Course Syllabus

Department: Conservation / Horticulture

Date: November 14, 2012

I. Course Prefix and Number: HRT 203

Course Name: Turf Management

Credit and contact hours: 3 credit hours - 3 contact hours

Catalog Description including pre- and co-requisites:

This course deals with grasses and grass varieties, cultural requirements of turf, establishment, mowing, dethatching, aerating, fertilizing, irrigation, and weed control. Offered Spring semester.

Relationship to Academic programs and curriculum:

This course is an elective for both the Horticulture AAS degree and the Certificate. This course may also be taken as an elective for students outside of the horticulture program if they meet the pre-requisite requirement.

II. Course Student Learning Outcomes:

Upon the completion of this one semester course students will be able to:

A. Identify the various parts and characteristics of turf plants that facilitate the correct identification of grass species.

B. Determine the correct species, mix, or blend of turf plants for a variety of use environmental or aesthetic conditions.

C. Differentiate between similar, commonly used cool weather grasses used in residential, sport, and golf applications.

D. Identify and describe the various methods of installation and establishment of turf.

E. Examine the various tools and methods for maintenance of turf including mowing, watering, fertilizing and maintaining general health.

F. Analyze a turf condition to determine if damage is evident and what the causal form of the damage including both common insects and diseases.

G. Propose methods for treatment and for reducing future occurrence of the suspected causal form of damage to turf.

College Learning Outcomes Addressed by the Course:

☐ writing ☐ computer literacy
☐ oral communications ☐ ethics/values
☐ reading ☐ citizenship
☒ mathematics ☒ global concerns
☒ critical thinking ☐ information resources
III. Assessment Measures (Summarize how the college and student learning outcomes will be assessed):

<table>
<thead>
<tr>
<th>List identified College Learning Outcomes(s)</th>
<th>Specific assessment measure(s)</th>
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</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>Students will perform calculations in workshop assignment for calculation of landscape area for turf installation, calculation of quantities of required materials to fill that area and student assessment of costs for different methods of installation.</td>
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<tr>
<td>Critical Thinking / Problem Solving</td>
<td>Students will be required to complete a project which involves the analysis of a site for turf weeds or insects or diseases, including student recommendations for sustainable and traditional chemical treatment and future mitigation.</td>
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<tr>
<td>Global Concerns</td>
<td>Repeated verbal, written and project oriented assessment of student’s evaluation of sustainable issues related to turf installation and maintenance.</td>
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IV. Instructional Materials and Methods:

Types of Course materials:
- Text books
- Equipment demonstrations
- In-class workshops developed by instructor that relate to the specific topic to be covered
- Real sites to be analyzed both on- and off-campus to meet the increasingly complex development of student skills
- Library resources

Methods of instruction (e.g. Lecture, Labs, Seminars …):
- Lectures with handouts, power points, and visual examples
- Equipment demonstrations
- Workshops of guided learning and practice in techniques
- Individual feed back and group discussion following various segments of technique development
- Hands-on, in-field project or practice on and off-campus with a variety of equipment and various techniques

V. General Outline of Topics covered

a. Introduction to turf career opportunities
   i. Titles & degree options
   ii. Turf installation business opportunities
   iii. Turf maintenance business opportunities

b. Turf Plants
   i. Monocots vs Dicots
   ii. Turf morphology
   iii. Warm season vs cool season plants
c. Sustainable Turf Management
   i. Sustainable plant choices & applications
   ii. Sustainable water management
   iii. Residential & Commercial turf vs sports turf

d. Turf Installation
   i. Soils required for turf
   ii. Installation options
   iii. Establishment requirements, options and tools
   iv. New turf fertilization requirements and limitations

e. Turf Maintenance
   i. Mowing requirements
   ii. Mowing equipment
   iii. Mowing safety
   iv. Irrigation requirements
   v. Irrigation options

f. Turf Management Problems
   i. Intro to pests and treatment options
   ii. Insect pests of turf
   iii. Management of Insect pests
   iv. Diseases of turf
   v. Management of diseases
   vi. Weed pests of turf
   vii. Management of weeds

g. Specialty turf equipment
   i. Equipment demonstration
   ii. Application methods
   iii. Calibration
   iv. Resources