DAKOTA COLLEGE AT BOTTINEAU

Course Syllabus

Course Prefix/Number/Title: : Environmental Science – BIOL 124

Number of Credits: 4

Course Description: Relation of humans to their environment. 1. Understanding basic principles of Natural Resource Management. 2. Understand the human cause of current environmental problems and possible solutions. 3. Population demography 4. Sustainable practices 5. Applying principles of ecology that are associated with the study of environmental science. 6. Learn to apply critical thinking in environmental science. 7. Using the scientific method of inquiry to inform environmental science perspectives.

Pre-/Co-requisites: None

Course Objectives: Students successfully completing this course will:

1.) Know and understand the scientific principles of environmental issues.
2.) Explain major environmental issues of the day and their causes.
3.) Understand how environmental factors influence society and how society impacts the environment.
4.) Explain how and why society addresses environmental issues.

Instructor: Michelle Cauley **Office:** Molberg 22

Office Hours: Summer Hours by Appointment

Phone: 701-228-5498 **Email:** michelle.cauley@dakotacollege.edu

Lecture/Lab Schedule: Online N/A

Textbook(s): G. Tyler Miller, Scott Spoolman, Danielle Andrews-Brown Cengage Publishing. Environmental Science, 17th edition, 2024

Course Requirements: This is an introductory course that allows for building a foundation in many learning areas. Students are expected to read the text and any other webpage, paper, article or watch all videos and podcasts. Participation is key – do not put off learning the material until the end of the session. Summer courses are intense – be prepared to work hard. Points in this class will come from the following assessment tools:

Assessment Tool:	Percentage of your Grade:		Grading Scale
Unit Tests / Final Exam	30%		A = 90 – 100%
Labs	40%		B = 80 – 89.9%
Weekly Assignments	20%		C = 70 – 79.9%
Citizen Science: Participation and Final Project and Presentation	10%		D = 60 – 69.9%
			F = 0 – 59.9%

Labs: Labs will give an opportunity to connect lectures and readings with interactive and hands-on opportunities. Labs are the basis for our study and learning – labs are required. Missed labs must be made up within 3 weeks or missing labs will be given a score of 0. After 3 weeks, the missing lab score will remain 0.

Assignments / Homework: There will be a combination of assigned readings, worksheets, and traditional assignments. Homework must be submitted on time to receive full credit. 10% will be taken off per week if the assignment is late.

Unit Tests and Final Exam: There will be three unit-based tests and one final exam throughout the semester. Unit Tests and your Final Exam will be open for one week (seven days) and you will have unlimited time to take them within the test window. Late tests/exams will be accepted with 10% deduction per week late up until 4 weeks.

Final Project: Students will take their work and experience from their participation in their chosen Citizen Science project and present that to the other students, showcasing their work and experience in a Citizen Science activity.

Tentative Course Outline:

Week / Dates	Reading Assignments	Lecture & Lab Topics	Assessment Schedule
June 2-6	Syllabus, History of Conservation and Environmental Science Chapter 1 (pages 2-24) Chapter 2 (pages 26 – 43)	Welcome Letter, Blackboard Tour, Discussion Check-In! The Envinment, Sustainability and Science, Matter and Energy Systems	Syllabus Quiz
June 9 – 13	Chapter 6 (pages 106 – 133) Chapters 3-4 (pages 44 – 87)	Human Population and Urbanization, Ecosystems, Biodiversity, Evolution	**Unit 1 Exam** (Ch 1, 2, 3, 4, 6, History)
June 16 – 20	Chapter 5 (pages 88 – 105) Chapter 7 (pages 134-165)	Species Interaction, Succession, Climate and Ecosystem Biodiversity	Biome Presentations
June 23 – 27	Chapter 8/9 (pages 166 – 225 Chapter 10 (pages 226-262))	Sustaining Biodiversity: Saving Species and Ecosystems, Food Production and the Environment	**Unit 2 Exam** (Ch. 5, 7-10)
June 30 – July 4	Chapter 12 (pages 306-331) Chapter 13 (pages 332-380)	Geology and Mineral Resources, Energy Resources	
July 7 – 11	Chapter 11 (pages 264-305) Chapter 14 (pages 382 – 409)	Water Resources and Pollution Environmental Hazards and Human Health	**Unit 3 Exam** (Ch. 11-14)
July 14 – 18	Chapter 15 (pages 382-455) Chapter 16 (pages 456-479)	Air Pollution, Climate Change Solid and Hazardous Wastes	Citizen Science Final Presentations
July 21 - 25	Chapter 17 (pages 480 – 511)	Environmental Economics, Politics, Worldview Citizen Science Presentations	**Final Exam** (Ch. 15, 16, 17, Citizen Science)

