

HOS6932 ADVANCED TURFGRASS RESEARCH SPRING 2025

Instructor:

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Teaching Assistant:

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Location and meeting time:

Online delivery (Zoom)
Tuesday | 10:00 AM – 11:30 AM EST
Thursday | 10:00 AM – 11:00 AM EST
Please note that the scheduled meeting times and duration of each class session are subject to change. Adjustments may be made as needed throughout the term, and any changes will be communicated promptly.

Class Dates:

01/13/2025 - 04/30/2025

Course Description:

This course is designed for graduate students pursuing careers in urban landscapes and turfgrass science. It provides a comprehensive overview of the diverse disciplines within these fields, including turfgrass physiology, breeding, pathology, entomology, nematology, weed science, soil and water sciences, and ecology. Faculty members specializing in these areas will introduce students to the methodologies, tools, technologies, and practices employed in their research. Additionally, guest speakers from leading turfgrass organizations, the industry and turfgrass consultants will offer practical insights into how research is conducted outside of academia. These experts will share their perspectives on industry-driven research, helping students understand the real-world applications and evolving practices within the field.

Learning Objectives:

Upon completion of this course, students will be able to:

1. **Identify** methodologies, tools, technologies, and practices used in turfgrass research.
2. **Assess** scientific publications for their clarity, validity, and overall contribution to turfgrass research.
3. **Design** a research proposal on a relevant problem in turfgrass systems.

ASSIGNMENTS AND GRADING

COURSE ASSIGNMENTS	Points
Paper reviews (12 papers, 25 points each)	300
Participation in class discussion	200
Final project (presentation)	500
Total Points	1000

Paper reviews:

Each week, students are required to read the research paper provided by the guest professor and submit a written analysis before the corresponding class. The analysis will focus on evaluating the clarity, depth, and overall quality of each section of the paper, identifying both strengths and weaknesses. Students will use a set of guiding questions, which will be available on Canvas along with the evaluation rubric. This analysis is designed to help students critically engage with the paper and prepare for meaningful participation in class discussions.

Participation in class discussion:

Each week, 2 students will share their thoughts on the paper analysis. The goal of these discussions is to encourage active engagement with the professor and foster a deeper understanding of the material. In addition to the paper discussions, the course features guest speakers from the industry. These professionals are here to share their expertise and experiences, and students are expected to actively engage by asking questions and participating in the conversation.

Final project:

For the final project, students will present a research proposal focused on a problem or gap they wish to address, which should be different from their ongoing research. The presentation will be in PowerPoint format and should clearly define the research question, explain the need for the study, and outline the materials and methods they would use to address the problem. An evaluation rubric will be available on Canvas.

Grading Scale

A = 930-1000	B- = 800-829	D+ = 660-699
A- = 900-929	C+ = 760-799	D = 630-659
B+ = 860-899	C = 730-759	D- = 600-629
B = 830-859	C- = 700-729	E = below 600

Grades and Grade Points

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.

Class schedule:

Week	Month	Date	Topic	Instructor
Week 1	Jan	14	Class introduction	J Bryan Unruh <jbu@ufl.edu> Alejandra Sierra <iasierra@ufl.edu>
	Jan	16	Watershed Hydrology: Compost Amending Soils to Mitigate Compaction and Reduce Irrigation	Eban Bean <ezbean@ufl.edu>
Week 2	Jan	21	Turfgrass Extension: Extension - Academic vs Industry -Turfgrass Associations	J Bryan Unruh <jbu@ufl.edu>
	Jan	23	Agronomy consulting	Phil Busey
Week 3	Jan	28	Entomology: Measuring effects of resource availability on insects in turfgrass systems	Adam G Dale <agdale@ufl.edu>
	Jan	30	History and scope of USGA research	Cole Thompson
Week 4	Feb	4	No Classes: Golf Industry Show	
Week 5	Feb	11	Ecology: Alternative landscaping approaches to address land development challenges	Basil V,III Iannone, <biannone@ufl.edu>
	Feb	13	Turfgrass nutrition	Micah Woods
Week 6	Feb	18	Nematology: Diagnosis and management of nematodes on warm-season turfgrasses	William T Crow <wtcr@ufl.edu>
	Feb	20	FIFA-Standard turf testing	Filippo Lulli
Week 7	Feb	25	Weed Science: Methods used in turfgrass weed research	Pawel Petelewicz <petelewicz.pawel@ufl.edu>

	Feb	27	Research Methods and Findings in Industry	John Rowland
Week 8	Mar	4	Turfgrass Breeding: Plant breeding methods and techniques	Kevin E. Kenworthy <kenworth@ufl.edu>
	Mar	6	Challenges with turfgrass cultivar field research	Kevin Morris
Week 9	Mar	11	Turfgrass physiology: Turfgrass function in arid systems- Drought	Marco Schiavon <marcoschiavon@ufl.edu>
	Mar	13	Organic Matter: Its impact on golf and how we measure and manage it	Todd Lowe
Week 10	Mar	18	No Classes: Spring Break	
Week 11	Mar	25	Urban Turfgrass Management: Cool season turfgrasses	Alex J. Lindsey <alex.lindsey@ufl.edu>
	Mar	27	TPI advocacy in public policy and public perception of natural grass	Casey Reynolds
Week 12	Apr	1	Plant Pathology: Introduction to Turfgrass Pathology- Disease ID - Culture Techniques	Philip F. Harmon <pfharmon@ufl.edu>
	Apr	3	Student's presentations	
Week 13	Apr	8	Urban Soil and Water Quality: Nutrient and Energy Cycling - Pollutants - Emerging Contaminants	AJ Reisinger <reisingera@ufl.edu>
	Apr	10	Student's presentations	
Week 14	Apr	15	Urban water quality: Nutrient Sources - Isotopes - Nutrient Exports and Forms	Mary G. Lusk <mary.lusk@ufl.edu>
	Apr	17	Student's presentations	
Week 15	April	22	Research in Sport Turf: Management of Athletic fields	Jason K. Kruse <jkk@ufl.edu>
	Apr	24	Student's presentations	

Attendance and Make-Up Work

Lectures serve as the primary source of information for this course; thus, attendance is expected. Contact the instructors or teaching assistant ahead of a scheduled class meeting in the event of an emergency that would prevent you from attending a session. Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>.

Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at:

<https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at: <https://gatorevals.aa.ufl.edu/public-results/>.

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

Software Use:

All faculty, staff and students at the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation

0001 Reid Hall, 352-392-8565, <https://disability.ufl.edu/>

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575,
www.counseling.ufl.edu Counseling Services
Groups and Workshops Outreach and Consultation Self-Help Library
Wellness Coaching

U Matter We Care, www.umatter.ufl.edu/

Career Connections Center, First Floor JWRU, 392-1601, <https://career.ufl.edu/>.

Student Complaints:

Residential Course: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code>.

Online Course: <http://www.distance.ufl.edu/student-complaint-process>