

ENVS 102L-501 Spring 2017 – The Blue Planet: Laboratory Session

Instructor: Dr. Kevin Hobbs **Email:** khobbs84@unm.edu **Office:** A-132A **Phone:** 925-8876

Office hours: Mondays 10:30 – 12:00; Wednesdays 1:00 – 3:30; Thursdays 2:45 – 3:45

Learning Center hours: Tuesdays 10:00 – 12:00

Class time and location: Tuesdays 3:00 – 5:00 in VAHS 108

Supplies needed: Notebook or binder with lined paper, pencils; some students prefer different colors of pens/pencils for note-taking and diagrams; magnifying glass/hand lens; clear plastic ruler

Schedule:

Week	Date	Laboratory Topic	Notes
1	Jan. 17	Making Observations; the Scientific Method	
2	Jan. 24	Atmospheric Composition	
3	Jan. 31	Observing the Weather	Will be outdoors
4	Feb. 7	Carbon Dioxide, pt. 1	Will be outdoors
5	Feb. 14	Carbon Dioxide, pt. 2	Will be outdoors
6	Feb. 21	Oceanography & Ocean Circulation	
7	Feb. 28	Topographic Maps	
8	Mar. 7	The rock cycle	
9	Mar. 14	No lab – UNM Spring Break	
10	Mar. 21	Rock types	
11	Mar. 28	Natural Hazards	
12	Apr. 4	Rivers	
13	Apr. 11	Field Trip 1: Whitfield Wildlife Conservation Area	During class time
14	Apr. 18	Earth History	Will be outdoors
15	Apr. 25	Field Trip 2: Rio Grande at Los Lunas or Belen	During class time
16	May 2	Soil – Plant relationships	Will be outdoors
17	May 9	TBD	

Course Goals:

1) *To introduce the principles and process of science using environmental study as an aide*

It behooves us to learn how to use the scientific method in our everyday thinking, and to learn how scientists use this method to assign levels of confidence to their findings.

2) *To present Earth system processes and products and the methods by which they are studied*

The Earth system consists of interactions between, in the broadest sense, the solid earth, water, the atmosphere and living organisms, where each interaction yields a product that forms part of a cycle. In addition we will investigate how we know what we know about the environment; how well we understand our environment; and what we are able to observe and measure. This will be accomplished through a series of laboratory activities, hands-on experiences and two fieldtrips.

3) *To give each student a better appreciation of the world around them, and how it affects their lives and the lives of others*

If nothing else I hope that you come away from this course with a closer connection to your environment: have a better understanding of the pros and cons of various energy resources, be knowledgeable about the weather, be aware of delicate balances within ecosystems and the benefits of biodiversity, and ultimately be able to make educated decisions on topical subjects such as climate change.

Student Learning Objectives (SLOs):

1. Students will be able to construct a hypothesis, propose a test, and then complete the test using quantitative and spatial data.
(Relates to UNM/HED Area 3, Competencies 1, 2)
2. Students will be able to make measurements and make calculations using those measurements that lead to graphical display and interpretation of data.
(Relates to UNM/HED Area 3, Competency 4)
3. Students will be able to analyze graphical data and use the graphs to make interpretations.
(Relates to UNM/HED Area 3, Competency 2)

Grading:

Your final grade will be based on grades you earn from laboratory write-ups and a field-trip report. Note that you need a C grade (73%) or better to get science credit for this class. Grading is as follows:

In-class laboratory write-ups: 13 – each is worth 7.7 percent 100 %

Note: There are 15 labs, but your lowest 2 lab scores are dropped.

Grades & Scores: A+ (>97%), A (93-96.9%), A- (90-92.9%), B+ (87-89.9%), B (83-86.9%), B- (80-82.9%), C+ (77-79.9%), C (73-76.9%), C- (70-72.9%), D+ (66-69.9%), D (63-65.9%), D- (60-62.9%) and F (<60%)

Attendance & Drop Policy:

Attendance is *necessary* for successful completion of the class. If you miss 2 of the first 3 classes of the semester, you will be dropped from the class. Beyond this time I will not drop you unless *you* request it.

Fieldtrips:

During the course of the semester there will be two short fieldtrips. You must attend at least one of the two fieldtrips, although you are welcome to attend both. You will need to sign up in advance for a particular fieldtrip.

The two fieldtrips are:

- 1) Whitfield Wildlife Conservation Area - <http://www.whitfieldwildlife.org/>
 - a. On this trip you will get to use some equipment for measuring the chemistry of natural waters. It will take place during regular class time on Thursday afternoon. If you are not signed up for this trip then you do not need to come to class that day.
- 2) Rio Grande in Los Lunas or Belen
 - a. On this trip you will conduct basic surveys of the physical and chemical properties of the Rio Grande, a river heavily altered by human use.

NOTE: I will allow you to use a second fieldtrip attendance **AND** report to count as a make-up lab.

A report rubric will handed out to those attending the fieldtrips.

Office Hours:

My office is room 132a in the Academics building. Please **do not be afraid** to come and talk to me about issues relating to this class. That is what my office hours are for. I will also be available via e-mail to answer your questions, but I cannot guarantee to be as fast as if we talked during office hours.

Access:

If you have a documented learning disability, please provide me with a copy of your letter from **Equal Access Services** as soon as possible to ensure that your accommodations are provided for in a timely manner.

Plagiarism/Cheating:

I encourage you to talk with one another about assignments before, and while, you do them, but all written (and submitted) work must be in your own words. Blatant copying (plagiarism) will result in a score of zero for all students involved. A second offense will result in you receiving an F for this course.

In addition I would draw your attention to the University of New Mexico's policy on "Dishonesty in Academic Matters":

"Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, including dismissal, against any student who is found responsible for academic dishonesty.

Academic responsibility includes, but is not limited to, dishonesty in quizzes, tests or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; and misrepresenting academic or professional qualifications within or outside the University".

In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered "responsible employees" by the Department of Education (see pg 15

- <http://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf>). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity (oeo.unm.edu). For more information on the campus policy regarding sexual misconduct, see: <https://policy.unm.edu/university-policies/2000/2740.html>