Horticulture

Handbook

Contents:

Mission Statement
Program Information
Benefits of Attending Mt. SAC
Facilities
The Curriculum
Career Options
Degrees & Certificates
Course Descriptions
General Education Requirements
Graduation Requirements

Revised 08/2014
HORTICULTURE MISSION STATEMENT

The Horticulture Team at Mt. San Antonio College is committed to providing students:

1. **Training**: that is developing employable skills.

2. **Educating**: the teaching and learning skills of critical thinking.

3. **Inspiring**: encouraging and promoting the passion for the world of horticulture.

4. **Celebrating**: the learning process and success of our students.
Welcome to Mt. San Antonio College Horticulture

The Ornamental Horticulture Program at Mt. San Antonio College is one of the largest in California. It serves Los Angeles, San Bernardino, Orange and Riverside Counties. The classes offered prepare the individual for a career in many different areas of horticulture, such as:

**Nursery Management**: The propagation, scheduling, production, and marketing of ornamental plants.

**Interior Landscaping**: The design, selection and care of plants for interior situations such as malls, office buildings, and residences.

**Retail Garden Center Sales and Management**: Selling and marketing of plants, plant products, pesticides, fertilizers and horticultural equipment.

**Landscape Maintenance**: Care and management of landscape plantings in home gardens, industrial parks, condominium complexes, schools and institutions.

**Landscape Contracting**: Installation and construction of landscape plantings, decks, fences, pools, outdoor lighting, irrigation systems, patios, walks and retaining walls.

**Turf Management**: Maintenance of golf courses, parks, athletic fields, cemeteries and other large turf areas.

**Arboriculture**: Care and culture of woody plants, including tree pruning, cabling and bracing.

**Pest Control**: Identification and control (chemical, biological and cultural) of insects, diseases and weed pests in the landscape.

**Landscape Design**: Site and client analysis, planning the outdoor environment, including the preparation of drawings and planting plans.

**Floral Design**: The design and preparation of flower arrangements for weddings, corsages, funerals and special occasions.

**Horticultural Equipment Operations**: The selection, operation and maintenance of horticultural equipment.

**Landscape Irrigation Design and Application**: The design, installation and maintenance of irrigation systems.
Benefits of the Ornamental Horticulture Program at Mt. San Antonio College

Mt. San Antonio College is located in Los Angeles County, which is one of the largest dollar-volume counties utilizing horticultural and products in the world. We utilize the nearby industry for numerous field trips and job placement.

Practical approach to horticulture with hands-on experience and interaction with the horticultural industry.

Most classes are offered in block mode (meet one day per week) so individuals can maintain employment and still seek a degree or certificate. Additionally, the classes for the certificate program are scheduled so the student could obtain a certificate by attending at night.

Students propagate, produce and market horticultural products.

Horticulture and Equipment Club activities.

Work Experience Program. Earn units for on-the-job work experience.

Individualized and personalized instruction with low instructor-to-student ratio.

Full-time and part-time faculty with over (60) years of practical industry experience.

Advisory Committee composed of many industry leaders in horticultural enterprises.
Facilities

The Horticulture Unit is located on approximately seven acres of land as part of the entire school farm.

Greenhouse space totaling 12,000 square feet.

Shade house space totaling 56,000 square feet.

Five classrooms, including a landscape drafting lab, floral design lab, and plant propagation and nursery management lab.

Landscape power equipment shop.

Landscape irrigation and construction lab.

Turf plots.

Orchard.

Groundcover and herbaceous plots.

Large campus with many established ornamental plants to serve as a continual laboratory.
The Curriculum

Courses are offered which lead to certificates in the following areas of specialization:
- Horticulture Science
- Interior Landscaping
- Landscape Design I
- Landscape Design II
- Landscape Construction
- Landscape Equipment Technology
- Landscape Irrigation
- Landscape and Park Maintenance
- Nursery Management
- Tree Care and Maintenance
- Sports Turf Management
- Park Management

The requirements for these certificates are explained in more detail later in the handbook.

In addition, the college offers Associate in Science Degrees in:
- Ornamental Horticulture
- Park and Sports Turf Management
- Equipment Technology
- Integrated Pest Management
- Agri-Technology

Most courses are transferable to a four year institution where a higher degree may be earned.

