EVR 1001 - Introduction to Environmental Science
Syllabus for Summer B 2019 (3 Credits)

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https://case.fiu.edu/about/directory/people/akhoddam.html

Class Schedule: Monday and Wednesday, 10:00 AM - 1:20 PM
Classroom: Green Library (GL) 100B

Office Hours: Tuesday and Thursday 9:00 AM - 11:00 AM, via e-mail

COURSE DESCRIPTION AND PURPOSE

- This science course introduces students to the study of climate, atmospheric composition, nutrient cycling, sustainability, air and water pollution and water resources. Through discussions of these topics, students will better understand the complex issues surrounding the human ecological footprint, global climate change, degradation of water resources, reliance on fossil fuels for energy and industrial scale agricultural practices.

LEARNING OBJECTIVES

Learning objectives for this course are based on a definition of scientifically literacy in Environmental Science. This definition of scientific literacy is based on the National Science Education Standards (2011). After completing this course, students should:

- Understand the principles of environmental science and their impact on everyday life.
- Understand and reflect critically on information included in and omitted from reports concerning environmental science.
- Take part confidently in discussions with others about issues involving environmental science.
- Make informed personal decisions about things that involve environmental science.
GLOBAL LEARNING OUTCOMES AND ASSESSMENTS

Students will be assessed for the following Global Learning Outcomes with specific course outcomes listed below them.

Global Awareness – Students will be able to demonstrate an understanding of the scientific information and key concepts that underlie the functioning of natural systems with an emphasis on the interrelatedness of these systems with each other and human societies, as well as the negative impacts of environmental degradation on both.

- An understanding of the scientific foundation and key concepts that describe the patterns and processes of Earth’s natural systems.
- Awareness of the interrelationship of human activities and natural systems.
- Ability to use scientific knowledge together with prior knowledge to engage in critical thinking about environmental issues arising from the interrelationship between human societies and natural systems.
- Assessments for Global Awareness will include a computer based formative assessment activity and in-class exams.

Global Perspective – Students will be able to examine environmental issues within a multi-perspective framework that supports creative ideas to promote environmental sustainability.

- Comprehension of the many interrelated technical, social and cultural contributions responsible for the complexity of environmental issues.
- The ability to examine environmental issues from the perspectives of multiple stakeholders.
- Develop an understanding of how environmental degradation may impact both natural systems and human societies in the future.
- Assessment for Global Perspective will take the form of group-based debates on environmental topics where groups will represent the positions of different stakeholders. Students from groups that are not participating on a panel for that session’s debate will provide input on the performance of the groups. Groups will also submit a position paper on their topic. Grading for these activities will be done using the appropriate rubrics that will be provided to students.

Global Engagement – Students will demonstrate a willingness to reflect on their own relationship to the environment and take responsibility to reduce their own ecological footprint as well as engaging in local, global and intercultural environmental problem solving.
Students will evaluate and reflect on their ecological footprint through its calculation using an online ecological footprint calculator.

- Students will experience and appreciate the challenges facing human communities in their efforts to achieve the sustainable use of natural resources and services.
- Assessment for Global Engagement will take the form of a reflection posting to the course discussion forum regarding their personal ecological footprint. In addition, students will participate in a community service/co-curricular activity designed to reduce environmental degradation and promote the health of the community. Students will describe their experience in a posting to the course discussion forum. Both postings will be evaluated using the appropriate rubrics that will be provided to students.

**TEXTBOOK**

**Scientific American Environmental Science for a Changing World**
Susan Karr, Jeneen InterlandI, Anne Houtman
W. H. Freeman, 3rd Edition, 2018


You may purchase your textbook online at the FIU Bookstore or from Vital Source. The text is an e-book. YOU DO NOT NEED ACCESS TO THE "EXTRA’s" (e.g., SaplingPlus). If students prefer a paper textbook, the loose-leaf version with Enviroportal access can also be purchased; however, the e-book/website purchase is more cost effective.

**COURSE REQUIREMENTS AND POLICIES**

Prior to coming to the theory discussion session, each student is required:

- On-time participation (using i>clicker) in all scheduled class activities is required. Absenteeism and/or nonparticipation not only preclude a student’s learning the material in this course, but also will likely affect his/her performance.

