SUFFOLK COUNTY COMMUNITY COLLEGE
Ammerman Campus - Biology Department

Course Title: **Field Biology and Ecology** (MW 8-9:15) Catalog #: BIO-210
Instructor: Dr. Thomas T. Gordon Semester: Spring 2014
Office: T-219 Phone: 451-4913
E-mail: gordont@sunysuffolk.edu
Office Hours: Mon. 1:30 – 2:00; Tues/Thur. 9:00 – 10:30; Wed. 9:30 – 10:30, & 12:30 – 1:30;
and/or by Appointment (Email is the best way to reach me.)

REQUIRED BOOKS
---SCCC Bookstore Only---

I will also provide occasional handouts and pdf’s of my lectures will be available; **buy a three-ring binder** to contain both these and your class notes. I may also provide some Web Site URLs that will contain (I hope) useful material.

Lab Materials: Will be mostly provided in or just prior to the lab as photocopies or pdf’s. A pad, graph paper (National 12-188), ruler, pencils (automatic ones are best) and black ink ballpoint pen should be brought to each lab. Have another **three-ring binder** for the lab materials.

OBJECTIVES OF THE COURSE
1. To introduce the student to the basic concepts of ecology
2. To familiarize the student with the elements and processes of natural ecosystems, with
   emphasis on the Eastern Deciduous Forest of North America
3. To expose the student to some of the literature of natural history and ecology
4. To develop, through writing, the student's ability to analyze and organize information on
   natural history.
5. To learn the use of elementary techniques for characterizing and analyzing natural
   communities, focusing our efforts on selected small campus areas.
6. To acquaint the student with some selected natural communities of Long Island.
7. To increase the student's ability to identify and understand the composition of local biotic
   communities

PROCEDURES FOR ACCOMPLISHING THESE OBJECTIVES
The course is divided into lecture and laboratory sections, but the distinction may not always be
preserved, as I hope to encourage an air of informality and exploration.
In any case, there will be substantial material presented in lectures on the topics listed in the
outline below, but I will give ample opportunity for give-and-take discussion and, indeed, am
looking for it. I will use slides, videos, handouts and chalkboard to stimulate our discussions.
The laboratory will be a mixed bag, but there will be some formal in-lab exercises (for inclement
weather, among other things) as well as a few field trips to off campus locations. Several labs
will be devoted to ecological communities on campus, with a more intense focus on one in
particular. This lab procedure hopes to give us practice at informed observation and analysis.
WHAT I EXPECT FROM THE STUDENT
1. Read any material assigned or distributed in class, concurrent with discussions of those topics.
2. Participate actively in classroom discussions
3. Take Lecture Exams. There will be three given at approximately equal intervals through the semester. *No make-up exams will be given.* Tests will be a combination of multiple choice, short answer/data analysis and possibly a short essay (question announced in advance). (100 points each)
4. **There will be a comprehensive final.** (200 points)
5. Submit in acceptable form all assigned laboratory material and exercises.
6. Take a lab exam at the end of the course. This will include some written material on procedures, materials and methods we’ve used in the lab and a field identification part (where you will have to identify various organisms we have seen), as well as some parts done via projected slides in lab.
7. Regular and punctual attendance. I know that 8:00 a.m. sharp is very early for some people, but that’s when I expect you to be there for lecture. The college has an ATTENDANCE POLICY: this defines "excessive absence or lateness as more than the equivalent of one week of class meetings during the semester. Excessive absence or lateness may lead to failure in the course or removal from the class roster." So come and come on time.
8. A short paper will also be assigned on a mutually agreed upon topic of field biology and/or ecological interest. Suitable topics will be any that are related to the Eastern Deciduous Forest (our local biome), but others will be considered. I will provide some suggested topic titles by mid-semester.

GRADING
I will arrive at your grade as follows:

a. Three Lecture Exams 300 pts
b. Final Exam 200 pts
c. Short Paper 50 pts
d. Lab Exam, Assignments, Attendance, Class participation etc. 250 pts

Total= 800 pts

Rarely does anyone actually achieve all 800 points, as such, final grades will be calculated using an appropriate curve based on the class scores.

