



INSTRUCTIONAL PACKAGE

TUF 201

SCWE in Golf Course Management

Effective Term

Summer 2024/Fall 2024/Spring 2025

INSTRUCTIONAL PACKAGE

Part I: Course Information

Effective Term: Fall 2023/Spring 2024/Summer 2024

COURSE PREFIX: TUF 201

COURSE TITLE: SCWE in Golf Course Management

CONTACT HOURS: 32

CREDIT HOURS: 8.0

RATIONALE FOR THE COURSE:

Students are required to work on a golf course for a period of ten weeks. During this time the students are required to work 40 hours per week, keep accurate records of the job and time required, gain experience in supervision, and make an objective report of the course's problems, corrections, and cost analysis.

COURSE DESCRIPTION:

This course provides for practical work experience at an approved golf course. Recordkeeping, experience in supervision and objective reporting of the golf course's problems, corrections, and cost analysis are included. Should a student not be assigned to work on a specific golf course, he or she will be given specific assignments depending upon their specialized area of study. Example: landscape company or turf farm

PREREQUISITES/CO-REQUISITES:

TUF 172 - Turf Management

***Online/Hybrid** courses require students to complete the [DLi Orientation Video](#) prior to enrolling in an online course.

REQUIRED MATERIALS:

Please visit the [BOOKSTORE](#) online site for most current textbook information.

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

ADDITIONAL REQUIREMENTS:

The following materials must be submitted at the end of the semester on the dates assigned below. **All materials must be typed. No handwritten reports will be accepted.**

1. Eight completed reports.
2. A daily log (record or diary) for your ten-week period of employment.
3. A completed supervisor evaluation form. A student receiving an unsatisfactory evaluation from his/her supervisor will receive a grade of "U" and will be required to repeat the course.

REFERENCE MATERIALS: Best Golf Course Management Practices by L. B. McCarty.

RESOURCE PERSONNEL: Superintendent of the Assigned Golf Course and Golf Course Management Faculty

TECHNICAL REQUIREMENTS:

Access to Desire2Learn (D2L), HGTC's student portal for course materials. myHGTC and college email access.

STUDENT IDENTIFICATION VERIFICATION:

Students enrolled in online courses will be required to participate in a minimum of one (1) proctored assignment and/or one (1) virtual event to support student identification verification. Please refer to your Instructor Information Sheet for information regarding this requirement.

CLASSROOM ETIQUETTE:

As a matter of courtesy to other students and your professor, please turn off cell phones and other communication/entertainment devices before class begins. If you are monitoring for an emergency, please notify your professor prior to class and switch cell phone ringers to vibrate.

NETIQUETTE: is the term commonly used to refer to conventions adopted by Internet users on the web, mailing lists, public forums, and in live chat focused on online communications etiquette. For more information regarding Netiquette expectations for distance learning courses, please visit [Online Netiquette](#).

Part II: Student Learning Outcomes

COURSE LEARNING OUTCOMES and ASSESSMENTS*:

Unit I - The student should be able to operate basic turf equipment, exhibit operational mechanical skills, display good housekeeping techniques, display acceptable work habits and personal traits as required on his/her assigned golf course.

Unit II - The student should be able to analyze the physical, organizational, and operational procedures of an assigned golf course.

REQUIRED COURSE ASSIGNMENTS AND OUTLINE:

Unit I Operational Skills

A daily log is prepared by the student using the designated format.

- A. Operation of Equipment
- B. Maintenance of Equipment
 - 1. Cleaning and Housing Equipment
 - 2. Daily Routine Maintenance Operations
- C. Application of Fertilizers and/or Pesticides
- D. Work Relationships

1. Communication Skills
2. Attitude toward Work and Personnel
3. Personal Attributes
4. Grooming

Unit II Analysis of Golf Course Operations

The student will complete eight (8) assigned projects analyzing the maintenance and management of the golf course.

