ENVS 131 – Introduction to Environmental Studies
[Oxford College of Emory University - Spring 2020]

Table of Contents

<table>
<thead>
<tr>
<th>Basic Course Information</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Description and Objectives</td>
<td>1</td>
</tr>
<tr>
<td>Classroom/Lab Philosophy</td>
<td>2</td>
</tr>
<tr>
<td>Grades</td>
<td>2</td>
</tr>
<tr>
<td>Policies</td>
<td>2</td>
</tr>
<tr>
<td>Lecture and Lab Schedules</td>
<td>3</td>
</tr>
</tbody>
</table>

Course Description and Objectives

As a student in this course you will:

- get to know the physical and biological aspects of our planet
- make careful observations
- ask and answer your own questions
- get dirty outside

After completing this course, I hope you:

- are curious about your natural world
- can address an issue from a scientific perspective
- will integrate sustainability into your own lifestyle
- have done something new

Basic Course Information

Lecture:
T and Th 11:30am-12:45pm, OSB 101

Lab:
W 2:00-5:00pm, OSB 201

Assignments and Communication:
Canvas

My Contact Info: OSB 308
mmart50@emory.edu
Office Hours: 10:00-11:00am T/Th or by appointment

***ALL INFORMATION PROVIDED HERE IS SUBJECT TO CHANGE***
Classroom Philosophy

I view the classroom as a learning community – we will all take part in each other’s learning experience. To this end I will work hard to provide opportunities for you all to interact with each other through team-based discussions, reflections, and activities. With this in mind it is important to have some ground rules for in-class interactions:

- listen respectfully without interrupting
- integrate the ideas of others with your own as the conversation moves forward
- criticize ideas and not individuals
- avoid inflammatory language

Your success in the class will depend on reading the textbook before class. Reading assignments are detailed below in the Lecture Schedule.

Required Text:

Lab Exams (2 @ 75 points) 150
Lab Assignments (5 @ 15 points) 75
Environmental Issue Infographic 50
Independent Lab Inquiry 50
Class Discussions (7 @ 10 points) 70

TOTAL 840

Grades

Policies

Attendance
Attendance is mandatory – and really the only way you’ll get the most out of this course. ENVS 131 follows the attendance policy laid out by the Biology Department, which is detailed on the attached handout. (basically 4 no penalty absences in lecture – excluding case study days – but none in lab)

Laptops
Laptops are more often a distraction than a learning aid – if you feel your learning is best accomplished with a laptop please come talk to me. Otherwise, use pen and paper for notetaking.

Cell Phones
Like laptops, phones should not be visible or audible in class.

Academic Integrity
Do your best work. Seeking an advantage over other students will not be tolerated and handled according to the Oxford College Honor Code. (http://oxford.emory.edu/catalog/regulations/honor-code.html)

Accommodations
If you have Academic Accommodations, please let me know as soon as possible so we can communicate with the Office of Accessibility Services. (https://inside.oxford.emory.edu/life-at-oxford/accessibility-services/)

Policy Flexibility
NEVER hesitate to ask for clarification on these policies or about potential exceptions.
# Lecture Schedule

