**Course Description**
The ecologically diverse Long Island Pine Barrens region provides a habitat for a large number of rare and endangered species, but faces challenges associated with protection of a natural ecosystem that lies in close proximity to an economically vibrant urban area that exerts intense development pressure. In this course we will consider the interactions of the geological, ecological, developmental and economic factors that impact the Pine Barrens and the effectiveness of decision support systems in promoting sustainability of the Pine Barrens.

**Topics**
The course is broadly arranged around several interrelated topics. As part of the course we will explore these relationships in depth. Topics include:

**Natural Science Topics:**
- Glacial Geology and shaping the conditions for the LI Pine Barrens
- The hydrological cycle in the Pine Barrens
- Water quantity and quality in the Pine Barrens
- Soils and fertility of the Pine Barrens
- Local, Regional and Global environmental threats to the Pine Barrens
- General ecology and biodiversity of the Pine Barrens
- Adaptations to drought, nutrient stress, and fire

**Economics Topics:**
The economic trade-offs for land preservation.
- Government and non-government activities related to the LI Pine Barrens.
- The varied stakeholders involved in the Long Island Pine Barrens.
- Business cycle changes and land preservation for the LI Pine Barrens.
Course Learning Objectives
1. Apply concepts and tools drawn from ecology, geology and economics in order to understand the links between the natural environment and the economic decisions made for the land preservation in the Long Island Pine Barrens.
2. Synthesize quantitative and qualitative information to make informed judgments about the reciprocal relationships between environmental quality and economic development for the Long Island Pine Barrens.
3. Analyze the social, economic, political, and ethical consequences involved with land preservation, particular to the Long Island Pine Barrens.
4. Utilize valid sources to research information, collaborate and organize information using the wiki Blackboard link and analyze the accuracy and relevance of the research information.
4. Research an ecological, geological or economic topic, develop an oral argument and organize the supporting details.
5. Deliver a proficient and substantial oral presentation using appropriate media.
6. Evaluate oral presentations of other students according to established criteria.

Course Goals
The goal of this course is to understand the complexity of conservation of an ecosystem. The students will gain an understanding of the ecology of the Pine Barrens, its value, the stakeholders, and the processes that led to the conservation of the area.

Additional Readings and Course Materials
The required readings and other materials will be posted on Blackboard at http://blackboard.stonybrook.edu/. To access the web page in Blackboard you must be registered. In order to log into this website, you will need your blackboard user name and password. **Make sure to have a working email address in your BB profile.**

Work Groups
To achieve the maximum benefit from this course it is essential that you are an active participating member of a work group. Each work group will consist of 2 or 3 students from different disciplines.

Fieldtrip
Fieldtrip is required to pass the course, it will be held on Saturday June 15th from 10 to 4 and is an integral component of the class. Students should be prepared to hike short distances over trails. Long pants combined with closed shoes [no sandals] should be worn to limit possible exposure to ticks. **Please plan to bring water and something to eat, stops will only have limited facilities.**

Attendance
Attendance of all classes is critical due to the short duration of the course. For each class missed you miss valuable information that you may not be able to make up. Additionally you will lose grade points for each class missed. **You must attend the field trip, both days of final presentations (July 1st and 3rd) and present your project in order to pass this class.**

Class Structure:
Wiki presentations and discussion, Lectures, Group work, quizzes, and discussion

Grading:
points

ATTENDANCE and PARTICIPATION – (12 classes) 24
TESTING (3 Quizzes) 30
WIKI PRESENTATIONS (3) 21
PROJECT PRESENTATIONS (1) 25
TOTAL POSSIBLE POINTS 100

Graduate Paper: In addition to the final presentation of your research graduate students will submit a four (4) page paper on your final topic. Include your references on an additional page. This is not a requirement for undergraduate students.

Basis for grading: 100-95 (A); 94-91 (A-); 90 – 88 (B+); 87 – 84 (B); 83-81 (B-); 80-78 (C+); 77-74 (C); 73-71(C-); 70-68 (D+); 67-60 (D).

Summer I Schedule [May 28 to July 3]

