

Hort 479: Advanced Turfgrass Science

3 credits Fall 2007

Lecture: MWF 7:30-8:20 190 Gerald Thomas

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Office hours: MW: 8:30-9:30; or by appointment

Objectives:

- 1) To develop an understanding of the fundamentals of turfgrass pest management
- 2) To develop an understanding of how environmental stresses, construction, and turfgrass management practices affect the growth, development, and physiology of turfgrasses.
- 3) How environmentally sound management practices can be altered to promote optimal turfgrass health under stress conditions.
- 4) To develop an understanding in soils with respect to managing turf in structured and unstructured soils.
- 5) To critically evaluate scientifically based literature on turfgrass management
- 6) To develop an integrated management plan for a turf site (golf course, athletic field, etc.)

Texts:

Required Text: Either Christians's Fundamentals of Turfgrass Management or Turgeon's Turfgrass Management.

Optional Texts:

Turfgrass: Science and Culture. J.B. Beard. 1973. Prentice-Hall, Inc. (optional)

Turfgrass Ecology and Management. T.K. Danneberger. 1993. Franzak & Foster (optional)

Turfgrass Soil Fertility and Chemical Problems. R.N. Carrow, D.V. Waddington, and P.E. Rieke. 2001. Ann Arbor Press (now Wiley Press; optional).

Grading: Grades will be based on quizzes, exams, class participation, and the development and presentation of a turf site management plan. **Make-up quizzes/exams will not be provided except under extenuating circumstances (e.g., death in the family).**

Grading scale (%): $\geq 92 = A$ 81-91 = B 70-80 = C 60=69 = D $< 60 = F$

Quizzes (weekly)	15%
Turf Site Management Plan	15%
Article Critiques (5)	20%
Exam I	15%
Exam II	15%
Final Exam	20%

NOTE: Lectures are not final, and are likely to change as the semester progresses.

Advanced Turf Management

Proposed: Fall 2007

	Topic
1	Turfgrass weed management
2	Turfgrass pathology
3	Turfgrass entomology
4	Turfgrass Soils
5	Drainage
6	Putting green construction & establishment
7	Athletic field construction & establishment
8	Thatch
9	Cation Exchange Capacity
10	Fertility
11	Localized Dry Spot
12	Black Layer
13	Soil Amendments
14	Photosynthesis and Respiration
14	Turf Growth and Developments (Carbohydrates)
15	Turfgrass and Shade
16	Plant Growth Regulators
17	Water Potential and Use
18	Evapotranspiration
19	Water Stress
20	Submersion Stress
21	Heat and High Temperature Stress
22	Cold Stress
23	Putting Green Management (green speed)
24	Athletic Field Management
25	Turfgrass Technologies