

## Environmental Geology (GLY 3031C) Spring 2008

Lecture: Monday, Wednesday, and Friday in 13/221, 8:00-8:50 a.m.

Laboratory: Monday in 13/214, 9:00-11:55 a.m.

*This course will explore the interaction between the physical earth and humans, as both individuals and populations. We will investigate the science and policies of geologic issues, including the availability and contamination of natural resources, as well as the geologic issues that form the foundation of environmental science. Students will review online and print resources to explore both scientific research and current issues in the field of environmental geology.*

Professor	Office Hours
Dr. Matthew Schwartz	Monday: 12:00-1:00
Bldg 13/219	Tuesday and Thursday: 8:00-9:30
office phone: 474-3469	Wednesday and Friday: 9:00-10:00
e-mail: mschwartz@uwf.edu	and <b>by appointment</b>

Prerequisites: Physical Geology and lab (GLY 2010/L)

*or*

Physical Geography (GEO 1200)

Laboratory Corequisite: Environmental Geology lab (GLY3031C)

Teaching assistants (TA): Jonathan Stewart (jas76@students.uwf.edu)  
and Colin Alexander (cta1@students.uwf.edu)

Assignments: All assignments are due in class, in the corresponding eLearning dropbox, or in the professor's e-mailbox by 8:00 a.m. on the due date. Late assignments will be penalized at a rate of 1 grade per day, beginning at 8:01 on the due date (e.g., the maximum attainable grade for a paper either submitted via e-mail at 8:15 a.m. or brought into class late on the due date will be a B, rather than an A). **All written assignments will be subject to a plagiarism review via the Turnitin software package.**

Attendance Policy: Lectures and laboratories will begin promptly at the scheduled meeting time. Students are expected to attend all scheduled class meetings, as lectures will provide important information that cannot be gained from other sources. The responsibility rests solely on the student to obtain any and all material presented during a missed period. **NOTE**: If a student misses a scheduled laboratory section, alternative arrangements (i.e., extra lab meetings) may not be available.

eLearning material: Course material (including course notes, supplemental readings, and web links) may be supplied online via the eLearning service (<http://elearning.uwf.edu>).

Student Evaluation: A course grade will be assigned based on student performance in laboratories, exams, homework, and presentations (written and oral) as follows:

Course Component		Grading Scale (per UWF Catalog 2005-6)		
Laboratory assignments and exams	25%	A	4.0	94-100%
Written report and oral presentation(s)	10%	A-	3.7	90-93%
First exam	10%	B+	3.3	87-89%
Second exam	15%	B	3.0	83-86%
Third exam	15%	B-	2.7	80-82%
Final exam (28 April, 8:00-10:30)	25%	C+	2.3	77-79%
		C	2.0	73-76%
		C-	1.7	70-72%
		D+	1.3	67-69%
		D	1.0	60-66%
		F	0.0	0-59%

Textbook (required): *Environmental Geology*, seventh edition (Carla Montgomery). The text is available in the UWF campus bookstore and from various online distributors. Used copies are acceptable and *encouraged*. Supplemental readings from other sources may be assigned during the term.

#### ADMINISTRATIVE INFORMATION

Academic conduct: Expectations for academic conduct and classroom behavior are described on pages 46-7 in the UWF Student Life handbook available online at <http://www.uwf.edu/uwfmain/stuHandbk/>

Plagiarism Policy: Plagiarism is a serious offense and will not be tolerated under any circumstances. The course plagiarism policy will follow UWF and College of Arts and Sciences policies as described in <http://uwf.edu/cas/aasr/Plagiarism.pdf>. All written assignments will be subject to a plagiarism review via the Turnitin software package.

Special technology utilized by students: medium (personal computer, spreadsheet programs, calculator, maps, and similar).

