Cells, Molecules, and Genes) as a prerequisite for Bio 112 (Plant Taxonomy) because the range of topics covered in Bio 2 are not required for student success in Bio 112. Plant Taxonomy is centered on macroscopic plant morphology, taxonomic principles, floristics, and hands-on identification using dichotomous keys, none of which depend on prior knowledge of biomolecules, cell structure and function, cellular energetics, molecular flow of information, cell division, or genetic inheritance. Bio 112 course objectives emphasize recognition of plant families, understanding of nomenclature and herbarium practice, and interpretation of phylogenetic relationships using morphological characters, making Bio 2 extraneous to the skills and knowledge assessed in the course. Removing this prerequisite eliminates an unnecessary barrier to enrollment while preserving alignment between prerequisites and course content. Instead we are requiring a completion of at least 39 units to ensure that freshman in their second semester cannot take the course (as the course only occurs in Spring Semesters). This would ensure enrolled students have at a minimum Sophomore standing.

Course Description: (Not to exceed 90 words and language should conform to catalog copy.)
Spring flora of central California is used as the focus of study in the classification and identification of native vascular plants. Lecture two hours; laboratory six hours. Field trips may be required.

Are one or more field trips required with this course?
Yes

Fee Course?
Yes

Is this course designated as Service Learning?
No

Is this course designated as Curricular Community Engaged Learning?
No

Does this course require safety training?
No

Does this course require personal protective equipment (PPE)?
No

Does this course have prerequisites?
Yes

Prerequisite:
BIO 1 and a minimum of 39 units

Prerequisites Enforced at Registration?
Yes

Does this course have corequisites?
No

Graded:
Letter

Approval required for enrollment?
No Approval Required

Course Component(s) and Classification(s):
Discussion
Laboratory

Discussion Classification
CS#04 - Lecture /Recitation (K-factor=1 WTU per unit)
Discussion Units
2

Laboratory Classification
CS#16 - Science Laboratory (K-factor=2 WTU per unit)
Laboratory Units
2

Is this a paired course?
No

Is this course crosslisted?
No

Can this course be repeated for credit?
No

Can the course be taken for credit more than once during the same term?
No

Description of the Expected Learning Outcomes and Assessment Strategies:

List the Expected Learning Outcomes and their accompanying Assessment Strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers). Click the plus sign to add a new row.

	Expected Learning Outcome	Assessment Strategies
1	Explain the principles of typification and priority in botanical nomenclature.	Lecture exams; Lab write-ups
2	Apply conventions of botanical nomenclature to construct and correctly format scientific names, including author citations.	Lecture exams; Lab write-ups
3	Differentiate among monophyletic groups, non-monophyletic groups, synapomorphies, and symplesiomorphies using examples from plants.	Lecture exams; Lab write-ups
4	Explain the functions of herbaria and the scientific uses and importance of herbarium specimens.	Lecture exams; Lab-write ups
5	Apply botanical terminology to describe vegetative and reproductive features of vascular plants.	Lecture exams; Lab write-ups
6	Compare and contrast vegetative and reproductive characteristics used in plant identification, classification, and phylogenetic inference.	Lecture exams; Lab write-ups
7	Analyze historical and contemporary factors contributing to California’s plant diversity, endemism, and invasion by non-native species.	Lecture exams
8	Differentiate among lycophytes, monilophytes, seed plants, gymnosperms, conifers, angiosperms, monocots, and eudicots based on their diagnostic characteristics.	Lecture Exams; Lab keying quizzes; Lab final; Lab sight Id quizzes
9	Organize vascular plant families within their corresponding orders and higher-level phylogenetic groups, including rosids and asterids.	Lecture exams; Lab sight ID quizzes; Lab write-ups

10	Differentiate approximately 80 vascular plant families and 115 genera from specimens or images using diagnostic characteristics.	Lecture Exams; Lab keying quizzes; Lab final; Lab sight ID quizzes; Lab write-ups
11	Apply taxonomic keys, including those in The Jepson Manual, to identify unknown vascular plants to genus and, when appropriate, species or infraspecific taxon.	Lab keying quizzes; Lab final; Lab write-ups
12	Author iNaturalist observations that document wild plants with reproductive structures, including appropriate photographs, identifications, and supporting information.	Flora Project
13	Produce a curated vascular plant collection by collecting, identifying, pressing, mounting, labeling, digitizing, transcribing, and filing specimens from multiple plant families.	Flora Project
14	Synthesize observations, specimen records, photographs, and morphological evidence in a report that documents and supports plant identifications.	Flora Project
15	Evaluate the plant-collection process through a written reflection on field observation, identification, specimen preparation, and curation.	Flora Project
16	Explain and defend the utility of plant taxonomy for identifying, naming, classifying, documenting, and conserving plant diversity.	Lecture exam; Lab Write-ups

Attach a list of the required/recommended course readings and activities:

Bio-112_Syllabus_Spring-26.docx

Is this course required in a degree program (major, minor, graduate degree, certificate?)

No

Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer)?

No

Will there be any departments affected by this proposed course?

No

I/we as the author(s) of this course proposal agree to provide a new or updated accessibility checklist to the Dean's office prior to the semester when this course is taught utilizing the changes proposed here.

I/we agree

University Learning Goals

Undergraduate Learning Goals:

Competence in the disciplines
Intellectual and practical skills

Is this course required as part of a teaching credential program, a single subject, or multiple subject waiver program (e.g., Liberal Studies, Biology) or other school personnel preparation program (e.g., School of Nursing)?

No

Is this a General Education (GE) or Graduation Requirement (GR) course or is it being considered for GE/GR?

Is this a General Education (GE) course or is it being considered for GE?

No

Reviewer Comments:

Jonathan Gilkerson (gilkerson) (Thu, 24 Sep 2026 16:47:32 GMT): Rollback: Please revise the new prerequisite to say Bio1 and completion of 39 unit of course work. This was what was approved by the department curriculum ballot. Please also include the rationale for the 39 units of additional course work. JG

Key: 420