

LANDSCAPE MANAGEMENT

Landscape Management is a two semester course that provides the student with an overview of the many career opportunities in the diverse field of landscape management. Students are introduced to the procedures used in the planning and design of a landscape using current technology practices, the principles and procedures involved with landscape construction, the determination of maintenance schedules, communications and management skills necessary in landscaping operations, and the care and use of equipment utilized by landscapers. Upon completion of the program, students have the opportunity to become Indiana Landscape Industry Certified through a state approved program.

Landscape Management prepares students for many careers in agriculture, and more specifically landscape management. These careers include but are not limited to: Botanist, Grounds Keeper, Horticulturist, Landscape Designer or Architect, Landscape Supervisor, Nursery Worker, Parks Supervisor, and Turf Care Specialist.

Course Specifications

- DOE Code: 5136
- Recommended Grade Level: Grade 9-12
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 1-3 credit(s) per semester, maximum of 6 credits
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Pathway Assessment: Dual credit course final exam

Dual Credit

This course provides the opportunity for dual credit for students who meet postsecondary requirements for earning dual credit and successfully complete the dual credit requirements of this course.

Application of Content and Multiple Hour Offerings

Intensive laboratory applications are a component of this course and may be either school based or work based or a combination of the two. Work-based learning experiences should be in a closely related industry setting. Instructors shall have a standards-based training plan for students participating in work-based learning experiences. When a course is offered for multiple hours per semester, the amount of laboratory application or work-based learning needs to be increased proportionally.

Career and Technical Student Organizations (CTSOs)

Career and Technical Student Organizations are considered a powerful instructional tool when integrated into Career and Technical Education programs. They enhance the knowledge and skills students learn in a course by allowing a student to participate in a unique program of career and leadership development. Students should be encouraged to participate in FFA, the CTSO for this area.

Content Standards

Domain - Pests and Diseases

Core Standard 1 Students prescribe treatment for a problem area to minimizing environmental damage.

Standards

- LM-1.1 Analyze a landscape site for potential pest problems and determine the possible causes utilizing diagnosis procedures
- LM-1.2 Understand the impact that pesticides have on our environment and the effects on natural resources
- LM-1.3 Determine the proper procedures for reporting to environmental agencies
- LM-1.4 Understand safety practices used with chemical control
- LM-1.5 Compare and contrast environmental preferences and characteristics of plant pathogens
- LM-1.6 Examine signs and symptoms of common pest problems found in the landscape
- LM-1.7 Understand the concepts of integrated pest management
- LM-1.8 Interpret pesticide labels

Domain - Landscape Design Plan

Core Standard 2 Students develop a landscape design that meets the needs of the client.

Standards

- LM-2.1 Identify different styles and themes used in landscape design
- LM-2.2 Explain how plants can form outdoor rooms in the landscape
- LM-2.3 Describe the importance of design principles within the design process
- LM-2.4 Implement the principles of landscape design
- LM-2.5 Justify the concepts of symmetrical and asymmetrical balance
- LM-2.6 Apply the client's needs at a residential site while determining site use
- LM-2.7 Verify the on-site environmental influences that affect plant selection
- LM-2.8 Select and defend plant selection and materials used to fulfill the intent of the landscape design
- LM-2.9 Prepare and present an estimate to a potential customer

Core Standard 3 Students utilize proper tools available to design and implement a landscape plan.

Standards

- LM-3.1 Identify and explain the uses of the basic equipment that a landscape designer uses in the design process
- LM-3.2 Develop the steps involved in creating a landscape design

- LM-3.3 Demonstrate how architect and engineering scales are used to calculate distances and measurements
- LM-3.4 Apply all design techniques and site information to a master plan

Core Standard 4 Students develop an estimate for the landscape design.