<table>
<thead>
<tr>
<th>Class #</th>
<th>Date</th>
<th>Lecture</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>UNIT 1 – INTRODUCTION TO ENVIRONMENTAL SCIENCE</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>14-Jan</td>
<td>Welcome and Course Overview</td>
<td>--</td>
</tr>
<tr>
<td>2</td>
<td>16-Jan</td>
<td>Sustainability and Science</td>
<td>4-9; 11-25</td>
</tr>
<tr>
<td>3</td>
<td>21-Jan</td>
<td>Ethics, Economics, and Government</td>
<td>32-46; 48-56</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>UNIT 2 – EARTH SYSTEMS</strong></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>23-Jan</td>
<td>Energy, Plate Tectonics, and The Rock Cycle</td>
<td>72-77; 78-82</td>
</tr>
<tr>
<td>5</td>
<td>28-Jan</td>
<td>Nutrient Cycles and Soils</td>
<td>83-84; 382-385; 390-392</td>
</tr>
<tr>
<td>6</td>
<td>30-Jan</td>
<td>Water</td>
<td>338-345; 210-221</td>
</tr>
<tr>
<td>7</td>
<td>4-Feb</td>
<td>Atmosphere, Climate, and Weather</td>
<td>85-93</td>
</tr>
<tr>
<td>8</td>
<td>6-Feb</td>
<td>Abiotic Factors and Biomes</td>
<td>186-209</td>
</tr>
<tr>
<td>9</td>
<td>11-Feb</td>
<td>Ecology</td>
<td>152-179</td>
</tr>
<tr>
<td>10</td>
<td>13-Feb</td>
<td>Evolution/Biodiversity/The Human Species</td>
<td>98-118</td>
</tr>
<tr>
<td>11</td>
<td>18-Feb</td>
<td>EXAM 1 on UNITS 1 and 2</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>FALL BREAK October 8th and 9th</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>UNIT 3 – THE HUMAN SPECIES</strong></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>20-Feb</td>
<td>Human Population Growth and Water Use</td>
<td>128-136; 142-147; 336-337; 347-357; 365-369</td>
</tr>
<tr>
<td>13</td>
<td>25-Feb</td>
<td>Water Use Case Study</td>
<td>readings</td>
</tr>
<tr>
<td>14</td>
<td>27-Feb</td>
<td>Field Trip to the Oxford Organic Farm</td>
<td>394-415</td>
</tr>
<tr>
<td>15</td>
<td>3-Mar</td>
<td>Food and Agriculture Case Study</td>
<td>readings</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>March 4th – Midterm Status Reports</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>March 6th – Withdrawal Deadline</strong></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>5-Mar</td>
<td>Urbanization</td>
<td>516-532; 537-539</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>March 9th-13th – SPRING BREAK</strong></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>17-Mar</td>
<td>Urbanization Case Study</td>
<td>readings</td>
</tr>
<tr>
<td>18</td>
<td>19-Mar</td>
<td>EXAM 2 on UNIT 3</td>
<td>--</td>
</tr>
<tr>
<td>19</td>
<td>24-Mar</td>
<td>Human Waste/Sanitation with Case Study</td>
<td>362-364; 601</td>
</tr>
<tr>
<td>20</td>
<td>26-Mar</td>
<td>Case Study</td>
<td>readings</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>UNIT 4 – HUMAN CONSUMPTION</strong></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>31-Mar</td>
<td>Energy</td>
<td>456-457; 459-469; 470-473; 483-489; 491-504; 506-507</td>
</tr>
<tr>
<td>22</td>
<td>2-Apr</td>
<td>Energy Production Case Study</td>
<td>readings</td>
</tr>
<tr>
<td>23</td>
<td>7-Apr</td>
<td>Municipal Solid Waste</td>
<td>556-559; 564-566; 568-572</td>
</tr>
<tr>
<td>24</td>
<td>9-Apr</td>
<td>Field Trip to Pratt Industries</td>
<td>readings</td>
</tr>
<tr>
<td>25</td>
<td>14-Apr</td>
<td>Air Pollution and Climate Change</td>
<td>310-311; 314-315; 317-321; 327-329</td>
</tr>
<tr>
<td>26</td>
<td>16-Apr</td>
<td>Air Pollution and Climate Change Case Study</td>
<td>readings</td>
</tr>
<tr>
<td>27</td>
<td>21-Apr</td>
<td>EXAM 3 on UNIT 4</td>
<td>--</td>
</tr>
<tr>
<td>28</td>
<td>23-Apr</td>
<td>Course Wrap-up</td>
<td>--</td>
</tr>
<tr>
<td><strong>FINAL</strong></td>
<td>30-Apr</td>
<td><strong>FINAL EXAM (2:00pm-5:00pm)</strong></td>
<td>--</td>
</tr>
</tbody>
</table>

