ENVS 102L-501: The Blue Planet Lab Spring 2016 Syllabus

This lab meets Thursdays from 2.15 pm – 4.15 pm in room H108

Instructor: Vyoma Ritchie
Email ID: vritchie@unm.edu
Office Hours: Tuesdays 2:00-3:00 pm in Academic Affairs Office, Room 113 Cubicle 17 or by Appointment
Textbook: None. You can bring your ENVS 101 textbook (Elemental Geosystems) with you.

Course Objectives: The main objective of the lab is to understand the environment through scientific inquiry. Each laboratory session is designed in a way that will help you make valuable observations and understand the different processes that occur within the earth systems.

Student Learning Objectives:

1. Students will learn to make measurements and use those measurements to make graphs and charts. Students will learn to analyze statistical data to draw scientific interpretations.
2. Students will gain a basic understanding of climate change and several environmental issues concerning us.
3. Students will become familiar with soil and water sampling techniques and scientific equipment used to test their properties.
4. Students will become familiar how to interpret their data.

Laboratory Exercise Write-ups: Write-ups for each laboratory session must be completed and handed in before the end of each lab (you will be notified if the policy changes for a specific lab assignment). The two lowest lab write-up scores will be dropped for your final grade.

Attendance: There is no final exam hence attendance is important. If you have more than two unexcused absences please come see me. Missing more than three labs may result in a failing grade for the class. We will also have three short field trips during the semester. You are required to attend at least one of the field trips**. You are welcome to attend all three of them.**

Grading: In-class laboratory write-ups: 13 each is worth 8%	104 %
Minus your lowest 2 laboratory write-up scores	*-16 %*
Fieldtrip Attendance & Report: Only need to attend one	10 %
Lab Safety, Proper disposal of chemicals/equipment and Tidiness	2%
Total available points	100 %

Field Trips: You will need to sign up in advance for a particular fieldtrip. These will be a great way to get out of the classroom and see how the principles you studied in class are applied in real life to solve environmental issues!The three field trips are:

1. Southside Water Reclamation Plant: On this trip, you will be given a 2-hour tour of the ABCUWA wastewater treatment plant in Albuquerque's South Valley (Feb 19, 1-3 pm).

2. Whitfield Wildlife Conservation Area: We will describe soils in the field and collect water samples for chemical analysis. It will take place during regular class time on Thursday afternoon (April 14).
3. Mesa Garden Field Trip: We will take a trip of their greenhouse and look at the various plants of the desert ecosystem. It will take place during regular class time on Thursday afternoon (April 28).

The purpose of the field trips is to teach you important note-taking skills, observe and record data accurately. A report rubric will be handed out to you during the field trips.

Access: If you have a documented learning disability, please get in touch with me immediately.

Plagiarism/Cheating: You might be working in groups during a lab session to collect data. You are encouraged to discuss assignments/data with your fellow classmates but the lab write ups/reports should be in your own words. Blatant copying (plagiarism) will result in a score of zero for all students involved.

Schedule*

WEEK	Date	Lab no.	Laboratory session
1	Jan 21	1	Density Determinations
2	Jan 28	2	Seasons
3	Feb 4	3	Atmospheric Structure & Investigating Ozone
4	Feb 11	4	A local weather study
5	Feb 18	5	Carbon Dioxide
6	Feb 25	6	Climate Change-1
7	Mar 3	Lab 6 contd.	Climate Change-2
8	Mar 10	7	A superfund study
Spring Break (No Lab)			
9	Mar 24	8	Earth's Crust and Minerals
10	Mar 31	9	Calculating water budget
11	Apr 7	10	Describing Soils
12	Apr 14	11	Soil moisture and Water Sampling I (Field Trip)
13	Apr 21	Lab 11 contd.	Soil & Water Analysis II (in lab)
14	Apr 28	12	Field Trip (Mesa Gardens)
15	May 5	13	Plant identification around campus
16	May 12	NO LAB (FINALS WEEK)	

* I reserve the right to change the schedule as required. The field trip schedule is tentative and it may change due to weather or availability of the facility.