For More Information, Please Contact:

Tom Visosky, (909) 274-4892, tvisosky@mtsac.edu
Brian Scott, (909) 274-4539, bscott@mtsac.edu
Jennifer Hinostroza, (909) 274-4876, jhinostroza@mtsac.edu
Agricultural Sciences Department Office: (909) 274-4540
MT. SAN ANTONIO COLLEGE
1100 N. Grand Avenue
Walnut, CA 91789

Or visit our Website:
horticulture.mtsac.edu
SOME CAREER OPTIONS

Nursery Management
  Wholesale Production Nursery
  Propagator
    • Inventory Controller
    • Field Foreperson
    • Field Superintendent
    • Manager
    • Salesperson
    • Sales Manager
    • Shipping Foreperson
    • Broker

Wholesale Production of Seeds
  • Breeder Propagator
  • Independent Grower
  • Sales Manager
  • Salesperson and Dealer

Retail Nursery and Garden Center
  General Manager
  Buyer
  Division Manager
  Plant Doctor (Horticulturist)
  Landscape Designer
  Salesperson
  Floral Designer
  Maintenance Person
  Delivery Person (Truck Driver)

Arboretum, Botanical Garden and Horticulture Garden
  Director
  Superintendent of Operations
  Educational Director
  Curator
  Librarian
  Writer
  Propagator
  Researcher
  Greenhouse Manager

Education and Research
  Extension Agent (Farm Advisor)
  Private Horticultural Consultant
  Garden Writer
Education and Research (continued)

**Ornamental Horticulture Instructors**
- High School
- Community College
- University
  - Landscape Design
  - Landscape Contracting
  - Floriculture Production
  - Diseases and Pests
  - Floral Design
  - Management

**Research Scientists**
**Research Technicians**
**Plant Inspector**
**Horticulture Therapy**

**Landscape Industry**
**Landscape Contracting**
- Landscape Designer
- Landscape Estimator
- Landscape Contractor
- Landscape Construction Crew Foreperson
- Landscape Maintenance Foreperson
- Landscape Gardener
- Salesperson
- Landscape Draftsperson

**Turf Management**
- Greenskeeper
- Greenskeeper, Head Foreperson
- Turf Grower

**Parks Management**
- Parks Service Manager
- Parks Maintenance Supervisor
- Groundskeeper

**Interior Landscape**
- Designer - Salesperson
- Contractor (Installer)
- Contractor, Rental and/or Maintenance

**Arboriculture**
- Urban Forester
- Tree Trimmer
- Tree Trimming Foreperson
- Tree Surgeon
Floriculture and Design
  Production
    • Grower
    • Production Superintendent or Foreperson
  Marketing Manager
    • Propagator
    • Inventory Controller

Wholesale Commission
  Florist
  Manager
  Buyer
  Sales Manager
  Salesperson
  Route Salesperson

Retail Florist
  Store Manager
  Sales Clerk
  Head Designer
  Designer
  Wire Service Field Representative
  Panel or Show Designer
ASSOCIATE IN SCIENCE DEGREE
in
ORNAMENTAL HORTICULTURE

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAG 1</td>
<td>Food Production, Land Use and Politics - A Global Perspective</td>
</tr>
<tr>
<td>AGOR 1</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>AGOR 2</td>
<td>Plant Propagation/Greenhouse Management</td>
</tr>
<tr>
<td>AGOR 13</td>
<td>Landscape Design</td>
</tr>
<tr>
<td>AGOR 24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>AGOR 29</td>
<td>Ornamental Plants - Herbaceous</td>
</tr>
<tr>
<td>AGOR 30</td>
<td>Ornamental Plants - Trees and Woody Shrubs</td>
</tr>
<tr>
<td>AGOR 32</td>
<td>Landscaping and Nursery Management</td>
</tr>
<tr>
<td>AGOR 39</td>
<td>Turf Grass Production and Management</td>
</tr>
<tr>
<td>AGOR 50</td>
<td>Soil Science and Management</td>
</tr>
<tr>
<td>AGOR 62</td>
<td>Landscape Irrigation - Design and Installation</td>
</tr>
<tr>
<td>AGOR 71</td>
<td>Landscape Construction Fundamentals</td>
</tr>
<tr>
<td>AGOR 91</td>
<td>Work Experience in Nursery Operations</td>
</tr>
</tbody>
</table>

