Course Syllabus

Department: Environmental Conservation and Horticulture

Date: 23 January 2014

I. Course Prefix and Number: CON 122

   Course Name: Introduction to Applied Field Techniques

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

   Catalog Description including pre- and co-requisites: Introduction to Applied Field Techniques is designed to train students in the use of standard sampling methods and equipment currently used to measure and or assess a variety of terrestrial and aquatic ecosystems. Students will collect and analyze field data using standard protocols and present their results in a variety of ways.

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

   Required for AAS Natural Resource Conservation.

II. Course Student Learning Outcomes:

The student will

1. Exercise the steps of scientific method from the initial stages of collecting observations, to building hypotheses and analyzing results.

2. Evaluate peer-reviewed scientific studies that are related to laboratory exercises.

3. Execute standard ecological sampling procedures, calculate and analyze data, and compare these results to those published in peer-reviewed, scientific papers.

College Learning Outcomes Addressed by the Course: (check each College Learning Outcome addressed by the Student Learning Outcomes)

☒ 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): 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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<tbody>
<tr>
<td>Writing</td>
<td>Students will write and revise several laboratory results and writing will be evaluated using an established laboratory report rubric.</td>
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<tr>
<td>Mathematics</td>
<td>Comprehension and application of mathematical concepts will be evaluated using an established laboratory report rubric.</td>
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<tr>
<td>Computer Literacy</td>
<td>Application of relevant computer programs in the field of ecology will be evaluated using an established laboratory report rubric.</td>
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IV. Instructional Materials and Methods

Types of Course Materials:

Methods of Instruction (e.g. Lecture, Lab, Seminar ...):
Lecture
Group activities
Field exercises

Methods of evaluation
Lab reports
Written quizzes
Written exams
Practical exam(s)

V. General Outline of Topics Covered:
1. Maps, Compass, GPS
2. Standard Sampling Designs
5. Sampling Methods for Groundwater sampling