

# AGRICULTURE: ORNAMENTAL HORTICULTURE (AGOR)

## AGOR 1 Horticultural Science

**3 Units** (Degree Applicable, CSU, UC, C-ID #: AG-PS 104)

Lecture: 54

Horticulture skills and techniques for use in gardening, nursery, and landscape applications. Emphasis on propagation, cultural practices, and the study of plant relationships, structure, growth and development. Off-campus meetings required.

## AGOR 2 Plant Propagation/Greenhouse Management

**3 Units** (Degree Applicable, CSU, C-ID #: AG-EH 116 L)

Lecture: 36 Lab: 54

Plant propagation and production practices with emphasis on florists' plants, woody ornamentals, and fruits. Commercial techniques include seed propagation, cuttings, grafting and budding, layering, fern sporing, and division. Stresses greenhouses and other environmental structures for plant propagation and production.

## AGOR 5 Park Facilities

**3 Units** (Degree Applicable)

Lecture: 54

Management and operation of different types of park facilities. Includes the management of sports fields, recreation centers, campgrounds, aquatic facilities, and golf courses.

## AGOR 13 Landscape Design

**3 Units** (Degree Applicable, CSU, UC)

Lecture: 36 Lab: 54

Landscape design for residential and small commercial sites including the design process, drafting, graphics, site evaluation, landscaping materials, and plant usage. Field trips and off-campus assignments required.

## AGOR 15 Interior Landscaping

**3 Units** (Degree Applicable)

Lecture: 54

Design, installation, and maintenance practices used in interior landscaping. Includes identification, culture, and care of plants suitable for interior use.

## AGOR 24 Integrated Pest Management

**3 Units** (Degree Applicable, CSU)

Lecture: 36 Lab: 54

Common agricultural pests in Southern California and physical, biological, and chemical pest control principles and practices, including integrated pest management (IPM). Stresses use, safety, equipment, laws, and regulations of pesticides. Field trips are required.

## AGOR 29 Ornamental Plants - Herbaceous

**3 Units** (Degree Applicable, CSU, UC, C-ID #: AG-EH 108 L)

UC Credit Limitation

Lecture: 36 Lab: 54

Identification, growth habits, culture, and ornamental use of landscape annuals, biennials, perennials, ferns, indoor plants, groundcovers, and vines adapted to climates of California. Plants emphasized will come from the California Association of Nurseries and Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) certification test plant lists. Off campus meetings required.

## AGOR 30 Ornamental Plants - Trees and Woody Shrubs

**3 Units** (Degree Applicable, CSU, UC, C-ID #: AG-EH 112 109 L)

UC Credit Limitation

Lecture: 36 Lab: 54

Identification, growth habits, culture, and ornamental use of landscape trees and shrubs adapted to climates of California. Plants emphasized will come from the California Association of Nurseries and Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) certification test plant lists. Off campus meetings required.

## AGOR 32 Landscaping and Nursery Management

**3 Units** (Degree Applicable, CSU)

Lecture: 36 Lab: 54

Operation and management of wholesale and retail nurseries. Includes site location and layout of areas, greenhouse management, soil mixes, proper use of fertilizers, insecticides, fungicides, herbicides, growth regulators, irrigation, mechanization, financing, personnel management, retail displays, advertising, customer relationships, federal, state, and local laws and regulations. Field trips are required.

## AGOR 35 Ornamental Plants for Southwest Climates

**3 Units** (Degree Applicable, CSU)

Lecture: 36 Lab: 54

Identification, growth habits, culture, and ornamental use of annuals, perennials, groundcovers, shrubs, trees, cacti, and succulents which are native to California and the Southwest, or drought tolerant in Southern California.

## AGOR 39 Turf Grass Production and Management

**3 Units** (Degree Applicable, CSU)

Lecture: 36 Lab: 54

Cultivation, maintenance, and management of turfgrasses utilized for athletic fields, golf courses, parks, cemeteries, and commercial and residential lawns. Identification, installation, cultural requirements, and maintenance practices are emphasized. Field trips required.

