

## Dakota College at Bottineau Course Syllabus

Course Prefix/Number/Title: BIOL 124 Environmental Science (4CR)

Prerequisites: none

Course Description: An introductory course for the non-science major. A study of the effects of humans and their technology on the environment.

Human population growth, fundamentals of ecology, principles of resource management, water resources, mineral resources, biological resources, land management, feeding the world, water pollution, air pollution, municipal waste, local, regional, and global issues.

Course Objectives: Demonstrate an understanding and proficiency with:

1. Knowledge and understanding of scientific principles of environmental issues
2. Identifying and explaining the major environmental issues of today
3. How environmental factors influence societies and vica versa
4. How/why society addresses environmental issues

Instructor: Lura

Office: NSC 114

Office Hours: MWF 9:00-10:00 & 2:00-3:00

Phone: (701) 228-5472

Email: chuck.lura@dakotacollege.edu

Lecture/Lab Schedule: Fall semester

Textbook(s): McKinney, M.L., and R.M. Schoch.2007. Environmental Science: systems and solutions. Jones and Bartlett Publ. Co., 4<sup>th</sup> ed.

Course Requirements:	4 Hour Exams @ 100 pts. ea.	400 pts.	A = 100-90%
	Lab evaluations	130 pts.	B = 89-80%
	Lecture quizzes, assignments, etc.	170 pts.	C = 79-70%
	Projects/Reports	<u>100 pts.</u>	D = 69-60%
	<b>TOTAL POINTS</b>	<b>800</b>	F = below 60%

**Tentative Course Outline:**

**ENVIRONMENTAL SCIENCE 124  
TENTATIVE SYLLABUS, SPRING 2011**

<b>Dates</b>	<b>Topic</b>	<b>Chapter</b>
Jan. 11-14	Introduction & Overview	1
Jan.17-21	<b>January 17, Martin Luther King Day</b>	
	Human Population Growth <b>Lab:</b> "Game of Life"	2
Jan. 24-28	Biosphere, Distribution of life <b>Lab:</b> "Tragedy of the Commons"	3,4
Jan 31-Feb 4	Distribution of life, Earth Dynamics <b>FIRST HOUR EXAM, FRIDAY FEBRUARY 4</b> <b>Lab:</b> Communities/Ecosystems video	4,5
Feb. 7-11	Principles of Resource Management, Energy Fundamentals <b>Lab:</b> "Town Meeting"	6,7
Feb. 14-18	Energy Fundamentals, Renewable/Alternative Energy <b>Lab:</b> North Central Electric Coop.	7,8
Feb. 21-25	<b>Monday February 21, President's Day</b> Water Resources, Mineral Resources <b>Lab:</b> ND Water Issues	9,10
Feb 28-Mar 4	Mineral Resources <b>SECOND HOUR EXAM, FRIDAY MARCH 4</b> <b>Lab:</b> "Public Land Private Profit" (video)	10
Mar. 7-11	Conserving Biological Resources <b>Lab:</b> "Should Snowmobiles be allowed in Yellowstone NP?"	11
<b>Mar. 14-18</b>	<b>SPRING BREAK</b>	
Mar. 21-25	Land Resources and Management <b>Lab:</b> Guest Speaker (Nat. Res. Mgmt.)	12
Mar. 28-Apr. 1	Land Resources and Management <b>Lab:</b> Guest Speaker (Nat. Res. Mgmt.)	12
Apr. 4-8	Feeding the World	13

**THIRD HOUR EXAM FRIDAY APRIL 8****Lab:** The Ocean's Bounty

Apr. 11-15	Principles of Pollution Control <b>Lab:</b> Local Area Ecology and Land Use	14
April 18-22	Water Pollution <b>Lab:</b> "Extended" Field Trip <b>Friday April 22 – Easter Break</b>	15
April 25-29	<b>Monday April 25 – Easter Break</b> Water pollution, local regional, global air pollution <b>Lab:</b> J. Clark Salyer National Wildlife Refuge	15-17
May 2-6	Global Air Pollution, Municipal Waste <b>Lab:</b> Turtle Mountain-Lake Metigoshe Field Trip	17,18
May 9	Environmental Economics	19

**FINAL EXAMS: MAY 11-13****General Education Goals/Objectives:**

Goal 1: Explains the interrelationships between humans and their environment and the role of science in their lives

Goal 2: Demonstrates knowledge and application of technology

**Relationship to Campus Theme:**

Technological/science developments are discussed in relationship to Global Warming, and air and water pollution and other environmental issues.

Green Revolution and humanity discussed with future considerations

Genetic engineering, technological developments in environmental monitoring

Classroom Policies: Regular attendance and participation in lab and lecture is expected.  
All make-up exams will include a significant essay/short answer component and must be made up within one week of the students return to class unless prior arrangements have been made.

Academic Integrity: Cheating on a test, quiz, or other assessment results in zero points for the assessment.

Disabilities and Special Needs: Any accommodations due to a learning disability must come through the Dakota College Learning Center. If you have a diagnosed learning disability, you need to contact the Learning Center in Thatcher 1104 or phone (701) 228-5477.