Syllabus
IDS 1152c Section 82399
Environmental Science

Spring 2009
Section 82398 T/TH 11.00 a.m. -12.40 p.m.

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

Office hours*: Mondays 8.00-9.00 a.m.; 10.45-11.00 a.m.;
                Tuesdays 8.00-9.30 a.m.; 12.45-1.45 p.m.;
                Wednesdays 8.00-9.00 a.m.; 10.45-11.00 p.m.;
                Thursdays 8.00-9.30 a.m.; 1.00-2.00 p.m.; 4.30-6.00 p.m.
* all in DCSC 112, except for MW 10.45-11.00 in DSCS 103

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. 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 (2-27 and 3-27). 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.
Textbook and 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>“Lab activities” part</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Orientation</td>
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<td>1-08</td>
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<tr>
<td>2</td>
<td>Science, Matter and Energy</td>
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<tr>
<td>3</td>
<td>Science, Matter and Energy</td>
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<td>1-15</td>
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<td>4</td>
<td>Ecosystems: What are they, how do they work?</td>
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<td>1-20</td>
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<td>5</td>
<td>Evolution and Biodiversity</td>
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<tr>
<td>6</td>
<td>Evolution and Biodiversity</td>
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<td>1-27</td>
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<tr>
<td>7</td>
<td>Climate and Biodiversity</td>
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<td>1-29</td>
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<tr>
<td>8</td>
<td>Population Ecology</td>
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<td>2-03</td>
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<td>9</td>
<td>Human Population Issues</td>
<td>Discussion</td>
<td>2-05</td>
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<td>10</td>
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<td>Exponential growth, Intro Assignment “Energy Usage”</td>
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<td>11</td>
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<td>Taxonomy exercise</td>
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<td>12</td>
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<td>Midterm Exam</td>
<td><strong>2-17</strong></td>
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<td>FIELD TRIP 9-12 a.m.</td>
<td>FR 2-27</td>
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<td>14</td>
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<td>Water and water pollution</td>
<td>3-03</td>
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<td>15</td>
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<td>Non-renewable resources</td>
<td>3-05</td>
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<td>16</td>
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<td>Energy</td>
<td>3-10</td>
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<td>17</td>
<td></td>
<td>Energy</td>
<td>3-12</td>
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<td>18</td>
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<td>Is Nuclear Energy a good alternative?</td>
<td>Discussion</td>
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<tr>
<td>19</td>
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<td>FIELD TRIP 9-12 a.m.</td>
<td>FR 3-27</td>
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<tr>
<td>20</td>
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<td>Discussion; Evaluating energy usage</td>
<td>3-31</td>
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<td>Air pollution (1)</td>
<td>4-02</td>
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<td>22</td>
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<td>Air pollution (2)</td>
<td>4-07</td>
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<td>23</td>
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<td>Global warming</td>
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<td>24</td>
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<td>An Inconvenient Truth</td>
<td>Discussion</td>
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<td>25</td>
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<td>Who killed the electric car?</td>
<td>Discussion</td>
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<td>26</td>
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<td>Solid and Hazardous Waste</td>
<td>LATEST SUBMISSION OF PAPERS</td>
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<td>27</td>
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<td>Evaluation of environmental news during the term</td>
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<td>28</td>
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<td>FINAL EXAM</td>
<td><strong>4-28</strong></td>
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Note: If you miss a field trip you will be given a makeup opportunity. Missing both field trips will result in point loss and influence your grade.
Note also: Feb 17 and Feb 19 are not scheduled, but class may meet to catch up or prepare material in depth. An announcement will be made on Campus Cruiser.
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 ressource 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
1. There will be a midterm and a final exam. They are part multiple choice and part essay. You will need green Scantron sheets and #2 pencils for these exams.
2. You will write a paper on a selected topic which will also be counted towards your Gordon-Rule requirement for this course.
3. You will write one field trip reflection.
4. You may earn bonus points for completing an energy assignment and providing bookmarks to environmental news of relevance.

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

Bonus: Energy assignment- 20 points; and bookmarks (10 pts max)

A=90-100%  B=80-89%;  C=70-79%;  D=60-69%;  F= less than 60%.
(350-315)  (314-280)  (279-245)  (244-210) (<210)

Gordon Rule Assignment: Will be fulfilled by a passing grade in the paper that you will write. Failing the Gordon rule requirement will lead to a D or F grade for the course! Note that content, grammar, language level and organization are all evaluated!
You may choose from one of the articles posted under “Paper resource articles” in the “shared files area” of CampusCruiser.

**Saving resources:** In good environmental spirit, I insist on your paper and all contributions being submitted electronically via 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. **Note: not adhering to the above will lead to the rejection of your paper.**

**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.
- **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