

**GROUNDSKEEPER  
(Time-Based)**

**APPENDIX A**

O\*NET-SOC CODE: 37-3011.00

This training outline is a minimum standard for Work Processes and Related Instruction. Changes in technology and regulations may result in the need for additional on-the-job or classroom training.

**WORK PROCESSES**

	<b>Approximate Hours</b>
<b>A. Project Management, Drainage, Grading, &amp; Sodding</b>	<b>300</b>
1. Inspect equipment and check oil, gas, belts, etc. before operation.	
2. Operate equipment such as sod cutters, trenchers, tampers correctly and according to safety protocol.	
3. Aerate area, fertilize, install sod and water to ensure ideal growth of sod.	
4. Trench lines for drainage installation by removing dirt with a dig trencher.	
5. Install gravel, drainpipe, sand, and tamp.	
6. Assure area is at perfect grade before sod by smoothing any uneven areas.	
7. Check sod drainage area and water.	
8. Read and understand plans, field dimensions and blueprints.	
9. Perform proper sodding techniques for standard roll and big roll.	
10. Identify plants and turf used on projects and maintain notes of ornamental plants used in landscaping.	
11. Identify turf types on greens, tees, fairways, roughs and surrounding grounds.	
12. Read seed label to ensure proper turf types selected for projects and seeding.	

**B. Methods of Aerification** **200**

1. Cultivate turf areas when removing thatch, sodding and repairing turf.
2. Understand the usage of needle tine, core, solid, deep tine, verti-drain, aeravator.
3. Learn the techniques for divot repair.
4. Use aerification equipment on areas where thatch buildup and compaction occur.
5. Clean up plugs, top dresses, and amends areas with necessary products.

**C. General Small-Engine Maintenance** **600**

1. Use proper Personal Protective Equipment (PPE) when operating equipment.
2. Tag/lock out equipment, as necessary.
3. Check fuel, oil, belts etc. before operating any equipment.
4. Maintain the quality and routine maintenance of blades.
5. Follow manufacturers' recommendations for maintenance and safe operation.
6. Load equipment on truck and secure.

**D. Trim trees/shrubs using hand and power-operated equipment** **50**

1. Select proper pruning equipment.
2. Prune hedges, thin shrubs, and rejuvenate pruning.
3. Clean up all pruning debris and disposes of properly.
4. Operate gas/battery-powered pruning equipment.
5. Demonstrate use of hand pruners, loppers and pruning saw.

**E. Field Maintenance** **1,000**

1. Select appropriate tools and raking methods for the job.
2. Operate mowers: push/ walk behind/riding, trimmers, edgers and backpack blowers.
3. Demonstrate awareness when using wetting agents and plate tampers to compact sand.
4. Communicate issues with bunker liner, damaged rakes, bunker edging, and/or inappropriate amounts of sand
5. Be familiar with field protection products including recommended uses, costs, dimensions, and safety.

6. Understand the selection and application of pesticides in relation to non-turf events.
7. Gain an understanding in various field repair techniques.
8. Maintain an awareness of stage construction methods and other event set-ups.
9. Understand the importance of paint and stencil choice, suppliers, and costs.
10. Recognize where materials are purchased and pricing.

**F. Adjustment and Repair to Irrigation/Voltage Lighting Systems 150**

1. Repair broken irrigation lines/parts, and valves
2. Repair/set/adjust irrigation heads.
3. Adjust low voltage lights and set timers/clocks for low voltage systems.
4. Conduct periodic irrigation audit, determining the gallons of water being applied based on run time and nozzle.
5. Program days/dates and run times for automatic sprinkler systems.

**G. Facility & Field Upkeep 150**

1. Identify plants needing pruning.
2. Apply mulch.
3. Remove leaves or other debris from job.
4. Complete fall leaf removal throughout fields.
5. Understand the job site requirements and specifications.

**H. Water Management 250**

1. Prepare playing surfaces by applying necessary water amounts depending on readings from moisture meters and physical soil samples.
2. Learn the properties of each soil type for each playing surface and the water holding capacity and wilting point.
3. Help to develop watering plans for mornings and afternoons.
4. Learn to read moisture maps extracted from the moisture meters and other technologies.

**I. Daily Maintenance and Projects 250**

1. Inspect tools, maintenance facility, or vehicles for defects or problems.

2. Coordinate with supervisors' needs for maintenance or, broken equipment, and tools.
3. Coordinate with manager with equipment malfunctions.
4. Perform preventative maintenance on all equipment and vehicles.
5. Load and secure equipment and supplies/materials
6. Inspect and fill out a Department of Transportation (DOT) vehicle inspection report.
7. Inventory tools/equipment/materials to ensure that sufficient supplies are available, and in usable condition.

