LANDSCAPE TECHNOLOGY

ACTIVITY/COURSE CODE:  5670

COURSE DESCRIPTION:

The course in Landscape Technology is designed to qualify the student completing the course for job entry into landscaping fields or to continue advanced training in post high school education. A combination of subject matter and activities is designed to teach technical knowledge and skills for entry-level positions in selling, selecting, and servicing.

Typical instructional activities include hands-on experiences with the planning and selection of materials for the construction of hardscapes, the mechanical practices associated with irrigation and water conservation, erosion control, participating in personal and community leadership development activities, planning and implementing a relevant supervised agricultural experience, and participating in FFA activities. The teacher may select additional competencies based on a local needs assessment. Additional consideration of skills from the Certified Landscape Technician program are recommended.

This course is a component of the following Agriculture, Food and Natural Resources Pathways:

• Horticulture

OBJECTIVE:

Given the necessary equipment, supplies, and facilities, the student, upon completion of the prescribed number of instructional hours, will be able to successfully complete the following core competencies.

Credit: 1 unit

RECOMMENDED TEXTBOOK:

Introduction to Landscaping: Design, Construction and Maintenance – Prentice Hall / Interstate

ADDITIONAL RESOURCES:

Horticulture Lesson Plan Library – CAERT, Inc.

Landscape Plants of the Southeast – Sparks Pr, Inc

Advisor’s Guide to the FFA Student Handbook
Unit A  Developing Leadership Skills in Agriculture

Lesson 1. Planning and Organizing an FFA Meeting

Student Learning Objectives: Instruction in this lesson should result in students achieving the following objectives:
1. Explain how to plan a meeting and develop the order of business.
2. Describe how to set up the meeting room.
3. Explain the parliamentary procedure used in an FFA meeting.

Lesson 2. Developing an Awareness for Your Community

Student Learning Objectives: Instruction in this lesson should result in students achieving the following objectives:
1. Describe the meaning and importance of community service.
2. List and identify community service organizations.
3. Explain how FFA members can be involved with community improvement and development.

Lesson 3. State FFA Degree

Student Learning Objectives: Instruction in this lesson should result in students achieving the following objectives:
1. List the requirements for the State FFA Degree.
2. Explain how a FFA member can obtain the State FFA Degree.

Unit B  Supervised Experience in Agriculture

Lesson 1. Keeping and Using SAE Records

Student Learning Objectives: Instruction in this lesson should result in students achieving the following objectives:
1. Explain how SAE records are organized.
2. Identify the procedures to making entries in the SAE records.
3. Explain how to summarize and analyze the SAE records.

Lesson 2. Making Long Range Plans for Expanding SAE Programs

Student Learning Objective: Instruction in this lesson should result in students achieving the following objectives:
1. Identify the factors that should be considered in expanding an SAE program.
2. Explain how placement and ownership SAE programs may be expanded.

Unit A  Residential Landscape Design

Lesson 1 —Analyzing the Residential Landscape

Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Describe how to determine the client’s needs and desires.
2. Explain the purpose of a site analysis plan.
3. Identify the purpose of a base plan.
4. Describe the components of a site analysis plan.

Lesson 2 —Designing the Landscape Areas

Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Describe the major areas of a residential landscape.
2. Identify the activities that occur in each of the areas.
3. Explain how to create “rooms” in the outdoor landscape.
Lesson 3 —Beginning the Design Process
Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Demonstrate the use of a scale.
2. Describe how activities can be organized into goose egg plans.
3. Explain the importance of bed patterns.
4. Develop bed patterns for a landscape.

Lesson 4 —Applying the Principles of Landscape Design
Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Describe the basic principles of Landscape Design.
2. Explain how to use the principles of Landscape Design in landscaping.
3. Design a residential landscape demonstrating the principles of Landscape design.

Lesson 5 —Using Annuals and Perennials in the Landscape
Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Identify the difference between an annual and a perennial.
2. Explain how to use annuals and perennials in the landscape.
3. Describe how to design a flower garden.