OTHER MATTERS OF IMPORTANCE
1. Always bring all of your books to lecture and lab as well as your notebooks, graph paper, pencils, pens, calculator.
2. **Always assume you might be spending an hour or more outside on lab days and, therefore, dress appropriately. Hint: it’s always colder than you expect it’s going to be; umbrellas are very useful items; gloves and a hat are better with you than at home.**
3. For any off, campus field trip I will expect you (with my coordination) to alternate as drivers and share the burden of transport. With this in mind, on lab days when we expect to go on an off, campus field trip, always try to park close to the Marshall Building near the big, gray water tower.
4. To repeat... I expect students to be in class on time; recall, if you try to arrive on campus just before class, parking can be a problem. I will take attendance at the beginning of class, and lateness counts as "absence." Come, say, at 7:30 a.m. and you will have time to review your notes in the cafeteria and have some caffeine. Which brings me to an absolute: No food or drink in class, even before class begins.

5. Another absolute: no smart/dumb phones, texting devices, or other electronic devices are to be used in class without my explicit permission. If you slumber in class, do so discreetly. No private parties. All buildings are non-smoking, as well as within fifty feet of the buildings.

IF YOU ARE HAVING PROBLEMS WITH THE COURSE
My office hours are listed at the beginning of this Course Outline, and I can also make appointments outside of office hours at a time convenient to both of us. I give all student problems as dispassionate a consideration as I can manage and no serious inquiry is casually dismissed, but if I don’t know there is a problem, I can’t offer advice.

Students can find themselves in difficulties either early or late in the course of the semester for a variety of reasons: academic matters, personal matters, career perplexities, etc. My office hours are primarily meant for meeting with individual students, and these hours are a prime opportunity to you to see what can be done about problems before they become overwhelmingly difficult to solve. Even if they seem so, it is possible that I might actually point out an unconsidered solution.

Some of you might be having problems with the materials or techniques or the readings in the course. Do not let this go on too long. Another purpose of my office hours is to provide counsel and assistance and suggestions. All questions will be considered, so never hesitate to ask. I am aware that it can take an effort of the will to see an instructor in a one-on-one way, but I urge you to make it if advice or help is required. My door is open and my time is yours if you need it. You may communicate by e-mail as well, and outside normal hours, it is the fastest way to reach me (I usually check it at least once a day).

LABORATORY MATTERS
Much of our lab work will involve various sites on Campus, where we will learn the basics of plant and animal identification and where we will also collect data with various techniques that will let us more accurately and analytically characterize the natural communities. Because our lab work is partly weather dependent, no formal lab schedule has been set up and some of the exercises will be ad hoc in relation to where I see we are having successes or encountering difficulties. Also, I like to produce some new exercises in the course of the semester, so our trajectory will stay fluid even until the end. There will also be some in-lab exercises and use of videos from time to time. I also plan several off-campus trips during the regularly scheduled class hours. We’ll have quite enough to fill the time.

I would like to be able to have a more extended field trip, to some more distant Long Island location, on a Saturday or Sunday in late April or early May. I will survey the class and see if we can find a day compatible with people's schedules, probably a weekend field trip. If we find that there is a day all can be free, we will have an off-campus trip, if not, not.
# Bio-210 Spring 2014 LECTURE SCHEDULE (Tentative)

