Sports Turfgrass Production and Management

Sports Turfgrass Production and Management is a one-credit course that prepares students for sports turfgrass careers. Topics include career opportunities, safety, turfgrass growth, turfgrass management, sports fields, turfgrass tools and equipment, business management, and technology.

Content standards for this course are not intended to serve as the entire curriculum. Teachers are encouraged to expand the curriculum beyond these minimum required content standards to accommodate specific community interests and utilize local resources. This course encourages critical thinking, use of the scientific method, integration of technology, development of student leadership skills, and application of knowledge and skills related to practical questions and problems. Safety concepts are integrated into instruction to the maximum extent possible.

Career and technical student organizations are integral, cocurricular components of each career and technical education course. These organizations serve as a means to enhance classroom instruction while helping students develop leadership abilities, expand workplace-readiness skills, and broaden opportunities for personal and professional growth.

Career Opportunities

Students will:

1. Describe job characteristics in various career opportunities in the sports turfgrass industry.

Safety

2. Identify workplace safety precautions for sports turfgrass personnel.

Turfgrass Growth

3. Identify common names, characteristics, and uses of warm- and cool-season perennial grasses.
   - Categorizing climatic regions in the United States to determine suitable grasses
     Examples: Region 1—Kentucky bluegrass
     Region 2—Bermuda grass

4. Differentiate among the growth patterns of turfgrasses, including rhizome, stolon, and bunch.

5. Explain soil preparation techniques needed during turfgrass renovations.
   Examples: grading, draining, fertilizing
   - Describing components of soils and the importance of each to the turfgrass industry
   - Describing methods of establishing turfgrasses
     Examples: seeding, sodding, plugging, sprigging
Turfgrass Management

6. Evaluate results of a soil analysis.
   - Comparing characteristics of primary and secondary macronutrients and micronutrients
     Examples: primary macronutrients—nitrogen, phosphorus, potassium
               secondary macronutrients—calcium, sulfur, magnesium
               micronutrients—carbon, hydrogen, oxygen, iron, boron, manganese, copper, zinc, molybdenum, chloride
   - Describing symptoms of deficiencies in turfgrasses

7. Identify insects, diseases, and weeds that affect specific turfgrasses.
   Examples: insects—army worms, grubs, mole crickets
             diseases—dollar spot, fairy ring
             weeds—crabgrass, annual bluegrass

8. Differentiate among various types of pesticides.
   Examples: preemergence, postemergence, selective and nonselective monosodium methanearsonate (MSMA)
   - Describing techniques for preparing pesticide mixtures
   - Demonstrating safe use of pesticides

9. Explain mowing heights, frequency of mowing, and patterns of mowing for use on various turfgrasses.

Sports Fields

10. Design a sports field, including dimensions and components.
    Examples: football, baseball, soccer, softball

11. Identify characteristics of various parts of a golf course, including greens, fairways, roughs, traps, and tees.
    - Describing basic design and layout features of a golf course
      Examples: number of greens, number of sand traps, water features, yardage
    - Prescribing maintenance procedures for a golf course
    - Identifying responsibilities of the superintendent, director of grounds, golf professional, marshal, and maintenance crew

12. Evaluate skills needed to design drainage and irrigation systems.
    - Demonstrating skills needed to install and maintain drainage and irrigation systems
      Examples: plumbing, electrical
Turfgrass Tools and Equipment

13. Identify uses of tools and equipment needed for the maintenance of turfgrasses.
   Examples: tools—hand sprayers for applying pesticides, spreaders for applying fertilizers
   equipment—power mowers for cutting turfgrass, gasoline blowers for removing debris

Business Management

   Examples: following instructions, being on-time, cooperating with others
   - Demonstrating managerial skills for the successful operation of a landscape or turfgrass business
     Examples: keeping records, budgeting, pricing, scheduling work, inventorying, purchasing, advertising, handling customer complaints, communicating in oral and written form

Technology

15. Identify advancements in technology that enhance the sports and recreation turfgrass industry.