**J. Application of fertilizers, herbicides, or insecticides**

**450**

1. Apply fertilizers to seasonal color as required.
2. Use a fertilizer spreader to apply fertilizer to turf areas.
3. Select/read appropriate chemical product for the task before mixing and using.
4. Apply products using the proper equipment.
5. Document and keep record of application for New York fertilizer and pesticide agencies.
6. Install pesticide application signage.
7. Fill sprayer tanks with water and chemicals, according to formulas.
8. Identify lawn or plant diseases to determine the appropriate course of treatment.
9. Cover areas to specified depths with pesticides, applying knowledge of weather conditions, droplet sizes, elevation-to-distance ratios, and obstructions.
10. Connect hoses and nozzles according to terrain, distribution pattern requirements, types of infestations, and velocities.
11. Clean or service machinery to ensure operating efficiency, using water, gasoline, lubricants, or hand tools.
12. Develop chemical inventory and usage lists to prepare for annual budget.
13. Maintain winter maintenance on all pesticide application equipment.
14. Clean booms thoroughly and repair any damages.
15. Rinse/clean sprayers, screens, and end caps.
16. Replace nozzles, hoses, filters, electronics, etc.

17. Calibrate sprayers.

**APPRENTICE MUST COMPLETE ONE OF THE FOLLOWING TWO CONCENTRATIONS:**

**K. Golf Course Maintenance**

**600**

1. Check/move tee markers; fill tee divots; and ensure area is clean and free of interference.
2. Cut cups in a playable location while adhering to the parameters of the front, middle, back systems and avoid areas of the green showing signs of wear.
3. Roll greens when necessary.
4. Take stimpmeter readings.
5. Paint and mark out all penalty areas and ground under repair.
6. Identify turf type on greens, tees, fairways, roughs and surrounding grounds.
7. Maintain notes of ornamental plants used in landscaping.

**L. Sports Field Maintenance**

**600**

1. Understand the importance of paint and stencil selection, suppliers, and costs.
2. Demonstrate painting techniques using airless and/or backpack sprayers.
3. Gain awareness of various line marking techniques including: chalking, aerosol, painters, airless paint sprayers, and hand painting.
4. Recognize the use for templates for lines, hash marks, numbers, and batter's box.
5. Gain an understanding of what materials are available for field tarp, sand how are they selected and when used.
6. Maintain an awareness of the materials selected for the infield base paths, home plate, and pitcher's mound.
7. Identify the soil texture and maintenance routine of the skin.
8. Use polymer coated clay and waterless technology.
9. Recognize how and why conditioners are used.
10. Recognize how materials are selected for pitching surfaces and home plate area.
11. Identify how moisture regulation is important in maintaining a pitching mound.

12. Demonstrate where to find field layout guidelines.
13. Complete The Field Dimension Diagrams within the "Worksheets" section.
14. Paint and mark penalty areas and ground under repair.
15. Understand sport specific field dimensions and layout, including lining of fields.
16. Understand the different "care levels" of fields, along with inputs and cultural practices received during the playing season and once season is over.
17. Monitor field conditions to ensure safety facility users and employees.

**Approximate Total Hours      4,000**

*Apprenticeship work processes are applicable only to training curricula for apprentices in approved programs. Apprenticeship work processes have no impact on classification determinations under Article 8 or 9 of the Labor Law. For guidance regarding classification for purposes of Article 8 or 9 of the Labor Law, please refer to <https://dol.ny.gov/public-work-and-prevailing-wage>*

**GROUNDSKEEPER**  
**APPENDIX B**  
**RELATED INSTRUCTION**

**Safety/Health/Environment**

1. General Workplace Safety
2. Right-to-Know/Safety Data Sheets (SDS)
3. First Aid & CPR
4. Sexual Harassment Prevention Training – MUST comply with section 201-g of the Labor Law

**Trade Theory, Science and Math**

1. Horticultural Practices/Chemicals
2. Irrigation Installation & Repairs
3. Drainage Installation
4. Turfgrass Cultural Practices
5. Turfgrass management, maintenance, and protection
6. Equipment Operation
7. Soil Testing
8. Botany
9. Tree Maintenance
10. Water Management
11. Golf Course Management
12. New York State Pesticide Commercial and Category License (if applicable)

**Other related topics as necessary**

A Minimum of 144 Hours of Related Instruction is required for each apprentice for each year.

Appendix B topics are approved by New York State Education Department.