Syllabus for Environmental Science 12

Course Information

Semester & Year: Fall 2021
Course ID & Section #: ENVSC 12 (E2220), Course units: 3.0
Instructor's name: Lisa Pedicino
Day/Time/Location: TuTh 10:05-11:40 AM, Hum 110

Instructor Contact Information

Office Hour: By Appt.
Email address: Lisa-pedicino@redwoods.edu
Textbook: (Suggested): Environmental Science and Sustainability, Montgomery, ISBN: 978-0393422108

Catalog Description

A planet-scale examination of the Earth's atmosphere and climate. This course will include an in-depth look at the factors controlling climate, its changes over time, and the timeline of global climatic changes. This course is an interdisciplinary introduction to the Earth's climatic systems and interactions

Course Student Learning Outcomes *(from course outline of record)*

1. **Provide examples of positive and negative feedback mechanisms that relate to natural systems.**
2. **Critically analyze climate change on the Earth.**
3. **Present both the pros and cons of a particular climatic interpretation, reflecting the complexity of the application of the scientific method to natural systems.**
4. **Examine the human-induced variations on Earth's natural systems in the context of a well-organized and scientifically valid discussion of a climate-related issue.**

Grading

67%- Summaries (11)-100 pts each, **18%- Paper**, 300 pts, **6%-Current Events (2)**-50 pts each, **8%-Participation,** 150 pts

A (>93.3%), A- (90-93.3%), B+ (86.7-89.9%), B (83.3-86.6%), B- (80-83.2%), C+ (76.7-79.9%), C (70-76.6%), D (55-69.9%), F (<55%)

Accessibility

College of the Redwoods is committed to making reasonable accommodations for qualified students with disabilities. If you have a disability or believe you might benefit from disability-related services and accommodations, please contact your instructor or Disability Services and Programs for Students (DSPS). Students may make requests for alternative media by contacting DSPS based on their campus location:

- Eureka: 707-476-4280, student services building, 1st floor
- Del Norte: 707-465-2324, main building near library
- Klamath-Trinity: 530-625-4821 Ext 103

If you are taking online classes DSPS will email approved accommodations for distance education classes to your instructor. In the case of face-to-face instruction, please present your written accommodation request to your instructor at least one week before the needed accommodation so that necessary arrangements can be made. Last minute arrangements or post-test adjustments usually cannot be accommodated.

Schedule/Outline

Tuesday, August 24, Class begins

Thursday, November 11, **No class**, Holiday

Monday, November 15, **Research Paper Due**

Monday-Friday, November 22-26, **No class**, Thanksgiving Break

	Unit	Topic
Week 1	1 and 2	Syllabus, Geology and soil degradation
Week 2	2	Geology continued
Week 3	3	Earth's atmosphere and air pollution
Week 4	3	Earth's atmosphere continued, **Current Event Due**
Week 5	4	Water and water pollution
Week 6	5	Life and extinction events
Week 7	6	Biogeochemical cycles
Week 8	7	Human population and resource use
Week 9	8	Non-renewable and alternative energy sources
Week 10	9	Reconstructing past climates
Week 11	9	Reconstructing past climates continued
Week 12	10	**Research Paper Due**,
		Orbital parameters and glacial/interglacial cycles
Week 13	10	Orbital parameters and glacial/interglacial cycles
Week 14		**Thanksgiving Break**
Week 15	11	Global climate change
Week 16	12	Global, national, and local Solutions

Research Paper Requirements

Topic: Of your choosing related to the class material. Please note: All topics should be related to climate change and do not need to be cleared with the instructor.

Length: 4-6 typed pages, excluding figures and list of references.

Sources: Minimum three (3) sources other than encyclopedias and textbook.

Required: Paper, References (in-text citations), Reference List (bibliography).

Due Date: Monday, November 15, 2021.

Late Penalty: One grade lower every two days late.

Note: **Bibliography** should be a list of all sources you have consulted with full information given about each. Normally this includes title, author, publisher, page numbers, year, etc. Internet sites should be listed with their site address (i.e. http:/www.....). To simplify, you might list each site as site 1, site 2, etc., and then reference them in that way in the text of your paper.

You should directly **reference** any idea, fact, or quotation that is not your own or common knowledge (i.e. 'the Earth is round' does not need a reference). You are free to use any reference style you would like (MLA, APA). The simplest style includes the author's name or title and the page number or the website (site 1, site 2, etc) following the referenced fact, quote, or idea in parentheses.

An example: The meteoritic impact in the Yucatan peninsula is believed to have led to the extinction of the dinosaurs. (Kring, 1993) or (site 1)

Chapter readings

Week 1- Geology (Land)

Chapter 1: Intro, 1.1, 1.2, 1.3, 1.4

Chapter 9: Intro, 9.1, 9.2, 9.3, 9.5, 9.6, 9.7

Week 2- Geology continued

Chapter 9: Intro, 9.1, 9.2, 9.3, 9.5, 9.6, 9.7

Week 3 and 4- Earth's atmosphere

Chapter 8: Intro, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7

Week 5- Water

Chapter 7: Intro, 7.1, 7.2, 7.3, 7.6, 7.7, 7.8

Week 6- Life

Chapter 3: 3.4, 3.5

Chapter 4: Intro, 4.1, 4.7

Chapter 5: 5.6

Week 7- Biogeochemical cycles

Chapter 10: Intro, 10.3, 10.4, 10.5

Week 8- Human population

Chapter 6: Intro, 6.1, 6.2, 6.4, 6.5, 6.6

Week 9- Non-renewable and alternative energy sources

Chapter 13: Intro, 13.1, 13.2, 13.4, 13.5

Chapter 14: Intro, 14.1, 14.2

Week 10 and 11- Reconstructing past climates

No chapter readings, refer to class lectures and notes

Week 12 and 13- Orbital Parameters, glacial and interglacial cycles

No chapter readings, refer to class lectures and notes

Week 14- Thanksgiving Break

Week 15- Global climate change

Chapter 11: Intro, 11.1, 11.2, 11.3, 11.4, 11.5

Week 16- Global, national, and local solutions

Chapter 20: 20.7