

*Lecture Contact Hours: 32-36; Outside-of-Class Hours: 64-72
Laboratory Contact Hours: 48-54; Outside-of-Class Hours: 0;
Total Student Learning Hours: 144-162*

CUYAMACA COLLEGE
COURSE OUTLINE OF RECORD

Ornamental Horticulture 260 – Arboriculture

2 hours lecture, 2 units
3 hours laboratory, 1 unit
Total units: 3 units

Catalog Description

Introductory course in the study and practice of arboriculture: the knowledge and care of individual trees living in populated areas. The course will familiarize students with the principles and practices of selecting, establishing, and maintaining trees, including tree biology, planting, pruning, diagnosis and preventative care, hazard evaluation, safe work practices, and tree valuation methods. The course can be used to prepare for the International Society of Arboriculture Certification Exam, and can provide Continuing Education units for those already certified.

Prerequisite

None

Course Content

- 1) Tree Biology
- 2) Tree Identification Characteristics
- 3) Soil, Water and Tree Relationships
- 4) Planting and Establishment
- 5) Pruning
- 6) Pest, Disease, Abiotic Disorder Diagnosis and Treatment
- 7) Tree Hazard Evaluation
- 8) Safe Work Practices
- 9) Tree Appraisal Methods

Course Objectives

Students will be able to:

- 1) Demonstrate correct visual identification of trees into broad taxonomic and morphologic groups.
- 2) Outline the Compartmentalization of Decay in Trees sequence, correctly identifying the location and function of each of the Four Walls.
- 3) Locate the correct position to make a pruning cut to properly remove a tree branch.
- 4) List the steps to plant a tree to current industry standards.
- 5) Correctly identify the most common structural defects associated with urban trees.
- 6) Correctly identify the regionally most common pests, diseases and abiotic disorders of urban trees.
- 7) Demonstrate knowledge of equipment commonly used in tree maintenance and arboricultural work.

Method of Evaluation

A grading system will be established by the instructor and implemented uniformly. Grades will be based on demonstrated proficiency in subject matter determined by multiple measurements for evaluation, one of which must be essay exams, skills demonstration or, where appropriate, the symbol system.

- 1) Quizzes and exams that measure students' retention and understanding of the content and concepts covered in both lecture and lab class meetings

- 2) Exercises or assignments which measure students' ability to use methods of the practice of arboriculture demonstrated in both lecture and lab class meetings

Special Materials Required of Student

None

Minimum Instructional Facilities

- 1) Smart classroom
- 2) Field site for demonstrations and lab activities
- 3) Industry accepted standard arboriculture equipment for care of trees

Method of Instruction

- 1) Lecture and demonstration
- 2) Field trips
- 3) Laboratory activities

Out-of-Class Assignments

- 1) **Reading:** lecture notes; course materials; textbook chapters; articles on liability related to trees; manuals; content on websites including the International Society of Arboriculture.
- 2) **Writing:** assignment drafts; essays; outlines; summaries; presentations; content for projects.
- 3) **Other:** field exercises including visits to areas with mature trees that can be evaluated for projects.

Texts and References

- 1) Required (representative example):
 - a. King, Carol and Olsen, Ed. *Virginia Cooperative Extension Gardener Handbook*. Virginia Cooperative Extension, 2023. (Hosting website) <https://pressbooks.lib.vt.edu/treesteward/>
 - b. Harris, et al. *Arboriculture: Integrated Management of Landscape Trees, Shrubs, and Vines*. 4th edition. Prentice Hall, 2004 (classic).
- 2) Supplemental:
 - a. Jepson, Jeff. *The Tree Climber's Companion*. 3rd edition. Access Publishers, 2024.
 - b. Gilman, Edward. *An Illustrated Guide to Pruning*. Cengage Learning, 2011 (classic).

Student Learning Outcomes

Upon successful completion of this course, students will be able to:

- 1) Use visual identification to categorize trees into broad taxonomic and morphologic groups.
- 2) Outline the Compartmentalization of Decay in Trees sequence, correctly identifying the location and function of each of the Four Walls.
- 3) Locate the correct position to make a pruning cut and use equipment commonly used in tree maintenance and arboricultural work to properly remove a tree branch.
- 4) Correctly identify the most common structural defects, pests, diseases and abiotic disorders of urban trees.