

Instructor: Ms. Smith Bush

Office Hours: Monday & Friday 3:00-4:00pm Online via Canvas messaging. Wednesday 12:00-1:00pm & Thursday 1:00-3:00 LFS 13; & Zoom meetings upon arrangement.

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Lecture: Online & Asynchronous

COURSE DESCRIPTION

Title: Biology 13 – Environmental Science

Prerequisite: None - Just the desire to learn.

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.

Biology 13 is a 3 unit class with 3 hours lecture hours each week.

COURSE OUTCOMES:

In the process of completing this course, students will:

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

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

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

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

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

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

REQUIRED MATERIALS:

Computer access and reliable internet. The ability to open and modify pdf and word documents.

Biology 13 is an OER class with no materials that need to be purchased.

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, you will be dropped from the class.

## TESTS AND EVALUATIONS:

### Grading

| Description                | Points Possible |
|----------------------------|-----------------|
| Chapter Quizzes            | 75              |
| Discussion (10 pts. each)  | 120             |
| 4 Exams (125 pts. each)    | 500             |
| Research Project           | 100             |
| Approximate Total Points = | 795             |

### Grading scale:

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

Exams will include multiple choice questions and usually 2-3 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.

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

### 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 Self Service 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.

### 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 three-unit course. As a general rule, each hour of lecture requires two hours of additional study outside of the classroom each week. This equals more than six 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.

## 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.

## 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.

## 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.

## MODULE LECTURE, READING & QUIZ TOPIC DISCUSSION

1

Introduction to Environmental Science

Discussion #1: Introduction

2

Matter, Energy & Life

Discussion #2: Photosynthesis & Life

3

Ecosystems & Biosphere

Discussion #3: Trophic Cascade

4

Oceans

Discussion #4: Biological Pump

5

Exam 1 (covers Modules 1-4)

6

## Communities & Population Ecology

### Discussion #5: Human Population

7

## Conservation Biology

### Discussion #6: Disaster Topic Choice

8

## Environmental Hazards & Human Health

### Discussion #7: Toxins & the Environment

9

### Exam 2 (covers modules 6-8)

10

## Water Availability & Use

### Discussion #8: Water Conservation

11

## Food & Hunger

12

## Agriculture

### Discussion #9: Food, Health & Environment

13

### Exam 3 (covers modules 10-12)

14

## Air Pollution

### Discussion #10: Air Quality & Health

15

## Climate Change

### Discussion #11: Climate

16

## Energy

### Discussion #12: Renewable vs. Nonrenewable Energy

17

Environmental Disaster Presentations

18

Exam 4 (covers modules 14-16)