Appendix P

HOSPITALITY, LODGING, AND TOURISM
YOUTH APPRENTICESHIP

MAINTENANCE AND GROUNDS
UNIT 8
Unit 8: ALL Pathways
Maintenance and Grounds Unit

Competency

1. Prepare maintenance supplies and carts

Performance Standard Condition
   Competence will be demonstrated
   • at the worksite and classroom

Performance Standard Criteria
   Performance will be successful when the learner:
   • Obtain required supplies and equipment from maintenance shop storage
   • Restock carts with supplies
   • Use protective gloves and clothing as required
   • Handle cleaning solutions and chemicals safely as indicated on MSDS
   • Wash hands as required
   • Returns or disposes used supplies to storage or for disposal as required
   • Keeps cart organized
   • Completes required records for stocking, use, and return/disposal of supplies

Learning Objectives
   • Outline compliance requirements of safety and health standards
   • Describe the layout of the common facility maintenance area
   • Demonstrate proper hand-washing
   • List and describe the uses of the various cleaning and chemical solutions used in the
     maintenance and grounds area
   • Describe how pests are controlled in your facility
   • Explain how to store and use pesticides properly

Comments:
Unit 8: ALL Pathways
Maintenance and Grounds Unit

Competency

2. Operate tools and equipment safely

Performance Standard Condition

Competence will be demonstrated

- at the worksite and classroom

Performance Standard Criteria

Performance will be successful when the learner:

- Operate only equipment that trained on
- Choose correct tool or equipment for the task
- Follow and complete any tool check list
- Verify tool/equipment is available for use and in working order
- Verify tool/equipment is current for preventative maintenance and/or calibration
- Verify safety equipment and any Personal Protective Equipment (PPE) needed for tool/equipment use
- Inspect tool/equipment and work area for safety considerations
- Check air and power supplies as applicable
- Set up and prepare tool/equipment for safe operation including lubrication and fluid level checks
- Wear the required Personal Protective Equipment (PPE) at all times as required for the operation of the tool/equipment
- Operate tool/equipment safely with guarding devices if applicable in the manner required for the job task
- Monitor tool/equipment for safe operation while operating
- Follow facility procedures for clean up and shut down after use
- Investigate and promptly report abnormal tool/equipment conditions
- Properly shut down and label any tool/equipment that is not operating as expected, if applicable
- Follow Lock Out/Tag Out procedures as applicable
- Document use and maintenance as required
- Monitor tool/equipment to ensure that that corrective action solved the problem
Learning Objectives

- Distinguish between common hand tools including hammers, wrenches, and pliers
- Distinguish between screw thread types and sizes
- List the various tools and equipment used at your worksite such as cutting and non-cutting hand tools, mowers, snow blowers, sod cutters, electric clippers, pruning saws, etc.
- Outline applications of each tool and equipment
- Describe and demonstrate the safety requirements for each tool and equipment
- Discuss start up and shut down procedures for each tool/equipment you will operate
- Explain the purpose of preventative maintenance
- Describe emergency shutdown procedures for the tool/equipment you will operate
- Explain how to recognize and address malfunctions for the tool/equipment you will operate
- Describe how to recognize wear and tear on equipment components
- Describe how to select lubricants and coolants as applicable
- List the OSHA and other regulatory requirements as they apply to the equipment that you operate
- List the safeguards that apply to the equipment used in your facility for tools, automated machines, material handling equipment, and lifts
- List which tools and equipment require safety certification
- Explain Lock Out/Tag Out indications and procedures in your facility

Comments:
Unit 8: ALL Pathways
Maintenance and Grounds Unit

Competency

3. Use tools to maintain grounds and equipment

Performance Standard Condition

Competence will be demonstrated
• at the worksite and classroom

Performance Standard Criteria

Performance will be successful when the learner:
• Maintain and repair equipment, and structures such as buildings, greenhouses, fences, and benches, using hand and power tools
• Operate powered equipment such as mowers, tractors, snow blowers, electric clippers, and sod cutters
• Use hand tools such as shovels, rakes, pruning saws, saws, hedge and brush trimmers, and axes

