



Turfgrass Apprenticeship Program

UNIVERSITY OF WISCONSIN-MADISON

Golf Course Maintenance Apprenticeship Tasks

Developed in concert with the Wisconsin Golf Course Superintendents Association

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| Introduction: | The University of Wisconsin - Madison Turfgrass Apprenticeship Program (TAP) consists of a 12-week, in-person educational bootcamp and field-based apprenticeship at a turfgrass facility. Completion of the educational bootcamp is required prior to initiation of the apprenticeship. This document details the specific requirements related to completion of the apprenticeship for students interested in golf course maintenance. Successful completion of both the educational bootcamp and the apprenticeship is required to earn the Turfgrass Apprenticeship Program Certificate of Completion. |
| Requirements: | Apprentices must complete all of the tasks listed below and have their direct, on-site supervisor verify they have sufficiently completed each activity. These tasks were developed with input from the Wisconsin Golf Course Superintendents Association and are designed to approximate the skills expected of a new Assistant Superintendent. Once the supervisor verifies completion they should sign and date to the right of each task listed below. Upon completion of all the tasks, the completed booklet can be presented to either Paul Koch or Doug Soldat in-person or by scanning and emailing the completed booklet to one of the instructors. Once the apprentice booklet has been received and documented by Paul or Doug a final Turfgrass Apprenticeship Program Certificate of Completion will be mailed to the student. Records of completion will be permanently kept on file by Paul Koch and Doug Soldat. |
| Documentation: | Daily journals and written reports are strongly encouraged, but not required, during the apprenticeship. Daily journals will help the apprentice keep record of task completion, facility operation, and professional skills obtained throughout the duration of the apprenticeship. The journal should be well organized and include regular documentation using photos and videos. Upon completion of the apprenticeship the journal can be transformed into a portfolio to be used when applying for future job opportunities and differentiate the apprentice's experience from other applicants. |

Contact Information: If you have any questions regarding any of the apprenticeship tasks on this list or anything related to the apprenticeship program, please contact either Doug Soldat or Paul Koch. We hope you have a great experience during your apprenticeship!

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List of Apprenticeship Tasks for Golf Course Maintenance



ADMINISTRATION

| <i>Staff supervision, training, and communication:</i> <u>3 of 6 tasks required</u> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|---|--|-------------|
| Setup and direct golf course maintenance staff for daily operations. Supervise and manage staff to ensure tasks are completed correctly. | | |
| Create a Standard Operation Procedure for one task on the golf course, train someone on that task utilizing SOP as a guide. Provide SOP and task. | | |
| Create and communicate a work schedule for an entire pay period. | | |
| Review and list your facilities full-time and seasonal staff recruitment, hiring and retainment procedures. | | |
| Organize and execute a staff team-building event. (Examples: crew photo, cookout, safety training, recreational activity). | | |
| Create/update a personal resume. | | |

| <i>Financial management:</i> <u>2 of 3 tasks required</u> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|---|--|-------------|
| Review and provide summary of your facility's payroll tracking and submission procedures. | | |
| Review and provide summary of your facility's operating and capital budget process. | | |
| Review and provide summary of your facility's purchasing/invoice coding processes. | | |

| <i>Record keeping:</i> <u>3 of 7 tasks required</u> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|--|--|-------------|
| Maintain Apprenticeship journal. Include photos, document task completion, club events, weather. | | |
| Review/report how payroll records are maintained. | | |
| Review/report how chemical/fertilizer records and inventory are maintained. | | |
| Review/report how equipment maintenance records are maintained. | | |
| Review/report how water use records are maintained. | | |
| Review/report how financial records, monthly financials, budget records are maintained. | | |
| Review/report how equipment and parts inventory are maintained. | | |

| <i>Guest/member relations:</i> <i>1 of 3 tasks required</i> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|---|--|-------------|
| Provide golf operations an update of daily maintenance operations. | | |
| Spend a day with golf operations (range set up, bag room, proshop, cart maintenance). | | |
| Write and post a newsletter summarizing a project or event at your facility. | | |

| <i>Safety and facility organization:</i> <i>1 of 3 tasks required</i> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|---|--|-------------|
| Review/summarize facility SDS binder, Right to Know station. | | |
| Review/summarize facility first aid and fire suppression. | | |
| Review/summarize safety equipment provided at your facility. | | |

AGRONOMICS

| <i>Cultural Practices (mowing, aerification, topdressing, rolling, etc.):</i> <i>2 of 4 tasks required</i> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|--|--|-------------|
| Document/provide overview of your facilities entire cultural program for all golf course playing surfaces. Provide specifics on equipment needed, frequency of practice, mowing heights, timing, and material(s) used. | | |
| Execute a cultural practice from start to finish. List labor and equipment to complete, including desired results. | | |
| Identify a turf related issue at your facility and list the cultural corrective actions taken to resolve the problem. | | |
| Measure and document green speed/ball roll prior to and following mowing and rolling. | | |

| <i>Fertilizer/Pesticide calibration and application:</i> <i>3 of 6 tasks required</i> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|--|--|-------------|
| Utilizing proper sampling techniques, perform a soil and water test at your facility. | | |
| Calibrate a rotary/drop spreader. | | |
| Calibrate a backpack and/or boom sprayer. | | |
| Following proper training- mix, load and spray a playing surface. Document application records. | | |
| Following proper training- fertilize a playing surface. | | |
| Create a detailed list of liquid and granular application <u>equipment</u> used at your facility. Include the following information: make, model, primary use, carrier volume, nozzle selection, working speed, PSI. | | |

