

Marshall University
GLY 100-101: Geologic Hazards & Resources – Fall 2017
Syllabus

Course Title/Number	GLY 100-101
Pre-requisites	None
Co-requisites	For Core II Science: GLY 210L
Semester/Year	Fall 2017
Days/Time	MWF, 10:00-10:50am
Location	COS 276
Instructor	Bill Niemann
Office	S171
Phone	304-696-6721
E-Mail	niemann@marshall.edu
Web	Blackboard through MUOnLine
Office Hours	MWF: 9:30-9:50am (before class) MWF: 11:00-11:30am (after class) MR: 2:00-2:50pm TR: 11:00am-12:00pm Or by appointment
University Policies	<p>By enrolling in this course, you agree to Marshall University Policies. These include: Academic Dishonesty/Excused Absence Policy for Undergraduates/Computing Services Acceptable Use/Inclement Weather/Dead Week/Students with Disabilities/Academic Forgiveness/Academic Probation and Suspension/Academic Rights and Responsibilities of Students/Affirmative Action/Sexual Harassment. You can access and read these the policies at Marshall Academic Policies</p>

Course Description

<p>Introductory course for non-science majors focusing on:</p> <ol style="list-style-type: none">1. Geologic Hazards: causes, and mitigation,2. Earth and Energy resources, their origin, development, and environmental impacts; and3. Climate change and its impacts.

Student Outcomes: Statements, Practice and Assessment

Course student learning outcomes	How students will practice each outcome in this course	How student achievement of each outcome will be assessed in this course
Understand causes of natural hazards, disasters and catastrophes; link human activity to hazard location/frequency. Define and discuss risk posed by geohazards and how science is a tool to evaluate, manage and mitigate these risks.	In-class Assignments Student-led Learning	Exams On-Line quizzes In-class Assignments Student-led Learning
Learn composition and structure of the Earth, various Earth processes and phenomena, basic terms.	In-class Assignments Student-led Learning	Exams On-Line quizzes In-class Assignments Student-led Learning
Understand Tectonic processes and relations to hazards and resources.	In-class Assignments Student-led Learning	Exams On-Line quizzes In-class Assignments Student-led Learning
Learn about the various mineral and energy resources: Origin, and environmental impact of extraction/ utilization.	In-class Assignments Student-led Learning	Exams On-Line quizzes In-class Assignments Student-led Learning

Student Outcomes: Statements, Practice and Assessment (cont.)

Course student learning outcomes	How students will practice each outcome in this course	How student achievement of each outcome will be assessed in this course
Become familiar with a number of classic natural geohazards: earthquakes, volcanoes, landslides, flooding, etc. Be able to relate their geologic origins to earth's structure and processes.	In-class Assignments Student-led Learning	Exams On-Line quizzes In-class Assignments Student-led Learning
Become familiar with geohazards created by human activity, including waste disposal and mineral and energy extraction	In-class Assignments Student-led Learning	Exams On-Line quizzes In-class Assignments Student-led Learning

Required Texts, Additional Reading, and Other Materials

<ol style="list-style-type: none">1. <u>Natural Hazards: Earth's Processes as Hazards, Disasters and Catastrophes</u>, Keller & DeVecchio, 4th edition ISBN 978-0-321-93966-8; and2. Supplemental readings (provided by instructor), on-line lectures and videos, as assigned.
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Course Requirements / Due Dates

1. Exams (60% of course grade)

All exams (3) will consist of 40-50 multiple-choice questions with a 50-minute time limit.

Exams 1 and 2 will be given during regular class time on the dates indicated on the official class schedule

Exam 3 will be given during finals week on Monday, December 11th, at 10:15am.

Make-ups for Exams 1 and 2 will be given at 2:30 pm on Friday, December 8th. There will be no makeup exams without an official excused absence from the Dean of Student Affairs.

2. On-line quizzes (25% of course grade)

On-line quizzes (Blackboard) will be due each week (generally on Monday evenings), except during exam weeks.

Due dates will be announced at least five days in advance.

Quizzes may be submitted up to 7 days after the due date but will be penalized at the rate 10% per day.

3. In-class assignments (15% of course grade)

These in-class assignments (ICA's) are designed to produce a "flipped" classroom where students are responsible for what happens during significant portions of many class periods.

ICA's will be based on out-of-class readings from the textbook, on-line lectures or videos, as well as material discussed previously in class.

- a. Assignments designed by instructor (7.5% of course grade), sometimes graded, and generally given on Mondays.
- b. Assignments designed by students (7.5% of course grade), sometimes graded, and generally given on Fridays.

ICA's generally will be announced at least two class periods in advance.

Weighting of Exams and Quizzes

Students with three or less unexcused absences (see attendance policy below) will be rewarded by having their lowest exam score dropped from grade calculations. For these students the two higher exams will each be worth 30% of the final grade. For students with more than three unexcused absences, each of the three exams will count as 20% of the final grade ($3 \times 20\% = 60\%$).

