

Instructor:

Dr. John H. Whitmore, Associate Professor of Geology, at Cedarville since 1991
B.S. Geology, Kent State University, 1985
M.S. Geology, Institute for Creation Research, 1991
Ph.D., Biology with Paleontology emphasis, Loma Linda University, 2003

Class Schedule:

Lecture and Lab: Tuesday 6:00-10:15 PM, ENS 240 & 248

Home:

81 S. Main St.
Cedarville, OH 45314
Home Phone: 937-766-5619
Cell Phone: 937-532-6471

Office:

ENS 225A (walk through 225)
Office Phone: 937-766-7947
email: johnwhitmore@cedarville.edu
Office hours: check schedule on last page of syllabus.

Course Description: GEOL 3100 Geomorphology (4 hrs) Fall. The student will study the formation, development and denudation of the earth's surface features as a function of rates, processes and time. Landform analysis will be completed with topographic maps, aerial photographs, and stereo photographs. Prerequisites: GEOL 1110 and 1120. Three weekly lectures and one weekly lab experience.

Required Texts:

- Geomorphology 3rd ed., A.L. Bloom, 1998 (reissued 2004), Waveland Press
- Geologic Maps 2nd ed., E.W. Spencer, 2000 (reissued 2006), Waveland Press
- Principles of Geomorphology 2nd ed., W.D. Thornbury, 1969, John Wiley & Sons, Inc.
- Various assigned readings

Attendance: Attendance is expected at all lecture and laboratory sessions. **PLEASE BE ON TIME TO CLASS.**

Some Course Goals (Objectives): Students will gain an in-depth understanding of various processes that created the physical landscape and learn about the landforms that resulted from these processes. They will learn the technical skills required for the study of geomorphology. These include skills like reading and interpreting topographic maps, geologic maps, and air photos and becoming proficient with basic geologic tools like the Brunton compass. Development of these skills will encourage and develop the critical thinking necessary for successful geological interpretations of landforms from the perspective of various paradigms. Objectives will be assessed through exams, laboratory exercises, performance on field trip assignments, and writing assignments.

Do you have a disability? If you believe you may need support in managing the impact of a disability, please contact Marilyn Meyer, Coordinator of Disability Services for Students. Faculty rely on Disability Services to verify the need for academic accommodations and to identify reasonable and appropriate accommodation strategies. Examples of disability are AD/HD, Specific Learning Disabilities, Hearing, Vision, Health Impairment, Psychological, Orthopedic, and Traumatic Brain Injury. Disability Services is part of the Academic Enrichment Center—The Cove located in the Center for Biblical and Theological Studies, Office #223...Phone 766-3843...email meyerm@cedarville.edu. For more information view www.cedarville.edu/DisabilityServices.

Grading: Your grade will be calculated based on your performance on two lecture exams, laboratory and field trip assignments, class participation, and a term paper. They will be weighted as follows: Two lecture exams @ 20% each, one term paper @ 20%, labs and field trips 30% (total), and class participation @ 10%.

Exams: Your first exam will be a take-home written assignment covering the first 7 lectures. Your second exam will be given during final exam week and will be comprehensive in nature, but focusing on the last 6 lectures.

Term Paper: I would like you to select a term paper topic by September 8. You will provide me with hard copies (1st page only) of at least 10 references for your topic by September 15. You will provide me with an annotated outline of your paper by September 22. The final paper will consist of at least 3,500 words and be due by November 24. The research paper should address a significant geomorphological event, problem, landscape or topic. The paper should include a statement of the problem, various interpretations that have been proposed, and then your analysis. The professor will help you select a topic and make sure that you are on track with what he expects. Use the reference style format provided by the *Answers Research Journal* <http://www.answersingenesis.org/assets/pdf/arj/instructions-to-authors.pdf>. Make sure every detail of your paper is formatted according to these guidelines! Well done papers will be submitted to the journal.

