TLMT327:Turfgrass Science and Management Syllabus

This course explores the scientific principles of turfgrass physiology, species adaptation, establishment, management, relationships with soil, systems, and pest management. After completing the course, students will understand how management, environmental factors, and grass species impact turfgrass growth and performance.

Student learning outcomes

- Demonstrate knowledge of best management practices to promote healthy turf while considering sustainable practices.
- Understand and be able to apply principles of integrated pest management.
- Be able to read, interpret and use information on pesticide labels to correctly manage pests.
- Describe principles of irrigation and drainage, and the importance of water management for healthy turf systems.
- Gain an understanding of the physiological, genetic, and environmental factors affecting turfgrass growth and development.
- Describe principles for managing thatch, soil compaction, turf in shade, and turf subjected to abiotic and biotic stress.
- Make fertility recommendations and understand the roles of essential nutrients for promoting growth and maintaining turf health.

Course information

The course meets on Mondays, Wednesdays, and Fridays from 12:00 to 12:50.
Room TBD.

Instructor information

Keenan Amundsen, Ph.D.
Turfgrass Geneticist
134 Keim Hall
Email: kamundsen2@unl.edu
Phone: 402-472-8390

Office hours: When my door is open or by appointment.

Prerequisite courses

- Soil resources
- Chemistry in context, general chemistry, or equivalent
- Introductory turfgrass management

Required text and materials
There are no required texts for this course. Lessons will be delivered in class and supplemental content will be made available via the course learning management system.

Attendance policy
There is no formal attendance policy for this course, but attendance is expected. Without prior approval, missed assignments will not be accepted. Students are responsible for missed content.

Notify the instructor and do not attend class if you do not feel well. Alternate arrangements for missed content and assignments will be made.

Policy on wearing face coverings in class
We will adhere to current University COVID-19 policies. Please review the University COVID-19 website for details: https://covid19.unl.edu/

Students with disabilities
The University strives to make all learning experiences as accessible as possible. If you anticipate or experience barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can discuss options privately. To establish reasonable accommodations, I may request that you register with Services for Students with Disabilities (SSD). If you are eligible for services and register with their office, make arrangements with me as soon as possible to discuss your accommodations so they can be implemented in a timely manner. SSD contact information: 117 Louise Pound Hall Bldg.; 402-472-3787

Academic dishonesty policy
Students should value honesty and personal integrity. Cheating, plagiarism, and any other form of academic dishonesty will not be tolerated. Students in violation of this policy will earn a zero for the assignment, be subject to disciplinary action, and may receive a failing grade for the course. Students are encouraged to read the CASNR policy on academic dishonesty. These rules apply to all actions regarding this course.

Assessment and grading policies
Final course grades will be assessed on a percent of total available points.
No credit will be given for late or missed assignments, quizzes or exams without prior instructor approval.

Breakdown of assignments and point values

Assignment	Point Value
Homework/Quizzes	500
Exams (3 @ 100 points each)	300
Total	800*

*Number of assignments and point totals may be adjusted at the discretion of the instructor, affecting the total points offered for the course.

Grading Scale:

A+	>97	A	94-97	A-	90<94
B+	87<90	B	84<87	B-	80<84
C+	77<80	C	74<77	C-	70<74
D+	67<70	D	64<67	D-	60<64
F	<60				

Counseling and psychological services

To aid UNL students in dealing with stress and adversity, the university offers a variety of options to students. Counseling and Psychological & Services (CAPS): https://caps.unl.edu/; is a multidisciplinary team of psychologists and counselors that works collaboratively with Nebraska students to help them explore their feelings and thoughts and learn helpful ways to improve their mental, psychological and emotional well-being when issues arise. CAPS can be reached by calling 402-472-7450. Big Red Resilience & Well-Being (BRRWB): https://resilience.unl.edu/ provides one-on-one well-being coaching to any student who wants to enhance their well-being. Trained well-being coaches help students create and be grateful for positive experiences, practice resilience and self-compassion, and find support as they need it. BRRWB can be reached by calling 402-472-8770.

Classroom emergency preparedness and response information

The below information is provided for your information and safety in case you find yourself in an applicable emergency.

Considerations if there is an emergency

- If the Fire Alarm is activated, exit the building by the nearest safe exit.
- If it is a weather emergency, follow the instructions for your building.
- For other emergency situations, consider the following
  - If immediate evacuation seems to be the best option, move to the closest exits away from the source of the emergency. You should hold hands in the air when exiting the building.
  - If immediate evacuation does not appear to be safe or feasible, consider one of these options.
  - If your room has a solid door with a lock, lock the door. If there is a second door in the room, also lock that door.
  - If the room is unable to be locked, consider whether a door that opens inward can be blocked.
  - If the room is unable to be locked or the door blocked, consider hiding in locations where appropriate.
    - Turn off the lights
    - Get low and move away from the door
    - Silence all cell phones and stay quiet
    - When the emergency is over and the group is exiting, move slowly and hold hands in the air.

List of topics

Introduction to turfgrass science
Industry overview
Review introductory turfgrass management principles
Turfgrass morphology
Grass species adapted for turf use
Turfgrass adaptation and genetics
Turfgrass physiology
Photosynthesis
Respiration
Soils and the edaphic environment
Nutrient management
Light and shade stress
Water management
Temperature stress
Pest identification
Pest management
Specialized turf management