

Environmental Geology - 460:202: 92

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Learning Goals: Students taking this course should develop an appreciation of critical thinking and the scientific method, including hypothesis testing. Students should recognize the importance of Earth Sciences in understanding of the physical, social, and economic resources and history of our planet. One example: we would expect that any student successfully completing our courses should be able to critically evaluate scientific issues in Earth systems discussed in the popular press.

This course satisfies SAS Core Curriculum Goals:

II A: Areas of Inquiry - Natural Sciences – *STUDENTS WILL BE ABLE TO:*

- e. Understand and apply basic principles and concepts in the physical or biological sciences.
- f. Explain and be able to assess the relationship among assumptions, method, evidence, arguments, and theory in scientific analysis.
- g. Identify and critically assess ethical and societal issues in science.

<u>Week - Date</u>	<u>Topic</u>	<u>Chapter</u>
1 - September 1	Geology and Environment	1
	Earth Systems	2
2 - September 7	Plate Tectonics; Discussion	3
	Geosphere Materials	4
3 - September 14	Earthquakes; Assignment	5
4 - September 21	More Earthquakes and Tsunamis	5
5 - September 28	Exam 1	
6 - October 5	Volcanoes; Assignment	6
7 - October 12	Mineral Resources	12
	Unstable Land	8
8 - October 19	Rivers and Flooding; Assignment	7

9 - October 26	Water Resources	10
	Water Quality; Assignment	10
10 - November 2	Exam 2 - available April 1-2	
11 - November 9	Climate and Greenhouse Effect; Assignment	14
	Climate Change	14
12 - November 16	Coasts and Hurricanes; Assignment	9
	Impacts of Sea-Level Rise on New Jersey Coastline	
13 - November 23	Energy Resources 1; Discussion	13
14 - November 30	Energy Resources 1; Discussion	13
15- December 7	Energy Resources 2	

Exam 3 - will be available during finals period on December 15-17

Book: Living With Earth: An Introduction to Environmental Geology (Travis Hudson)

Grades will be based on 3 exams, 6 assignments, and 2 discussions. Exams are not cumulative.

Final Grade: 26% Exam 1; 26% Exam 2; 26% Exam 3; 4% Discussions; 18% Assignments

Grades will be assigned using the following:

A = 90-100%; B+ = 85-89.99; B = 80-84.99; C = 75-79.99; C = 65-74.99; D = 60-64.99.4; F = <60

Discussion and **Assignment** Due Dates:

- 1) Plate Tectonics Discussion: September 20
- 2) Earthquake Assignment: September 20
- 3) Volcano Assignment: October 11
- 4) Rivers and Flooding Assignment: October 25
- 5) Water Quality Assignment:
 - a) Water-Table Map: November 1
 - b) Water Quality Exam: November 8
- 6) Climate and Greenhouse Effect (Carbon Budget) Assignment: November 15
- 7) Coastal Hazards Assignment: November 22
- 8) Climate Change/U.S. Energy Discussion: December 6

Student Resources Available at Rutgers

Student Wellness Services

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

<http://codu.co/cee05e>

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901

<http://health.rutgers.edu/medical-counseling-services/counseling/>

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offer a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901

www.vpva.rutgers.edu/

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854

<https://ods.rutgers.edu/>

The Office of Disability Services works with students with a documented disability to determine the eligibility of reasonable accommodations, facilitates and coordinates those accommodations when applicable, and lastly engages with the Rutgers community at large to provide and connect students to appropriate resources.

Diversity Resources

Center for Social Justice Education and LGBT Communities:

17 Bartlett Street, College Avenue Campus, New Brunswick, NJ 08901

Phone: [848-445-4141](tel:848-445-4141)

<http://socialjustice.rutgers.edu/resources/>

Division of Diversity, Inclusion, and Community Engagement

106 Somerset Street, 7th Floor, New Brunswick, NJ 08901

Phone: 848-932-4400

<https://diversity.rutgers.edu/>

Bias and Crisis Support

<https://diversity.rutgers.edu/resources/bias-and-crisis-support>

Student Mentoring:

<https://diversity.rutgers.edu/node/173>

Scarlet Listeners

(732) 247-5555

<https://rutgers.campuslabs.com/engage/organization/scarletlisteners>

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.

Report a Concern: <http://health.rutgers.edu/do-something-to-help/>