

HRT 205

Soils

COURSE OUTLINE

Prerequisites:

None

Course Description:

Teaches theoretical and practical aspects of soils and other growing media. Examines media components, chemical and physical properties and soil organisms. Discusses management and conservation.

Semester Credits: 3 Lecture Hours: 2 Lab/Recitation Hours: 2

Course Outcomes:

At the completion of this course, the student should be able to:

1. Collect soil samples and analyze soil test results.
2. Classify soil samples using textural characteristics.
3. Identify soil-less media components and characterize their origin, water-holding capacities and drainage qualities.
4. Describe technical data printed on commercial fertilizer containers and use this information to calculate application rates.
5. Apply knowledge of pH to soil management practices.



Required Materials/Textbook:

Plaster, E.J.: Soil Science and Management, 5th edition, Delmar, Cengage Learning, Clifton Park, NY, 2009, ISBN-13: 978-1-4180-3865-6, ISBN-10: 1-4180-3865-2

Topical Description:

The Importance of Soil – Chapter 1
Soil Origin and Development – Chapter 2
Physical Properties of Soil – Chapter 4
Life in the Soil – Chapter 5
Organic Matter – Chapter 6
Soil Water – Chapter 7
Soil Fertility – Chapter 10
Soil pH and Salinity – Chapter 11
Plant Nutrition – Chapter 12
Soil Sampling and Testing – Chapter 13
Fertilizers – Chapter 14
Organic Amendments – Chapter 15

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