<table>
<thead>
<tr>
<th>Week/Dates</th>
<th>Topics</th>
<th>Readings</th>
<th>Exams</th>
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<tbody>
<tr>
<td>Week 1</td>
<td>Course Introduction</td>
<td>Ch. 1</td>
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<tr>
<td>Jan 22</td>
<td>What is Ecology?</td>
<td>Ch. 2 &amp; 3</td>
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<tr>
<td>Week 2</td>
<td>Biosphere and Ecological systems</td>
<td>Ch. 2 &amp; 3</td>
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<tr>
<td>Jan 27 &amp; 29</td>
<td>Biosphere and Ecological systems</td>
<td>Ch. 2 &amp; 3</td>
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<tr>
<td>Week 3</td>
<td>Species adaptations and Environment</td>
<td>pp. 77 – 129</td>
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<tr>
<td>Feb 3 &amp; 5</td>
<td>Species adaptations and Environment</td>
<td>pp. 77 – 129</td>
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<tr>
<td>Week 4</td>
<td>Species adaptations and Environment</td>
<td>pp. 77 – 129</td>
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<tr>
<td>Feb 10 &amp; 12</td>
<td>Lecture Exam 1 - Wed. February 13</td>
<td>Exam 1</td>
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<tr>
<td>Week 5</td>
<td>Population Characteristics</td>
<td>Ch. “9”</td>
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<tr>
<td>Feb 17* &amp; 19</td>
<td>Population Characteristics</td>
<td>pp. 156 – 175</td>
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<tr>
<td>Week 6</td>
<td>Population Growth and Regulation</td>
<td>Ch. “10’ &amp; “11”</td>
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<tr>
<td>Feb 24 &amp; 26</td>
<td>Population Growth and Regulation</td>
<td>pp. 176 – 215</td>
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<tr>
<td>Week 7</td>
<td>Population Growth and Regulation</td>
<td>pp. 176 – 215</td>
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<tr>
<td>Mar 3 &amp; 5</td>
<td>Life Histories</td>
<td>Ch. “12”</td>
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<tr>
<td>Week 8</td>
<td>Life Histories</td>
<td>pp. 217 – 239</td>
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<td>Mar 10 &amp; 12</td>
<td>Lecture Exam 2 - Wed. March 13</td>
<td>Exam 2</td>
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<td><strong>Mar 17 &amp; 19</strong></td>
<td>Spring Break – No Classes</td>
<td>Ch. “13”</td>
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<tr>
<td>Week 9</td>
<td>Competition</td>
<td>pp. 240 – 260</td>
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<tr>
<td>Mar 24 &amp; 26</td>
<td>Competition</td>
<td>Ch. “14”</td>
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<tr>
<td>Week 10</td>
<td>Predation and inter-specific interactions</td>
<td>pp. 261 – 286</td>
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<td>Mar 31 &amp; Apr 2</td>
<td>Predation and inter-specific interactions</td>
<td>Ch. “16’ &amp; “17”</td>
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<td>Week 11</td>
<td>Community Diversity &amp; Structure</td>
<td>pp. 288 – 327</td>
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<td>Apr 7 &amp; 9</td>
<td>Community Diversity &amp; Structure</td>
<td>pp. 288 – 327</td>
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<tr>
<td>Week 12</td>
<td>Community Diversity &amp; Structure</td>
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<td>Apr 14 &amp; 16</td>
<td>Lecture Exam 3 - Wed. April 17</td>
<td>Exam 3</td>
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<td>Week 13</td>
<td>Primary Production and Energy Flow</td>
<td>Ch. “18’ &amp; “19”</td>
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<td>Apr 21 &amp; 23</td>
<td>Primary Production and Energy Flow</td>
<td>pp. 328 – 368 +</td>
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<td>Week 14</td>
<td>Succession and Stability</td>
<td>Ch. “20”</td>
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<td>Apr 28 &amp; 30</td>
<td>Succession and Stability</td>
<td>pp. 369 – 393</td>
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<td>Week 15</td>
<td>Landscape Ecology &amp; Biogeography</td>
<td>Ch. “21a’ &amp; “21b”</td>
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<td>May 5 &amp; 7</td>
<td>Landscape Ecology &amp; Biogeography</td>
<td>pp. 394 – 418/</td>
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<td>Week 16</td>
<td>TBA</td>
<td>pp. 443 – 457</td>
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<td>May 12 &amp; 14</td>
<td>Final Exam - Wednesday 14 May, 2014</td>
<td>TBA</td>
<td>Final Exam</td>
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* No classes on Monday February 17, “Presidents Day”

** No classes Monday 3/17/14- Sunday 3/23/14 – Spring Break