Lesson 6 —Choosing Plants for the Landscape
Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Define the categories of landscape plants.
2. Describe why plant names are important.
3. Identify 50 common landscape plants used in the southeast
4. Identify factors to consider when selecting woody plant material for the landscape.
5. Explain how the environment affects plant selection.

Lesson 7 —Putting the Plan on Paper
Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Demonstrate how to draw plants on the landscape plan.
2. Describe how to label a landscape plan.
3. Explain how to render the landscape plan.
4. Demonstrate how to draw a landscape plan utilizing a computer aided drafting program.

Lesson 8 —Pricing the Landscape Plan
Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Identify the difference between an estimate and a bid.
2. Describe landscape specifications.
3. Prepare a cost estimate for the landscape plan.

Lesson 9 —Managing the Landscape Business
Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Define the landscape industry.
2. Describe the difference between a landscape designer and a landscape architect.
3. Identify the duties of a landscape contractor.
4. Identify the duties of landscape maintenance people.
5. Describe the use of computers in the landscape industry.
UNIT D  Landscape Installation

Lesson 1—Preparing the Landscape Site

Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Read a site analysis or landscape plan.
2. Explain how to interpret a landscape plan.
3. Describe how to protect existing site features.
4. Describe how to remove site features that are unwanted.
5. Analyze and prepare soil for planting.

Lesson 2—Installing and Maintaining Irrigation Systems

Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Obtain site information and determine irrigation requirements.
2. Determine water capacity and pressure.
3. Select sprinklers and establish spacing ranges.
4. Establish sprinkler circuits and install valves.
5. Locate controllers and size wiring.
6. Prepare the final irrigation plan.

Lesson 3—Installing Woody Landscape Plants, Ground Covers, Perennials, and Annuals

Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Identify the different methods of harvesting plant materials used by the nursery trade.
2. Prepare for planting trees, shrubs, and ground covers.
3. Outline proper planting techniques.
4. Describe the methods of planting annuals and perennials.
5. Understand the importance of the use of mulch, landscape fabric, antitranspirants, and climate.

Lesson 4—Selecting and Establishing Turfgrass

Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Explain how to select the proper turfgrass.
2. Describe how to properly prepare the planting site.
3. Describe how to seed the planting site.
4. Discuss how to properly install sod.
5. Explain the proper installation of plugs.

Lesson 5—Installing Patios, Walks, and Decks

Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Describe the types of materials used in paving.
2. Explain how to select patio materials.
3. Describe how to install a walkway or patio.
4. Discuss proper deck installation procedures.

Lesson 6—Installing Fences and Walls

Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Explain the reasons for installing a fence or wall.
2. Describe the different parts of a fence.
3. Discuss how to properly install a fence.
4. Describe the different materials used to build a retaining wall.
5. Explain how to install a retaining wall.
Lesson 7—Incorporating Lights in the Landscape

Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Identify the major lighting techniques available for the garden.
2. Explain the difference between high- and low-voltage.
3. Describe the proper installation of low voltage lighting systems.

Lesson 8—Incorporating Water Features in the Landscape

Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Identify the different materials needed to create a water feature.
2. Describe the proper technique for creating a small pond.
3. Explain how to construct a waterfall feature.

UNIT E Landscape Maintenance

Lesson 1—Watering, Fertilizing, and Mulching Landscape Plants

Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Describe how the biology of woody plants influences maintenance practices.
2. Explain recommended watering practices for woody landscape plants.
3. Explain guidelines for fertilizing woody landscape plants.
4. Describe how to select and apply mulches to the landscape.

Lesson 2—Maintaining Turfgrass Areas

Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Explain good fertilization practices for turf.
2. Describe good mowing practices.
3. Describe other maintenance practices for turfgrass.
4. Explain practices for controlling weeds in turf.

