Turfgrass Management Technology

The Turfgrass Management Technology Curriculum is designed to prepare individuals for various careers in management of high end turfgrass. Classroom instruction and practical laboratory applications of turfgrass management principles and practices are included in the program of study.

Course work includes plant science, plant materials, propagation, soils, fertilizers and pest management. Turfgrass Management Technology is a program that focuses on:

- The general production and management of cultivated plants, shrubs, flowers, foliage, trees, ground covers and related plant materials
- The management of technical and business operations connected with horticultural services, and
- The basic science principles needed to understand plants and their management and care.

Also included are courses in turfgrass management, irrigation, ornamental horticulture, soil science, entomology and plant pathology, as well as courses in communications, computers and the social sciences.

Graduates should qualify for employment opportunities in landscape operations, golf courses, local, state or national parks, sports complexes, highway vegetation and turf maintenance companies, private and public gardens. Graduates also should be prepared to take the following exams:

1. the licensed pesticide applicators exam, and
2. the ISA (International Society of Arboriculture) certified arborist exam.

For specific information about potential positions and wages in Turfgrass Management employment, visit the Central Piedmont Career Coach (https://cpcc.emsicc.com/programs/turfgrass-management-technology-academic-program-for-credit/198260?radius=&region=50%20Mile%20Radius) website.

Turfgrass Management Technology (A15420)

Degree Awarded

The Associate in Applied Science in Turfgrass Management Technology is awarded by the college upon completion of this program.

Admissions

- A high school diploma or equivalent (available through Central Piedmont) is required.
- Central Piedmont placement tests are required in English and Mathematics. Developmental Studies Mathematics and English courses are available for students to build basic skills and knowledge.
- Advising and orientation appointments follow placement testing.
- Many courses have prerequisites or co-requisites; check the Courses section for details.

Contact Information

The Turfgrass Management Technology program is in the Professional Careers Division. For more information, call the Program Chair at 704.330.4826.

General Education Requirements		
ENG 111	Writing and Inquiry	3.0
MAT 110	Mathematical Measurement and Literacy	3.0
Select 3 credits of the following:		3.0
ENG 112	Writing and Research in the Disciplines	
ENG 113	Literature-Based Research	
ENG 114	Professional Research & Reporting	
Select 3 credits of the following:		3.0
COM 110	Introduction to Communication	
COM 231	Public Speaking	
Select 3 credits of the following:		3.0
ART 111	Art Appreciation	
ART 114	Art History Survey I	
ART 115	Art History Survey II	
HUM 120	Cultural Studies	
HUM 130	Myth in Human Culture	
MUS 110	Music Appreciation	
MUS 112	Introduction to Jazz	
PHI 215	Philosophical Issues	
PHI 240	Introduction to Ethics	
REL 110	World Religions	
Select 3 credits of the following:		3.0
ECO 251	Principles of Microeconomics	
ECO 252	Principles of Macroeconomics	
HIS 111	World Civilizations I	
HIS 112	World Civilizations II	
HIS 131	American History I	
HIS 132	American History II	
POL 120	American Government	
PSY 150	General Psychology	
SOC 210	Introduction to Sociology	
Major Requirements		
TRF 110	Introduction Turfgrass Cultivation & Id And Identification	4.0
TRF 120	Turfgrass Irrigation and Design	4.0
TRF 152	Landscape Maintenance	3.0
HOR 166	Soils and Fertilizers	3.0
TRF 210	Turfgrass Eqmt Mgmt	3.0
TRF 230	Turfgrass Mgmt Apps	2.0
TRF 240	Turfgrass Pest Control	3.0
TRF 260	Adv Turfgrass Mgmt	4.0
TRF 220	Turfgrass Calculations	2.0
HOR 160	Plant Materials I	3.0
HOR 162	Applied Plant Science	3.0
SPA 120	Spanish for the Workplace	3.0
TRF 250	Golf /Sport Field Const	4.0
WBL 111	Work-Based Learning I	1.0
CIS 111	Basic PC Literacy	2.0
Technical Electives		
Select 9 credits of the following:		9.0
HOR 112	Landscape Design I	
HOR 114	Landscape Construction	

HOR 116	Landscape Management I	
HOR 118	Equipment Operation and Maintenance	
HOR 161	Plant Materials II	
HOR 164	Horticultural Pest Management	
HOR 215	Landscape Irrigation	
HOR 218	Advanced Equipment Operations and Maintenance	
HOR 257	Arboriculture Practices	
HOR 265	Advanced Plant Materials	
HOR 273	Horticultural Management & Marketing	
TRF 125	Turfgrass Computer App	
TRF 130	Native Flora ID	
TRF 270	Advanced Turfgrass Equipment Management	
AGR 121	Biological Pest Management	
AGR 140	Agricultural Chemicals	
WBL 112	Work-Based Learning I	
Total Credits		71

No diplomas are offered in Turfgrass Management Technology.

Turfgrass Management Technology Certificates (C15420)

Turfgrass Management Technology Certificate with a Specialization in Turfgrass Management (C15420-C1)

This certificate is designed to prepare individuals for basic entry-level positions in the area of Turfgrass Management Technology. Coursework includes turfgrass culture and identification, equipment, irrigation, pest management and soils and fertilizers.