## AGOR 40 Sports Turf Management

**3 Units** (Degree Applicable)

(May be taken for option of letter grade or Pass/No Pass)

Lecture: 36 Lab: 54

Prepares students to work in the sports turf industry. Emphasizes turf cultural techniques used in sports turf management. Includes turf surfaces used on baseball, football, soccer, tennis, golf courses, driving ranges, and other sports fields in both professional and amateur sports. Field trips required.

**AGOR 50 Soil Science and Management****3 Units** (Degree Applicable, CSU, UC, C-ID #: AG-PS 128 128 L)

Lecture: 36 Lab: 54

Principles of soil management, including management of air, water, nutrients, organic matter. Study of soil including physical, chemical, and biological properties, classification, derivation, use, function, and management including erosion, moisture retention, structure, cultivation, organic matter, and microbiology as they pertain to optimized plant growth. Laboratory topics include soil type, classification, soil reaction, soil fertility, and physical properties of soil. Laboratory required. Field trips are required.

**AGOR 51 Tractor and Landscape Equipment Operations****3 Units** (Degree Applicable, CSU, C-ID #: AG-MA 108 L)

(May be taken for option of letter grade or Pass/No Pass)

Lecture: 36 Lab: 54

Selection, operation, repair, and maintenance of power equipment used in the agriculture and landscape industry. Includes two- and four-wheel drive tractors, skip loaders, skid steer loaders, backhoes, lawnmowers, edgers, weed eaters, blower vacuums, rototillers, chainsaws, spraying equipment, and all-terrain vehicles. Laboratory includes use of this equipment.

**AGOR 53 Small Engine Repair I****3 Units** (Degree Applicable, CSU)

(May be taken for option of letter grade or Pass/No Pass)

Lecture: 36 Lab: 54

Principles and repair of small engines used in landscape, industrial and agricultural applications. Includes repairs of lawnmowers, chainsaws, 2-cycle engines, 4-cycle engines, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.

**AGOR 62 Irrigation Principles and Design****3 Units** (Degree Applicable, CSU)

(May be taken for option of letter grade or Pass/No Pass)

Lecture: 36 Lab: 54

Principles of irrigation, design techniques, sprinkler system components, and hydraulic principles used in nursery management, interior design, residential, and commercial landscapes. Special emphasis is given to water conservation. Field trips are required.

**AGOR 63 Irrigation Systems Management****3 Units** (Degree Applicable, CSU)

Lecture: 36 Lab: 54

Systematic approach to water conservation in landscapes. Soil-plant-water relationships, evapotranspiration, irrigation schedules, salinity and drainage, and irrigation efficiency. Water measurement, soil moisture measurement, irrigation systems, and practical constraints affecting scheduling. California water supply and budget, water rights, local, state, and federal water institutions, and California water issues. Irrigation efficiency testing will be incorporated to demonstrate proper methods of water audits and system evaluation. Field trips are required.

**AGOR 64 Irrigation - Drip and Low Volume****3 Units** (Degree Applicable, CSU)

(May be taken for option of letter grade or Pass/No Pass)

Lecture: 36 Lab: 54

Conservation of water in landscapes by utilization of drip and low-flow irrigation practices. Design, installation techniques, operation, and maintenance of drip and low-flow irrigation systems, including determination of irrigation requirements, selection of emitters and low-flow devices, and uniformity of water distribution. Includes hands-on experience in design and installation techniques. Field trips are required.

**AGOR 71 Construction Fundamentals****3 Units** (Degree Applicable, CSU)

(May be taken for option of letter grade or Pass/No Pass)

Lecture: 36 Lab: 54

Construction techniques and tools used in landscaping with construction projects that include surveying techniques, utilities (gas, water, and electricity), woodworking, and masonry.

**AGOR 72 Landscape Hardscape Applications****3 Units** (Degree Applicable, CSU)

Lecture: 36 Lab: 54

Landscape construction pertaining to hardscape featured in the landscape. Estimation and installation of fences, walks, planters, patios, lighting, barbecues, gazebos, decks, ponds, spas, fountains and pools. Students will gain hands-on experience in the laboratory activities.

