Course Syllabus

**Department:** Conservation

**Date:** 24 January 2014

I. **Course Prefix and Number:** CON 239

   **Course Name:** Introduction to Ecological Management Practices

   **Credit Hours and Contact Hours:** 3 credit hours and 4 contact hours

   **Catalog Description including pre- and co-requisites:**

   This hands-on, techniques course provides students the opportunity to gain applied experience conducting standard practices in managing habitats. Field data will be collected analyzed and applied. Topics will include but are not limited to erosion control, vegetation management, invasive species control, and ecological restoration techniques. This course will emphasize current practices in the design, implementation, monitoring, and maintenance of a variety of natural and managed environments. Prerequisites: none

   **Relationship to Academic Programs and Curriculum including SUNY Gen Ed designation if applicable:**

   Approved elective for the AAS Natural Resources Conservation degree.

II. **Course Student Learning Outcomes:**

   The student will

   1. Define and describe different strategies commonly used to maintain and enhance natural resources (e.g. soil, water, vegetation) and control threats in natural and managed environments.

   2. Evaluate different strategies commonly used to maintain and enhance natural resources (e.g. soil, water, vegetation) and control threats in natural and managed environments.

   3. Conduct standard management techniques and/or observe implementation by certified professionals.

   4. Collect, analyze, and summarize field data.

   5. Design a site-specific management plan.

   **College Learning Outcomes Addressed by the Course:** (check each College Learning Outcome addressed by the Student Learning Outcomes)
III. Assessment Measures (Summarize how the college and student learning outcomes will be assessed): For each identified outcome checked, please provide the specific assessment measure.

<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>Comprehension and application of mathematical concepts will be evaluated using an established management report rubric.</td>
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<tr>
<td>Critical Thinking</td>
<td>Critical thinking will be evaluated using an established rubric for the site-specific management plan assignment.</td>
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IV. Instructional Materials and Methods

Types of Course Materials:

Texts, management reports, primary literature, standard equipment

Methods of Instruction (e.g. Lecture, Lab, Seminar …):

Lectures, Field Trips, and Hands-on Field Activities

V. General Outline of Topics Covered:

Management Planning (identify conservation targets, stresses, sources of stress, strategies, measures of success)

Adaptive Management

Vegetation Control Techniques (physical/mechanical, biological, fire, chemical)

Invasive Species Control (terrestrial and aquatic)

Erosion Control

Vegetation Establishment Techniques (seed collection, seeding, and planting)