Major Requirements

HOR 166	Soils and Fertilizers	3.0
HOR 253	Horticulture Turfgrass	3.0
TRF 120	Turfgrass Irrigation and Design	4.0
TRF 210	Turfgrass Eqmt Mgmt	3.0
TRF 230	Turfgrass Mgmt Apps	2.0
TRF 240	Turfgrass Pest Control	3.0
Total Credits		18

Turfgrass Management Technology Certificate Specialization in Turfgrass Equipment Maintenance (C15420-C2)

This certificate is designed to prepare individuals for mid entry-level positions in the area of Turfgrass Equipment Maintenance. Coursework includes turfgrass culture and identification, proper equipment operation, maintenance, and repair.

Major Requirements

TRF 110	Introduction Turfgrass Cultivation & Id And Identification	4.0
TRF 210	Turfgrass Eqmt Mgmt	3.0
HOR 118	Equipment Operation and Maintenance	2.0
HOR 218	Advanced Equipment Operations and Maintenance	3.0
TRF 270	Advanced Turfgrass Equipment Management	4.0
Total Credits		16

TRF 110. Introduction Turfgrass Cultivation & Id And Identification. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the principles of reproduction, growth development, species characteristics, establishment and maintenance of golf courses and sports fields, and lawns. Topics include principles of reproduction, growth development, species characteristics, establishment and maintenance of golf courses and sports fields, and lawn applications. Upon completion, students should be able to identify turfgrass species and develop an establishment and maintenance plan for high quality turf areas in accordance with sustainable practices.

TRF 120. Turfgrass Irrigation and Design. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers the basic techniques involved in the design, layout, installation, and use of water-wise turfgrass irrigation systems. Topics include types of irrigation systems, components of the systems, materials available for use, and economic considerations. Upon completion, students should be able to complete a functional design for a turfgrass irrigation system according to sustainable practices.

TRF 125. Turfgrass Computer App. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces basic computer applications for the turfgrass industry. Emphasis is placed on computer software applications for irrigation design, management, and budget planning for turfgrass applications. Upon completion, students should be able to use appropriate software for various turfgrass management applications.

TRF 130. Native Flora ID. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers identification of selected native ground covers and woodland trees by summer and/or winter characteristics. Emphasis is placed on mature age, fall colors, site adaptability, and habit of growth for special turf-related areas. Upon completion, students should be able to identify native plants by size and leaf, bud, twig, and limb formation.

TRF 152. Landscape Maintenance. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the tasks of landscape maintenance. Emphasis is placed on lawns, shrubs, trees, flowers, and ground covers. Upon completion, students should be able to maintain a landscape area on a year-round schedule.

TRF 210. Turfgrass Eqmt Mgmt. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers the operation and maintenance of specialized turfgrass management equipment. Topics include small engine use and repair; operation, maintenance, and repair of turfgrass management equipment; organization of shop areas; and safety considerations. Upon completion, students should be able to operate and maintain turfgrass management equipment.

TRF 220. Turfgrass Calculations. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the specific math concepts and calculations necessary in the turfgrass industry. Emphasis is placed on calibration of equipment used in the application of fertilizers and pesticides and calculation of solid materials used in construction. Upon completion, students should be able to correctly perform basic calculations and calibrations and estimate materials needed in specific professional turfgrass management situations.

TRF 230. Turfgrass Mgmt Apps. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces specific sports field design, installation, and maintenance. Topics include natural grass croquet courts and baseball, soccer, and football fields. Upon completion, students should be able to perform specific tasks in layout, field marking, and preparing for tournament play.

TRF 240. Turfgrass Pest Control. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers detection and identification of turfgrass pests with emphasis on methods of sustainable management. Topics include pest identification with an understanding of pesticides used, application procedures, and costs involved in sustainable management programs. Upon completion, students should be able to identify turfgrass pests, select the proper pesticide, develop pest management programs, and/or use integrated pest management.

TRF 250. Golf /Sport Field Const. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides information for layout, materials, and construction of special recreational applications. Emphasis is placed on site selection, equipment, safety regulations, drainage, turfgrass species, and irrigation needs. Upon completion, students should be able to locate construction reference sites and develop drainage and irrigation plans from their own blueprints and topo map designs.

TRF 260. Adv Turfgrass Mgmt. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the principles and practices involved in turfgrass management. Topics include choosing the best management practice in mowing, pest control, fertilization, irrigation, traffic control, air control, budgeting, and materials procurement. Upon completion, students should be able to demonstrate knowledge of the principles covered and select and apply the best practices in turfgrass management.
Prerequisites: Take TRF 110

TRF 270. Advanced Turfgrass Equipment Management. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers the advanced repair and maintenance of turfgrass equipment. Emphasis is placed on the diagnosis, repair and maintenance of power trains, electrical systems, hydraulics, small air-cooled engines, four-stroke engines, and compact diesel engines. Upon completion, students should be able to diagnose and repair commonly used turfgrass equipment and communicate information concerning the repairs and the necessary maintenance schedule in a professional manner.
Prerequisites: Take TRF 210