- A. Soil Analysis
- B. Pesticides/Spreader and Sprayer Calibrations
- C. Measurements, IPM and Pesticide and Chemical Application:
- D. Management of the Golf Course/Chain of Command
- E. Maintenance Operations
- F. General Management Problems
- G. Special Topic Report
- H. Irrigation System Analysis

SPECIFIC SKILLS:

Unit I - It should be noted that the student may not be accountable for all of the following equipment due to time and designated responsibilities given by the supervisor.

1. Operate greens, tee and fairway sprayers.
2. Operate auxiliary pest spraying equipment.
3. Operate greens and fairway verticutters.
4. Operate soil injection equipment.
5. Operate greens and fairways aerification equipment.
6. Operate transportation equipment.
7. Operate and repair irrigation equipment.
8. Operate other miscellaneous equipment.
9. Check basic maintenance requirements prior to operation of the equipment.
10. Properly clean equipment after job completion.
11. Operate the equipment with minimal supervision without making mistakes.
12. Accurately follow instructions.
13. Communicate with golf course personnel, management, and members.
14. Display a friendly and courteous attitude toward everyone at facility.
15. Tactfully delegate responsibilities.
16. Exhibit diplomacy.
17. Exhibit patience.
18. Display good grooming.
19. Display good work habits: promptness, dependability, and housekeeping techniques.
20. Show willingness to work beyond the required performance.

Unit II

1. Take a soil sample on the assigned golf course.
2. Follow necessary procedure to send soil for analysis.
3. After receiving soil analysis results, submit result to instructor.
4. Explain equipment calibration on specific golf course.
5. State personnel in charge of spray operations.
6. Explain the equipment maintenance procedures: mixing, cleaning and nozzle replacement on spray equipment.
7. Measure and calculate square footage of all greens, tees, fairways, bunkers, roughs, sod nursery, and clubhouse.
8. Describe the physical features of the golf course such as contours, soil types, poor drainage areas, excessively drained areas, grass varieties, and special trees.
9. Describe the complete organization of the workforce including the regular and special duties of all laborers and the type of work performed on rainy days.
10. Describe the present liming program of the course.
11. Describe the present fertilizing program for tees, fairways and greens.
12. Describe the present renovation program for tees, greens and fairways including time of year, sequence of operations, and type of grass and rates of overseeding if used.
13. Describe the present irrigation system and program for greens, tees and fairways.
14. Describe the seriousness of weed problems and solutions. List major weed issues.
15. Describe the seriousness of insect damage in the course and solutions. List the major insects causing problems.
16. Describe the seriousness of turf diseases on the course and what has been done to control them. List the major diseases causing problems.
17. What is the height of cut for greens, tees and fairways throughout the season? Does this change from month to month? If so, how and why?
18. Describe the movement of tee markers on an average tee. How long are worn spots given a chance to recover?
19. Map out a green on the course and record the way the cup is rotated throughout the season. How often is the cup changed?
20. List equipment on golf course giving manufacturer, original cost, age of equipment, and present condition.
21. State how maintenance is performed and by whom.
22. Report the cleaning procedure of equipment.
23. Determine and state the types of manuals and records maintained on equipment.
24. State the inventory of equipment parts and location
25. List pesticides stating use, manufacturer, and cost.
26. State in specific terms safety procedures in pesticide applications.
27. Specify who is the licensed pesticide applicator on the golf course and in what categories.
28. Describe the general organization in terms of chain of command, public or private course, authority of the green committee (if one exists), and ownership.