Students with five or less unexcused absences (see attendance policy below) will be rewarded by having their lowest non-zero quiz grade dropped from grade calculations.
(A zero quiz grade will not be dropped).

Extra Credit

Students may earn extra credit in four ways:

1. Attend class regularly (see previous box on *Weighting of Exams and Quizzes*).
2. Visit the instructor during office hours at least once during the first 4 weeks of the semester (adds 1% to grade total).
3. Correctly re-do missed questions from on-line quizzes (50% of point value for each question added to the respective quizzes).
4. Complete the on-line course evaluations at the close of the semester. If 70% of students complete the evaluations all students will earn extra credit (adds 1% to grade total).
5. Score 90% or better on the exit exam during finals week (given the same day as the 3rd exam). (adds 1% to grade total. Scores in the range 51-89% will earn a pro-rated portion of the 1% extra credit).

Grading Scale

Only numerical and not letter grades will be given for individual assignments or exams.

Final course letter grades will be assigned using a standard grading scale:

A \geq 90%, B = 80-89%, C = 70-79%, D = 60-69%, F \leq 60%

One or more of these thresholds may be adjusted downward slightly --never upward--for all students depending on overall class performance (e.g., A \geq 89%).

Attendance Policy

A daily record of attendance will be kept by circulating a sign-in list at the beginning of each class. ***It is the responsibility of each student to sign the list, and if late to sign the list or notify the instructor at the end of the lecture.*** Failure to do so may result in an official absence for that lecture. Arriving late or leaving lecture early may reduce or void credit for attendance for that day.

The only absences considered excused for this class or those approved by the Dean of Student Affairs. These include “University Excused Absences” such as serious medical or legal reasons, military obligation, or university activities excused by the academic deans. See Marshall’s policy on “Excused Absences” at www.marshall.edu/academic-affairs/policies/. **Note that a student who is briefly ill or injured for three or less consecutive hours of class is not excused from attending this class.**

Notice of an excused absence must be received by the instructor directly from the office of the Dean of Student Affairs located on the second floor of the Memorial Student Center (2W38), 304-696-6423. Requests for excused absences can be submitted remotely using the form available at <http://www.marshall.edu/student-affairs/excused-absence-form/>

In the case of an excused absence, any material missed can be completed, without penalty, by a later date assigned by the instructor. Failure by the student to complete the material by the assigned date will result in a zero for the assignment in question. The instructor may instead opt to assign a “no-grade,” without penalty to the student, for missed material as a result of the absence. There will be no makeup exams without an official excused absence from the Dean of Student Affairs.

Note that extreme weather could result in closure of the university and cancellation of class or a delay in the start of class. A two-hour delay means that classes starting at 10 am begin at their regular time. (If the weather looks bad, check your e-mail and listen for announcements on local radio and TV. See Marshall’s policy on “Inclement Weather” at www.marshall.edu/academic-affairs/policies/.)

GLY 100-101 – Fall 2017 -- Course Schedule

<u>Week</u>	<u>Dates</u>	<u>Topic</u>	<u>General Reading</u>
1	August 21/23/25	Introduction to Geohazards	Syllabus Chapter 1
2	August 28/30 September 1	Basic Concepts in Geology Earth's Structure	Chapter 1
3	September 4 (Labor Day) September 6/8	Plate Tectonics	Chapter 2
4	September 11/13/15	Plate Tectonics Earthquakes & Tsunamis	Chapter 2 (cont.) Chapter 3/4
5	September 18/20/22	Earthquakes & Tsunamis	Chapter 3/4 (cont.)
6	September 25/27/29	Catch-up & Review EXAM 1 -----	Chapters 1-4
7	October 2/4/6	Volcanoes	Chapter 5
8	October 9/11/13	Flooding	Chapter 6
9	October 16/18/20	Mass Wasting	Chapter 7
10	October 23/25/27*	Catch-up & Review EXAM 2 -----	Chapters 5-7

11	October 30 November 1/3	Geologic Resources	To be announced
12	November 6/8/10	Waste Management Contamination of the Environment	To be announced
13	November 13/15/17	Climate & Climate Change	Chapter 12 (begin)
X	November 20-24	THANKSGIVING BREAK	Wear orange!
14	November 27/29 December 1	Climate & Climate Change	Chapter 12 (finish)
15	December 4/6/8	Catch-up & Review	Chapter 14
FINAL EXAMS WEEK	Monday, December 11 10:15 am – 12:15 pm	Exam 3	

*October 27th is last day to drop a full semester individual course

Useful Websites: **Information about Careers in Geology/Geoscience**

www.aqiweb.org www.usgs.gov www.geosociety.org