



Western Technical College

10001110 Turf Management

Course Outcome Summary

Course Information

Description	Selection, cultural care and environmental management of turf in residential and commercial settings will be taught. Students will be trained on current techniques, materials and equipment used in the turf industry. A focus on nutrition, water, and pest management will be a training outcome of this class. Development of maintenance schedules, work schedule and professional ethics will be discussed.
Career Cluster	Agriculture, Food and Natural Resources
Instructional Level	Associate Degree Courses
Total Credits	3
Total Hours	72

Textbooks

No textbook required.

Course Competencies

1. Explore the Turfgrass industry and career opportunities.

Learning Objectives

- 1.a. Investigate the variety of employment settings.
- 1.b. Review the variety of position descriptions in the turfgrass management field.
- 1.c. Participate in the Landscape Horticulture Club.
- 1.d. Identify the variety of professional organizations that address turfgrass management.

2. Investigate turfgrass classification, growth, structure, and characteristics of identification.

Learning Objectives

- 2.a. Review turfgrass classifications and botanical terms.
- 2.b. Investigate turfgrass growth process including germination and growth.
- 2.c. Determine the structural identification and labels in turfgrass plants.

2.d. Identify the characteristics of turfgrass plants for identification.

3. Investigate turfgrass varieties, including; warm season, transition zone, and cool season grasses.

Learning Objectives

3.a. Investigate warm season turfgrass varieties.

3.b. Investigate grasses grown in the Transition Zone for the country.

3.c. Investigate turfgrass plants that are successfully grown in the Cool Season region of our country.

4. Compare soil properties, chemistry, testing, and modifications.

Learning Objectives

4.a. Compare soil properties of sand-silt-clay, organic matter.

4.b. Determine the pH of the soil as it compares to the appropriate pH desired.

4.c. Complete a soil test including the written results and analysis.

4.d. Calculate the appropriate products and volumes needed to correct soil deficiency

5. Select proper fertilization analysis and application procedures

Learning Objectives

5.a. Determine the proper fertilizer ratio based on your soil test.

5.b. Review the variety of vendors that supply fertilizer to meet your recommendations.

5.c. Calculate the appropriate volume of pounds required for each fertilizer application.

6. Determine appropriate turfgrass establishment procedures.

Learning Objectives

6.a. Review the options (seeding, sodding, hydroseeding, etc) for turfgrass establishment.

6.b. Calculate the volume of seed/sod needed for the application.

7. Analyze cultural practices such as mowing, watering, and aerification.

Learning Objectives

7.a. Develop a plan for proper mowing practices including to select the proper mower.

7.b. Develop a plan for irrigation during germination and or established turfgrass.

7.c. Develop a plan for aerification including a calendar-schedule and the selection of the machine for your site.

8. Explore water requirements, including irrigation systems, wetting agents, and restrictions.

Learning Objectives

8.a. Schedule the proper watering rates for your irrigation system.

8.b. Determine if your community has any restrictions on watering and incorporate into your irrigation schedule.

9. Accept responsibility to learn the environmental impact of pesticide selection and application.

Learning Objectives

9.a. Review the various products for pre-germination and post-germination of broad leaf weeds.

9.b. Determine the toxicity level and health risks for the applicator and the general public of the various broad leaf control products.

9.c. Calculate the proper amounts of product to apply and the best means of application.

10. Identify turfgrass weeds and the various cultural controls.

Learning Objectives

10.a. Identify the most common turfgrass weeds.

10.b. Review the cultural practices and corrective measures to control broad leaf weeds in the turfgrass.

11. Identify turfgrass insects and the various benefits and detriments, and the cultural controls.

Learning Objectives

11.a. Identify the most common turfgrass insect for the Midwest.

11.b. Determine the best cultural practices, preventive, and curative means to control insects in the turfgrass.

12. Identify turfgrass diseases and the various cultural controls.

Learning Objectives

- 12.a. Identify the most common turfgrass diseases in the Midwest.
- 12.b. Select the best cultural controls, preventive measures, and curative measures to control turfgrass diseases.

13. Determine management practices and scheduling to improve unsatisfactory turf.

Learning Objectives

- 13.a. Determine tasks to be accomplished for successful turfgrass management.
- 13.b. Create a calendar schedule of tasks to be accomplished for successful turfgrass management

14. Investigate management issues of golf courses.

Learning Objectives

- 14.a. Investigate the environmental improvement programs available to golf course managers.
- 14.b. Investigate the specific environmental issues directly impacting golf course management.

15. Investigate management issues of sports turf.

Learning Objectives

- 15.a. Investigate employment opportunities in sport field management.
- 15.b. Investigate environment issues directly relating to sports turf management.
- 15.c. Investigate professional organizations available to sports turf managers.