Department of Plant Biology and Pathology

Expanded Course Description for 11:776:404

Soil Management for Sports Fields and Landscapes
(3.0 credits)

Normally Offered:  Spring every other year (even numbered years only).  By James Murphy.

Pre-requisites and other registration restrictions:
Soils and Water (11:375:360)

Format:  Two 80-minute lectures

Description:
This is a turfgrass management course that fulfills the elective portion of the SEBS Plant Science requirements. This course is strongly suggested for students seeking career opportunities in the science and management of landscapes including lawns, gardens, parks, roadsides, cemeteries, athletic fields, golf courses, etc. as well as the commercial supplies industry associated with turf and landscape management. The course integrates the principles of soil and turfgrass sciences needed to understand the management of turf in a variety of landscape settings. The course uses lecture, some field and informal laboratory experience, and field trips to teach principles of turf soil science and management. Topics include manipulation of soil for drainage and supply of water for plants, efficient application of water through irrigation, use of effluent and poor quality water for irrigation, managing soil for plant nutrition, and turf management using organic principles.

Learning Goals:
• Gain knowledge needed to assess soil health and its impact on landscape function.
• Gain knowledge on soil management related to organic management of landscapes.
• Gain an appreciation of maintaining and repairing highly trafficked turf.
• Improve students understanding of nutrient management of landscapes.
• Gain knowledge on managing soil water via drainage and irrigation.

Measures of Assessment:
• Out-of-class assignments
• Exams
• Comprehensive class project
• Class discussion
Course Website: eCollege/eCompanion

Topics:
- Mankind and Soil
- Land Assessment Using Web Soil Survey
- Protection of Soil and Water Quality
- Organic Soil Management
- Salt-Affected Soil Problems
- Managing Traffic Effects on Soil and Turf
- Soil Construction for Landscapes

Required and Recommended Course materials:
Textbook not required. Supplemental online readings will be provided.

Recommended reference books include:


Policies for Exams, Assignments, Attendance, and Grading
3 Exams (in class) for 40% of total grade
8 out-of-class assignment for 40% of total grade
1 comprehensive class project for 15% of total grade
Attendance and participation in class discussion for 5% of total grade