

Athletic Field Management Syllabus and Schedule

An ACCEPtS Class Available to Students at the University of Arkansas, Louisiana State University, Mississippi State University and Oklahoma State University.

Objectives and Learning Goals:

This course addresses the principles, practices and problems associated with the management of natural turf-covered athletic fields. The course will cover the construction and maintenance of athletic fields as well as the evaluation of playing surface quality. Emphasis will be placed on: soil physical properties that affect the management and use of fields; specification of materials for construction and maintenance; factors affecting traction, hardness and ball response; and published research results. Emphasis will also be placed on understanding of the fundamental elements, terminology and forms of written communication used in athletic turf management. At the end of the semester, as a small group project, each student will participate in the writing of a set of specifications for some aspects of athletic field construction and maintenance at a multi-sport complex. A required term paper and oral report provides the opportunity for the students to review and report on research in specific areas of interest. Upon completion of the course the students will be proficient in the common forms of writing in turf management. There are several written assignments throughout the course. All will be graded on their content – i.e. how well the student understands the material; as well as on presentation – i.e. grammar, spelling, style. Written communication is very important and it must be technically correct as well as presented in a way that is stylistically correct.

Expected Learning Outcomes:

At the conclusion of the course students will ...

- 1) be familiar with best management practices for athletic fields
- 2) be familiar with construction options for athletic fields.
- 3) be familiar with the soil options available for athletic field construction and how these choices affect field management and use.
- 4) understand soil physical properties and how they affect drainage.
- 5) be familiar with grassing options and the management of these grasses.
- 6) understand how to read agrochemical labels and interpret and use the information on the labels.
- 7) know how to calculate fertilizer and chemical application rates
- 8) be familiar with athletic field safety and how athletic field use affects safety.
- 9) know how to write specifications for the construction and maintenance of athletic fields.
- 10) effectively read research and popular press articles and evaluate the information in them.

There will be no formal scheduled classroom meeting time for this class.

Instructor:

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Office Hours:

My office hours are to be determined. Students may feel free to contact me at these times; however, if you are unable to reach me, please try again later as I may be already working with another student. You may also schedule an appointment via email. Please leave a date/time that you are available to meet and the appointment will be confirmed. Students located at Mississippi State are welcome to visit me in my office if you have issues or questions.

Credits:

You will receive 3 semester credits for this course.

Class Participation:

Students are expected to follow the class schedule under "Learning Unit and Examination Schedule" below. Students are responsible for reading and learning all material presented in the learning units as well as any additional material that I provide through MyCourses (My Courses is MSU's version of Blackboard® - these terms may be used interchangeably in this syllabus) exercises. Students must cover the materials in the learning units and complete the self-exams on time. No late self-examinations will be accepted. Be sure to save the "exam submitted" notice that you receive immediately after completing a self exam. If you do not have a record of your self-exam score, no changes can be made to incorrect or missing self exam grades.

Students will be assigned to Learning Teams at the beginning of the semester. Students are expected to fully and actively participate in their assigned Learning Teams. Most of the MyCourses activities will be designed in such a way as to have students answer questions or solve problems and to post answers or responses on the MyCourses site as a team (more information about Learning Teams appears under Examinations and Grading). The MyCourses site will be used to provide discussion and interactive exercises. Learning Teams are expected to post responses by the designated due date and title.

Required Text:

Puhalla, J., J. Krans, and M. Goatley. 1999. *Sports Fields: A Manual for Design Construction and Maintenance*.

American Society of Agronomy, 1998. *Publications and Style Manual* – available online

Supplementary Reading:

Dr. Stewart will provide additional reading assignments during the semester. All reading assignments are considered testable material.

Methods of Course Content Delivery:

The course content will be delivered using MyCourses. The course site contains recorded lectures, video content and self-exams as additional learning and evaluation tools. The Student Learning teams (assigned at beginning of semester) will use Blackboard® to answer "Learning Team Tasks" which are posted generally once a week. Blackboard will also be used as a communications and testing tool.

Examinations and Grading:

Students are required to study each learning unit and master the content contained in the learning unit. Students are required to complete the self-examination at the end of each learning unit and to participate in all Learning Team activities on BlackBoard®. Self-examinations may be completed early, but no self-examinations will be accepted after 10:00PM of the due date posted. When signing on to complete a self-exam, be sure to enter your full name. The score will automatically be e-mailed to Dr. Stewart and recorded. Students should keep a printout of the scored page as a record in case discrepancies occur. Only the first self-exam attempt score received will be recorded. Dr. Stewart will e-mail confirmations that your self-exam score was received and recorded. There will be 1 written examination during the semester having 100 points possible. There will be a comprehensive final examination as scheduled by the University that will have 200 points possible. Learning unit content, BlackBoard® discussions and Learning Team exercises are all potentially testable materials. Examinations will contain multiple choice, short answer, and short essay questions and will be conducted through MyCourses using a secure browser. You should check the lecture schedule for the examination dates. Self-examinations (10 in total) will be worth up to 20 points each for a total of up to 200 points. There will be a total of ~ 950 potential points. Grades will be based on the percentage of points earned. Students may earn homework and quiz points through their Learning Team and Mycourses exercises.

