Syllabus
IDS 1152c Section 77337
Environmental Science

Fall 2008
Section 77337 M/W 9.00-10.45 in DCS 141

Instructor:  Dr. Peter Germroth, Office DSCS 112,
            Tel: 813-253-7278
            e-mail:  pgermroth@hawkmail.hccfl.edu
            Homepage:  http://www.hccfl.edu/faculty-info/pgermroth.aspx

Office hours:  Mondays 8-9; Tuesdays 8.00-9.30, 11.00-12.30
              Wednesdays 8-9; Thursdays 11-12.30, 4-5.30

Communication:  If you like to talk to me in a one-to-one setting I will be available
during the posted office hours, however you should make an appointment with me so
that I can prepare for you and you do not have to wait. The out of class communication
in this course is going to be exclusively via Hawkmail (CampusCruiser); i.e. you must
send me e-mail from within Hawkmail. If your e-mail does not include your name and
course/section I will not respond to it. Notice also that I will respond as fast as I can, but
that does not mean that you can expect return on the weekend or holidays or the same
day.

Course Description: Environmental Science 3 Credits

Intended for non-science majors, honors society students. Focuses on the general
scientific principles of biology, ecology, earth science, and physical science in describing
the environment, and how human activities affect the environment.

There will be two field trips, lasting about 3 hours each. They will be on two Friday
mornings (10-24 and 11-14). One will be to Upper Tampa Bay Park, the other will
be to the English Creek environmental preserve. These field trips substitute for
the bulk of the “lab” component of this course. Participation is therefore
mandatory. If you have a scheduling problem, please see me during office hours.

Prerequisites: College level reading, writing and basic math skills.

Required Material:

- Miller/Spoolman: Environmental Science, 12th ed.2008, Thomson, Brooks Cole. This can be purchased as a softcover or as a ringbinder special edition
  (which is cheaper).
- Diverse articles saved as pdf files in the shared files folder in Campus Cruiser
Class Schedule:
This is a tentative schedule. It may change.

<table>
<thead>
<tr>
<th>#</th>
<th>Lecture part</th>
<th>Ch</th>
<th>“Lab activities” part</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Orientation</td>
<td></td>
<td></td>
<td>M 8-25</td>
</tr>
<tr>
<td>2</td>
<td>Science, Matter and Energy</td>
<td>2</td>
<td></td>
<td>W 8-27</td>
</tr>
<tr>
<td>3</td>
<td>Science, Matter and Energy</td>
<td>2</td>
<td></td>
<td>W 9-03</td>
</tr>
<tr>
<td>4</td>
<td>Ecosystems: What are they, how do they work?</td>
<td>3</td>
<td></td>
<td>M 9-08</td>
</tr>
<tr>
<td>5</td>
<td>Evolution and Biodiversity</td>
<td>4</td>
<td></td>
<td>W 9-10</td>
</tr>
<tr>
<td>6</td>
<td>Evolution and Biodiversity</td>
<td>4</td>
<td></td>
<td>M 9-15</td>
</tr>
<tr>
<td>7</td>
<td>Climate and Biodiversity</td>
<td>5</td>
<td></td>
<td>W 9-17</td>
</tr>
<tr>
<td>8</td>
<td>Community and Population Ecology</td>
<td>6</td>
<td></td>
<td>M 9-22</td>
</tr>
<tr>
<td>9</td>
<td>Human Population Issues</td>
<td>7</td>
<td></td>
<td>W 9-24</td>
</tr>
<tr>
<td>10</td>
<td>Human Population Issues</td>
<td>7</td>
<td>Discussion 1</td>
<td>M 9-29</td>
</tr>
<tr>
<td>11</td>
<td>Exponential growth, Intro Assignment “Energy Usage”</td>
<td></td>
<td></td>
<td>W 10-01</td>
</tr>
<tr>
<td>12</td>
<td>MIDTERM Exam</td>
<td></td>
<td></td>
<td>M 10-06</td>
</tr>
<tr>
<td>13</td>
<td>Food, Soil and Pest management</td>
<td>10</td>
<td>Field trip: English Creek 9 am to 12 pm</td>
<td>W 10-22</td>
</tr>
<tr>
<td>14</td>
<td>Water and water pollution</td>
<td>11</td>
<td>Taxonomy exercise LAB 238</td>
<td>W 10-08</td>
</tr>
<tr>
<td>15</td>
<td>Non-renewable resources</td>
<td>10</td>
<td>Field trip: Upper Tampa Bay Park 9 am to 12 pm</td>
<td>M 10-20</td>
</tr>
<tr>
<td>16</td>
<td>Energy</td>
<td>11</td>
<td></td>
<td>W 10-15</td>
</tr>
<tr>
<td>18</td>
<td>Possible energy scenarios</td>
<td>15</td>
<td>Discussion 2; Evaluating energy usage</td>
<td>M 10-03</td>
</tr>
<tr>
<td>19</td>
<td>Air pollution</td>
<td>15</td>
<td></td>
<td>W 11-05</td>
</tr>
<tr>
<td>20</td>
<td>Global warming</td>
<td>15</td>
<td></td>
<td>M 11-10</td>
</tr>
<tr>
<td>21</td>
<td>An Inconvenient Truth</td>
<td></td>
<td>Field trip: Upper Tampa Bay Park 9 am to 12 pm</td>
<td>FR 11-14</td>
</tr>
<tr>
<td>22</td>
<td>Possible energy scenarios</td>
<td>15</td>
<td></td>
<td>M 11-17</td>
</tr>
<tr>
<td>23</td>
<td>Solid and Hazardous Waste</td>
<td>16</td>
<td>LATEST SUBMISSION OF PAPERS</td>
<td>M 11-19</td>
</tr>
<tr>
<td>24</td>
<td>Environmental Politics and Worldviews</td>
<td>17</td>
<td></td>
<td>W 11-26</td>
</tr>
<tr>
<td>25</td>
<td>Who killed the electric car?</td>
<td></td>
<td></td>
<td>M 12-01</td>
</tr>
</tbody>
</table>