PLUS – Select six (6) units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 15</td>
<td>Interior Landscaping</td>
</tr>
<tr>
<td>AGOR 35</td>
<td>Ornamental Plants for Southwest Climates</td>
</tr>
<tr>
<td>AGOR 40</td>
<td>Sports Turf Management</td>
</tr>
<tr>
<td>AGOR 51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>AGOR 53</td>
<td>Small Engine Repair I</td>
</tr>
<tr>
<td>AGOR 63</td>
<td>Landscape Irrigation Systems Management</td>
</tr>
<tr>
<td>AGOR 72</td>
<td>Landscape Hardscape Applications</td>
</tr>
<tr>
<td>AGOR 75</td>
<td>Urban Arboriculture</td>
</tr>
<tr>
<td>CISB 15</td>
<td>Microcomputer Applications</td>
</tr>
</tbody>
</table>
ASSOCIATE IN SCIENCE DEGREE IN
EQUIPMENT TECHNOLOGY

Required Courses:

AGAG  1  Food Production, Land Use and Politics, A Global Perspective
AGAG  59 Work Experience in Agriculture
AGOR  51 Tractor and Landscape Equipment Operation
AGOR  52 Hydraulics
AGOR  53 Small Engine Repair I
AGOR  54 Small Engine Repair II
AGOR  55 Diesel Engine Repair
AGOR  56 Engine Diagnostics
AGOR  57 Power Train Repair
AGOR  71 Landscape Construction Fundamentals
AGOR  72 Landscape Hardscape Applications
CISB  15 Microcomputer Applications
ASSOCIATE IN SCIENCE DEGREE IN
PARK AND SPORTS TURF MANAGEMENT

Required Courses:

AGOR 4   Park Management
AGOR 5   Park Facilities
AGOR 13 Landscape Design
AGOR 24 Integrated Pest Management
AGOR 29 Ornamental Plants - Herbaceous
AGOR 30 Ornamental Plants - Trees and Woody Shrubs
AGOR 39 Turf Grass Production and Management
AGOR 40 Sports Turf Management
AGOR 50 Soil Science and Management
AGOR 51 Tractor and Landscape Equipment Operations
AGOR 62 Landscape Irrigation Design and Installation
AGOR 63 Landscape Irrigation Systems Management
AGOR 71 Landscape Construction Fundamentals
AGOR 73 Landscaping Laws, Contracting, and Estimating
AGOR 75 Urban Arboriculture
AGOR 91 Work Experience in Nursery Operations
ASSOCIATE IN SCIENCE DEGREE
in
INTEGRATED PEST MANAGEMENT

Required Courses:

AGOR 1   Horticultural Science
AGOR 24  Integrated Pest Management
AGOR 29  Ornamental Plants - Herbaceous
AGOR 30  Ornamental Plants - Trees and Woody Shrubs
AGOR 39  Turf Grass Production and Management
AGOR 50  Soil Science and Management
AGOR 62  Landscape Irrigation Design and Installation
AGOR 63  Landscape Irrigation Systems Management
AGOR 91  Work Experience in Nursery Operations

PLUS – Select six (6) units from the following:

BIOL 1, 2, 3, 4, 4H, 6, 6L, 8, 20, 21, 34, 50
BTNY 3
CHEM 10, 20, 40, 50, 50H, 51, 60, 80, 81

PLUS – Select nine (9) units from the following:

AGOR 2   Plant Propagation
AGOR 15  Interior Landscaping
AGOR 32  Landscaping and Nursery Management
AGOR 40  Sports Turf Management
AGOR 75  Urban Arboriculture
ASSOCIATE IN SCIENCE DEGREE IN
AGRI-TECHNOLOGY

Required Courses:

AGAG 1 Food Production, Land Use, and Politics – A Global Perspective
AGAG 91 Agricultural Calculations
AGAN 1 Animal Science
AGOR 1 Horticultural Science
AGOR 32 Landscaping and Nursery Management
AGOR 56 Engine Diagnostics
AGOR 71 Landscape Construction Fundamentals

PLUS – Select one course from:

AGLI 14 Swine Production
AGLI 16 Horse Production
AGLI 17 Sheep Production
AGLI 30 Beef Production
AGOR 24 Integrated Pest Management
AGOR 62 Landscape Irrigation – Design and Installation
AGPE 70 Pet Shop Management
AGPE 71 Canine Management
Certificates in Horticulture

The following certificates are skill-oriented and derived from input of industry professionals in the horticultural fields represented. The curriculum is intended to prepare students for entry-level positions or skill enhancement in horticulture.