I. **Grading** (Undergraduates)

10 self exams	200 pts
Midterm Exam	100 pts
Final Exam (Comprehensive)	200 pts
Homework, Written Reports	100 pts
Written Specifications	100 pts
Term Paper	100 pts
Oral Report	75 pts
Participation	75 pts

Points will be accumulated throughout the semester and will be weighted according to the above scheme. A grading scale of >90% = A; 80-90% = B; 70 - 80% = C; 60 - 70% = D; < 60% = F will be used.

II. **Grading** (Graduate Students)

For graduate credit the student will be required to do a research based project in addition to the work required of the undergraduate students. Past projects have included a study of the effectiveness of herbicides for the removal of ryegrass overseeding and a survey of baseball coaches on their practices for infield skin maintenance. Small group (2 or 3 students) projects are acceptable. Please contact me early in the semester with ideas about a research project. At the conclusion of the project the student(s) are expected to document their findings as a research report using American Society of Agronomy style and present their findings to the class in a 15 minute presentation.

Method of Evaluating Graduate Students

10 self exams	200 pts
Midterm Exam	100 pts
Final Exam (Comprehensive)	200 pts
Homework, Written Reports	100 pts
Written Specifications	100 pts
Term Paper	100 pts
Oral Report	75 pts
Participation	75 pts
Research Project	100 pts

Points will be accumulated throughout the semester and will be weighted according to the above scheme. A grading scale of >92% = A; 92-84% = B; 83 - 75% = C; 75 - 65% = D; < 64% = F will be used.

Other Important Notes:

Students should set aside specific study times for this class. Students who are most successful with this type of class typically have established times that they devote to the class. Don't wait until the day before a self-exam is due to study the content. Students should be sure to stay on schedule. Written examinations will be proctored by the home institution. Students will be notified as to the date, time and location of the written examinations. No hats or caps are allowed during examinations. Students wearing hats or caps during examinations will not be allowed to take the examination and will receive a grade of "0%" for that examination. Any student found to be using materials not specifically permitted by the instructor (i.e. notes, text, etc.) during an examination or assisting other students during examinations will receive a grade of "0%" for that examination and may be subject to further disciplinary actions by their University. If you need an accommodation due to a disability, please make arrangements to discuss this with me during the first two weeks of class. We will follow each University's inclement weather policy in regards to the written examinations. However, weather will not affect the schedule for learning units and self exams. Students know the schedule in advance and should plan accordingly. No late self-exams will be accepted. Self exams are due by 10:00PM (central time) of the due date noted.

Honor Code:

There will be zero tolerance for cheating, plagiarism, or other academic misconduct as defined in the University Academic Honesty Policy.

"As a student I will conduct myself with honor and integrity at all times. I will not lie, cheat, or steal, nor will I accept the actions of those who do."

All policies of each student's home institution shall be followed.

Learning Unit and Examination Schedule:

Unit 1

- 1.) History of sports turf management and the evolution of playing fields.
- 2.) Athletic Field problems - a survey of problems, their causes, cures and prevention.

Unit 2

- 1.) Soil Physical Properties - important properties and methods of measurement.
{video} **Homework and Written Report**
- 2.) Soil Modification.

Unit 3

- 1.) Using the library to find resources
- 2.) Construction Methods - a general overview.
- 3.) Specification for construction and maintenance - importance, preparation and review.

Unit 4

1. Materials - factors to consider when specifying topsoil, sand, gravel, peat, organic amendments, inorganic amendments, synthetic fiber and mesh amendments, lime, fertilizers, seed, sod, sprigs and mulch. {video}

Unit 5

1. Drainage- considerations when designing and correcting drainage.
2. Comparison of construction methods- review of published construction methods. **Written Report**

Unit 6

1. Baseball/softball infield construction and maintenance - emphasis on skinned areas (base paths, batters box, pitchers mound, and in some cases the entire infield). {video}
2. Turf Maintenance procedures - mowing, fertilization, weed control, irrigation, renovation, etc. {video} **Written Specification for Bids.**

Unit 7

1. Preparation of field for use -marking lines, logos, etc. striping; soil water control, safety evaluation; {video}
2. Post-use procedures - divot repair, clean-up, water control (covers, irrigation) soil leveling (skinned areas) {video}

Unit 8

Artificial Playing Surfaces {video}

Unit 9

1. Playing Quality - impact attenuation, traction, ball responses. {video} **Written Report**
1. Safety, Liability, Records

Unit 10

Visit to on campus athletic or local sporting events to observe field procedures (4 hours). Baseball, Softball, Soccer, Spring football game. **Written Report.**