Lesson 3—Pruning Landscape Plants

Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Explain why woody landscape plants are pruned.
2. Describe how to properly prune trees.
3. Describe various pruning techniques used with shrubs.
4. Identify tools used in pruning woody landscape plants.

Lesson 4—Pricing Landscape Maintenance Work

Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Describe how to estimate landscape maintenance costs.
3. Describe some advantages and disadvantages of using computer spreadsheets in the landscape maintenance business.

UNIT F Using and Maintaining Tools and Equipment

Lesson 1—Using Hand Tools

Student Objectives, Instruction in this lesson should result in students achieving the following objectives:
1. Discuss the type of digging and grading hand tools and their use.
2. Explain the major types of pruning and cutting hand tools and their use.
3. Describe the types and uses of miscellaneous hand tools in horticulture.
4. Discuss common hand tools used in horticulture.
5. Explain how to maintain hand tools.
Lesson 2—Using Power Tools and Small Landscape Maintenance Equipment

**Student Objectives:** Instruction in this lesson should result in students achieving the following objectives:
1. Identify common turf maintenance equipment and its use.
2. Demonstrate proper use of common landscape installation and maintenance tools and equipment.
3. Demonstrate proper maintenance of power tools and equipment.

Lesson 3—Identifying Large Landscape Maintenance Equipment

**Student Objectives:** Instruction in this lesson should result in students achieving the following objectives:
1. Describe the types of tractors and transport equipment used in landscaping.
2. Explain cutting and digging equipment used in landscaping projects.
3. Describe tillage and soil moving equipment used in landscaping.
4. Discuss the maintenance of large landscape equipment.

Lesson 4—Maintaining Small Engines

**Student Objectives:** Instruction in this lesson should result in students achieving the following objectives:
1. Describe equipment maintenance schedules.
2. Explain how to service intake/exhaust and fuel systems.
3. Discuss the maintenance of cooling and lubrication systems.
4. Discuss the servicing of compression and ignition systems.
5. Describe how to prepare equipment for storage.

Unit G Developing Communication Skills

Lesson 1—Introduction to Communication

**Student Learning Objectives:** Instruction in this lesson should result in students achieving the following objectives:
1. Define communication and explain its purpose.
2. Identify the components of the communication process.
3. Identify the five different levels of communication.
4. Explain the barriers of successful communication.
5. Explain the relationship between communication and leadership.

Lesson 2—Organizing and Presenting a Persuasive Message

**Student Learning Objectives:** Instruction in this lesson should result in students achieving the following objectives:
1. Explain the steps in preparing a persuasive message.
2. Describe delivery techniques in a persuasive message.

Lesson 3—Using Communication Skills in Appropriate Situations

**Student Learning Objectives:** Instruction in this lesson should result in students achieving the following objectives:
1. Understand the role of communication skills in the workplace.
2. Understand how to present a problem to a supervisor.
3. Identify the techniques used in requesting information from a supervisor.
4. Explain the role of written communication in an agribusiness.

Unit H Gaining Employment

Lesson 1—Developing Goals

**Student Learning Objectives:** Instruction in this lesson should result in students achieving the following objectives:
1. Explain the process of goal setting.
2. Describe the terms and types of goals.
3. Explain some aspects of effective goals.
Lesson 2—Finding a Job
Student Learning Objectives. Instruction in this lesson should result in students achieving the following objectives:
1. Describe information sources for job opportunities.
2. Develop a system to evaluate job openings.

Lesson 3—Applying for a Job
Student Learning Objectives. Instruction in this lesson should result in students achieving the following objectives:
1. Explain how to research a job opportunity.
2. Describe two methods of applying for a job.
3. Identify the common types of information requested on a job application form.

Lesson 4—Writing a Résumé and Letter of Application
Student Learning Objectives. Instruction in this lesson should result in students achieving the following objectives:
1. Explain the purpose of a résumé.
2. List the main items that should be included in a résumé.
3. Describe the purpose of a letter of application and its primary elements.