

## 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: charles.lura@dakotacollege.edu

Lecture/Lab Schedule: Spring semester

Textbook(s): McKinney, M.L., and R.M. Schoch.2013. Environmental Science: systems and solutions. Jones and Bartlett Publ. Co., 5<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 2015**

<b>Dates</b>	<b>Topic</b>	<b>Chapter</b>
Jan. 14-16	Introduction & Overview	1
Jan.19-23	<b>January 19, Martin Luther King Day</b> Human Population Growth <b>Lab:</b> “Game of Life”	2
Jan. 26-30	Biosphere, Distribution of life <b>Lab:</b> “Tragedy of the Commons”	3,4
Feb 2-6	Distribution of life, Earth Dynamics <b>FIRST HOUR EXAM, FRIDAY FEBRUARY 6</b> <b>Lab:</b> Communities/Ecosystems video	4,5
Feb. 9-13	Principles of Resource Management, Energy Fundamentals <b>Lab:</b> “Town Meeting”	6,7
Feb. 16-20	<b>February 16, President’s Day</b> Energy Fundamentals, Renewable/Alternative Energy <b>Lab:</b> North Central Electric Coop.	7,8
Feb. 23-27	Water Resources, Mineral Resources <b>Lab:</b> ND Water Issues	9,10
Mar 2-6	Mineral Resources <b>SECOND HOUR EXAM, FRIDAY MARCH 6</b> <b>Lab:</b> “Public Land Private Profit” (video)	10
Mar. 9-13	Conserving Biological Resources <b>Lab:</b> “Should Snowmobiles be allowed in Yellowstone NP?”	11
	<b>Spring Break March 16-20</b>	
Mar. 23-27	Land Resources and Management <b>Lab:</b> Guest Speaker (Nat. Res. Mgmt.)	12
Mar 30-Apr 3	Land Resources and Management <b>Friday April 3-Easter Break</b> <b>Lab:</b> Guest Speaker (Nat. Res. Mgmt.)	12
Apr. 6-10	<b>Monday April 6-Easter Break</b> Feeding the World <b>THIRD HOUR EXAM FRIDAY APRIL 10</b> <b>Lab:</b> The Ocean’s Bounty	13
Apr 13-17	Principles of Pollution Control <b>Lab:</b> Local Area Ecology and Land Use	14
Apr 20-24	Water Pollution <b>Lab:</b> “Extended” Field Trip”	15

Apr 27-May 1	Water pollution, local regional, global air pollution <b>Lab:</b> J. Clark Salyer National Wildlife Refuge	15-17
May 4-8	Global Air Pollution, Municipal Waste , economics <b>Lab:</b> Turtle Mountain-Lake Metigoshe Field Trip	17,18,19

**FINAL EXAM: Tuesday May 12, 9:00-11:00**

#### 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.