

SAN DIEGO COMMUNITY COLLEGE DISTRICT
CONTINUING EDUCATION
COURSE OUTLINE

SECTION I

SUBJECT AREA AND COURSE NUMBER

AGRI 603

COURSE TITLE

LANDSCAPE CONSTRUCTION-ADV

TYPE OF COURSE

NON-FEE

VOCATIONAL

CATALOG COURSE DESCRIPTION

This is a modular course in the supervisory level skills required for employment in the Landscape Industry. This course includes instruction in safety procedures and proper use of hand and power tools and equipment; preparation for taking California Landscape Contractor and Pest Applicator exams; soil/water testing and reporting; computer assisted drafting; xeriscaping; meeting bond and insurance requirements. (FT)

LECTURE HOURS

125

LABORATORY HOURS

475

ADVISORIES

Completion of Landscape Construction-Basic, (AGRI 600).

RECOMMENDED SKILL LEVEL

Eighth grade reading level, ability to communicate effectively in the English language and knowledge of general math.

INSTITUTIONAL STUDENT LEARNING OUTCOMES

1. Social Responsibility
SDCE students demonstrate interpersonal skills by learning and working cooperatively in a diverse environment.
2. Effective Communication
SDCE students demonstrate effective communication skills.

INSTITUTIONAL STUDENT LEARNING OUTCOMES (CONTINUED)

3. Critical Thinking
SDCE students critically process information, make decisions, and solve problems independently or cooperatively.
4. Personal and Professional Development
SDCE students pursue short term and life-long learning goals, mastering necessary skills and using resource management and self-advocacy skills to cope with changing situations in their lives.

COURSE GOALS

To provide instruction in the correct procedures for planning and drafting landscape plans; develop manually drafted and computer-assisted drafted plans and specifications; provide work experience in a simulated work environment; correctly collect, process and test soil and water samples; prepare accurate reports and prescriptions for soil and water problems; study state pest control regulations on storage, use of pesticides and emergency procedures; successfully pass state licensing tests; care and use of computers; care and use of electronic and digital measuring and estimating equipment; prepare for California Contractor's exam.

Students who successfully complete the course will be qualified to open their own small landscape and irrigation business, as well as, enter the job market at a managerial or responsible managing employee level.

COURSE OBJECTIVES

Students will demonstrate through practical applications, written and oral communication skills, their ability to:

1. Apply general safety practices in addition to the specific procedures related to the landscape and pesticide industry.
2. Select and properly use the correct hand and power tools, in addition to computerized drafting equipment, required to compete in today's landscape industry.
3. Demonstrate competence in advanced soil and water testing and reporting.
4. Demonstrate competence by preparing for and testing for pesticide and contracting license.
5. Demonstrate competence in diagnosing soil and plant samples, bidding documents and local codes.
6. Demonstrate professional ethics, personal integrity, good business practices and customer relations skills, meeting the standards of the California Association of Landscape Contractors.

SECTION II

COURSE CONTENT AND SCOPE

Course modules of the program contain the following:

1. Descriptions
2. Theory of Operation
3. Component Functions
4. Test Procedures
5. Practice
6. Related Terminology

UNIT I

Math Review for this Unit will cover the following areas: Addition, Subtraction, Multiplication and Division of Whole Numbers, Fractions and Decimals.

MODULE I SAFETY

50 HRS.

1. Hand and Power Tools
2. Facilities Orientation
 - 2.1. Safety equipment
 - 2.2. Locations
 - 2.3. Types
3. Common Types of Injuries
 - 3.1. Eye injuries
 - 3.2. Cuts
 - 3.3. Chemical hazards
 - 3.4. Ear and hearing
4. Tool Safety
 - 4.1. Hand tools
 - 4.2. Electrical tools
 - 4.3. Gas-powered tools
5. Fire Safety
6. Chemicals
 - 6.1. Pesticides
 - 6.2. Test reagents
7. Material Safety Data Sheets (MSDS)

UNIT II

Math Review for this Unit will cover the following areas: Addition, Subtraction, Multiplication, and Division of Whole Numbers, Fractions and Decimals; Cubic Measurements; Degrees and Angles; Percentages; Volume Measures; Liquid Measurement; Estimating.