29. List all easy or difficult features of the course to maintain.
30. List activities that are time-consuming and are ineffective. Estimate this amount of time weekly by the jobs you perform.
31. Describe how supplies and equipment are purchased.
32. Describe the present system for keeping time and records of what is done on the course.
33. List employee benefits including such items as medical insurance, retirement plans, etc.
34. State how the annual maintenance budget is calculated and who approves budget.
35. Prepare a step-by-step analysis of major jobs.
36. Repair leaks in irrigation piping using proper methods and equipment.
37. Take apart and repair valve-in-head or impact golf irrigation heads.
38. Locate and repair breaks in hydraulic control tubing for hydraulic systems or breaks and shorts in the wiring for electric systems.
39. Operate irrigation stations (zones) from the field satellites, radio, handheld device, or base computer.
40. Program watering cycles using a computer for those courses having computer-controlled systems.
41. Assist the irrigation technician in the preventive maintenance and periodic cleaning of the pump station.
42. Monitor irrigation lake water levels by whatever method is available on the golf course.
43. Assist in reading and recording water use data to be reported to governmental agencies.
44. Assist in preparing the equipment and irrigation system for applying fertilizers, pesticides, wetting agents, etc., through the sprinkler heads.

REPORT INSTRUCTIONS

(Step-by-Step)

NOTE: At the end of the semester, you will send the school your work-study with eight (8) reports, your daily log in the designated format, and the superintendent's evaluation. **All materials will be kept by the college on D2L.** Prepare all materials as a Word, PowerPoint, Excel, or PDF document. All reports must be typed.

I. Interpretation and Discussion of Soil Test Reports

Obtain soil sample reports/data on each of two greens, tees, and fairways.

- 1) Use existing reports if less than one year old.
- 2) If over a year old, complete the process by having the club take new samples or pay for the same number of areas listed above, as directed by your GC Supt.
- 3) Have the samples analyzed by the normal testing facility used by the club or have the data run by the state's land-grant institution. Do this early in your internship as it may take a while to get the results back.
- 4) Discuss the interpretation given on the soil reports. Additionally, go into thorough detail regarding the implications concerning pH, CEC, P, K, Ca, Mg, and bulk density, if given. I expect you to apply information from your Soils class material as a major basis for discussion.

- 5) Type up your interviews/discussions with your Superintendent, making sure to give YOUR opinion of the overall state of the soil and its bearing on the overall quality of turfgrass and other plants grown, including what YOU would do to improve the current conditions.
- 6) Obtain a copy of the local Soil Survey book, GIS image, for your county and discuss the native soils found at your golf course, focusing on characteristics such as permeability, pH situations that make it hard to grow grasses, textural content, and bulk density.
- 7) Those of you who have not had Soils yet, rely freely on interviews with your Supt. to help in interpreting and applying information from soil reports. If this is the case, a very thorough discussion process with the Superintendent / Turfgrass Manager should occur.

II. Pesticides/Spreader and Sprayer Calibration

1. Explain in detail how the following types of equipment are calibrated.
 - (A) Boom sprayer
 - (B) Rotary spreader
 - (C) Drop spreader
2. Who oversees pesticide applications?
3. What type of certification (license) do the pesticide applicators possess?
4. How often are nozzles changed?
5. Explain how sprayers are cleaned.
6. What types of personal protective equipment (PPE) are provided for pesticide applications?
7. Include a copy of the pesticide application record form used by the golf course.
8. Describe in detail the pesticide storage facility. Include:
 - (A) location of exhaust fans
 - (B) location of fire extinguishers
 - (C) location of storage for PPE
 - (D) type of materials the shelves are constructed of
 - (E) location of drains
 - (F) location of shower, eyewash, and other safety features

III. Measurements, IPM and Pesticide and Chemical Application

1. Greens, tees, and fairways area measurement.
2. Measure an area on the golf course and detail the methods you used to determine your figures. Examples are a sod project or other renovation, pest mapping, or other area of facility that has not been measured.
3. Report on water management at facility items listed below.
 - a. Wetting agent products, techniques, rates, and areas of course treated with wetting agents.

- b. Irrigation strategies, scheduling, moisture meter use, hand watering applications and automated irrigation strategies.
 - c. Identify irrigation challenges at facility.
- 4. List top five turfgrass pest at the facility.
- 5. List Cultural practices used as IPM strategies versus top pests.
- 6. Create a table, chart, or spreadsheet on pesticides and within it include the following.
 - a. List ten of the most used pesticides at your facility.
 - b. Each entry will include Common name Brand name, EPA registration number, Chemical class or Code and type of use such as insecticide or herbicide.
- 7. Are there any environmental enhancing programs at the facility? Examples include wildlife programs, native plants or habitat management, or certification.