Note: If you miss a field tip you will be given a makeup opportunity. Missing both field trips will result in point loss and influence your grade.
Course Objectives:
At the end of this course, the student will be able to...
1. apply scientific methodology.
2. apply concepts of basic chemistry and physics to environmental science topics.
3. describe the flow and recycling of matter and energy through ecosystems.
4. describe the interactions between both the living and non-living components of the ecosystem.
5. classify both the oceans and the terrestrial spheres into biomes based on changing characteristics.
6. contrast natural and human population growth patterns.
7. describe ecological footprinting and global warming
8. discuss resource depletion (water, soil, energy, biodiversity, minerals, lumber, etc), the effect it has on environmental quality, and how human populations will both affect and be effected by resource depletion.
9. discuss pollution (water, air, solid, hazardous and nuclear wastes), the effect it has on environmental quality, and how human populations will both affect and be effected by pollution.
10. gain an insight in local ecosystems and environmental issues

Requirements and Grading
There will be a midterm and a final exam. They are multiple choice. You will need green Scantron sheets and #2 pencils for these exams. You will write a paper on a selected topic which will also be counted towards your Gordon-Rule requirement for this course. There are no make-up exams.

The final total score will be calculated as follows:
- Field trip reflections (50 each) 100 points
- Paper on a selected topic 100 points
- Midterm exam 100 points
- Final exam 100 points

A=90-100%  B=80-89%;  C=70-79%;  D=60-69%;  F= less than 60%.
(400-360)  (359-320)  (319-280)  (279-240)  (<240)

Gordon Rule Assignment: Will be fulfilled by a passing grade in the paper that you will write. A list of possible topics will be handed out and posted.

Saving resources: In good environmental spirit, I insist on your paper and all contributions be submitted electronically via Campus Cruiser. I will NOT accept any papers or reflections in print, nor will I accept e-mail attachments. You must submit in the assignments part of campus cruiser. Your term paper must be formatted either as a WORD (doc or docx) or as a RichText (rtf) file. Use an 11 pt or 12 pt font and double spacing. It must include name and date.

Academic Dishonesty policy: I expect honesty – academic and otherwise. If you have a problem, talk to me. I will try to help. I will not tolerate plagiarism or other types of
cheating. If I catch you in such a case you will fail the class and additional disciplinary action will be initiated.

**Attendance:** Class attendance will be monitored because of scholarship issues. Your attendance record has no direct bearing on your grade. However, be advised that although regular attendance does not guarantee a successful result, it tends to be very helpful. There are numerous studies that show a strong correlation between attendance and success in college undergraduate courses.

**Miscellaneous:**
- Cell phones must be turned off during class. If you expect an urgent and important call set your phone on single beep mode or vibrating battery mode.
- You are responsible for taking notice of all announcements and changes, especially if you miss a class. Check online for this purpose or contact me.
- You are also responsible for adhering to college policy and rules. Refer to the student handbook if in doubt.
- **There will be no extra bonus work etc. beyond what is described in this syllabus. You are expected to master the material assigned in this outline.**

**Students with disabilities:**
- Arrangements can be made for students with learning disabilities if they provide me with documentation from an HCC LD advisor and see me in my office to discuss any special arrangements.
- Remember that you first need to contact the **Office of Services to Students with Disabilities.** They are located at DSTU 208, Tel 813-259-6035