

SYLLABUS  
PART I  
EDISON STATE COMMUNITY COLLEGE  
AGR 141S AGRICULTURAL FACILITIES  
3 CREDIT HOURS

**COURSE DESCRIPTION**

Introduction to the various agricultural facilities, systems, technologies, regulations, and methodologies used in modern production agriculture as well as agricultural manufacturing. Focus will be placed on systems integration, installation, and maintenance.

**COURSE GOALS**

The student will:

Bloom's Level		Program Outcomes
2	1. Explain the different facility technologies in use today and demonstrate a basic understanding of business operations.	1, 9
3	2. Implement safe work practices and follow OSHA standards.	6, 3
5	3. Utilize problem-solving skills to troubleshoot and solve complex problems.	6, 8
4	4. Analyze the basic concepts of facilities automation, biosecurity, and environment.	5, 7, 10
2	5. Develop an understanding of agricultural and industrial power equipment and machinery technologies.	6
1	6. Examine different types of agricultural facilities and identify the uses of automation.	4, 5
1	7. Identify hand tools, power tools, diagnostic tools, surveying equipment, and measuring devices used in agricultural facilities maintenance and installation.	5, 8
5	8. Assess the engineering behind the building of modern agricultural facilities.	2, 4
3	9. Develop a basic understanding of facilities automation.	8
1	10. Examine concepts in emerging technologies utilized in the many areas of agricultural facilities.	5

**CORE VALUES**

The Core Values are a set of principles that guide in creating educational programs and environments at Edison. They include communication, ethics, critical thinking, human diversity, inquiry/respect for learning, and interpersonal skills/teamwork. The goals, objectives, and activities in this course will introduce/reinforce these Core Values whenever appropriate.

**TOPIC OUTLINE**

1. Introduction to Agricultural Facilities
2. Safety, Biosecurity, and Environment
3. Systems Integration
4. Mechanical and Electrical Control Systems
5. Equipment and Tools
6. Diagnostics, Surveying, and Measuring
7. Agricultural Structure Design

8. Building Materials and Construction Practices
9. Animal and Rural Waste Management
10. Problem-Solving and Troubleshooting
11. Emerging Technology in Agricultural Facilities