Indiana Department of Education
Academic Standards Content Framework

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**.**

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
- This course is aligned with postsecondary courses for Dual Credit
    - IVY Tech
        - LAND 103 – Landscape Management 1

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 maintain the environmental quality of the landscape and minimize environmental damage.

LM-1.1	Analyze a landscape site for potential pest problems and determine the possible causes utilizing the diagnosis procedures
LM-1.2	Identify the impact that pesticides have on our environment and the effects on our natural resources
LM-1.3	Explain the procedures for reporting to environmental agencies
LM-1.4	Understand safety practices in use of chemical controls (IvT-LAND 103)
LM-1.5	Research background information on growth habits and characteristics of fungi, bacteria, and other pathogens (IvT-LAND 103)
LM-1.6	Utilize pictures and videos to show symptoms of each of the common problems (IvT-LAND 103)
LM-1.7	Introduce the students to the concept of intergraded pest management (IvT-LAND 103)

Domain - Landscape Design Plan

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

Standards

LM-2.1	Identify the different styles and themes used in landscape design and explain the concepts of symmetrical and asymmetrical balance
LM-2.2	Integrate the different styles and needs while investigating the importance of the design principals in the design process
LM-2.3	Explain the principles of landscape design
LM-2.4	List and discuss the steps involved in landscape design
LM-2.5	Apply the client's needs to a residential design situation
LM-2.6	Predict activity areas on the site to decide proper utilization of materials to be used

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

Standards

LM-3.1	Construct a drawing using the landscape symbols
LM-3.2	Demonstrate how the scale is used to calculate distances and measurements from the drawing to the site
LM-3.3	Apply all design techniques and site information to a master plan drawing of a site
LM-3.4	Identify and explain the uses of the basic equipment that a landscape designer uses in the drafting process

Core Standard 4 Students develop a planting schedule for the implementation of the landscape design.

Standards

LM-4.1	Determine the effects of budget and maintenance on landscape installation
LM-4.2	Identify plant materials needed in landscape design listing quantity, interest, function and size
LM-4.3	Compose a plant list that describes the quantity, size, function, and landscape interest of the proposed plant materials
LM-4.4	Install common structural elements done by the contractors; e.g., walls, walks, patio surfaces, etc (IvT-LAND 103)

Domain - Plants

Core Standard 5 Students understand their importance in the landscape industry.

Standards

LM-5.1	Identify landscape plants of importance in Indiana
LM-5.2	Recognize and identify common and botanical names of landscaping plants
LM-5.3	Develop the knowledge of the landscape characteristics and environmental requirements of landscape plants
LM-5.4	Determine the life cycle of each plant as annual, perennial, or biennials and identify proper handling and planting procedures

Core Standard 6 Students satisfy the functional and aesthetic requirements of the site and the client.

Standards

LM-6.1	Verify the environmental influences on-site that affect plant selection
LM-6.2	Select plants and materials for the landscape
LM-6.3	List the criteria for selecting plants according to growth, visible characteristics, mature size, and life span
LM-6.4	Explain how plants can form outdoor rooms in the landscape
LM-6.5	Identify and differentiate between the rating of types of landscape plant stock
LM-6.6	Indicate the best times to plant landscape plant materials
LM-6.7	Demonstrate the post-planting procedures for landscape materials
LM-6.8	State the common hardscape features used in the landscape and explain their purpose
LM-6.9	Establish plantings, including turf (IvT-LAND 103)
LM-6.10	Utilize cultural management of plants (IvT-LAND 103)

Core Standard 7 Students identify and demonstrate the procedures used in soil preparation for landscape plants to maximize proper growth.

Standards

LM-7.1 Identify the major materials that make up the composition of our soils

LM-7.2 Explain the function of air and water in the soil and the proper ratio of organic matter, minerals, water, and air

LM-7.3 Describe the functions of fertilization and the various application methods, equipment, and calibration types available for landscape plants

LM-7.4 Explain pH and its affect on soils and landscape plants

LM-7.5 Recognize the importance of proper drainage in soils and the affects upon landscaping plants

Domain – Landscape Maintenance Plan

Core Standard 8 Students create a plan for year round maintenance of a landscape to maintain its value.

LM-8.1 Determine proper watering procedures

LM-8.2 Discuss and identify proper wintering, preservation, and maintenance considerations of plants and structures

LM-8.3 Compare the various climatic factors that influence the landscape and the plant materials

LM-8.4 Determine the levels of maintenance needed for proper year round maintenance

LM-8.5 Utilize proper safety and maintenance practices for power equipment used in landscape operations

LM-8.6 Think critically and independently analyze, synthesize, and evaluate technical problems and Information (IvT-LAND 103)

Domain – Landscape Business

Core Standard 9 Students determine the essential components to owning and operating a landscape business.

LM-9.1 Investigate job requirements, education requirements, and personal requirements to start and operate a landscape business

LM-9.2 Identify the equipment and materials needed to start and operate a landscape business

LM-9.3 Prepare and present an estimate to a potential customer

LM-9.4 Identify and interpret health, safety, and welfare standards as dictated by local, state or federal agencies (IvT-LAND 103)

Domain - Careers

Core Standard 10 Students examine the scope of career opportunities in and the importance of agriculture to the economy.

Standards

LM-10.1	Define and explore natural resource agriculture and natural resource agribusiness and their role in the economy
LM-10.2	Evaluate and explore the natural resource career opportunities in agriculture
LM-10.3	Identify how key organizational structures and processes affect organizational performance and the quality of products and services
LM-10.4	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 11 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-11.1	Acquire and demonstrate communication skills such as writing, public speaking, and listening while refining oral, written, and verbal skills
LM-11.2	Recognize and explain the role of the FFA in the development of leadership, education, employability, communications and human relations skills
LM-11.3	Examine roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment
LM-11.4	Acquire the skills necessary to positively influence others
LM-11.5	Develop a skill set to enhance the positive evolution of the whole person

Domain - Supervised Agriculture Experience

Core Standard 12 Students validate the necessity of a Supervised Agricultural Experience (SAE) program as a critical component to a well rounded agricultural education.

Standards

LM-12.1	Explain the nature of and become familiar with those terms related to an SAE program
LM-12.2	Explore the numerous possibilities for an SAE program which a student might develop
LM-12.3	Develop an individual SAE program and implement record keeping skills