- All electronic devices must be turned off/muted during class. Failure to comply with this rule, may result in the student being excused from class.

- Reading of the assigned chapters from the textbook and additional readings from *Canvas* prior to class is expected.
Learn from the diverse group of people in the class by listening and considering what each person says and writes. You may disagree, but it must be in a way that shows respect and values each person.

**INTERNET RESOURCES**

- This is a web assisted course. A course webpage will be maintained with the Canvas learning management system.

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<thead>
<tr>
<th>Additional course materials contain this syllabus articles, short videos, and the announcements will be posted on Canvas</th>
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<tbody>
<tr>
<td>- To access this resource, go to <a href="https://ecampus.fiu.edu/">https://ecampus.fiu.edu/</a> and click on Canvas under the Login menu.</td>
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<tr>
<td>- For help with Canvas, click the Student menu on the e-campus website call the UTS Help Center at (305) 348-2284.</td>
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**i>clicker**

- i>clicker will be using to keep track of attendance and for the student response system in class this term. i>clicker gives everyone a chance to participate in class.

You may purchase one of the following models:

- The original i>clicker
- i>clicker +
- i>clicker 2

You may purchase your i>clicker online at FIU Bookstore.

**QUIZZES & EXAMS**

- Quizzes (using i>clicker) and exams will consist of multiple choice, matching, true/false. Covering the textbook, lecture notes, discussions, and assignments.
• If other required academic activity precludes a student’s taking a quiz or exam, the quiz or exam may be taken at full value prior to its scheduled time as shown on the Course Schedule; however, arrangements for taking the quiz or exam must be made in person with Dr. Khoddamzadeh at least two weeks prior to the exam’s scheduled time as shown on the Course Schedule, and a letter from the advisor or professor of the conflicting activity must be presented at that time.

ESTIMATED POINTS

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<tr>
<td>Exam (Midterm and Final)</td>
<td>40%</td>
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<tr>
<td>Assignment &amp; Discussion (5)</td>
<td>30%</td>
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<tr>
<td>Presentation</td>
<td>10%</td>
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<tr>
<td>Community Engagement (2 h)</td>
<td>10%</td>
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<tr>
<td>Class Participation</td>
<td>10%</td>
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COMMUNITY ENGAGEMENT PROJECT

Students will participate in a community engagement project (on-campus or off-campus activity during the semester), which carries 10% of the class grade. Per Janet Eyler and Dwight Giles of Vanderbilt University, the community engagement is “…a form of experiential education where learning occurs through a cycle of action and reflection as students. . . seek to achieve real objectives for the community and deeper understanding and skills for themselves”. In the process, students link personal and social development with academic and cognitive development. . . experience enhances understanding; understanding leads to more effective action.” This must be an activity related to environmental issues or sustainability. Active engagement in a community activity (e.g. *FIU Organic Garden and Nature Preserve, beach/park cleanup, restoration projects) is preferred; however, attending and participating in a workshop, lecture, Earth and Environment Department senior seminar is acceptable. Students are responsible for identifying suitable service opportunities.

* [https://fiu.qualtrics.com/jfe/form/SV_eP8iOJZKid9AGA1](https://fiu.qualtrics.com/jfe/form/SV_eP8iOJZKid9AGA1)

GRADING SCALE

A: 100% - 93%; A-: 92% - 90%; B+: 89% - 87%; B: 86% - 83%; B-: 82% - 79%; C+: 78% - 76%; C: 75% - 70%; D+: 69% - 67%; D: 66 – 59; F: <58%.

EARLY ALERT

In an effort to help you succeed in your academic courses, FIU utilizes an Early Alert system. Instructors are now able to notify students’ academic advisors if there are concerns about class
performance. If an alert is submitted, your academic advisor will send you a message via your Student Dashboard (accessed via your MYFIU page) to discuss ways to improve your performance. Please respond to any communication you receive from your academic advisor about an early alert. Our goal with this program is to help you to be successful by identifying any issues as early on as possible and working to address them.