Standards

- LM-4.1 Determine the effects of budget and maintenance on landscape installation
- LM-4.2 Compose a plant list that describes the quantity, size, function, and landscape interest as well as the best times to plant the proposed plant materials
- LM-4.4 Explain common structural elements installed by contractors; e.g., walls, walks, patio surfaces, etc.
- LM-4.5 Analyze common hardscape features used in the landscape and explain their purpose

Domain – Plant Identification

Core Standard 5 Students understand the important role of plants in the landscape industry.

Standards

- LM-5.1 Identify common landscape plants in Indiana
- LM-5.2 Recognize common and botanical names of landscaping plants
- LM-5.3 Develop the knowledge of landscape characteristics and environmental requirements of landscape plants
- LM-5.4 Determine the different life cycles of plants including annuals, perennials, or biennials and identify proper handling and planting procedures of each

Domain-Soils

Core Standard 6 Students identify procedures used in soil preparation for landscape plants to maximize proper growth.

Standards

- LM-6.1 Identify the major materials that make up the composition of our soils
- LM-6.2 Explain the function of air and water in the soil and the proper ratio of organic matter, minerals, water, and air
- LM-6.3 Explain pH and its effect on soils and landscape plants
- LM-6.4 Recognize the importance of proper drainage in soils and the affects upon landscaping plants
- LM-6.5 Analyze soil microbes and their function in the soil food web

Domain – Landscape Maintenance Plan

Core Standard 7 Students create a plan for year round maintenance of a landscape.

- LM-7.1 Interpret proper watering procedures
- LM-7.2 Discuss proper wintering, preservation, and maintenance considerations of plants and structures
- LM-7.3 Compare the various climatic factors that influence the landscape and plant selection
- LM-7.4 Determine yearly maintenance options for proper care in the landscape
- LM-7.5 Identify proper safety and maintenance practices for power equipment used in landscape operations
- LM-7.6 Think critically and independently analyze, synthesize, and evaluate technical problems and information
- LM-7.7 Describe the functions of fertilization and the various application methods, equipment, and calibration types available for landscape plants
- LM-7.8 Identify and understand the size and quality of plants using the American Standard for Nursery Stock publication
- LM-7.9 Demonstrate the post-planting procedures for landscape materials

Domain – Landscape Business

Core Standard 8 Students determine the essential components to owning and operating a landscape business.

- LM-8.1 Investigate job requirements, education requirements, and personal requirements to start and operate a landscape business
- LM-8.2 Identify the equipment and materials needed to start and operate a landscape business
- LM-8.3 Identify and interpret health, safety, and welfare standards as dictated by local, state or federal agencies

Domain - Careers

Core Standard 9 Students examine the scope of career opportunities in and the importance of agriculture to the economy.

Standards

- LM-9.1 Evaluate the nature and scope of landscape management in agriculture, society, and the economy
- LM-9.2 Describe career opportunities and means to achieve those opportunities in landscape management
- LM-9.3 Identify how key organizational structures and processes affect organizational performance and the quality of products and services
- LM-9.4 Demonstrate those qualities, attributes and skills necessary to succeed in, or further prepare for, a chosen career while effectively contributing to society

Domain - Leadership

Core Standard 10 Students validate the necessity of leadership skills development in conjunction with participation in The National FFA Organization (FFA) as a critical component to a well-rounded agricultural education.

Standards

- LM-10.1 Communicate clearly, effectively, and with reason through speaking, writing, visuals, and active listening in formal and informal settings
- LM-10.2 Recognize and explain the role of the FFA in the development of leadership, education, employability, communications and human relations skills
- LM-10.3 Examine roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment
- LM-10.4 Acquire the skills necessary to positively influence others
- LM-10.5 Develop a skill set to enhance the positive evolution of the whole person

Domain - Supervised Agriculture Experience

Core Standard 11 Students validate the necessity of a Supervised Agricultural Experience (SAE) program as a critical component to a well-rounded agricultural education.

Standards

- LM-11.1 Explain the nature of and become familiar with those terms related to an SAE program
- LM-11.2 Explore the numerous possibilities for an SAE program which a student might develop
- LM-11.3 Develop an individual SAE program and implementation plan for record keeping skills