BIOLOGY 2: Environmental Science **Fall 2020**

Instructor: Ms. Smith Bush
Office Hours: Monday & Wednesday 3:00-5:00pm LFS 11; Online Friday 2:00-3:00pm via email.
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Lecture & Lab: Monday & Wednesday 12:00-2:50pm; LFS 11.

I. COURSE DESCRIPTION

A. Title: Biology 2 – Environmental Science

B. Prerequisite: None - Just the desire to learn.

C. Summary: This introductory course examines the earth as an ecosystem composed of biological, chemical, and physical processes, with an emphasis on human impacts. Topics will include the structure and function of ecological systems, air and water pollution, pesticide use, waste disposal, climate change, natural resource use, and environment laws. Students will gain an understanding of how humans influence natural environments while focusing on sustainable practices. Basic chemical, physical, and geological processes will be introduced to better explain these topics throughout the course.

D. Biology 2 is a 4 unit class with 3 hours lecture and 3 hours laboratory each week.

II. COURSE OUTCOMES:

In the process of completing this course, students will:

A. Understand biodiversity, and Identify and classify components of the local flora and fauna.

B. Apply a basic understanding of fundamental environmental and ecological principles to environmental challenges.

C. Understand how human activity impacts the environment leading to biodiversity loss, natural resource degradation and climate change.

D. Apply critical thinking skills and scientific facts to evaluate political, legal and social issues.

E. Understand and evaluate sustainable practices related to natural resource conservation and environmental health.

F. Apply scientific methodology to develop and test hypotheses as they relate to environmental and life science

III. REQUIRED MATERIALS:

1. Principles of Environmental Science; Cunningham, W. & Cunningham, M., McGraw-Hill, 8th ed., with Connect Access.
2. Field & Laboratory Exercises in Environmental Science; Enger, E., Smith, B., & Lionberger, K., McGraw-Hill, 8th ed.
3. Scantron form 886 (X4)

IV. ATTENDANCE:

You are expected to be on time for each laboratory and lecture session. Tardiness may be construed as an absence from the class. It is the students' responsibility to sign in when late and then to see the instructor after class to be sure that an absence has been changed to a tardy! Be aware that 3 tardies = 1 absence. This is very important because **if you miss more hours than 10 hours of class or lab, you will be dropped** unless your instructor has been informed of the extenuating circumstances causing your absences.

Reasons for being dropped from the course…

1. Student fails to attend the first laboratory or lecture session of the course.
2. 10 hours of absences during the first 9 weeks of the course.
3. Student fails to purchase the Learnsmart access code by the third week.

I will also drop students who do not purchase and use an active Learnsmart access code by the end of the second week of class.

V. TESTS AND EVALUATIONS:

A. Grading

Description	Points Possible
Lab Exercises (approx. 14)	210
Learnsmart Assignments (16)	240
4 Exams (125 pts. each)	500
Research Project	125
Approximate Total Points =	1075

B. Grading scale:

90% = A 80% = B 70% = C 60% = D 59% and below = F

At any point you can check your grades on our Canvas site through the Reedley College homepage: ***www.reedleycollege.edu*** Your Canvas username and password is your 7 digit student ID number. You are encouraged to check this site regularly and keep track of your own grades!

C. *Exams* will include multiple choice questions and usually 3 short essay questions. Many times these essays will be the main objectives of each chapter. **Policy for missed exams:** If you know you will miss class during an exam, you may arrange to take the exam early with no penalty. If you miss class on an exam day, you will have one week to make up the exam during my office hours. Your exam score will have 10 percentage points deducted as a penalty for late work. If you have a medical excuse you will be exempt for the point deduction. It is the students' responsibility to arrange a time for the make-up exam.

D. *Lab Exercise Grades* will come from your lab work itself. These are to have the answers to laboratory questions on handouts or from your lab guide as well as any problems to work or tables to fill in. Be sure these are neatly done and in the same order as the handouts. Forgotten lab work means no score – as you are responsible for your work. **Policy for missed labs:** Attending the lab is mandatory. No points will be given for lab work if you were not present during the lab meeting.

E. *Learnsmart Assignments* will be accessed through the publisher's website. You must purchase an active access code when you buy your textbook. Every chapter will have a Learnsmart assignment designed to help you better understand the material.