COURSE CONTENT AND SCOPE (CONTINUED)

MODULE II MEASURING

100 HRS.

1. Use of Tape Measures and Roller-Type Measures
 - 1.1. Steel tapes/nylon tapes
 - 1.2. Roller-type measuring devices
 - 1.3. Interpolation of results
2. Scales
 - 2.1. Engineer scale
 - 2.2. Architect scale
3. Square Measure
 - 3.1. Existing formulas
 - 3.2. Special needs
4. Cubic Measure
 - 4.1. Dry products

COURSE CONTENT AND SCOPE (CONTINUED)

- 4.2. Liquids
5. Transferring to Plans
6. Modular Measuring
 - 6.1. Factory made
 - 6.2. Contractor-made

MODULE III DRAFTING PROCEDURES

150 HRS.

1. Drafting Tables and Equipment
 - 1.1. Drafting tools
 - 1.2. Leads or ink, pencils or pens
 - 1.3. T-squares, drafting machines
 - 1.4. Lights, magnifiers
2. Drafting Papers
3. Developing Plans
 - 3.1. Scales
 - 3.2. Orientation
4. Presentation
5. Coloring
6. Diagnosis and Repair

MODULE IV COMPUTER ASSISTED DRAFTING (CAD)

150 HRS.

1. Computer Use
 - 1.1. Start up, Windows
 - 1.2. Disc or CD Rom
 - 1.3. Printer or plotter
2. Landscape Software

COURSE CONTENT AND SCOPE (CONTINUED)

3. Irrigation Software
4. Presentation

MODULE V
SOIL AND WATER TESTING

50 HRS.

1. Soil Testing
 - 1.1. Collecting samples
 - 1.2. Testing
 - 1.3. Reports and recommendations
2. Water Testing
 - 2.1. Collecting samples
 - 2.2. Testing
 - 2.3. Reporting

UNIT III

Math Review for this Unit will cover the following areas: Addition, Subtraction, Multiplication, and Division of Whole Numbers, Fractions and Decimals; Liquid Measurement; Weight and Mass

MODULE VI
PEST CONTROL

25 HRS.

1. Pesticide Regulations
 - 1.1. Federal and State
 - 1.2. County and City
 - 1.3. Disposal sites
2. Equipment
 - 2.1. Manual
 - 2.2. Power
3. Mixing and Calibration
4. Cleanup and storage
5. Protective clothing and equipment

MODULE VII
TEST PREPARATION

50 HRS.

1. California Landscape Contractor (C-27)
 - 1.1. Law and regulations
 - 1.2. C-27 specific
2. California Pesticide Applicator
 - 2.1. Law and regulations
 - 2.2. Classifications
 - 2.3. Licensing

COURSE CONTENT AND SCOPE (CONTINUED)

MODULE VIII
ESTIMATING

25 HRS.

NOTE: Students may take and complete modules in different order than listed.

APPROPRIATE READINGS

California Landscape Standards, R. Fiske
Landscape Data Manual, T. Gabriel

WRITING ASSIGNMENTS

Typical writing assignments will include:

1. Estimates for landscaping.
2. Soil tests reports.

WRITING ASSIGNMENTS (CONTINUED)

3. Water tests reports.
4. Book chapter synopsis.

OUTSIDE ASSIGNMENTS

Students are expected to spend a minimum of two hours per day outside of class in practice and preparation for each day in class. Appropriate assignments may include, but are not limited to the following:

1. Reading appropriate texts, magazines, and articles.
2. Worksheets and handouts.
3. Studying as needed.

APPROPRIATE ASSIGNMENTS THAT DEMONSTRATE CRITICAL THINKING

Students will perform analysis and evaluation of reading and/or classroom materials and utilize this analysis in classroom discussions, writing assignments, and in performing laboratory activities. Students must select and use appropriate methods and materials needed to complete laboratory assignments.

EVALUATION

A student's grade will be based on multiple measures of performance. The assessment will measure development of independent critical thinking skills and will include evaluation of the student's ability to:

1. Completed landscape drawings and estimates.
2. Accurate soil tests and analysis reports.

3. Passing California Contractor and Pesticide Applicator exams.

Satisfactory completion of the course requires completion of a culminating activity, which may include, but is not limited to, one of the following:

1. Written report.
2. Classroom presentation.
3. Research presentation.
4. Industry involvement.

The culminating activity will require the student to use the new skills that he/she acquired during the course.

The student will receive an evaluation at the end of each module or when requested by the student. A grade point average of 2.0 or letter grade of C or better must be achieved for satisfactory completion.

Upon satisfactory completion of all units, a course Certificate of Completion will be issued.

EVALUATION (CONTINUED)

NOTE: If a student's goal is to complete one or more of the individual units, upon satisfactory completion of that unit(s), a Certificate of Achievement may be issued.

METHOD OF INSTRUCTION

Classroom lectures, demonstrations, laboratory, audio-visual presentations and computer assisted instruction. Group and individual instruction. Field trips, job shadowing and internships may be utilized.

TEXTS AND SUPPLIES

Texts:

California Landscape Standards, R. Fiske
Landscape Data Manual, T. Gabriel

PREPARED BY Claude E. Richards DATE September 18, 1995

REVISED BY Instructional Services, SLOs added DATE March 1, 2017

Instructors must meet all requirements stated in Policy 3100 (Student Rights, Responsibilities and Administrative Due Process), and the Attendance Policy set forth in the Continuing Education Catalog

REFERENCES:

San Diego Community College District Policy 3100
California Community Colleges, Title 5, Section 55002
Continuing Education Catalog