

**PALOMAR COLLEGE**  
**COURSE OUTLINE OF RECORD FOR**  
**DEGREE CREDIT COURSE**

  X   Transfer Course   X   A.A. Degree applicable course  
(check all that apply)

**COURSE NUMBER AND TITLE:** PKS 102 Plant and Pest Identification

**UNIT VALUE:** 3

**MINIMUM NUMBER OF SEMESTER HOURS:** 48

**BASIC SKILLS REQUIREMENTS:** Appropriate language and computational skills.

**ENTRANCE REQUIREMENTS**

**PREREQUISITE:** None.

**COREQUISITE:** None.

**RECOMMENDED PREPARATION:** None.

**SCOPE OF COURSE:**

Provides students with the appropriate knowledge to evaluate the characteristics of plants and pests and to correctly identify them by both scientific nomenclature and common names used in the parks and landscape industry. Students will be able to use reference materials to aid them in caring for plants and controlling pest problems.

**SPECIFIC COURSE OBJECTIVES:**

The student will be able to:

1. Identify plants by using basic taxonomical keying methods.
2. Evaluate the cultural needs and growth habits of plants identified in class.
3. Identify and choose proper control for various pests in horticulture, agriculture and forestry.
4. Identify insecticides, fungicides, herbicides, rodenticides for park management and residential use.
5. Compare and contrast county, state and federal laws and regulations as they apply to the industry.

## **CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:**

- I. Scientific Nomenclature
  - A. History
  - B. Development of current system
  - C. Value of binomial nomenclature
  
- II. Plant Classification System
  - A. Units of classification
  - B. Selected divisions of the plant kingdom
  - C. Seed bearing plants
  - D. Flowering plants
  - E. Dicot and monocot characteristics
  
- III. Plant Groups
  - A. Trees
  - B. Shrubs
  - C. Vines
  - D. Ground covers
  - E. Flowers
  
- IV. Methods Used in Plant Identification
  - A. Comparison of known plants
  - B. Taxonomical plant key
  
- V. Leaves
  - A. Basic makeup of leaves
  - B. Function of leaves
  - C. Types of leaves
  - D. Leaves and their various characteristics
  
- VI. Orientation
  - A. Pest control operation
  - B. Origin and purposes
  
- VII. Laws and Regulations
  - A. Work safety regulations
  - B. Safety practices and procedures
  
- VIII. Insects and Pests
  - A. Types of insects
  - B. Harmful insects
  - C. Beneficial insects
  
- IX. Classification of Pesticides, Usage and Labeling
  - A. Insecticide
  - B. Herbicide
  - C. Fungicide
  - D. Miticide
  - E. Growth regulators

- X. Modes of Action (Insecticides)
  - A. Contact
  - B. Fumigant
  - C. Systemic
  - D. Repellent
  
- XI. Mode of Action (Herbicides)
  - A. Contact
  - B. Fumigant
  - C. Soil sterilants
  
- XII. Insecticides
  - A. Chlorinated hydrocarbons
  - B. Phosphate group
  - C. Carbamates
  - D. Botanicals
  
- XIII. Vertebrate Pests and Control
  - A. Gophers
  - B. Ground squirrels
  - C. Birds
  - D. Snakes
  - E. Others

**REQUIRED READING:**

Sunset Publishing. Sunset Western Garden Book. Menlo Park, CA: Sunset Publishing Corporation, current edition.

**SUGGESTED READING:**

Ware, George. Complete Guide to Pest Control. Fresno, CA: Thomson Publications, 1988 or current edition.

Bailey, Liberty Hyde. Hortus Third. New York: MacMillan Publishers, 1976.

Hoyt, Roland Steward. Ornamental Plants for Subtropical Regions. Anaheim: Livingston Press, 1978.

Perry, Bob. Trees and Shrubs for Dry California Landscapes. San Dimas: Land Design Publishing, 1981.

**REQUIRED WRITING:**

An assigned typewritten report and insect or plant collection.

**OUTSIDE ASSIGNMENTS:**

**Students are expected to spend a minimum of three hours per unit per week in class and on outside assignments, prorated for short-term classes.**

Read required textbook assignments and preparation for exams. Study lecture notes. Complete reports.

**INSTRUCTIONAL METHODOLOGY:**

**Check all that apply:**

- lecture
- laboratory
- lecture-laboratory combination
- directed study

**DISTANCE LEARNING:**

**This course may be offered as a distance learning course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.**

Yes  No

**If yes, check all that apply:**

- Television Course (Video one-way, e.g. ITV, video cassette, etc.)
- Online Course (Text one-way, e.g. newspaper, correspondence, electronic file, etc.)
- Two-Way Video Conferencing (Two-way interactive video and audio)
- One-Way Video Conferencing (One-way interactive video and two-way interactive audio)
- Computer Assisted Instruction (A specialized form of mediated instruction relying primarily on student access to information and prepared lessons or teaching materials through a computer terminal, but not under immediate supervision of a qualified instructor.)

**GRADING POLICY AND STANDARDS** (include methods of determining whether the stated objectives have been met by students):

The course grading policy will be determined by individual instructors and may include the following:

- Exams
- Quizzes
- Research projects
- Writing assignments
- Classroom presentations
- Research papers
- Lab assignments
- Journal writing
- Classroom participation & discussion
- Homework

**IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?**

Yes  No  Number of times course may be taken for credit: 1

If yes, identify specific provision of Title 5 Division 2 section(s), 55761-55763 and 58161 which qualifies course as repeatable:

**CONTACT PERSON:** Director, Occupational & Noncredit Programs, Ext. 2286

**SIGNATURES ON FILE:**