El Camino College

COURSE OUTLINE OF RECORD - Official

I. GENERAL COURSE INFORMATION

Subject and Number: Horticulture 44
Descriptive Title: Ecology of Edible, Medicinal and Poisonous Plants

Course Disciplines: Ornamental Horticulture
or Biological Sciences

Division: Natural Sciences

Catalog Description: In this course, students will develop an awareness and appreciation of edible, medicinal and poisonous plants and their effect on humans over the centuries. Students will survey ornamental and native plant communities with emphasis on flowering plants, ecology, economic uses, and identification. Students will perform lab work primarily in the field. Field lab sites will be in the chaparral, forest, and desert.

Conditions of Enrollment: **Recommended Preparation**
English 82

Course Length: [X] Full Term [ ] Other (Specify number of weeks):
Hours Lecture: 2.00 hours per week [ ] TBA
Hours Laboratory: 3.00 hours per week [ ] TBA
Course Units: 3.00

Grading Method: Letter
Credit Status Associate Degree Credit

Transfer CSU: [X] Effective Date: Prior to July 1992
Transfer UC: [ ] No

General Education:
El Camino College: _____
CSU GE: _____
IGETC: _____

II. OUTCOMES AND OBJECTIVES

A. COURSE STUDENT LEARNING OUTCOMES (The course student learning outcomes are listed below, along with a representative assessment method for each. Student learning outcomes are not subject to review, revision or approval by the College Curriculum Committee)

1. The successful student of Ecology of Edible, Medicinal and Poisonous Plants will be able to correctly identify approximately 150 plants commonly known to be edible, medicinal or poisonous.
2. The successful student of Ecology of Edible, Medicinal and Poisonous Plants will be able to explain where indicated plants are typically found.

The above SLOs were the most recent available SLOs at the time of course review. For the most current SLO statements, visit the El Camino College SLO webpage at http://www.elcamino.edu/academics/slo/.

B. Course Student Learning Objectives (The major learning objective for students enrolled in this course are listed below, along with a representative assessment method for each)

1. Differentiate the components of five macro plant communities in North America.

   Objective Exams
2. Compare and contrast the ecological significance of plant communities in the U.S.A.

   Essay exams
3. Identify a minimum of 150 plants from various plant communities and recognize their economic value (past/present).

   Completion
4. Describe the basics of taxonomy.

   Objective Exams
5. Identify the anatomical parts of Angiosperms.

   Multiple Choice
6. Collect plant specimens and utilize preserving methods and design a herbarium of a minimum of 190 plants.

   Other (specify)

   lab journal and preserved plant collection

III. OUTLINE OF SUBJECT MATTER (Topics are detailed enough to enable a qualified instructor to determine the major areas that should be covered as well as ensure consistency from instructor to instructor and semester to semester.)

Lecture or Lab	Approximate Hours	Topic Number	Major Topic
Lecture	3	I	Plant Taxonomy A. Plant Kingdom B. Plant Families
Lecture	3	II	Plant Communities A. Chaparral B. Riparian C. Disturbed Areas D. Landscapes
Lecture	3	III	Plant Ecology A. Interaction among Plants, People, and the Environment
Lecture	6	IV	Leaf and Flower Morphology A. Basic Leaf Morphology 1. Leaf Forms

			2. Leaf Shapes B. Flower Morphology 1. Inflorescences 2. Flower Parts 3. Reproductive Strategies – Monoecious, Dioecious, Hermaphrodite
Lecture	7	V	Edible Plants A. Leaves B. Stems C. Flowers and Fruits D. Roots
Lecture	7	VI	Medicinal Plant Uses A. Emetics B. Cathartics C. Emmenagogues D. Diuretics E. Diaphoretics F. Demulcents
Lecture	7	VII	Poisonous Plants A. Poisonous plants native to California B. Poisonous plants used in landscaping
Lab	18	VIII	Laboratory Exercise - Identification of California Native Plants A. Edible Plants Native to California B. Medicinal Plants Native to California B. Plants Used by Early California Natives
Lab	21	IX	Laboratory Exercise - Identification of Landscape Plants in Southern California A. Common Edible Plants B. Common Medicinal Plants C. Common Poisonous Plants
Lab	15	X	Laboratory Exercise Plant Identification Walks at following locations: A. Alondra Park B. South Coast Botanic Garden C. Madrona Marsh D. George F. Canyon E. Chadwick Canyon F. Malaga Cove g. Ladera Canyon h. Malibu Creek i. James Reserve
Total Lecture Hours		36	
Total Laboratory Hours		54	
Total Hours		90	

IV. PRIMARY METHOD OF EVALUATION AND SAMPLE ASSIGNMENTS

A. **PRIMARY METHOD OF EVALUATION:**

Problem solving demonstrations (computational or non-computational)

B. **TYPICAL ASSIGNMENT USING PRIMARY METHOD OF EVALUATION:**

Develop a notebook that contains your photographs or pressed specimens of plant species observed during field trips. Identify the plants of different vegetational communities and describe their uses.

C. **COLLEGE-LEVEL CRITICAL THINKING ASSIGNMENTS:**

1. Research the historic uses of *Rosemary prostratus* using Internet search engines and libraries. In a short 2-page paper, compare past uses with present day uses.
2. Consider the tray of plants on the desk. Classify the plants by examining the gross morphology and anatomical characteristics of the stem, leaf, and floral parts. Record your observations and conclusions on the attached laboratory report sheet.

D. **OTHER TYPICAL ASSESSMENT AND EVALUATION METHODS:**

Other exams
Written homework
Laboratory reports
Term or other papers
Multiple Choice
True/False

V. INSTRUCTIONAL METHODS

Field trips
Laboratory
Lecture
Multimedia presentations
Other (please specify)
Alternate class site

Note: In compliance with Board Policies 1600 and 3410, Title 5 California Code of Regulations, the Rehabilitation Act of 1973, and Sections 504 and 508 of the Americans with Disabilities Act, instruction delivery shall provide access, full inclusion, and effective communication for students with disabilities.

VI. WORK OUTSIDE OF CLASS

Study
Problem solving activities
Written work
Journal
Observation of or participation in an activity related to course content

Estimated Independent Study Hours per Week: 4

VII. TEXTS AND MATERIALS

A. **UP-TO-DATE REPRESENTATIVE TEXTBOOKS**
Editors of Sunset Books. SUNSET WESTERN GARDEN BOOK. 9th ed. Sunset Publishing, 2012.

B. **ALTERNATIVE TEXTBOOKS**

C. **REQUIRED SUPPLEMENTARY READINGS**

D. **OTHER REQUIRED MATERIALS**

VIII. CONDITIONS OF ENROLLMENT

A. Requisites (Course and Non-Course Prerequisites and Corequisites)

Requisites	Category and Justification

B. Requisite Skills

Requisite Skills

C. Recommended Preparations (Course and Non-Course)

Recommended Preparation	Category and Justification
Course Recommended Preparation English-82	

D. Recommended Skills

Recommended Skills
There are sufficient reading requirements that the student be at a developmental level of reading. ENGL 82 - Expand vocabulary through use of dictionary, study of word parts, and skilled use of context clues. ENGL 82 - Employ basic study skills and reading strategies to explain at the literal level the content of a text.

E. Enrollment Limitations

Enrollment Limitations and Category	Enrollment Limitations Impact

Course created by Jack Horn on 01/27/1988.

BOARD APPROVAL DATE:

LAST BOARD APPROVAL DATE:

Last Reviewed and/or Revised by Ronald LaFond on 04/01/2015