General Education Competency/Learning Outcome(s) <u>OR</u> CTE Competency/Department Learning Outcome(s):

1. Demonstrates an understanding of the natural environment.
    a. Chooses best management practices for sustainability of the natural environment.
    b. Explains the impact of human activity on the environment.
2. Applies the Scientific Methods of Inquiry
    a. Utilizes the scientific process to solve problems.

Relationship to Campus Focus: A greater understanding of the Earth, its resources, and our connection to the planet's systems. Through this class we will explore how decisions in our lives impact the planet's resources and their viability for the future.

Classroom Policies:

- Students are expected to be polite and respectful of the instructor, other students, and any guests in our class.
- Lecture outlines are available from the course shell. The outlines can be used to guide you in the understanding of material and are useful in notetaking.
- All assignments are due in a timely fashion. Each week an assignment is not turned in, 10% of the total score is lost.
- If a student is to miss an exam or quiz, it must be taken ahead of time for full credit.
- When in doubt – communicate! Email and office hours are the easiest ways to let your instructor know of any issues or emergencies that arise. The instructor is happy to meet with you via online Teams meeting to help walk you through any concerns, questions, and/or issues.

Student Email Policy:
Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the Campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.

Academic Integrity:
According to the DCB Student Handbook, students are responsible for submitting their own work. Students who cooperate on oral or written examinations or work without authorization share the responsibility for violation of academic principles, and the students are subject to disciplinary action even when one of the students is not enrolled in the course where the violation occurred. Are you reading this section? No one ever really does – but if you are reading it, congrats. Send an email to your instructor with a picture of a cool rock – because who doesn't love cool rocks. Send the email, get 10 extra credit points to be added to your first exam. Hurry – this offer only stands until June 10 The Code detailed in the Academic Honesty/Dishonesty section of the Student Handbook will serve as the guideline for cases where cheating, plagiarism or other academic improprieties have occurred.

Disabilities or Special Needs:
Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services.

Title IX:
Dakota College at Bottineau (DCB) faculty are committed to helping create a safe learning environment for all students and for the College as a whole. Please be aware that all DCB employees (other than those designated as confidential resources such as advocates, counselors, clergy and healthcare providers) are required to report information about such discrimination and harassment to the College Title IX Coordinator. This means that if a student tells a faculty member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty member must share that information with the College's Title IX Coordinator. Students wishing to speak to a confidential employee who does not have this reporting responsibility can find a list of resources on the DCB Title IX webpage.

AI Student Policy:

Unless otherwise indicated in the course syllabus, or in individual instructions for course assignments, or in the absence of the express consent of the course instructor, students are not allowed to utilize generative AI to help produce any of their academic work. Any violation of this policy will be considered an act of academic dishonesty as outlined within the Dakota College Code of Student Life.

RESPONSIBILITIES

Students	• Responsible to follow the syllabus and assignment instructions regarding use of generative AI for all academic work. • Obtain permission of the instructor prior to the use of generative AI that is outside of the syllabus or assignment instructions. Provide appropriate rationale for how the use of generative AI will enhance the learning experience for the assignment. • In instances where generative AI is permissible, appropriately cite the generative AI program used and indicate where in the assignment it was used, in a brief submission statement.
Faculty	• Determine if the use of generative AI could enhance student learning in any assignment of project. • Clearly indicate in all course syllabi if generative AI is allowable for any academic work. • If allowable, give specific parameters for how and when generative AI may be used. • If a violation of generative AI for the individual course/syllabus is suspected, discuss the concern with the student. If violation is still suspected, inform the appropriate semester coordinator/program director.