Learning Objectives
• Evaluate methods for equipment maintenance and repair to avoid downtime
• List advantages for repairing on site
• List advantages of securing a technician from off-site
• List factors to consider in selecting a technician
• List the factors involved with preventive maintenance (time, cost)
• List the factors involved with emergency repair (downtime, cost)

Comments:
Unit 8: ALL Pathways  
Maintenance and Grounds Unit

Competency  
4. Assist to perform routine preventative maintenance

Performance Standard Condition

**Competence will be demonstrated**
- at the worksite and classroom
- While assisting a worksite professional

Performance Standard Criteria

**Performance will be successful when the learner:**
- Perform routine preventative maintenance (PM) according to facility schedule
- Communicate scheduled PM to management
- Assure that alternative equipment is available if needed
- Gather supplies to perform PM
- Ensure that equipment is properly labeled and pulled from use
- Follow appropriate Lock Out/Tag Out procedures prior to performing PM
- Follow all safety requirements and wear appropriate Personal Protective Equipment (PPE) as required
- Assist worksite professional to follow PM schedule to calibrate and maintain equipment, tools and workstations
- Assist worksite professional to re-qualify equipment for operation
- Cleans up area after PM
- Document preventative actions taken

Learning Objectives
- Describe the different types of lubricants, their uses, storage, and disposal requirements
- Discuss how to use a viscosimeter and grease gun
- Describe how diagrams schematics, equipment manuals, and equipment specifications to determine the schedule and process for PM

Comments:
Unit 8: ALL Pathways
Maintenance and Grounds Unit

Competency

5. Assist with routine repair maintenance

Performance Standard Condition

**Competence will be demonstrated**
- at the worksite and classroom
- While assisting a worksite professional

Performance Standard Criteria

**Performance will be successful when the learner:**
- Assures that alternative equipment is available if needed
- Consults worksite professionals, maintenance manuals, and equipment history to diagnose possible equipment problems
- Gathers supplies to perform repair
- Ensures that equipment is properly labeled and pulled from use
- Follows appropriate Lock Out/Tag Out procedures prior to performing repair
- Follows all safety requirements and wears appropriate Personal Protective Equipment (PPE) as required
- Assists worksite professional to isolate system and component failure and to repair equipment problems
- Assists worksite professional to identify root cause of problem and develop corrective action plan
- Assists worksite professional to re-qualify equipment for operation
- Cleans up area after repair
- Documents repairs completed
- Evaluates repair work through follow up

Learning Objectives

- Describe how diagrams schematics, equipment manuals, and equipment specifications to determine repair
- Discuss the need to prevent contamination of fluids and bearings
- Describe the most common causes of tool/equipment failure in your facility
- Explain the meaning of common alarms on equipment at your facility
- Compare what equipment and equipment material are recyclable and what is not at your facility
- Describe the purpose, function, and components of diagnostic testing equipment used in your facility

Comments:
Unit 8: ALL Pathways  
Maintenance and Grounds Unit

Competency

6. Assist with maintenance communication

Performance Standard Condition

**Competence will be demonstrated**
- at the worksite and classroom
- While assisting a worksite professional

Performance Standard Criteria

**Performance will be successful when the learner:**
- Verify communication with appropriate parties in a timely manner
- Communicate maintenance and repair needs clearly
- Use the correct reporting formats for communication
- Document maintenance and repair activities accurately
- Report back and document any maintenance and repair issues in a timely manner
- Investigations are complete, timely, and include indication of root cause
- Maintenance communication is timely and accurate
- Maintenance communication is documented

Learning Objectives
- Discuss how to schedule repair and maintenance functions with respect to facility requirements and guest needs
- Explain how communication for repair and maintenance issues demonstrates a knowledge of customer and business needs
- List the parties that need to be involved of repair and maintenance issues
- Describe the importance of documenting communications

Comments:
Unit 8: ALL Pathways
Maintenance and Grounds Unit

Competency
7. Maintain grounds- Public Spaces

Performance Standard Condition

**Competence will be demonstrated**
- at the worksite and classroom

Performance Standard Criteria

**Performance will be successful when the learner:**
- Prepare tools and equipment for maintenance
- Shovel snow from walks, driveways, and parking lots, and spread salt in those areas
- Gather and remove litter
- Provide proper upkeep of sidewalks, driveways, parking lots, fountains, planters, and other grounds features