IV. Management Structure

1. Discuss the general organization from the owners through the superintendent (including specific information such as private or public course, chain of command, green committee or not, ownership, etc.)
2. Include an organizational chart.
3. Describe the complete organization of the workforce from the superintendent through the crew members. Include the regular and special duties of all laborers and the type of work performed on rainy days. Pictures would be helpful.
4. Interview the head golf professional or the general manager of the golf course. Discuss with him or her the importance of communications between all departments of the golf course (pro shop, maintenance crew, food & beverage, green committee, owner, etc.). Summarize what you have learned in your interview. Include the name(s) of those interviewed.

V. Maintenance Operations

1. Describe the present liming and/or sulfur program on the course. Include specific carriers and rates.
2. Describe the present fertilizing program for tees, fairways, and greens. Include pounds of N, P, and K; types of fertilizers; and other macronutrients and micronutrients applied.
3. Describe the present renovation program for tees, greens, and fairways; including time of year, sequence of operations, and type of grass and rates of overseeding if used.
4. Describe the seriousness of weed problems on the course and what has been done to correct this. List the major weed causing problems. Also, include plans. (Be specific as to specific herbicides, rates, and time of application.)
5. Describe the seriousness of insect damage on the course and what has been done to control them. List the major insect-causing problems. Also, include future proposals. (Be specific for treatment as to specific insecticides, rates, and time of application.)
6. Describe the seriousness of turf diseases on the course and what has been done to

control them. List the major disease-causing problems. Also, include future proposals. (Be specific for treatment as to specific fungicides, rates, and time of application.)

7. What is the height of cut for greens, tees, and fairways throughout the season? Does this change from month to month? If so, how?

8. Describe the movement of tee markers on an average tee. How long are worn spots given a chance to recover?

9. Map out one green on the course and record the way the cup is rotated throughout the season. How often is the cup changed?

10. Name the type of turfgrass (species and cultivar) for the following golf course areas.

(G) greens

(H) collars

(I) tees and driving range or practice facility.

(J) fairways

(K) rough

(L) Clubhouse and other ornamental turf areas.

VI. General Management

1. List all features of the course, which would help in making it easy or difficult to maintain.
2. List activities that are time-consuming and ineffective in accomplishing anything. Estimate the amount of time weekly by jobs you perform.
3. Describe how supplies and equipment are purchased.
4. Describe the present system for keeping time and records of what is done on the course.
5. List employee benefits, including such items as medical insurance, retirement plans, etc.
6. State how the annual maintenance budget is calculated and who approves budget.

VII. Special Topic Report (5 typed pages minimum plus photographs)

For this report, the student will choose a topic of his/her interest that relates to some aspect of the internship. With the approval of the superintendent and the instructor, the student will research a topic and prepare a report based on a specific project, problem, or event occurring on the student's job site. Each student will prepare an individual report; two or more students working on the same golf course will be required to submit papers on different topics. Some potential topics include:

1. A detailed report on all steps and procedures involved in a construction or renovation project.
2. A detailed report on preparing the golf course for a tournament.
3. A report on managing a specific pest problem in which all aspects of the life cycle, damage symptoms, cultural control methods, and specific pesticides (including rates) are discussed.
4. Evaluation of a new piece of equipment, including discussions of its benefits and disadvantages, cost, and preventive maintenance program.
5. Experience with crew supervision.

6. A detailed report on all aspects of an irrigation or drainage installation.
7. Other topics as assigned by the superintendent and instructor.