| <i>Plant disease, pests, and stress management:</i> <u>3 of 6 tasks required</u> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|--|--|-------------|
| Identify/diagnose 3 major diseases issues at your facility. Develop an IPM plan to control each. | | |
| Identify/diagnose 3 major weeds at your facility. Develop an IPM plan to control each. | | |
| Identify/diagnose 3 major turf/landscape insect issues at your facility. Develop an IPM plan to control each. | | |
| Identify/diagnose 3 abiotic turf stress issues at your facility. Develop/document a maintenance plan to remedy each. | | |
| Properly prepare a turf disease sample for submission/testing. | | |
| Obtain T&O Pesticide applicator training certification in the state of apprenticeship. | | |

| <i>Water management:</i> <u>2 of 3 tasks required</u> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|--|--|-------------|
| Review/report your facilities water management plan of measuring/applying irrigation (ET based, wetting agent usage, plant health, moisture meter target VWC). | | |
| Work with supervisor to setup, adjust and download an irrigation program. | | |
| Utilizing proper testing methods measure soil infiltration, compaction or volumetric water content. | | |

| <i>Landscape Management:</i> <u>1 of 2 tasks required</u> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|---|--|-------------|
| Review/report your facilities tree management plan (planting, treatment, maintenance, removal). | | |
| Review/report your facilities ornamental management plan (planting, treatment, maintenance). | | |

| <i>Environmental:</i> <u>1 of 3 tasks required</u> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|---|--|-------------|
| Review/document wildlife present at your facility. | | |
| Review/document pollinator habitats at your facility. | | |
| Review/report your facility's nutrient management guidelines (i.e., Wisconsin NR151). | | |

SYSTEMS/INFRASTRUCTURE MAINTENANCE

| <i>Irrigation:</i> <u>4 of 8 tasks required</u> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|---|--|-------------|
| Complete brief written summary of your facility's irrigation system (age of system, manufacturer of control system, piping layout/type, sprinkler head manufacturer, number of sprinkler heads, pumpstation specifics, water source). | | |
| Completely disassemble a sprinkler, label parts, and reassemble per manufacturer specification. | | |
| Review/report pumpstation maintenance/service plan. | | |
| Perform an irrigation catch can audit of a specific turf area. | | |
| Perform an irrigation system pipe or plumbing repair. List issue and repair made to correct the problem. | | |
| Review/report your facilities irrigation system start up and shut down procedures. | | |
| Using a wire locator, trace the wire path for every sprinkler in a green or tee loop. | | |
| Using a multi-meter, troubleshoot an electrical issue. List issue and corrective action taken to remedy the problem (examples: solenoid amperage, satellite fuse testing, communication troubleshooting). | | |

| <i>Drainage:</i> <u>2 of 3 tasks required</u> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|---|--|-------------|
| Summarize your facility's drainage system infrastructure. | | |
| Document a drainage issue, create a plan and costs associated to resolve. | | |
| Perform a drain tile repair or new install. | | |

| <i>Equipment maintenance:</i> <u>2 of 4 tasks required</u> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|--|--|-------------|
| Under the direction of your supervisor, perform routine service on a piece of equipment (lubricant check/change, grease, reel/bedknife, height check and adjustment, reel and bedknife grinding, tire pressure). | | |
| Review/report your facility's equipment maintenance plan (reel sharpening, preventative maintenance, service intervals). | | |
| Perform an equipment repair utilizing a manufacturer service manual. List repair made and parts used. | | |
| Review/report your facility's equipment replacement plan. | | |

| <i>Project management (construction and renovation): 2 of 2 tasks required</i> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|--|--|-------------|
| Review/report a list of your facility's short- and long-term projects. | | |
| Perform a golf course project (seeding, sodding, surface repair). List project goals, cost and tasks required to complete. | | |

| <i>Ponds and waterways: 1 of 1 tasks required</i> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|--|--|-------------|
| Review/report your facility's water features and management plan (ponds/waterway-acreage, inflow, outflow, water testing procedures, aquatic weed management). | | |

| <i>Playing surfaces (greens, tees, fairways, rough, natives, bunkers, practice facility): 1 of 1 tasks required</i> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|--|--|-------------|
| Review/report your facilities playing surface information (year constructed, property acreage and acreage per playing surface, soil types, grass varieties, bunker construction and specific sand used). | | |

| <i>Cart paths: 1 of 1 tasks required</i> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|--|--|-------------|
| Review/report cart path and parking lot location, material type, maintenance, and replacement schedules. | | |

OPERATIONS

| <i>Course preparation and setup: 2 of 4 tasks required</i> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|--|--|-------------|
| Review/report your facilities overall daily maintenance plan (task schedules and mowing direction, frequency, order of operation, time to complete each task, practice facility maintenance schedule). | | |
| Perform and master course setup (change pin and tee locations, traffic control, yardage measurement). | | |
| Review, report and perform course marking relative to the rules of golf and specific to your facility (lateral and water hazards, out of bounds, drop zone(s), ground under repair). | | |
| Work with your facility's golf operations staff to setup a tournament or special event (pin sheet, minimum or maximum yardage, proxies). | | |

| <i>Equipment operation:</i> <i>3 of 5 tasks required</i> | <i>Supervisor signature upon successful completion</i> | <i>Date</i> |
|--|--|-------------|
| Review/report an inventory of equipment used at your facility. Rate numerically your ability to operate based on the following scale: <u>1</u> -No experience <u>2</u> -Basic understanding <u>3</u> -Proficient <u>4</u> -Expert. | | |
| Maintain a turf area in playable condition using hand and/or specialized power equipment. | | |
| Maintain a bunker and/or hazard in playable condition using hand and/or specialized power equipment. | | |
| Clean limbs, branches, leaves, and debris from the course using hand and/or specialized power equipment. | | |
| Prepare, grade and plant landscape areas using tractors, loaders, trucks, and hand-tools. | | |