Instructor:

Dr. Heather Enloe
McCarty Hall A, Rm G175
University of Florida – Gainesville
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Email: heather.enloe@ufl.edu

Course credits: 3

Teaching Format and Course Communications:

- Exclusively online (no on-campus instruction and all online activities asynchronous).
- Pre-recorded lectures, supplementary readings, discussion boards, and assignments.
- Canvas eLearning Login: http://elearning.ufl.edu/
- Contact instructor by office phone or through email (directly or through Canvas messaging system).
  - Allow 24 hours for a response during the week.
  - Questions posted over the weekend will not receive a response until Monday.

Pre-Requisites: None

Required Textbook: None

- Required readings are available in Canvas.

Course Description:

Ecosystem services are the conditions and processes through which forest ecosystems, including their component soils and species, sustain and fulfill human life. These services include carbon sequestration, biodiversity, stabilization of hydrologic cycles, removal of air pollutants, aesthetic beauty, moderation of weather extremes and mitigation of natural disasters. Academic interest in ecosystem services was first evident in the refereed literature in the early 1980s but has gained significant stature only in the past decade and a half. Likewise, policy makers have increasingly focused on ecosystem services, developing new incentive schemes for production and payment of these services.
Course Learning Objectives:
After successfully completing the course, students will be able to:

- Understand the concept of ecosystem services
- Understand the science behind ecosystem services, the science behind the benefits when forest and soils are working together
- Be familiar with the four categories of forest and soil ecosystems services from an interdisciplinary perspective
- Be aware of different disciplinary approaches and literature on ecosystem services

Topic Outline:

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Module</th>
<th>Topics</th>
</tr>
</thead>
</table>
| 8/22-8/28   | 1 Welcome  | i. Course Introduction  
                        ii. Information Sources  
                        iii. Writing Guidelines  
                        iv. Vetting Online Sources |
| 8/22-8/28   | 2. Introduction (Part 1) | i. Ecosystem Services  
                        ii. Ecosystems and Biomes  
                        iii. Land Use / Land Cover |
| 8/29-9/4    | 2. Introduction (Part 2) | iv. Biodiversity  
                        v. Forests  
                        vi. Soil  
                        vii. Value of Ecosystem Services |
| 9/5-9/18    | 3. Supporting Services | i. Primary Productivity  
                        ii. Soil Formation  
                        iii. Nutrient Cycling |
| 9/19-9/25   | Exam 1     | Covers Materials in Modules 1 - 3                                    |
| 9/19-10/9   | 4. Regulating Services | i. Water Regulation  
                        ii. Slope Stability and Soil Erosion  
                        iii. Water Filtration  
                        iv. Nutrient Regulation  
                        v. Soil Salt Regulation  
                        vi. Local Climate Regulation  
                        vii. Climate and Carbon Sequestration |
| 10/10-10/23 | 5. Provisioning Services | i. Lumber and pulp  
                        ii. Non-wood forest products  
                        iii. Soil provisioning services |
<p>| 10/24-10/30 | Exam 2     | Covers Materials in Modules 4-5                                     |</p>
<table>
<thead>
<tr>
<th>Weeks</th>
<th>Module</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/24-11/6</td>
<td>6. Cultural Services</td>
<td>i. Indigenous peoples concepts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Contemporary culture and imagery</td>
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<tr>
<td>11/6-11/27</td>
<td>7. Valuation of Ecosystem Services</td>
<td>i. theoretical assumptions</td>
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<tr>
<td></td>
<td></td>
<td>ii. the utilitarian approach of valuation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. the ecological approach to valuation</td>
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<tr>
<td></td>
<td></td>
<td>iv. a sociocultural approach to valuation</td>
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<tr>
<td></td>
<td></td>
<td>v. a dynamic integrated approach</td>
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<td></td>
<td></td>
<td>vi. a tool for modeling ecosystem (ecological) and the economic-ecological models</td>
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<tr>
<td>11/28-12/5</td>
<td>To be determined</td>
<td></td>
</tr>
<tr>
<td>12/10-12/14</td>
<td>Exam 3 (during finals week)</td>
<td>Covers Materials in Modules 6-7 and the last week of the semester</td>
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</table>

Disclaimer:
As we go through the semester, specific topics and activities on the syllabus may change to enhance the class learning opportunity. Such changes, communicated clearly and in advance, are not unusual and should be expected.

Grading Structure:

Graduate Students*

<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Percent of Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams (3 total)</td>
<td>65</td>
</tr>
<tr>
<td>Assignments/Discussions</td>
<td>25</td>
</tr>
<tr>
<td>Assignments/Papers</td>
<td>10</td>
</tr>
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</table>

Undergraduate Students

<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Percent of Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams (3 total)</td>
<td>65</td>
</tr>
<tr>
<td>Assignments/Discussions</td>
<td>35</td>
</tr>
</tbody>
</table>

*Graduate students have additional exam questions and responsibilities during assignments to receive graduate level credits for this class.

Rubrics will be provided with graded activities. See Canvas assignments for individual rubrics.
Grading Scale:

- A 90 – 100%
- B+ 87 – 89%
- B 80 – 86%
- C+ 77 – 79%
- C 70 – 76%
- D+ 67 – 69%
- D 60 – 66%
- E < 60%

Current UF grading policy for assigning grade point averages can be found here: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Attendance and Late Policy:

Requirements for class attendance (module participation) and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Late submission of assignments and assessments must be approved by instructors in advance and may be subject to a grade penalty.

Online Course Evaluation: Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semesters, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results.

UF Policies

University Policy on Accommodating Students with Disabilities: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc) by providing appropriate documentation. Once registered, students will receive an accommodation letter, which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

University Policy on Academic Conduct: UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received
unauthorized aid in doing this assignment." The Honor Code (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the class instructor.

**Class Demeanor or Netiquette:** All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats.

**Getting Help, Technical difficulties:** For issues with technical difficulties for Canvas, please contact the UF Help Desk.

http://helpdesk.ufl.edu  
(352) 392-HELP (4357)  
Walk-in: HUB 132

Note, any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from the Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

**Getting Help, Other Concerns:** Resources are available at http://www.distance.ufl.edu/getting-help for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints with your experience in this course, please visit http://www.distance.ufl.edu/student-complaints to submit a complaint.