VIII. Irrigation System Analysis

1. Type of System: _____ Electric _____ Hydraulic

2. Manufacturer or Brand of:
 - A. Sprinkler heads: _____ quantity _____
 - B. Field Satellites: _____ quantity _____
 - C. Field Satellite Model _____
 - D. Master Controller: _____
 - E. Radio Control Capability: ____ Yes ____ No
 - F. Phone App Control Capability: ____ Yes ____ No

3. Pump Station Manufacturer: _____
 Pump System Control Type: ____ Conventional ____ VFD
 Pump Type: _____ Vertical Turbine _____ End Suction Centrifugal
 Pump 1 Horsepower: _____
 Pump 2 Horsepower: _____
 Pump 3 Horsepower: _____
 Submersible pump H.P.: _____
 Jockey pump H.P.: _____

4. Water Source:

_____ Lake	_____ Wells
_____ River	_____ Water Treatment Facility
_____ Wells	_____ Other

5. Irrigation system Head Layout:

_____ Single Row
_____ Double Row Square
_____ Double Row Triangular
_____ Triple Row
_____ Herring Bone

6. Pipe
 HDPE or PVC _____
 Main line and lateral line sizes _____

7. Sprinkler Head Spacings (Approximate)
 Greens _____ ft. Roughs _____ft.
 Fairways _____ ft Practice Range _____ft.
 TEES _____ ft.
8. Average Summer Peak Water Consumption:
 Daily: _____ gallons
 Weekly: _____ gallons
 Monthly: _____ gallons
9. Does the golf course use fertigation?
 _____ yes _____no
 If yes, what is the name of the manufacturer? _____.
 Include a copy of the manufacturer's literature describing the operation of the Equipment.
10. Does the golf course utilize an onsite weather station in conjunction with its watering programs?
 _____ yes _____no
 If yes, what brand of weather station is used and be sure to include a copy of the literature explaining how the equipment works.
11. Describe in detail a typical mid-summer watering program for the course's:
- A. Greens
- B. Tees
- C. Fairway
11. Describe the preventative maintenance program for the course's irrigation system and pump station.
12. If the golf course utilizes effluent or recycled water as a source of irrigation water, what special management practices have been adopted to overcome some of the negatives associated with these sources of water?

13. Obtain a copy of the irrigation design as-built and submit with this report.
14. Are there irrigation renovations planned on going?

****Students – please refer to the Instructor’s Course Information sheet for specific information on assessments and due dates.***

Part III: Grading and Assessment

EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS*:

Students’ performance will be assessed and the weight associated with the various measures/artifacts are listed below.

EVALUATION*

Projects/Portfolios	50%
Supervisor Evaluation	50%
	100%

****Students, for the specific number and type of evaluations, please refer to the Instructor’s Course Information Sheet.***

GRADING SYSTEM:

Please note the College adheres to a 10 point grading scale A = 100 – 90, B = 89- 80, C = 79 – 70, D = 69 – 60, F = 59 and below.

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. Ds, Fs, Ws, WFs and Is also negatively impact academic progression and financial aid status.

The Add/Drop Period is the first 5 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format courses. Please refer to the [academic calendar](#) for deadlines for add/drop. You must attend at least one meeting of all of your classes during that period. If you do not, you will be dropped from the course(s) and your Financial Aid will be reduced accordingly.

Part IV: Attendance

Horry-Georgetown Technical College maintains a general attendance policy requiring students to be present for a minimum of 80 percent (80%) of their classes in order to receive credit for any course.

Due to the varied nature of courses taught at the college, some faculty may require up to 90 percent (90%) attendance. Pursuant to 34 Code of Federal Regulations 228.22 - Return to Title IV Funds, once a student has missed over 20% of the course or has missed two (2) consecutive weeks, the faculty is obligated to withdraw the student and a student may not be permitted to reenroll. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.**

Part V: Student Resources



THE STUDENT SUCCESS AND TUTORING CENTER (SSTC):

The SSTC offers to all students the following **free** resources:

1. **Academic tutors** for most subject areas, **Writing Center support**, and **college success skills**.
2. Online **tutoring** and academic support resources.
3. Professional and interpersonal communication **coaching** in the EPIC Labs.