**Horticulture Science Certificate**

AGOR 1  Horticultural Science  
AGOR 24  Integrated Pest Management  
AGOR 29  Ornamental Plants – Herbaceous  
AGOR 30  Ornamental Plant – Trees and Shrubs  
AGOR 39  Turf Grass Production and Management  
AGOR 50  Soil Science and Management

**Interior Landscaping Certificate**

AGOR 1  Horticultural Science  
AGOR 15  Interior Landscaping  
AGOR 24  Integrated Pest Management  
AGOR 29  Ornamental Plants - Herbaceous  
AGOR 32  Landscaping and Nursery Management  
AGOR 64  Landscape Irrigation – Drip and Low Volume

**Landscape Design I Certificate**

AGOR 1  Horticultural Science  
AGOR 13  Landscape Design  
AGOR 29  Ornamental Plants - Herbaceous  
AGOR 30  Ornamental Plants - Trees and Woody Shrubs  
AGOR 50  Soil Science and Management  
AGOR 71  Landscape Construction Fundamentals

**Landscape Design II Certificate**

AGOR 14  Landscape Design II  
AGOR 24  Integrated Pest Management  
AGOR 51  Tractor and Landscape Equipment Ops  
AGOR 62  Irrigation Design and Installation  
AGOR 72  Landscape Hardscape Applications  
AGOR 73  Landscape Laws, Contracting, and Estimating
Landscape Equipment Technology Certificate

AGOR 52  Hydraulics
AGOR 53  Small Engine Repair I
AGOR 54  Small Engine Repair II
AGOR 55  Diesel Engine Repair
AGOR 56  Engine Diagnostics
AGOR 57  Power Train Repair

Landscape Irrigation Certificate

AGOR  1  Horticultural Science
AGOR 51  Tractor and Landscape Equipment Operations
AGOR 62  Landscape Irrigation - Design and Installation
AGOR 63  Landscape Irrigation Systems Management
AGOR 64  Landscape Irrigation – Drip and Low Volume
AGOR 71  Landscape Construction Fundamentals

Landscape and Park Maintenance Certificate

AGOR 1  Horticultural Science
AGOR 24  Integrated Pest Management
AGOR 30  Ornamental Plants - Trees and Woody Shrubs
AGOR 51  Tractor and Landscape Equipment Operations
AGOR 63  Landscape Irrigation Systems Management
AGOR 75  Urban Arboriculture

Nursery Management Certificate

AGOR 1  Horticultural Science
AGOR 2  Plant Propagation/Greenhouse Management
AGOR 29  Ornamental Plants - Herbaceous
AGOR 32  Landscaping and Nursery Management
AGOR 50  Soil Science and Management
AGOR 64  Landscape Irrigation – Drip and Low Volume
Park Management Certificate

AGOR 4   Park Management
AGOR 5   Park Facilities
AGOR 51  Tractor and Landscape Equipment Operations
AGOR 62  Landscape Irrigation - Design and Installation
AGOR 63  Landscape Irrigation Systems Management
AGOR 75  Urban Arboriculture

Tree Care and Maintenance Certificate

AGOR 1   Horticultural Science
AGOR 24  Integrated Pest Management
AGOR 30  Ornamental Plants - Trees and Woody Shrubs
AGOR 50  Soil Science and Management
AGOR 51  Tractor and Landscape Equipment Operations
AGOR 75  Urban Arboriculture

Sports Turf Management Certificate

AGOR 24  Integrated Pest Management
AGOR 39  Turf Grass Production and Management
AGOR 40  Sports Turf Management
AGOR 50  Soil Science and Management
AGOR 62  Landscape Irrigation Design and Installation
AGOR 63  Landscape Irrigation Systems Management
AGRICULTURE: GENERAL SUBJECTS

AGAG 1 – Food Production, Land Use, and Politics – A Global Perspective 3 UNITS
54 hours lecture
Degree Appropriate, CSU, UC

Surveys the world’s food producing systems in terms of economic, political, and cultural forces. Emphasizes ethical, sustainable food producing agriculture.

AGRICULTURE: ORNAMENTAL HORTICULTURE

AGOR 1 - Horticultural Science 3 UNITS
54 hours lecture
Degree Appropriate, CSU

The basic 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.

AGOR 2 - Plant Propagation/Greenhouse Management 3 UNITS
36 hours lecture, 54 hours lab
Degree Appropriate, CSU

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 4 - Park Management 3 UNITS
54 hours lecture
Degree Appropriate

Management and operation of municipal park departments. Includes the development of budgets, purchasing, park policies, planning and scheduling.

