

SOUTHEAST COMMUNITY COLLEGE
COURSE SYLLABUS
ADVANCED TECHNOLOGIES & SKILLED TRADES
Horticulture & Turfgrass Management Program
Revision Date: October 2024

I. CATALOG DESCRIPTION

Course Number: HORT 2265

Course Title Irrigation & Water Management

Prerequisite(s): AGRI 1153 or Hort 1153

Catalog Description: Principles of irrigation, soil, water and plant relationships, and operation of irrigation equipment. Irrigation scheduling, chemigation, and management of water to prevent erosion and maintain surface and groundwater quality.

Credit Hours: 4

Class Hours: 45

Lab Hours: 45

Total Contact Hours: 90

II. COURSE OBJECTIVES: *Course will:*

- a. Prepare students for employment involving natural resources, consulting, production irrigation and related careers.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

A. STUDENT LEARNING OUTCOMES: *Student will be able to:*

1. a. Develop an understanding of soil, water, plant relationship, irrigation safety practices.
2. b. Learn to apply irrigation water while protecting surface and groundwater sources.
3. c. Practice water management through scheduling and monitoring.
4. d. Gain skills and knowledge to help become a viable employee in the industry.

B. GENERAL EDUCATION LEARNING OUTCOMES

GELO #3: Critical Thinking & Problem Solving

Critical thinkers have the ability to evaluate a problem or assumption and determine an appropriate course of action. They use reason and evidence to make judgments and decisions. Critical thinking and problem-solving skills rank highly among employer expectations.

Outcomes:

- 1) Collect, identify, interpret and analyze data.
- 2) Synthesize information to arrive at reasoned solutions to problems.

IV. CONTENT/TOPICAL OUTLINE (*course outline may provide more detailed information*)

- A. Introduction to Irrigation and Water Management
- B. Safety in irrigation
- C. Determining whether or not to irrigate
- D. Water Requirements and Sources

- E. Effects of water quality
- F. Types of irrigation systems
- G. Irrigation wells
- H. Soil Water Relationships
- I. Chemigation and Fertiligation
- J. Cost returns from irrigation
- K. Scheduling irrigation
- L. Equipment maintenance and design

V. INSTRUCTIONAL MATERIALS

A. Required Text(s): None Required

B. Other Resources:

Approved safety glasses, calculator, protective clothing, pliers or vise grips

VI. METHODS OF PRESENTATION/INSTRUCTION

Methods of presentation typically include a combination of the following:

Methods will include, but are not limited to:

- a. Lecture, laboratory assignment and tasks, slide and video presentations, research and writing assignments, field trips, and guest lectures and speakers.
- b. Lab Activities

VII. METHODS OF EVALUATION

Methods of evaluation typically include a combination of the following:

Methods will include, but are not limited to:

- a. Lecture, laboratory assignment and tasks, slide and video presentations, research and writing assignments, field trips, and guest lectures and speakers.
- b. Lab Activities

SCC STANDARD GRADING SCALE POLICY:

A+ 95-100	C+ 75-79
A 90-94	C 70-74
B+ 85-89	D+ 65-69
B 80-84	D 60-64
	F Below 60

VIII. SPECIFIC COURSE REQUIREMENTS:

- a. Successful completion of all exams, projects, and assignments.
- b. Properly and safely operate all college tractors and equipment.
- c. Utilize proper safety eyewear at all times in lab.