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120-01 Life: Ecology and People

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Life: Ecology and People (BIOL 120)

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Office:  209 Albers Hall, 745-4898

Office Hours: Monday 2:00 – 2:50, and Friday 1:00 – 1:50 or by appointment

Required text:
Withgott, J & M. Laposata (5th ed.) Essential Environment: the Science Behind the Stories
Note: the previous edition may be used but you should compare page numbers with someone who has the more recent edition.

Supplemental materials: Additional readings will be required on all days discussions are scheduled. Readings will include 2-3 articles or book chapters. All supplemental reading will be available on-line through Canvas.

Course Web Site: This is a Canvas course. Our Canvas site will have lecture outlines, and supplemental readings essential for the class. To get to the site go to your MyXU page and navigate to our Canvas site. It is important to get acquainted with Canvas early in the semester. Talk to me several days (not hours) before an assignment is due if you are having problems.

Not understanding how to use Canvas is not a legitimate excuse for missing deadlines.

Goals: The overall purpose of this course is to explore critical environmental issues that affect our world today. Environmental issues have two components (1) ecological interactions, and (2) conflicts of interest among people. These two components are not separate but highly interactive with each other. Thus to understand environmental issues we must not only study ecological principles and human aspects (social, ethical, political, economic, cultural), but also seek to understand the interaction between the two. This course can be used for the Diversity Curriculum and ER/S requirement as well as the Gender and Diversity Studies minor. For this reason special attention is given to learning how to critically examine these interactions and their ethical ramifications.

The natural sciences extend beyond an exploration of the natural world - they also inform us about our interrelationship to it. In this science elective course, you will improve your understanding of the scientific method and your ability to analyze claims and information regarding science through experiences in lectures and labs. In addition to knowing more about a specific scientific discipline, you will be better able to evaluate the use of science in society and everyday life in an informed manner.

This course is part of the Xavier Core Curriculum, which aims to develop people of learning and reflection, integrity and achievement, in solidarity for and with others. It addresses the following core learning objectives at the intermediate level:

• 1a: Students recognize and cogently discuss significant questions in the humanities, arts, and the natural and social sciences.

And it includes the following core learning objective(s) at the introductory level:

• 4b Students discuss and evaluate what constitutes human wellness
• 5b: Students examine the interconnections between humans and the natural environment.
When you are finished with this course you should be able to,

1. Appreciate the complex ways humans rely on their natural environment.
2. Understand the idea of short vs. long term sustainability and how it applies to the various resources humans rely on today for survival.
3. Appreciate the scope of current ecological and environmental problems we face today.
4. Utilize knowledge about science in order to analyze the societal, ethical and moral dimensions of environmental issues in an informed manner.
5. Explain the components of the scientific method, including the idea of hypothesis testing.
6. Demonstrate the ability to critically analyze and distinguish scientific knowledge from misinformation based on pseudoscience.

Attendance: Coming to class is mandatory. A significant portion of test material will be based on material presented in lectures and discussions that is not necessarily found in your textbook. This course will be an interactive experience where you will be expected to think critically and interact with each other and myself. This cannot be accomplished without being present!

Assigned readings: Assigned readings should be read BEFORE coming to lecture. Although there will be overlap between lectures and readings much of the material in lecture will go beyond your textbook. I will assume that you have a basic understanding of your reading assignments.

Grading:
Your grade will be based on the following tests & assignments, attendance, and participation during the term.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Grade Breakdown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tests</td>
<td>3 x 100 pts</td>
</tr>
<tr>
<td>Discussion Critical Essay</td>
<td>1 x 100</td>
</tr>
<tr>
<td>Discussion Reflections</td>
<td>4 x 10</td>
</tr>
<tr>
<td>Participation</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>500 pts</strong></td>
</tr>
</tbody>
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Tests: There will be 3 in-class tests. Although tests are not cumulative understanding many topics in this course depends on understanding material previously presented and discussed. Tests cannot be made-up except in the cases of documented emergencies. An unexcused missed exam will result in a ZERO.

Critical Essay: One critical essay will be required of each student. You may choose to write two essays and have your lowest grade dropped. Essays should be 3-4 double-spaced pages. Essays will be turned in electronically through Canvas. This will allow a simple way for essays to be submitted and hopefully reduce unneeded paper waste. Essays are due 30 minutes before lecture on days scheduled for class discussion. (see late penalty procedure below)

Reflections: Canvas discussion reading reflections (4 total). Instructions and a grading rubric are posted on Canvas under assignments for these activities. The discussion reading reflections will be due 30 minutes prior to each discussion period.

Participation: If you do not attend class, you cannot participate! If you are not adding your thoughts to the discussion you are not participating! This portion of your grade will be based on attendance, and on your active involvement in the class.

Late Penalty: Late assignments will be marked down 5% for each school day (or partial day) they are late. This means a “B” assignment would be marked down to a “B-” if one day late.
Final Grade: Your course will be graded on a standard scale (i.e., not curved). If your score is close to the next letter grade (above or below) “+” and “-“ grades will be used.

A = 450 - 500 (90-100%)  
B = 400 - 449 (80-89%)  
C = 350 - 399 (70-79%)  
D = 300 - 349 (60-69%)  
F = < 300 (59% and below)

(90-92.9%=A-, 93-100%=A)  
(80-82.9%=B-, 83-86%=B, 87-89%=B+)  
(70-72.9%=C-, 73-76%=C, 77-79%=C+)  
(60-66.9%=D, 67-69%=D+)  
(0-59%=F)

Any student who feels s/he may need an accommodation based on the impact of a documented disability should contact me personally to discuss your specific needs. Please also contact the Learning Assistance Center at 745-3280 on the fifth floor of the Conaton Learning Commons to coordinate reasonable accommodations.

The Staff in the Office of Student Success is available to assist students to make the most of their Xavier experience. Personal staff consultations, success coaching, referrals to on-campus Solution Centers, and guiding students to effectively navigate their college experience are central to our work. Please visit www.xavier.edu/student-success to learn more or visit us in the Conaton Learning Commons.