AGOR 5 - Park Facilities 3 UNITS
54 hours lecture
Degree Appropriate

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
36 hours lecture, 54 hours lab
Degree Appropriate, CSU

Fundamentals and implementation of landscape design. Principles of design, the design process, drafting, graphics, site evaluation, landscaping materials, and plant usage. Projects emphasize residential and small commercial sites.
AGOR 14 - Landscape Design II  3 UNITS
36 hours lecture, 54 hours lab.  
Prerequisite: AGOR 13
Degree Appropriate

Computer Assisted Design and Drafting (CAD) with applications for landscape horticultural businesses. Includes applied CAD for plan, detail, elevation, and section drawings with exposure to CAD associated databases and plant selection programs.

AGOR 15 - Interior Landscaping  3 UNITS
54 hours lecture. (May be taken for option of letter grade or Credit/No Credit) 
Degree Appropriate

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
36 hours lecture, 54 hours lab. 
Degree Appropriate, CSU

Identifies common agricultural pests in Southern California and analyzes physical, biological and chemical pest control principles and practices. Stresses pesticide use, safety, equipment, laws and regulations of pesticides.

AGOR 29 - Ornamental Plants - Herbaceous  3 UNITS
36 hours lecture, 54 hours lab. 
Degree Appropriate, CSU, UC

A detailed study of herbaceous plants, including their identification, growth habits, culture, and ornamental use of landscape annuals, biennials, perennials, ferns, indoor plants, ground covers and vines adapted to climates of Southern California. Plants emphasized will come from the California Association of Nurserymen and Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) certification plant lists.

AGOR 30 - Ornamental Plants - Trees and Woody Shrubs  3 UNITS
36 hours lecture, 54 hours lab. 
Degree Appropriate, CSU, UC

Identification, Growth Habits, culture and ornamental use of landscape trees and shrubs adapted to climates of Southern California. Plants emphasized will come from the California Association of Nurserymen and Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) certification plant lists.

AGOR 32 - Landscaping and Nursery Management  3 UNITS
36 hours lecture, 54 hours lab. 
Degree Appropriate, CSU

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

AGOR 35 - Ornamental Plants for Southwest Climates  3 UNITS
36 hours lecture, 54 hours lab. 
Degree Appropriate, CSU, UC

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  
36 hours lecture, 54 hours lab.  
Degree Appropriate, CSU

Introduction to cultivation, maintenance and management of turfgrasses utilized for athletic fields, golf courses, parks, cemeteries, commercial and residential lawns. Identification, installation, cultural requirements and maintenance practices are emphasized.

AGOR 40 - Sports Turf Management  
36 hours lecture, 54 hours lab.  
Degree Appropriate

Prerequisite: AGOR 39 or equivalent experience.

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 are included.

AGOR 50 - Soil Science and Management  
36 hours lecture, 54 hours lab.  
Degree Appropriate, CSU, UC

Principles of proper soil management to optimize plant growth, including management of air, water, nutrients and organic matter. Physical and chemical properties of soil that govern soil reactions and interactions. Field trips are included.

AGOR 51 – Tractor and Landscape Equipment Operations  
36 hours lecture, 54 hours lab.  
Degree Appropriate

May be taken for option of letter grade or Credit/No Credit.

Selection, operation, repair and maintenance of power equipment used in the landscape industry. Includes 2WD and 4WD tractors, skip loader, skid steer loader, backhoe, lawnmowers, edgers, weed eaters, blower/vacuum, rototillers, chainsaws, spraying equipment and all-terrain vehicles. Laboratory includes actual hands-on applications of this equipment.

AGOR 52 – Hydraulics  
36 hours lecture, 54 hours lab.  
Degree Appropriate, CSU

Operation, maintenance, and repair of hydraulic systems. Emphasis: pumps, valves, cylinders, flow control, reservoirs, lines, motors, and hydrostatic transmissions. Laboratory provides hands-on application of hydraulic systems.

AGOR 53 – Small Engine Repair I  
36 hours lecture, 54 hours lab.  
Degree Appropriate, CSU

Principles and repair of small engines used in landscape, industrial and agricultural applications. Includes repairs of lawnmowers, chainsaws, 2-cycle engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas powered equipment.
AGOR 54 – Small Engine Repair II  
36 hours lecture, 54 hours lab.  
Degree Appropriate, CSU  
May be taken for option of letter grade or Credit/No Credit.  

Advanced repair and maintenance of mid-horsepower gasoline and diesel engines. Multi-cylinder air and water cooled engines used in landscape, industrial and agricultural applications. Repair of ridemowers, generator engines, air compressor engines, 2-cycle and 4-cycle engines, spraying equipment, all terrain vehicles, and other related gas-powered equipment. Students gain actual hands-on experience maintaining and overhauling engines.