Learning Objectives
- Discuss the importance of the appearance of public spaces in the hospitality industry
- Explain how facility appearance and grounds maintenance affect the overall guest experience
- Describe how to shovel snow by hand to avoid back injury
- Explain the use of salt and sand to prevent falls and slips
- Describe the effective temperature ranges of salt and sand to remove snow and ice from walkways
- Explain how chips, holes, and cracks are maintained at a facility in order to prevent slips and falls

Comments:
Unit 8: ALL Pathways
Maintenance and Grounds Unit

Competency
8. Maintain grounds- Green Spaces

Performance Standard Condition
Competence will be demonstrated
• at the worksite and classroom

Performance Standard Criteria
Performance will be successful when the learner:

• Prepare tools and equipment for maintenance
• Plant, tend, trim, and weed flower beds
• Care for lawns by mowing, mulching, aerating, weeding, grubbing and removing thatch, and trimming and edging around flower beds, walks, and walls
• Prune and trim trees, shrubs, and hedges, using shears, or pruners
• Rake, mulch, and compost leaves
• Water lawns, trees, and plants, using portable sprinkler systems, hoses, or watering cans
• Use irrigation methods to adjust the amount of water consumption and to prevent waste
• Mix and spray or spread fertilizers, herbicides, or insecticides onto grass, shrubs, and trees, using hand or automatic sprayers or spreaders
• Look for insect infestations and plant diseases

Learning Objectives
• Explain the proper use and techniques for lawn mowing, planting, weeding, pruning, and watering
• Describe equipment and any special solutions used for lawn mowing, planting, weeding, pruning, and watering
• Compare and contrast different fertilizer treatments for effectiveness, safety, and environmental impact
• Describe common plant diseases and insect infestations and what they look like
• Explain how to rake and collect leaves to avoid back injuries
• Describe the benefits of composting
• Describe seasonal maintenance needs at your facility
• Determine a planting plan for seasonal displays of foliages, plants, and flowers

Comments:
Unit 8: ALL Pathways
Maintenance and Grounds Unit

Competency
9. Perform preventative maintenance of public areas

Performance Standard Condition
   Competence will be demonstrated
   • at the worksite and classroom

Performance Standard Criteria
   Performance will be successful when the learner:
   • Prepare tools for maintenance work
   • Maintain and service ice machines
   • Clean the pool(s)
   • Paint walls and other surfaces both inside and outside
   • Perform pressure washing
   • Troubleshoot the vacuum cleaners
   • Keep the maintenance shop organized

Learning Objectives
   • Describe when pressure washing a surface is indicated
   • Describe common routine preventative maintenance (PM) for public areas
   • Describe the proper equipment and techniques for PM to common public areas such as leaky faucets, toilets, and repairs to ceramic tile/grout, wallpaper, door locks, fixtures, etc.
   • Discuss special requirements to maintain public restrooms and pool facilities
   • Explain various types of equipment and techniques used to paint interior and exterior surfaces

Comments:
Unit 8: ALL Pathways  
Maintenance and Grounds Unit

Competency

10. Perform routine maintenance on guest rooms (LODGING ONLY)

Performance Standard Condition

Competence will be demonstrated
• at the worksite and classroom

Performance Standard Criteria

Performance will be successful when the learner:
• Prepare tools for maintenance work
• Communicate out of order room status
• Perform preventative maintenance on guestrooms
• Perform interior installations
• Repair wash basin drains
• Repair faucet leaks and drips
• Repair ceramic tile and grout
• Service and repair toilets
• Install ceiling fans
• Replace out of order television sets
• Apply and repair wallpaper

Learning Objectives
• Discuss the importance of the appearance and functionality for guest rooms in the hospitality industry
• Explain how room appearance and functionality affect the overall guest experience
• Describe common routine repairs for guest rooms
• Describe the proper equipment and techniques to make common guest room repairs such as leaky faucets, toilets, and repairs to ceramic tile/grout, wallpaper, door locks, fixtures, etc.
• Describe common troubleshooting techniques for inoperative vacuum cleaners, ice machines, vending machines, clogged toilets, watering systems, heating/cooling systems, and maintenance equipment.
• Explain the replacement schedule for room items such as TVs, clocks, lights, chairs, mattresses, etc. at your facility

Comments: