Course Syllabus

Department: Environmental Conservation and Horticulture

Date: February 11, 2013

I. Course Prefix and Number: HRT 202

   Course Name: Landscape Construction and Maintenance
   Credit and contact hours: 3 credit hours and 3 contact hours
   Catalog Description including pre- and co-requisites:
   This course will familiarize students with construction of walks, drives, walls, patios, fireplaces, garden structures, lawns flowerbeds; and the planting and staking of trees and shrubs. Maintenance practices for the landscape, including actual pruning of small trees and shrubs, irrigation and spring and fall preparation of the landscape will be studied. Topics on business establishment and operation as well as bidding the job will be discussed. Pre requisites: none

   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.

II. Course Outcomes and Objectives

   Student Learning Outcomes:
   A. Identify, select, operate, maintain, and explain the various tools and equipment used in the planting and maintenance of landscape materials and in the construction of outdoor landscape structures.
   B. Demonstrate and explain the correct processes for planting or transplanting trees, shrubs, herbaceous perennials plants, and lawns into various landscape conditions.
   C. Describe the layout and installation procedures for a landscape planting.
   D. Identify the issues and criteria for selecting, placing, and maintaining, and explain the processes for the installation of hardscape, waterscape and irrigation systems to a new or existing landscaped area.
   E. Explain the correct procedures and timing for pruning, trimming, edging, mulching, and watering various landscape plant materials.
   F. Examine a group of landscape plants to determine the correct maintenance procedures for the individual components and the group.
   G. Design a maintenance plan for individual components and an overall group of landscape plants and clearly describe this maintenance plan verbally and in writing to a person not trained in the landscape field.
H. Become certified in Bobcat Skid-Steer Safety following the national professional course outline.

**College Learning Outcomes Addressed by the Course:**

- [ ] writing
- [ ] computer literacy
- [ ] oral communications
- [ ] ethics/values
- [x] reading
- [ ] citizenship
- [ ] mathematics
- [x] 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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<tbody>
<tr>
<td>Reading</td>
<td>Students will be required to study the manual produced for the safe operation of a Bobcat Skid-steer. They will then take a series of professional tests to ensure their comprehension and apply the gained knowledge to the specific machine available in the class.</td>
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<tr>
<td>Critical Thinking / Problem Solving</td>
<td>Students will be required to analyze a group of landscape plants to determine the correct maintenance procedure for the individual components in the group and design a maintenance plan for the group. They will be required to clearly describe this plan verbally and in writing to a person not trained in the landscape field.</td>
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<tr>
<td>Global Concerns</td>
<td>Students will answer test questions about the appropriate use of specific plant materials in a variety of locations and will be required to discuss the long term effects of poor site placement on the environment, public safety, and the plant.</td>
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**IV. Instructional Materials and Methods:**

**Types of Course materials:**

- Text books
- Bobcat Skid-Steer Safety Manual and videos
- In-class lectures and 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
- Visual images presented in class with study guides provided by instructor

**Methods of instruction (e.g. Lecture, Labs, Seminars ...):**

- Lecture with handouts, power point, videos, and visual examples
- Demonstrations of plant materials and plant identification parts
- Workshops of guided learning and practice in techniques
- Individual feedback and group discussion following various segments of technique development
Hands-on, in-field practice of “customer” sites on and off-campus with various techniques

V. General Outline of Topics covered

a. Introduction to landscape career opportunities
   i. Titles & degree options
   ii. Introduction to various career opportunities

b. Introduction to landscape tools
   i. Hand tools for installation and pruning
   ii. Small Engines
   iii. Bobcat Skid-Steer
   iv. Gator
   v. Specialty tools for irrigation
   vi. Specialty tools for hardscape

c. Sustainable Landscape Construction
   i. Concepts of sustainability
   ii. Components of a healthy site
   iii. Sustainable plant choices & applications
   iv. Sustainable water management
   v. Origin & fate of materials
   vi. Sustainable energy usage in the landscape

d. The Bobcat Skid-Steer Safety Certificate
   i. Required class time
   ii. Required machine time
   iii. Standardized written and machine tests

e. Plant Installations
   i. Reading a landscape plan
   ii. Traveling with plants
   iii. Specialty tools
   iv. Specialty techniques
   v. Coordination of crews

f. Hardscaping in the landscape
   i. Types of hardscapes
   ii. Required subsoil work
   iii. Required substrate – types and installation
   iv. Techniques is building up layers
   v. Types of surface materials
   vi. Drainage

g. Irrigation for the landscape
   i. Reading an irrigation plan
   ii. Types and components of irrigation system
   iii. Water pressure and back flow
   iv. Sources for equipment

h. Landscape Construction and/or Maintenance Business
   i. Components to consider
   ii. Resources