Student Learning Outcomes: After successfully completing this course, students will be able to describe the interactions between Earth's geology and its associated human populations, including the geologic controls on climate. Students will employ basic geologic knowledge to better understand Earth processes (e.g., earthquakes) and natural hazards (e.g., flooding) as well as economic issues (e.g., mining).

Students with Special Needs: The University's policies for students with special needs is described in the UWF Disabled Student Services publication available at [http://uwf.edu/sdrc/dss\\_pub.pdf](http://uwf.edu/sdrc/dss_pub.pdf)

Tentative Course Schedule: Please note that the following schedule is *tentative*; the instructor may add or delete material to meet the course objectives and student interest. All changes to this tentative plan will be recorded in an updated and amended syllabus that will be supplied to all students in class, via e-mail, or on the course website.

Date	Day	Topic	Chapter
7 January	M	Course introduction; Human population growth <b>Geology review: Rocks and minerals</b>	1, 2
9 January	W	<b>Geology review: Rocks and minerals</b>	2
11 January	F	<b>Geology review: Rocks and minerals; Rock cycle</b>	2
14 January	M	<b>Geology review: Geologic time</b> Chemical and physical differentiation of Earth	App. A, 3
16 January	W	<b>Geology review: Chemical and physical differentiation of Earth;</b>	3
18 January	F	<b>Geology review: Plate tectonics and plate boundaries; Earthquakes</b>	3, 4
21 January	M	<i>MLK Day Holiday (no class)</i>	
23 January	W	Earthquakes; case studies; Seismic waves and faults; Earthquake hazards and risk mitigation	4
25 January	F	Earthquake hazards and risk mitigation	4
29 January	M	Volcanoes: case studies and magma generation	5
31 January	W	Volcanoes: case studies and magma generation; Volcano hazards	5
1 February	F	Volcano hazards and risk mitigation	5
4 February	M	Streamflow and flooding	6
6 February	W	Flood hazards and risk mitigation	6
8 February	F	<b>EXAM 1</b>	1-6, App. A
11 February	M	Coastal zone issues;	7
13 February	W	Coastal zone issues; migration and erosion	7
15 February	F	Coastal environments, risks, and hazards	7
18 February	M	Mass movements; case studies and definitions	8
20 February	W	Mass movements; case studies and definitions	8
22 February	F	Geology and climate change: controls and effects	9
25 February	M	Geology and climate change: controls and effects	9
27 February	W	Desertification; Climate change processes and the path forward	9
29 February	F	Water resources	10
3 March	M	<b>TBA (ASLO meeting)</b>	
5 March	W	<b>TBA (ASLO meeting)</b>	
7 March	F	<b>TBA (ASLO meeting)</b>	
10 March	M	Soil resources	11
12 March	W	Mineral resources and economic minerals	12
14 March	F	<b>EXAM 2</b>	7-12

Tentative Course Schedule (cont.)

17 March	M	<i>Spring Vacation (no class)</i>	
19 March	W	<i>Spring Vacation (no class)</i>	
21 March	F	<i>Spring Vacation (no class)</i>	
24 March	M	Fossil fuels: origin and location	13
26 March	W	Fossil fuels: origin and location	13
28 March	F	Fossil fuels: resources vs. reserves	13
31 March	M	Alternative energy resources: geologic implications	14
2 April	W	Alternative energy resources: geologic implications	14
4 April	F	Waste disposal	15
7 April	M	Water pollution	16
9 April	W	Air quality and pollution	17
11 April	F	Geology and the legal system: US and international	18
14 April	M	Land-use planning: urban and regional planning	19
16 April	W	Engineering geology	19
18 April	F	<b>EXAM 3</b>	13-19
21 April	M	<i>Dead week: TBA</i>	TBA
23 April	W	<i>Dead week: TBA</i>	TBA
25 April	F	<i>Dead week: TBA</i>	TBA
28 April	M	<b>Final Exam (8:00-10:30)</b>	all

NOTE: The schedule listed above is tentative and lecture topics are schedule to change at the instructor's discretion.