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Presenter</th>
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<tr>
<td>May 29</td>
<td>Introduction to The Pine Barrens on Long Island; Systems approach.</td>
<td>Everyone</td>
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<td>Common research tools, makeup of teams, assignment of ecosystem to</td>
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<td>report on.</td>
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<tr>
<td>May 31</td>
<td>Geology and glaciation of LI; Pine Barrens a glacial landscape</td>
<td>Sperazza</td>
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<td>June 3</td>
<td>The hydrological cycle, Water quality/quantity. Soils, soil fertility.</td>
<td>Sperazza</td>
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<td>Geo-environmental constraints for development of PB ecosystem. Threats</td>
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<td>to water quality in ecosystem.</td>
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<tr>
<td>June 5</td>
<td>Geo WIKI presentations. Quiz 1 (Geo)</td>
<td>Sperazza</td>
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<td>June 10</td>
<td>Pine Barrens ecology and the critical role of drought and nutrient</td>
<td>Hoffman</td>
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<td>stress.</td>
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<td>June 12</td>
<td>Fire ecology in the Pine Barrens.</td>
<td>Hoffman</td>
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<td>June 15</td>
<td>Field Trip to Pine Barrens, Quogue Wildlife Refuge: see a soil/moist</td>
<td>Sperazza/Hoffman</td>
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<td>ume cline in the Pine Barrens and the associated geological and</td>
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<td>ecological diversity. Field trip will start at 10am and return</td>
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<td>around 4pm.</td>
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<td>June 17</td>
<td>Ecology WIKI presentations. Quiz 2 (Ecology)</td>
<td>Hoffman</td>
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<td>June 19</td>
<td>Environmental economic issues surrounding the LI Pine Barrens.</td>
<td>Cassidy</td>
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<td>June 24</td>
<td>Transfer of Development Rights and methods of funding</td>
<td>Cassidy</td>
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<tr>
<td>June 26</td>
<td>Development and Land Use, Quiz 3; Economic WIKI presentations.</td>
<td>Cassidy</td>
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<tr>
<td>July 1</td>
<td>Wrap Up and Presentations</td>
<td>Everyone</td>
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<tr>
<td>July 3</td>
<td>Wrap Up and Presentations</td>
<td>Everyone</td>
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Cell Phone and Electronic Devices: Use of cell phones, blackberries, laptop computers, iPods, MP3 players, and other audio and telecommunications devices is strictly prohibited during class. The only exceptions are through permission granted by the instructor for special purposes. Clickers are excluded from this prohibition, if required for the class. During regular class sessions, cell phones must be either in ‘vibrate mode’ or turned off. Calls cannot be answered. Text messaging is not allowed during class. Cell phones must be turned off and enclosed in a case, book bag, briefcase, or the like during tests and exams. YOU are responsible for ensuring this policy is followed. Students MAY NOT have cell phones, electronic dictionaries, calculators, pagers or other “information rich” devices (anything that can receive and/or store many pages of text) in their possession during tests and exams.

Academic Dishonesty Policy: Academic dishonesty is a serious offense and a breach of academic integrity that may result in failure of the course or failure for the individual paper or assignment. The “Code of Student Conduct” states that all forms of academic dishonesty, including the following are prohibited (see student handbook):

- Plagiarism – the intentional use of ideas or words of another as one’s own paper or other academic assignments. If you are unsure of what constitutes Plagiarism visit this document [http://www.wpacouncil.org/positions/WPAplagiarism.pdf](http://www.wpacouncil.org/positions/WPAplagiarism.pdf) or ask the instructor.
- Cheating during examinations, whether by copying from a fellow student or by using information in the form of unauthorized aids brought to the examination.
- The submission of work for any assignment that has been prepared by another student.

Academic Integrity Statement: Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Any suspected instance of academic dishonesty will be reported to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at: [http://naples.cc.sunysb.edu/CAS/ajc.nsf](http://naples.cc.sunysb.edu/CAS/ajc.nsf).

Classroom Policy: Students are expected to follow the Stony Brook Code of Conduct while in the classroom. If you are not familiar with the Code you can find it at: [http://studentaffairs.stonybrook.edu/sites/handbook/Code_1-22-03.pdf](http://studentaffairs.stonybrook.edu/sites/handbook/Code_1-22-03.pdf)
Behavior that is disruptive to the function of the class, other students, or the instructor will not be tolerated. Poor class behavior or violations to the Code of Conduct will lead to removal from the class, possible withdrawal, or suspension. Food is not permitted in class. Beverages are OK, but please bring a container the can be closed to reduce spills. If a spill occurs please clean it up immediately.

Instructional Responsibilities: The University's statement of Minimal Instructional Responsibilities and Minimal Undergraduate Student Responsibilities are protocols with which you may already be familiar. They were established by the University Senate in 1996. If you have not already done so, please review them carefully. Both statements may be found beginning on page 81 of the Academic Policies and Regulations section of the on-line Undergraduate Bulletin: [http://www.stonybrook.edu/ugrbulletin/current/index.shtml](http://www.stonybrook.edu/ugrbulletin/current/index.shtml)

ADA Statement: If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact Disability Support Services at (631) 632-6748 or [http://studentaffairs.stonybrook.edu/dss/](http://studentaffairs.stonybrook.edu/dss/). They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.
Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the following website: http://www.sunysb.edu/ehs/fire/disabilities.shtml

Course Content:
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