

ENVS 101-501: The Blue Planet Spring 2016 Syllabus

This class meets Tuesdays and Thursdays from 12:00 pm – 1:15 pm in room C103

Instructor: Vyoma Ritchie

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Office Hours: Tuesdays 2:00-3:00 pm in Academic Affairs Office, Room 113 Cubicle 17 or by Appointment.

Textbook: Elemental Geosystems 8th Edition by Robert Christopherson and Ginger Birkeland.

Course Description: What surrounds us shapes us!

It is important to have a clear understanding of the environment that surrounds us. After all, we are only a minuscule part of the whole universe! You will develop a basic understanding of the Earth Systems and its four main components: The atmosphere, hydrosphere, lithosphere and biosphere.

Student Learning Objectives (SLOs):

- Students will be able to describe the atmospheric, hydrologic, geologic, and biologic processes involved in formation of significant resources (fossil fuels, metals, soils, water, and stratospheric ozone).
- Students will be able to understand natural cycles (rock cycle, hydrologic cycle, carbon cycle) and evaluate how natural and anthropogenic processes and activities can shape our landscape.
- Students will be able to describe the necessary constituent parts of an ecosystem and hypothesize how interactions between these parts will regulate population sizes of individual species.

Attendance: Please make sure you attend classes on a regular basis. The tests, quizzes and homework assignments will cover topics from textbook and lectures. Therefore, I strongly encourage you to be present in order to succeed in this class. Poor attendance are grounds for you being dropped. If you have more than two unexcused absences, you need to come see me.

Readings: Suggested reading from the textbook is given on Page 3. I will post additional readings, scientific papers that I feel are important to cover the length, and breadth of this class on blackboard learn. We will discuss them in class.

Assignments, Tests and Quiz: There will be 4 homework assignments throughout the semester. Each Assignment will carry 5% of your final grade. They will be posted on blackboard learn and you can print them and submit them in class to me on the due date.

You will have 4 tests and each will carry 20% of your final grade. The tests will cover materials since the previous test. I will always post a review before every test on blackboard learn.

You will have a weekly quiz in class. The quizzes begin Jan 26th and you will be quizzed on material covered during the previous week. Each quiz will carry 2% of your grade.

Grading: Your final grade will be calculated as follows;

Homework assignments (4 each worth 5%)	= 20 %
Tests (4 each worth 20 %)	= 80 %
Minus your lowest test score	= -20%
In Class Quizzes (11 each X 2%)	= 22%
Minus your lowest Quiz	= -2%
Total	100%

A+ (>96%), A (92-95.9%), A- (88-91.9%), B+ (85-87.9%), B (82-84.9%), B- (78-81.9%), C+ (75-77.9%), C (72-74.9%), C- (68-71.9%), D+ (65-67.9%), D (62-64.9%), D- (60-61.9%) and F (0-59.9%)

Note that you need a C grade (72%) or better to get science credit for this class.

Plagiarism and Cheating:

Students are encouraged to discuss with each other about topics covered in the class, but all submitted work must be your individual work. In addition, you must reference your source if you use information from the textbook, internet, etc. Simply copying (plagiarism) will result in a score of zero for all students involved. I would like to 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".

Electronic Devices: Please be respectful to your instructor and your fellow classmates. I do not expect you to switch off your electronic devices, but I will require all your cell phones and other electronic devices to be in vibrate/silent mode. Absolutely no texting is allowed during lecture/tests.

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

Schedule*

Week	Date	Lecture Topic	Text book readings	In class Quiz	Home work
1	Jan 19	Course outline and Intro to Elemental Systems	-	-	
	Jan 21	Introduction to Atmosphere: Structure, composition and ozone	<i>Chap. 2</i> (36-42, 48-55) <i>Chap. 3</i> (71-79)	-	
2	Jan 26	Seasons and Global Temperatures	<i>Chap. 2</i> (42-45) <i>Chap. 3</i> (86-98)	# 1	
	Jan 28	Weather: causes and effects, El Nino	<i>Chap. 4</i> (106-114, 132-134) <i>Chap. 5</i> (144-161)	-	HW #1
3	Feb 2	Earth's Climatic Regions	<i>Chap. 7</i> (218-230, 237-239)	# 2	
	Feb 4	Earth's Climate History and Global warming	<i>Chap. 7</i> (240-262), <i>Chap. 3</i> (98-100)	-	
4	Feb 9	Review	-	# 3	HW#1 due
	Feb 11	TEST I (everything so far)		-	
5	Feb 16	Climate Change	<i>Chap. 8</i> (262-275)	-	
	Feb 18	The Hydrologic cycle: Surface Water	<i>Chap. 6</i> (186-199), <i>Chap. 12</i> (374-391)	-	
6	Feb 23	Groundwater Concepts	<i>Chap. 6</i> (199-211)	# 4	
	Feb 25	Ground water Contamination	<i>Chap. 6</i> (203-211)	-	HW #2
7	Mar 1	Rivers, Dams and Eutrophication	<i>Chap. 12</i> (381-399)	# 5	
	Mar 3	Coastal Systems	<i>Chap. 13</i> (405-427)	-	
8	Mar 8	Review		# 6	HW#2 due
	Mar 10	TEST II (covers everything since Test 1)	-	-	

9	Mar 14-18	SPRING BREAK	-	-	
10	Mar 22	Earth's Crust and origin	Chap. 9 (282-294)	-	
	Mar 24	Minerals and Ores	External Reading	-	
11	Mar 29	Plate tectonics and Earthquakes	Chap. 9 (294-302), Chap. 10 (328-334)	# 7	
	Mar 31	Volcanism	Chap. 10 (335-342)	-	HW# 3
12	April 5	Weathering and Landforms	Chap. 11 (346-360)	# 8	
	April 7	Glacial Landscapes	Chap. 14 (440-460)	-	
13	April 12	Review	-	#9	HW#3 due
	April 14	TEST III (covers everything since Test II)	-	-	
14	April 19	Introduction to Soils	Scientific Paper	-	
	April 21	Soil Development and Soil Profiles	Chap. 15 (474-485)	-	
15	April 26	Populations and Ecosystems part 1	Chap. 16 (504-518)	#10	HW #4
	April 28	Populations and Ecosystems part 2	Chap. 16 (521-524)	-	
16	May 5	Terrestrial Biomes	Chap. 17 (537-552)	-	
	May 7	Review		# 11	HW#4 due
17	May 10	TEST IV (Covers everything since Test III)	None		

***I reserve the right to make changes to the schedule as required.**