**HONOR CODE**

Florida International University is a community dedicated to generating and imparting knowledge through excellent teaching and research, the rigorous and respectful exchange of ideas, and community service. All students should respect the right of others to have an equitable opportunity to learn and honestly to demonstrate the quality of their learning. Therefore, all students are expected to adhere to a standard of academic conduct, which demonstrates respect for themselves, their fellow students, and the educational mission of the University. All students are deemed by the University to understand that if they are found responsible for academic misconduct, they will be subject to the Academic Misconduct procedures and sanctions, as outlined in the *Student Handbook* and through the following link: http://academic.fiu.edu/AcademicBudget/misconductweb/1acmisconductproc.htm.

**CHEATING AND PLAGIARISM** are violations of the academic honesty section of the FIU student code of conduct and will be reported to Judicial Services. Plagiarism is a serious offence will not be taken lightly. Plagiarism can be intentional (copying another student’s work, collaborating too closely with another student) or unintentional (not citing all references, collaborating too closely with another student.) The best ways to avoid unintentional plagiarism are to reference all outside information, and to do all work on your own. If you have any questions about what is plagiarism, please ask the instructor. Instructors may use plagiarism detection software (such as turnitin.com) to determine if plagiarism has taken place. Suspected acts of plagiarism may be investigated and taken to the FIU Grievance Committee. Plagiarism will result in you receiving a 0 grade for your assignment (no exceptions) and may also result in your suspension or expulsion from the University.

**SEXUAL HARASSMENT POLICY**

FIU’s sexual harassment policy is available at: http://hr.fiu.edu/index.php?name=sexual_harasset
## COURSE OUTLINE AND SCHEDULE

<table>
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<tr>
<th>Date</th>
<th>Tasks</th>
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<tr>
<td><strong>Week 1</strong></td>
<td><strong>Welcome and Course Overview</strong></td>
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| June 17 – 24 | **Ch. 1: Environmental Literacy and the Goal of Sustainability**  
Presentation: Modules 1.1 (Environmental Literacy and Sustainability), 1.2 (Science Literacy & The Process of Science) and 1.3 (Information Literacy and Toxicology)  
**Ch. 2: Ecology**  
Presentation: Module 2.1 (Ecosystems and nutrient cycling)  
Assignment: Discussion #1  
Video(s): All videos content in learning module |
| **Week 2**   | **Ch. 3 - Evolution and Biodiversity**                                                                                                  |
| June 24 – July 1 | Modules 2.2 (Population ecology) and 2.3 (Community ecology)  
**Ch. 4 - Human Populations and Environmental Health**  
Presentation: Modules 4.1 (Human populations) and 4.2 (Urbanization and sustainable communities)  
**Ch. 5 - Managing Resources: Environmental Economics and Policy**  
Presentation: Modules 5.1 (Ecological economics and consumption) and 5.2 (Environmental policy)  
Assignment: Discussion #2  
Unit Video(s): All videos content in learning module |
| **Week 3**   | **Ch. 6 - Water Resources**  
Presentation: Modules 6.1 (Freshwater resources) and 6.2 (Water pollution)  
**Ch. 7 – Land Resources**  
Presentation: Module 7.1 (Forests)  
Assignment: Discussion #4  
Unit Video(s): All videos content in learning module |
| July 1 – 8   | **Exam #1 (Monday July 8th)**  
Module 5.3 (Managing solid waste).  
**Ch. 8 – Food Resources**  
Presentation: Modules 8.1 (Feeding the world) and 8.2 (Sustainable agriculture: Raising crops)  
**Ch. 9 - Conventional Energy: Fossil Fuels**  
Presentation: Module 9.2 (Oil and Natural Gas)  
Assignment: Discussion #5  
Unit Video(s): All videos content in learning module |
| **Week 4**   | **Ch. 10 - Air Quality and Climate Change**                                                                                           |
| July 8 – 15  | Presentation: Module 10.2 (Climate Change)  
**Ch. 11 - Alternative to Fossil Fuels**                                                                                              |
|              | Presentation: Module 11.2 (Sustainable Energy: Stationary Sources)  
**National Geographic Documentary**  
Unit Video(s): All videos content in learning module  
Final Exam Wednesday 9:00 – 11 AM at the classroom |