F. There will be one research assignments requiring you to research an environmental topic and present to the class. More will follow on this later.

VI. Other information:

Drops: You have until the end of the 9th week of school to drop. If you elect to do so, be sure to drop yourself. Do not assume you have been automatically dropped. This is very important, as after the 9th week a grade must be given, by state law, whether you attend class or not.

Adds: If you are given an add slip, be sure to turn it into Student Services within two days of receipt. After this date, you will not be allowed to add the class with that add slip.

Extra Credit: Extra credit is recommended if you feel that you are a borderline grade and that you need 25 points to get you over the hump. Extra credit should be viewed like an insurance policy. You're never quite sure when it may be needed. All extra credit is due at the beginning of the 17th week. ***If you have over four absences within the semester you will not be eligible for these points.***

VIII. Help:

If you should have difficulty grasping the material presented during the course be sure to see your instructor at the first sign of trouble. Often, a few minutes can clear up many problems! If you are having trouble studying, perhaps you need a few study hints or a tutor at the Tutorial Center. Please come in for help!

Always keep in mind that this is a four-unit course. As a general rule, each hour of lecture requires two hours of additional study outside of the classroom each week. Each hour of lab requires one hour of study time, outside the laboratory each week. This equals more than eight hours of study each week in order to pass this class. Do your planning accordingly. Success comes before work only in the dictionary. Overall, I hope you have a fun semester and learn Environmental Science along the way. Good Luck.

IX. Academic Dishonesty

Students at Reedley College are entitled to the best education that the college can make available to them, and they, their instructors, and their fellow students share the responsibility to ensure this education is honestly attained. Because cheating, plagiarism, and collusion in dishonest activities erode the integrity of the college, each student is expected to exert an entire honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences. See college catalog for details.

X. Accommodations

If you have a verified need for an academic accommodation or material in alternate media (i.e. Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible.

Tentative Lecture & Lab Schedule
Biology 2 – Fall 2020

Lecture	Readings/Learnsmart	Lab Assignments
Week 1: 1/13 -1/15 Understanding the Environment	Ch. 1	Environmental Awareness
Week 2: 1/20-1/22 **MLK Holiday**	Ch. 2	Environmental Systems Lecture
Week 3: 1/27-1/29 Evolution, Species Interactions & Communities	Ch.3	Exercise 1: Primary Productivity
Week 4: 2/3-2/5 Human Population	Ch.4	Exercise 7: Human Population Dynamics
Week 5: 2/10-2/12 Biomes & Biodiversity	Ch.5 & 6	Environmental Conservation Lecture
Week 6: 2/17-2/19 **WA Holiday**		**Exam #1** Ch. 1-4 & labs
Week 7: 2/24-2/26 Food & Agriculture	Ch. 7	Exercise 9: Soil & Plant Growth
Week 8: 3/2-3/4 Environmental Health & Toxicology	Ch. 8	**Rough Draft Due** Bag It movie & Plastics Lab
Week 9: 3/9-3/11 (drop day) Climate	Ch. 9	Finish Soil Lab **Exam #2** Ch. 5-8 & labs
Week 10: 3/16-3/18 Air Pollution	Ch.10	Exercise 10: Global Indicators of Climate Change **Peer reviews due**
Week 11: 3/23-3/25 Water: Resources & Pollution	Ch. 11	Exercise 10: Stream Ecology
Week 12: 3/30-4/1 Environmental Geology & Earth Resources	Ch.12	Exercise 8: Plate Tectonics
Week 13: 4/6-4/8 **Exam #3** Ch.9-12 & Labs		TBA

Spring Break : 4/6-4/8

Week 14: 4/13-4/15		
Energy	Ch.13	Exercise 14:
Final Draft due		Evaluating Renewable Energy
Week 15: 4/20-4/22		
Solid & Hazardous Waste	Ch.14	Water treatment fieldtrip
Week 16: 4/27-4/29		Exercise 20:
Economics & Urbanization	Ch.15	Ecological Footprint
Week 17: 5/5-5/6		
Environmental Policy & Sustainability	Ch.16	Presentations
Week 18: 5/18/20		
Exam #4		
Ch.13-16 & Labs		