

Course Prefix/Number/Title: Environmental Science – BIOL 124 (online)

**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:** M / T 12:00 – 2:00 PM

**Phone:** 701-228-5498

**Email:** [Michelle.cauley@dakotacollege.edu](mailto:Michelle.cauley@dakotacollege.edu)

**Lecture/Lab Schedule:** Online!

**Textbook(s):** McKinney, M., R.M. Schoch, and L. Yonavak. 2013 Environmental Science; Systems and Solutions. Jones and Bartlett Publishers 6th Edition

**Course Requirements:** This is an introductory course that allows for building a foundation in many learning areas. Students are graded on various learning tasks including weekly assignments, quizzes, exams, and labs.

Assessment Tool:	Percentage of your Grade:		Grading Scale
Quizzes	10%		A = 90 – 100%
Labs	30%		B = 80 – 89.9%
Assignments / Homework	20%		C = 70 – 79.9%
Unit Tests / Final Exam	20%		D = 60 – 69.9%

Citizen Science: Final Project and Presentation	10%		F = 0 – 59.9%
Professionalism	10%		

**Quizzes:** There will be a series of 12 quizzes throughout the semester from various chapters. The two lowest scores will be dropped from your grade.

**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 2 weeks of missing or given a score of 0.

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

**Professionalism:** Your grade will also be determined by your professionalism in this course. Attendance, timeliness in meeting deadlines, participation, engagement in learning, respectful actions, communication – these will all be factored into your final grade in this course. Just like in the real world, professionalism matters.

**Unit Tests and Final Exam:** There will be three unit-based tests and one final exam throughout the semester. These will be available to be completed online through Blackboard. 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 testing window.

**Citizen Science: Final Project and Presentation:** There will be an opportunity early in the semester to select a Citizen Science project to allow students to be a part of the bigger science community. At the end of the semester, students will present what their project was, what they accomplished as part of their participation in the program and the benefits/drawbacks to such a program.

Tentative Course Outline:

Week	Over Arching Topics / Chapters	Reading Assignments	Tests / Quiz Schedule
August 26 - 30	Introduction, Overview, Review Syllabus	Welcome Letter, Syllabus, Chapter 1	Syllabus Quiz
September 2 – 6	Human Population Growth	Chapter 2	Chapter Quiz
September 9 – 13	The Biosphere	Chapter 3	Chapter Quiz
September 16 – 20	Distribution of Life, Earth Dynamics	Chapter 4, 5	Exam 1 (Ch. 1-5)
September 23 – 27	People and Natural Resources	Chapter 6	Chapter Quiz
September 30 – October 4	Fundamentals of Energy Renewable / Alternative Energy	Chapter 7 / 8	Chapter Quiz
October 7 - 11	Water Resources	Chapter 9	Chapter Quiz
October 14 - 18	Mineral Resources	Chapter 10	Exam 2 (Ch. 6 – 10)
October 21 - 25	Conserving Biological Resources	Chapter 11	Chapter Quiz

October 28 – November 1	Land Resources Management / Food and Soil Resources	Chapter 12 / 13	Chapter Quiz
November 4 – 8	Principles of Pollution	Chapter 14	Chapter Quiz
November 11 – 15	Water Pollution	Chapter 15	Exam 3 (Ch. 11 - 15)
November 18 – 22	Global and Local Air Pollution	Chapter 16 / 17	Chapter Quiz
November 25 - 29	Solid and Hazardous Waste	Chapter 18	
December 2 – 6	Finish Chapter 18 this week.	Chapter 18	Chapter Quiz
December 9 – 13	Historical and Cultural Perspectives Citizen Science Presentations	OER Resources	Chapter Quiz
December 16 - 20	Finish Activities / Review for Final	Finals Week!	Final Exam (Ch. 16 – 20)

**General Education Competency/Learning Outcome(s) OR 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.
3. Applies scientific information in everyday life.
  - a. Recognizes the role of science in nature and society.

**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. Earbuds are expected to be out of ears, phones on silent.
- 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.

**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 vital 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. 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.

- **AI Tools:** Artificial Intelligence tools like ChatGPT and other copilots are **not** prohibited in the course. In fact, we will explore their uses (and potential issues) throughout the semester. Keep in mind that:
  - You must submit original work (not generated by AI) for all assessments in this course. That means citing if you use AI-generated text and how you apply it in your work.
  - Large language models (LLM) like ChatGPT have been known to supply inaccurate information and fake citations. Use your information literacy skills to corroborate AI information if you are using it in your research. Failure to cite your use of AI or fabricated information could result in your violation of the Academic Integrity Policy (see above).
  - Different assignments will allow different levels of AI use. Read directions and prompts carefully. AI is useful but does not take the place of the human elements of critical thinking and emotion.

**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.