Grading Scale:

A+	95.99-100%
A	91.99-95.98%
A-	89.99-91.98%
B+	87.99-89.98%
B	81.99-87.98%
B-	79.99-81.98%
C+	77.99-79.98%
C	71.99-77.98%
C-	69.99-71.98%
D+	67.99-69.98%
D	61.99-67.98%
D-	59.99-61.98%
F	00.00-59.98%

Geomorphology, GEOL 3100
 Fall 2009

Lecture Schedule:

Date	Lecture #	Topic	Reading Assignment in Bloom
8-25	1	Fundamentals of Geomorphology	Chapters 1 & 2
9-1	2	Cenozoic Tectonism and Climate Change	Chapters 3 & 4
9-8	3	Tectonic Landforms and Volcanoes	Chapters 5 & 6
9-15	4	Rock Weathering	Chapter 7
9-22	5	Karst Geomorphology	Chapter 8
9-29	6	Mass Wasting and Hillslopes	Chapter 9
10-13	7	Fluvial Geomorphology	Chapters 10 - 12
10-27	8	Eolian Processes and Desert Landforms	Chapter 13
11-3	9	Landscape Evolution	Chapter 15
11-10	10	Origin of Mountains	Chapter 15
11-17	11	Glacial Geomorphology	Chapters 14, 16 - 18
11-24	12	Coastal Geomorphology	Chapters 19 & 20
12-1	13	Ocean Floor Geomorphology	
10-27	Exam #1, Lectures #1-7		
12-10	Exam #2, Lectures #8-13 (Final Exam, somewhat comprehensive), Thursday 3:30-5:30		
11-24	Due date for term paper		
10-17	Geomorphology Field Trip #1 to Mt. St. Helens, Washington (as part of a GSA field trip)		
	Geomorphology Field Trip #2, TBA		

Laboratory Schedule:

Lab	Date	Lab # in Spencer	Topic	Due Date
A	8-25	1	Maps and Images used in the Study of the Earth	
B	9-1	2	Base Maps	
C	9-8	3	Preparation of Geologic Maps	
D	9-15	4	Identification and Description of Sedimentary Rocks	
E	9-22	5	Use of Aerial Photos in Mapping	
F	9-29	6	Interpretation of Surficial Geologic Maps	
G	10-13	7	Introduction to Geologic Maps of Bedrock	
H	10-27	8	Geologic Maps of Homoclinal Beds	
I	11-3	9	Unconformities	
J	11-10	10	Folds on Geologic Maps	
K	11-17	11	Faults on Geologic Maps	
L	11-24	12	Igneous and Metamorphic Rocks	
M	10-17		Geomorphology Field Trip to Mt. St. Helens. Assignment TBA	

Laboratory Policies: Laboratory exercises will not be accepted for credit if they are not turned in by the due date. Due dates for each exercise will be given in lab and you can fill in the appropriate date above. Copying another student's laboratory work is considered cheating and will not be tolerated. The consequences will be severe and might include no credit for the lab, failure of the course, and reports to the chair, dean, and academic vice president.

This is a laboratory course, and students who receive five zeros or more for lab exercises will automatically fail the course, despite what their exam grades may be.

Spring 2009 schedule for John H. Whitmore, Associate Professor of Geology:

Office ENS 248 Office phone: 937-766-7947

Home phone: 937-766-5619

Cell phone: 937-532-6471

	Monday	Tuesday	Wednesday	Thursday	Friday
8:00	Office	Physical Geology Lab ENS 248	Office	Office	Office
9:00	Physical Geology MIL 131		Physical Geology MIL 131	Office	Physical Geology MIL 131
10:00	Chapel	Chapel	Chapel	Chapel	Meeting
11:00	Earth Science ENS 245	Office	Earth Science ENS 245	Office	Earth Science ENS 245
12:00	Lunch	Lunch	Lunch	Lunch	Lunch
1:00		Earth Science Lab ENS 248	Earth Science Lab ENS 248		
2:00					
3:00		Earth Science Lab NS 248	Earth Science Lab ENS 248		
4:00					
6:00 – 10:15		Geomorphology Lecture and Lab ENS 240 & 248			