

Crop Science 401
(Taught as Crops 499 until in WSU catalog)

Turfgrass Management Systems

Spring 2006

10:10 – 11:35 am Tuesday and Thursday
204 Johnson Hall

Prerequisite: Crops 301 (or equivalent with instructor's permission)

Instructor: Dr. William Johnston
213 Johnson Hall
509-335-3620
wjohnston@wsu.edu

Text: none required; handouts and required readings

General Scope and Rationale:

This course is designed to relate to the student major features of the turfgrass ecosystem, interactions between ecosystem components, and the integration of turfgrass management systems and the use of Best Management Practices to protect environmental quality. Environmental responsible turfgrass management will be emphasized throughout the course. The course will emphasize turfgrass systems (heavily orientated to golf course management) in the Pacific Northwest. The goal is to integrate issues of turfgrass management systems and ecosystem function into sound environmental stewardship.

Objectives: The student will demonstrate or have an understanding of:

1. The components of the environment and how they affect turfgrass management.
2. The basics of turfgrass ecology as related to turfgrass management.
3. The basics of BMPs and IPM.
4. Strategies for implementing effective and efficient turfgrass management programs.
5. Ability to put forth a solution to an applied turfgrass issue or problem, defend the solution, and modify the solution or position on the issue if needed.

Grading:

Tentatively, course grades will be computed on a basis of 700 total points with the following breakdown:

3 one-hour lecture exams	300 points
1 final lecture exam	100 points
Case study assignment	200 points
Class discussion and participation	100 points

A = 93% and above	B- = 80-82%	D+ = 67-69%
A- = 90-92%	C+ = 77-79%	D = 60-66%
B+ = 87-89%	C = 73-76%	F = below 60%
B = 83-86%	C- = 70-72%	

No curving of grades will be done. Missed exams may be made up at the discretion of the instructor, provided a "valid" reason is presented.

All exams will include essay/discussion type questions and specific objective questions covering lecture and assigned reading materials.

Plagiarism and Cheating policy:

(<http://www.studentaffairs.wsu.edu/conductOffice/partOne.asp>)

Copyright and Intellectual Property WAC 504-25-018

Violation of copyright laws and the intellectual property rights of others is prohibited. Prohibited acts include, but are not limited to:

1. Posting the works of another person on an internet website without the permission of the creator;
2. Copying the creative works of another without the permission of the creator;
3. Selling a recording of a presentation by another without the permission of the presenter;
4. Claiming the works of another as one's own;
5. Using the copyrighted works or intellectual property of another for profit without the permission of the owner;
6. Copying or digitally transmitting video or audio files without the permission of the owner; or displaying a copyrighted work publicly without the permission of the owner.

Consequences and Punishment:

(http://www.wsulibs.wsu.edu/electric/trainingmods/plagiarism_test2/policy.html)

1st Offense: The student receives a letter of concern from the Office of Student Conduct in addition to instructor (professor) and department level actions.

2nd Offense or Serious Offense: If through an official hearing involving the Academic Integrity Conduct Board, the student is found in violation of academic integrity statutes, he/she will face suspension or expulsion.

Disability: Reasonable accommodations are available for students who have a documented disability. Please notify the instructor during the first week of class of any accommodations needed for the course. Late notification may cause the requested accommodations to be unavailable. All accommodations must be approved through the Disability Resource Center (DRC) in Administration Annex 205, 335-1566.

Crop Science 499 (401)
Lecture Outline:
Thursday

Turfgrass Management Systems

Spring 2006
Tuesday and

10:10 AM– Noon
204 JSN

Professor: Dr. William Johnston
213 Johnson Hall
335-3620 (office)
wjohnston@wsu.edu

Lecture	Topic
1	Introductions and pre-course exam
2	Introduction to turfgrass management
3-4	Turfgrass environment Abiotic Biotic Microbiology of soils
5	Environmental issues in turf Historical perspective Benefits of turfgrass systems Problems in turfgrass systems
6	Objectives of turfgrass management Turfgrass manager's perspective Ecological perspective
7	Turfgrass cultivar development Conventional development Turfgrass biotechnology and GM turfgrass Native grasses
8	Environmental ethics
9	Exam 1 February 7
10-12	BMPs/IPM and the development of integrated management systems for turfgrass Concept Components Adoption Environmental monitoring, techniques to assess environmental impact
13-15	Utilization and conservation of water resources Soil water dynamics Sand-based rootzones Water quality Effluent wastewater use on turf Irrigation management
16	Wildlife conservation issues
17	Wetland issues
18	Exam 2 March 9

19	Case study introduction
20-21	Environmental impact of turfgrass management Nutrient management Turfgrass fertilizers
22-25	Environmental impact of turfgrass pesticides and PGRs Pesticides Alternative methods of control Plant growth regulators
26-27	Cultural problems and practices Thatch Compaction Aerification Topdressing Algae Moss Worms Rolling and green speed Overseeding
28	Exam 3 April 20
29-30	Case study presentations and discussion Final Exam (comprehensive) Monday, May 1 10:10-noon