AGOR 55 – Diesel Engine Repair  
36 hours lecture, 54 hours lab.  
Degree Appropriate, CSU  
May be taken for option of letter grade or Credit/No Credit.  

Repair and maintenance of diesel engines used to power industrial, landscape and agricultural equipment. Students gain actual hands-on experience maintaining, servicing, and repairing diesel engines.

AGOR 56 – Engine Diagnostics  
36 hours lecture, 54 hours lab.  
Degree Appropriate, CSU  
May be taken for option of letter grade or Credit/No Credit.  

Analysis and evaluation of tractor power failure. Students gain actual experience in the proper diagnostic procedures of power equipment. Service, maintenance and repair of tractor electrical wiring, voltage regulators, generators, alternators, switches, gauges, batteries and test equipment.

AGOR 57 – Power Train Repair  
36 hours lecture, 54 hours lab.  
Degree Appropriate  
May be taken for option of letter grade or Credit/No Credit.  

Service, maintenance, and repair of power trains. Students gain experience with clutches, transmissions, differentials, power take-of units, and final drive used to transmit power on tractors.

AGOR 62 – Landscape Irrigation – Design and Installation  
36 hours lecture, 54 hours lab.  
Degree Appropriate, CSU  
May be taken for option of letter grade or Credit/No Credit.  

Design and application of turf and ornamental irrigation systems. Design techniques, sprinkler system components and hydraulic principles used in nursery management, interior design, residential and commercial landscaping. Special emphasis is given to water conservation incorporating controlled flow technologies.

AGOR 63 - Landscape Irrigation Systems Management  
36 hours lecture, 54 hours lab.  
Degree Appropriate  
Advisory Prerequisite: Eligibility for ENGL 68.  

A systematic approach to water conservation in the landscape. Repair techniques that will allow a current system to efficiently operate to its initial design. Trouble shooting procedures including field testing of valves and controllers. Irrigation efficiency test will be incorporated to demonstrate proper methods of water audits.
AGOR 64 – Landscape Irrigation – Drip and Low Volume  
36 hours lecture, 54 hours lab.  
Degree Appropriate  
May be taken for option of letter grade or Credit/No Credit.

Conservation of water in the landscape by utilization of drip and low-flow irrigation practices. Design, 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. Students will gain hands-on experience in design and installation techniques.

AGOR 71 - Landscape Construction Fundamentals  
36 hours lecture, 54 hours lab.  
Degree Appropriate, CSU  
May be taken for option of letter grade or Credit/No Credit.  
Advisory Prerequisite: Eligibility for ENGL 68.

Fundamentals of construction techniques and tools used in landscaping. Students will gain skills in construction projects that include utilities (gas, water, electricity), woodworking, masonry, and surveying techniques applied to landscaping.

AGOR 72 - Landscape Hardscape Applications  
36 hours lecture, 54 hours lab.  
Degree Appropriate, CSU  
May be taken for option of letter grade or Credit/No Credit.  
Prerequisite/Corequisite: AGOR 71 or equivalent experience.  
Advisory Prerequisite: Eligibility for ENGL 68.

Landscape construction pertaining to all hardscape features. Course covers 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  
54 hours lecture.  
Degree Appropriate, CSU  
May be taken for option of letter grade or Credit/No Credit.

Landscape laws, contracting, and estimating as it pertains to Landscape Construction. Information covered will be helpful for the licensing exam administered by the state of California C-27 classification. Students will gain hands-on experience of contracting and running a business.

AGOR 75 - Urban Arboriculture  
36 hours lecture, 54 hours lab.  
Degree Appropriate  
May be taken for option of letter grade or Credit/No Credit.

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 exams.
AGOR 91 - Work Experience in Nursery Operations
1-4 UNITS
Degree Appropriate

May be taken four times for credit, may be taken for Credit/No Credit only

Prerequisite: Compliance with Work Experience regulations as designated in Section III of College Catalog.

This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of five hours per week of supervised work (minimum 75 paid clock hours or 60 non-paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.
GENERAL EDUCATION REQUIREMENTS

Please see the appropriate college catalog for general education requirements. Students have catalog rights for the year that they began the program of study, as long as enrollment has been continuous.

GRADUATION REQUIREMENTS

Application for Graduation
Certificates and degrees are not automatically awarded upon completion. Students must file an application to be awarded the certificate or degree. See the college catalog or your advisor for information about how and when to complete the proper application.