Visit the [Student Success & Tutoring Center](#) website for more information. To schedule tutoring, contact the SSTC at sstc@hgtc.edu or self-schedule in the Penji iOS/Android app or at www.penjiapp.com. Email sstc@hgtc.edu or call SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455, or go to the [Online Resource Center](#) to access on-demand resources.



STUDENT INFORMATION CENTER: TECH Central

TECH Central offers to all students the following **free** resources:

1. **Getting around HGTC:** General information and guidance for enrollment, financial aid, registration, and payment plan support!
2. Use the [Online Resource Center \(ORC\)](#) including Office 365 support, password resets, and username information.
3. **In-person workshops, online tutorials and more services** are available in Desire2Learn, Student Portal, Degree Works, and Office 365.
4. **Chat with our staff on TECH Talk**, our live chat service. TECH Talk can be accessed on the student portal and on TECH Central's website, or by texting questions to (843) 375-8552.

Visit the [Tech Central](#) website for more information. Live Chat and Center locations are posted on the website. Or please call (843) 349 – TECH (8324), [Option #1](#).

STUDENT TESTING:

HGTC LIBRARY:

Each campus location has a library where HGTC students, faculty, and staff may check out materials with their HGTC ID. All three HGTC campus libraries are equipped with computers to support academic research and related school work; printing is available as well. Visit the [Library](#) website for more information or call (843) 349-5268.

STUDENT TESTING:

Testing in an **online/hybrid** course and in **make-up exam** situations may be accomplished in a variety of ways:

- Test administered within D2L
- Test administered in writing on paper
- Test administered through Publisher Platforms (which may have a fee associated with the usage)

Furthermore, tests may have time limits and/or require a proctor.

Proctoring can be accomplished either face-to-face at an approved site or online through our online proctoring service. To find out more about proctoring services, please visit the [Online Testing](#) section of the HGTC's Testing Center webpage.

The **Instructor Information Sheet** will have more details on test requirements for your course.

DISABILITY SERVICES:

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to HGTC's [Accessibility and Disability Service webpage](#). The Accessibility and Disability staff will review documentation of the student's disability and, in a confidential setting with the student, develop an educational accommodation plan.

Note: It is the student's responsibility to self-identify as needing accommodations and to provide acceptable documentation. After a student has self-identified and submitted documentation of a disability, accommodations may be determined, accepted, and provided.

STATEMENT OF EQUAL OPPORTUNITY/NON-DISCRIMINATION STATEMENT:

Horry-Georgetown Technical College prohibits discrimination and harassment, including sexual harassment and abuse, on the basis of race, color, sex, national or ethnic origin, age, religion, disability, marital or family status, veteran status, political ideas, sexual orientation, gender identity, or pregnancy, childbirth, or related medical conditions, including, but not limited to, lactation in educational programs and/or activities.

TITLE IX REQUIREMENTS:

All students (as well as other persons) at Horry-Georgetown Technical College are protected by Title IX—regardless of their sex, sexual orientation, gender identity, part- or full-time status, disability, race, or national origin—in all aspects of educational programs and activities. Any student, or other member of the college community, who believes that he/she is or has been a victim of sexual harassment or sexual violence may file a report with the college’s Chief Student Services Officer, campus law enforcement, or with the college’s Title IX Coordinator, or designee.

*Faculty and Staff are required to report incidents to the Title IX Coordinators when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

INQUIRIES REGARDING THE NON-DISCRIMINATION/TITLE IX POLICIES:

Student and prospective student inquiries concerning Section 504, Title II, and Title IX and their application to the College or any student decision may be directed to the Vice President for Student Affairs.

Dr. Melissa Batten, VP Student Affairs

Title IX Coordinator

Building 1100, Room 107A, Conway Campus

PO Box 261966, Conway, SC 29528-6066

843-349-5228

Melissa.Batten@hgtc.edu

Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Vice President for Human Resources.

Jacquelyne Snyder, VP Human Resources

EEO and Title IX Coordinator

Building 200, Room 212A, Conway Campus

PO Box 261966, Conway, SC 29528-6066

843-349-5212

Jacquelyne.Snyder@hgtc.edu