

BIOLOGY 2: Environmental Science**Hybrid****Spring 2022**

Instructor: Ms. Smith Bush

Office Hours: Monday & Friday 3:00-5:00pm Online via Canvas messaging. Zoom & in person meetings as requested.

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Lecture: Online & Asynchronous

Lab: Wednesday 1:00-3:50pm LFS 11 In person

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:

Biology 2 is an OER class with no materials that need to be purchased.

IV. ATTENDANCE:

You will be considered absent if you fail to participate in the weekly online discussions/postings, assignments, and quizzes. After one week of no communication, you may be dropped from the course.

~~~Simply Logging in to the Course Is Not Considered Attendance~~~

**** If you fail to participate in the first introductory online discussion by midnight the first week of class Wednesday and the first lab, you will be dropped from the class.**

V. TESTS AND EVALUATIONS:

A. Grading

Description	Points Possible
Lab Exercises (15 pts. each)	225
Chapter Quizzes (10 pts. Each)	130
4 Exams (125 pts. each)	500
Research Project	160
Approximate Total Points =	1,015

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 an exam due date, you will have one week to make up the exam. Your exam score will have 10 percentage points deducted each day 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. You will be able to turn in late lab work up to one week late with a 10% penalty for each day it is late.

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 code, be sure to add on Webadvisor within two days of receipt. After this date, you will not be allowed to add the class with that add code.

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.

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.

XI. Diversity Statement:

Respect for Diversity: It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups.

Tentative Lecture & Lab Schedule
Biology 2 Hybrid – Spring 2022

Textbook	Labs
Module 1: Many Planets, One Earth Introductions SLO Pre-Survey	Lab 1: Timelines
Module 2: Atmosphere	Lab 2: Carbon Cycle
Module 3: Oceans	Lab 3: Biological Pump
Module 4: Ecosystems	Lab 4: Ecology
Module 5: <i>Exam #1</i>	Lab 5: Environmental Disaster Intro Anthropocene Video
Module 6: Human Population Dynamic	Lab 6: Demography
Module 7: Risk, Exposure & Health	Lab 7: Disease
Module 8: Agriculture	Lab 8: Plant Growth <i>Food Inc.</i>
Module 9: <i>Exam #2</i>	Lab 9: Plastics
Module 10: Water Resources	Lab 10: River Rough Draft due
Module 11: Biodiversity Decline	Cont. Plant lab Lab 11: Biomes & Biodiversity Peer Reviews due
Module 12:	

Energy Challenges

Lab 12: Energy

Module 13:
Exam #3

Finish Plant Growth Lab

Module 14:
Atmospheric Pollution

Lab 13: Air Pollution

Module 15:
Earth's Changing Climate Final
Draft

Lab 14: Climate Change

Module 16:
Looking Forward: Our Global Experiment

Lab 15: Climate

Module 17:
Environmental Disaster Presentations

Lab 16: Carbon Footprint
Lab

Week 18:
Exam #4