Course Syllabus

Department: Environmental Conservation

Date: October 18, 2012

I. Course Prefix and Number: CON 214

Course Name: Fisheries Management

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

Catalog Description including pre- and co-requisites: supporting data required for grade prerequisite of ‘C’ or higher.

Fisheries management stresses the relationship between humans, fish, and their environments. Students are introduced to the principles of fishery management including history, theory, and management strategies. The importance of habitat management, and population dynamics and their interactions is explored. Management strategies will be introduced through case studies of selected fisheries.

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

This course is required as part of the AAS Fish and Wildlife Technology degree and may be used as an elective for any of the Conservation degrees or a general elective for other degrees.

II. Course Student Learning Outcomes: State the student learning outcome(s) for the course (e.g. Student will be able to identify…)

Students will:

- Determine what constitutes a fishery
- Use the principles of ecosystem management for fish populations
- Have a working knowledge of population dynamics
- Determine management strategies
- Interpret basic data collected from fish populations

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

| X writing | X computer literacy |
| □ oral communications | X ethics/values |
| □ reading | X citizenship |
| X mathematics | □ global concerns |
| X 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 generate scientific lab reports comparing stream and lake systems. The reports will follow a stringent format and will be edited and revised prior to receiving a final grade.</td>
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<tr>
<td>Mathematics</td>
<td>Students will record and analyze and interpret data (e.g. length frequency histograms and population estimates) from stream and lake systems to generate scientific lab reports.</td>
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<td>Critical Thinking (Problem solving)</td>
<td>Students will use prior classroom lectures and examples to interpret their data when generating their lab reports.</td>
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<tr>
<td>Computer literacy</td>
<td>Student lab reports will be generated in Microsoft word with analyses and graphics generated in Microsoft excel.</td>
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<tr>
<td>Ethics/Values</td>
<td>Students will capture and handle live organisms in accordance to accepted protocols.</td>
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<tr>
<td>Citizenship</td>
<td>Students are learning to use and manage a public resource (i.e. fish and habitat of the state of New York).</td>
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IV. Instructional Materials and Methods

Types of Course Materials:

- Text book and field equipment

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

- Lecture, field experiences, hands-on work with equipment

V. General Outline of Topics Covered:

1) Fisheries management process
2) Population dynamics-Estimating population size
3) Fishery productivity
4) Population structure
5) Production, recruitment and yield
6) Population dynamics-Age and growth
7) Quantitative description of diet
8) Small impoundment management
9) Pond assessment
10) Lake assessment
11) Stream assessment