

Course Syllabus

ENV 280

Introduction to Environmental Science

Course Meetings:

Online through Blackboard

Professor:

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Course Website: WKU Blackboard System

Office Hours and Appointments:

- Meetings by appointment
- Please email, text, or call to set up an appointment
- Appointments may be conducted in person, via conference call, or via cyber conference through the course Adobe connect portal. To have a cyber conference Dr. Taylor can provide a web link for you to access Adobe connect.

Required Text:

Botkin, D.B. and E.A. Keller. 2014. Environmental Science: Earth as a Living Planet. John Wiley and Sons, Inc. 9th Edition. 625 pp.

Course Description:

An introductory course to the study of environmental issues, including the major themes of human population, sustainability, the urban world, people and nature, and science and values, with a global perspective. This course provides a general understanding of the application of science to the solution of contemporary environmental problems.

Course Goal:

By the end of the course, students should be aware that environmental pollution, hazards, and change occur and can influence human health and the environment. Students will be introduced to concepts related to human population, sustainability, our urban world, people and nature, science and values, and a global perspective. This will familiarize students with the application of science to solve real-world environmental problems.

Learning Objectives for the Colonnade Program:

This course fulfills the Colonnade Program's requirements for the Natural and Physical Sciences subcategory of the Explorations Category. As part of that program, ENV 280 has the following learning objectives:

Students will demonstrate the ability to:

1. Demonstrate an understanding of the methods of science inquiry.
2. Explain basic concepts and principles in one or more of the sciences.
3. Apply scientific principles to interpret and make predictions in one or more of the sciences.
4. Explain how scientific principles relate to issues of personal and/or public importance

Course Objectives:

The course objectives for ENV 280 are designed to fulfill the Colonnade Program requirements. Upon successfully completing ENV 280, students will be able to:

- Describe principles of environmental science.
- Explain concepts within major themes of environmental science, such as human population, sustainability, our urban world, people and nature, science and

- values, and a global perspective.
- Apply the scientific method as a way of understanding the environment.
 - Describe environmental change, both anthropogenic and natural.
 - Discuss application of the scientific method in the study of selected environmental issues, impacts, and pollution problems.
 - Analyze environmental data to determine trends pertinent to the solution of specific problems.
 - Demonstrate an appreciation for the complexity of environmental problems and the application of science to create interdisciplinary solutions, including community solutions.
 - Examine their personal role in the sustainability of environmental resources.
 - Investigate the ethical, political, and environmental justice issues related to selected environmental problems.
 - Describe the importance of protecting water and air quality.
 - Utilize critical thinking skills to evaluate environmental issues.
 - Demonstrate oral, written, and/or computer skills for analyzing and presenting environmental information.

Course Format:

- Web course through Blackboard
- Course readings, discussions, quizzes, exercises, assignments, and a Final Project journal and presentation.

Attendance Policy:

- This is a web course and attendance will occur through participation in discussions, assignments, quizzes, and completion of the Final Project

Academic Integrity:

Cheating will not be tolerated. Plagiarism and academic dishonesty will not be tolerated. Students are expected to adhere to the Western Kentucky University Code of Student Conduct.

Plagiarism or academic dishonesty on any single assignment, including quizzes, tests, essays, exercises, and discussions, will result in a course penalty up to course failure.

Course Evaluation:

- 5 Discussions – 25% of grade - A discussion will be posted on Blackboard for Sections 1, 2, 3, 4, and 5 of the course
- 4 Quizzes – 20% of grade – Section material
- 5 Assignments – 25% of grade – Section material
- Final Project: 30% of grade – Final Project Journal (through Blackboard) and Final Project Presentation
- *****Course Colonnade Assessment – This will be required of all students. Failure to complete the Course Colonnade Assessment will result in failure of the course. This will not count toward the grade total in the course. However, it is mandatory for all students to assess the colonnade learning objectives. This will be a 15-question quiz or survey administered during the final exam time for the course.**

Grades:

- **Discussions** – Section Discussions on the Blackboard Discussion Board
 - Each discussion is worth 50 points
 - 5 Discussions = 250 points
 - 25% of final grade
- **Quizzes** – Section Quizzes
 - Each Quiz is worth 50 points
 - 4 Quizzes = 200 points
 - 20% of final grade
- **Assignments**
 - Section Assignments: Sections 1, 2, 3, 4, 5, and 6
 - Each Assignment is worth 50 points
 - 6 Assignments = 300 points
 - 30% of grade
- **Final Project – See the Final Project Folder in Blackboard for detailed instructions**
 - To be conducted on a selected environmental science topic
 - Topics will be selected through a discussion board
 - **Components of the Final Project**
 - **Final Project Journal – 150 points**
 - Reflections and project summaries will be kept in the Final Project Journal
 - Pre project reflection
 - Project summaries – Six (6) project summaries or journal entries should be made to track your progress on the Final Project

- Post project reflection
- All notes and information pertaining to the Final Project should be kept in the Final Project Journal
 - Final Project Presentation – **100 points**
 - 25% of final grade
 - 250 points total
- **Total Points for Course = 1000 points**
- Percentage and Letter Grades: A = 90's or 100, B = 80's, C = 70's, D = 60's, F = below 60%

Tentative Course Outline:

- Due dates will be assigned for each section in a **list of tasks**. You will find a list of tasks for each section within each of the section folders under course content.
- This course will begin with Section 1.
- All course sections and materials will be found under the **Content tab** on the ENV 280 Blackboard site.
- You will begin the course by reviewing the materials under the Course Information tab, including the syllabus.

1. Section 1: Key Themes, Critical Thinking about the Environment, Systems of Change, and Ecosystems
 - a. Chapter 1 and Chapter 2
 - b. Discussion 1: An Ecosystem at Risk
 - c. Assignment 1 – Part 1: Final Project Topic
 - d. Read Chapters 3 and 5
 - e. Section 2 Course Materials on Blackboard
 - f. Assignment 1 – Part 2: The Environment and Systems at Risk
2. Section 2: Human Population, Environmental Health, and Economics of Environmental Issues
 - a. Read Chapters 4 and 10
 - b. Discussion 2: Analysis of Human Population Growth
 - c. Read Chapter 7
 - d. Assignment 2: Analysis of a U.S. Fishery: Georges Bank
 - e. Quiz 2
3. Section 3: Water Resources, Climate, and Air Pollution
 - a. Read Chapters 18 and 19
 - b. Assignment 3
 - c. Read Chapters 20 and 21
 - d. Discussion 3: Water Resources and Air Pollution
4. Section 4: Energy, Agriculture, and the Environment
 - a. Read Chapters 14, 15, and 16
 - b. Assignment 4: Alternative Energy Sources

- c. Read Chapters 17 and 11
 - d. Discussion 4: Pesticides in a Drinking Water Supply
 - e. Quiz 3 – Sections 3 and 4
- 5. Section 5: Biological Diversity, Ecological Restoration and Landscapes
 - a. Read Chapters 8 and 13
 - b. Discussion 5: Watershed Assessment and Conservation of a Local Forest
 - c. Read Chapters 9 and 12
- 6. Section 6: Urban Environments and Our Environmental Future
 - a. Read Chapters 22 and 24
 - b. Assignment 5: Analysis of My Local Environment
 - c. Quiz 4 – Sections 5 and 6
 - d. **Final Project Due Date – Final Exam Date for Course – See WKU schedule and date will be posted on the Blackboard course site for ENV 280**