**AGOR 73 Landscaping Laws, Contracting, and Estimating****3 Units** (Degree Applicable, CSU)

Lecture: 54

Landscape laws, contracting, and estimating as they pertain to landscape construction. Information covered will be helpful for the Landscape Contractor's (C-27 classification) licensing exam administered by the state of California. Off campus assignments required.

**AGOR 75 Urban Arboriculture****3 Units** (Degree Applicable, CSU, C-ID #: AG-EH 130 000 X)

(May be taken for option of letter grade or Pass/No Pass)

Lecture: 36 Lab: 54

Care and management of ornamental trees. Includes pruning techniques, fruit tree care, bracing, cabling, and pest control. Safe practices in the use of equipment including the use of ropes, chippers, boom trucks, chain saws, and identification and evaluation of common trees. Prepares students for the tree worker and arborist certification (ISA) exams.

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Mt. SAC is a drug-free college, and our policies prohibit the possession, consumption, sale, distribution, or delivery of any controlled substance. Mt. SAC does not grow, handle, process, or distribute the cannabis plant or cannabis products at any onsite or offsite college-owned property. Please refer to the Cannabis FAQs document available in our catalog and at <https://www.mtsac.edu/horticulture/faq.html>.

**AGOR 80 Cannabis the Plant and Industry****2 Units** (Degree Applicable)

Lecture: 36

Cannabis the Plant and Industry: This course reviews the origins of the Cannabis genus, its evolution in cultivation, and its cultural impacts leading up to modern industry. Students will become familiar with Cannabis history, laws and regulations, careers, breeding, growth cycles, medicinal applications, and other useful plant characteristics. Students completing this course will demonstrate foundational knowledge useful for entering the Cannabis industry.

**AGOR 81 Cannabis Cultivation****3 Units** (Degree Applicable)

Lecture: 36 Lab: 54

**Prerequisite:** AGOR 80

This course covers the basics of Cannabis cultivation, including soil media selection, air circulation, tools of the trade, and harvesting. Students will demonstrate a beginner-level competency in Cannabis cultivation through participation in lectures and lab activities.

**AGOR 82 Cannabis Advanced Cultivation****3 Units** (Degree Applicable)

Lecture: 36 Lab: 54

**Prerequisite:** AGOR 81

This course covers advanced Cannabis cultivation techniques. In this course, students will learn advanced cultivation techniques, including low-stress and high-stress training, scrogging, defoliation, pinching, fimming, topping, and mainlining. Students will learn how to grow to achieve perpetual harvest, influence THC and Cannabinoid outcomes, improve bud quality, manipulate grow timelines, and advanced lighting techniques.

**AGOR 83 Cannabis Facilities and Operations Management****2 Units** (Degree Applicable)

Lecture: 36

**Prerequisite:** AGOR 82

This course reviews the planning, management, and maintenance of Cannabis facilities and operations. In this course, students will learn how to plan grow operations, comply with legal requirements, prepare for compliance inspections, identify trends in the Cannabis industry, and strategically adapt with marketing, sales, and staffing strategies.

**AGOR 90 Work Experience in Cannabis Operations****1-4 Units** (Not Degree Applicable)

(May be taken for Pass/No Pass only)

**Prerequisite:** AGOR 81

This course is designed to provide Cannabis majors with actual on-the-job experience at an approved Cannabis work site using skills and knowledge from classroom instruction. A minimum of 150 paid clock hours or 120 non-paid clock hours per semester is required for each two units of credit. It is recommended that the hours per week are equally distributed throughout the semester.

**AGOR 91 Work Experience in Horticulture****1-4 Units** (Degree Applicable)

(May be taken for Pass/No Pass only)

Lab: 60-300

**Prerequisite:** *Three units of any AGOR course, with the exception of AGOR 1, must be taken prior to or concurrent with AGOR 91. Compliance with work experience regulations as designated in the College Catalog.*

This course is designed to provide majors with actual on-the-job experience at an approved work site using skills and knowledge from classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester.