



# Turfgrass Apprenticeship Program

UNIVERSITY OF WISCONSIN-MADISON

## Sports Turf Maintenance Apprenticeship Tasks

Developed in concert with the Wisconsin Sports Field Managers Association

### 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 sports turf and grounds 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 Sports Field Managers Association and are designed to approximate the skills expected of a new Assistant Grounds Manager. 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 Sports Turf Maintenance

## Administration

### Staff Supervision, Training, and Communication

<b>3 of 6 tasks required</b>	<b>Supervisor signature upon successful completion</b>	<b>Date</b>
Set up and direct daily sports turf maintenance operations; supervise staff to ensure tasks are completed correctly.		
Create a Standard Operating Procedure (SOP) for one sports turf task (e.g., field painting, game-day setup, aerification). Train a staff member using the SOP.		
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.		

## Financial Management

<b>2 of 3 tasks required</b>	<b>Supervisor signature upon successful completion</b>	<b>Date</b>
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.		

## Recordkeeping

<b>3 of 7 tasks required</b>	<b>Supervisor signature upon successful completion</b>	<b>Date</b>
Maintain Apprenticeship journal. Include photos, document task completion, events, weather.		
Review/report how payroll records are maintained.		

<b>3 of 7 tasks required</b>	<b>Supervisor signature upon successful completion</b>	<b>Date</b>
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.		

### **Stakeholder/client relations**

<b>1 of 3 tasks required</b>	<b>Supervisor signature upon successful completion</b>	<b>Date</b>
Provide coaches, athletic directors, or facility managers with an update of daily or weekly maintenance operations.		
Spend a day working with athletic operations or event staff (practice setup, game-day operations, cleanup).		
Write and post a newsletter summarizing a project or event at your facility.		

### **Safety and facility organization**

<b>1 of 3 tasks required</b>	<b>Supervisor signature upon successful completion</b>	<b>Date</b>
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

## Cultural practices

<b>2 of 4 tasks required</b>	<b>Supervisor signature upon successful completion</b>	<b>Date</b>
Document and provide an overview of the facility's cultural program for all sports fields, including mowing heights and frequency, mowing equipment used, timing, and materials used.		
Execute a cultural practice (e.g., mowing pattern change, aerification, topdressing, overseeding) from start to finish and document labor, equipment, and outcomes.		
Identify a turf performance issue (e.g., wear, compaction, density) and describe cultural corrective actions.		
Measure and document surface firmness, traction, or playability before and after a cultural practice.		

## Fertilizer and pesticide calibration and application

<b>3 of 6 tasks required</b>	<b>Supervisor signature upon successful completion</b>	<b>Date</b>
Submit samples for soil testing using proper sampling techniques and interpret results.		
Calibrate a rotary/drop spreader.		
Calibrate a backpack and/or boom sprayer.		
Mix, load, and apply a pesticide following proper training and regulations; document application records.		
Fertilize a sports field and document rates, timing, and rationale.		
Create a detailed list of liquid and granular application <b>equipment</b> used at your facility. Include the following information: make, model, primary use, carrier volume, nozzle selection, working speed, PSI.		

## Plant disease, pests, and stress management

3 of 6 tasks required	Supervisor signature upon successful completion	Date
Create an IPM plan for three diseases common to sports fields. The plan should include a scouting strategy and/or the optimal infection conditions.		
Create an IPM plan for three weeds common to sports fields. The plan should include a scouting strategy and/or the conditions that favor weed encroachment.		
Create an IPM plan for three insect pests common to sports fields. The plan should include a scouting strategy and/or the conditions that favor each insect pest.		
Identify three abiotic stress issues (e.g., traffic stress, compaction, heat, drought) and develop management plans for each one.		
Properly prepare a turf disease sample for submission/testing.		
Obtain T&O Pesticide applicator training certification in the state of apprenticeship.		

## Water management

2 of 3 tasks required	Supervisor signature upon successful completion	Date
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.		
Measure soil moisture, infiltration, or compaction using appropriate tools.		

## Environmental stewardship

1 of 3 tasks required	Supervisor signature upon successful completion	Date
Document wildlife or pollinators present at the facility.		
Review and document conservation or pollinator areas associated with the sports complex.		

<b>1 of 3 tasks required</b>	<b>Supervisor signature upon successful completion</b>	<b>Date</b>
Review/report your facility's nutrient management guidelines (i.e., Wisconsin NR151).		

## Systems/Infrastructure Maintenance

### Irrigation systems

<b>3 of 6 tasks required</b>	<b>Supervisor signature upon successful completion</b>	<b>Date</b>
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.		
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.		
Use diagnostic tools to troubleshoot an electrical or communication issue with an irrigation system.		

### Drainage

<b>2 of 3 tasks required</b>	<b>Supervisor signature upon successful completion</b>	<b>Date</b>
Summarize your facility's drainage system infrastructure.		
Document a drainage issue, create a plan and costs associated to resolve.		
Perform or assist with a drain tile repair or new installation.		

## Equipment maintenance

<b>2 of 4 tasks required</b>	<b>Supervisor signature upon successful completion</b>	<b>Date</b>
Perform routine service on sports turf equipment (lubrication, height adjustment, blade inspection).		
Review/report your facility's equipment maintenance plan (blade sharpening, preventative maintenance, service intervals).		
Perform or assist with an equipment repair utilizing a manufacturer service manual. List repair made and parts used.		
Review/report your facility's equipment replacement plan.		

## Operations And Event Management

### Field preparation and game-day operation

<b>3 of 5 tasks required</b>	<b>Supervisor signature upon successful completion</b>	<b>Date</b>
Review and document each field's construction history, soil type, turf species, and usage intensity.		
Review/report your facilities overall daily maintenance plan (task schedules and mowing pattern, frequency, order of operation, time to complete each task).		
Perform full game-day field setup including mowing, lining/painting, goals, bases, or logos.		
Review and implement field layout and markings consistent with sport governing bodies.		
Assist with preparation for a tournament, multi-game event, or televised contest.		

## Equipment operation

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