***ALL INFORMATION PROVIDED HERE IS SUBJECT TO CHANGE***
# Lab Schedule

<table>
<thead>
<tr>
<th>Lab #</th>
<th>Date</th>
<th>Lab Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15-Jan</td>
<td>Tree Community Composition in the Oxford Forest</td>
</tr>
<tr>
<td>2</td>
<td>22-Jan</td>
<td>Soil Types on Campus</td>
</tr>
<tr>
<td>3</td>
<td>29-Jan</td>
<td>Wetland Delineation in the Alcovy River Swamp</td>
</tr>
<tr>
<td>4</td>
<td>5-Feb</td>
<td>Soil Microarthropod Diversity on Campus</td>
</tr>
<tr>
<td>5</td>
<td>12-Feb</td>
<td>Primary Succession at Lake Varner Outcrops</td>
</tr>
<tr>
<td>6</td>
<td>19-Feb</td>
<td>Secondary Succession at the Oxhouse Science Center</td>
</tr>
<tr>
<td>7</td>
<td>26-Feb</td>
<td>PRACTICAL EXAM 1/Stream Sampling Methods</td>
</tr>
<tr>
<td>8</td>
<td>4-Mar</td>
<td>Surveying Bear Creek</td>
</tr>
<tr>
<td>9</td>
<td>18-Mar</td>
<td>Surveying Dried Indian Creek</td>
</tr>
<tr>
<td>10</td>
<td>25-Mar</td>
<td>Biological Indicators of Stream Health</td>
</tr>
<tr>
<td>11</td>
<td>31-Mar</td>
<td>PRACTICAL EXAM 2</td>
</tr>
<tr>
<td>12</td>
<td>1-Apr</td>
<td>Open Inquiry Preparation Session</td>
</tr>
<tr>
<td>13</td>
<td>8-Apr</td>
<td>Open Inquiry Data Collection</td>
</tr>
<tr>
<td>14</td>
<td>15-Apr</td>
<td>Open Inquiry Data Analysis</td>
</tr>
<tr>
<td>15</td>
<td>22-Apr</td>
<td>Open Inquiry Presentations</td>
</tr>
</tbody>
</table>

***ALL INFORMATION PROVIDED HERE IS SUBJECT TO CHANGE***
Absence Policy – Biology and Environmental Science Departments, Oxford College

Scientists work and learn in collaborative communities. For your own academic success and the success of your classmates, attendance in lecture and laboratory sessions is essential. All students are expected to attend all lecture and laboratory sessions.

However, we understand that circumstances may arise which will necessitate absences from class, but of course you will be expected to understand all the course material, whether you are present in class or not. Here is what you need to know about how missing lecture or lab will impact your standing in the course.

Missing lecture
- Lecture sessions are the best place for you to discover misunderstandings, practice applying your knowledge and contribute to the learning of your classmates. Missing lecture will mean you have a lot more work to do on your own time and that your instructor and your classmates will miss out on your unique contributions to our class.
- You are allowed 4 absences without penalty. These four absences may be used for any reason: illness, studying, travel, family emergency, etc. However, ANY additional cuts will generally result in grade reduction. So, use your absences judiciously, and consult with your instructor ASAP if you have reason to think you may miss more than 4 classes.
- If you miss more than 4 classes (for any reason), your final grade will be subject to a 5 point reduction per absence above the 4 cut limit. This is because being part of a collaborative learning community is an important part of being a scientist, and being present in lecture is a vital way to develop this practice.
- Please notify your instructor one week in advance if you intend to be absent for a religious holiday.

Missing lab
- You must attend all laboratory sessions in their entirety – hands-on experience manipulating scientific equipment, collecting data and analyzing evidence are essential elements of scientific training.
- On rare occasions, illness, family emergencies or certain school sponsored events may make it necessary for you to miss a laboratory session. Your instructor must be notified prior to the day of the absence in all but the most extreme emergencies.
- The final decision regarding whether an absence is acceptable will always be made by your instructor.
- An unacceptable absence from lab will generally result in a five point reduction in your final grade. If you miss 2 labs without acceptable reasons you will be subject to failing the course.

Missing exams
- Attendance at exams is crucial, and make-up exams are generally not given.
- If you must miss an exam, your instructor must be notified prior to the time of the exam, and your instructor will make the final decision regarding whether your absence is acceptable.
- Alternative arrangements for missed exams (or lack thereof) will be dealt with on a case-by-case basis.
- Be prepared for any excuse for missing an exam to come under severe scrutiny by your instructor.

Tardiness
- Being late is disruptive to our learning environment. Frequent tardiness by any student will result in the assignment of absences and ultimately a reduction in the student’s grade. The instructor reserves the option of excluding a person from further classroom or laboratory participation if the student is continuously tardy.

Falsification of information regarding absences from class or laboratory will be considered a breach of academic integrity.

***ALL INFORMATION PROVIDED HERE IS SUBJECT TO CHANGE***