HONORS: GEOLOGY (110; 5 credits)
SPRING SEMESTER, 2010

INSTRUCTOR: William N. Mode **OFFICE:** Harrington 214
EMAIL: mode@uwosh.edu **PHONE:** 424-7004
OFFICE HOURS: 10:20 to 11:20 a.m., M, W; 11:30 a.m. to 12:30 p.m., T; 3:00 to 4:00 p.m., Th
TEXTBOOKS: *The Changing Earth* (5th ed.), J. S. Monroe and R. Wicander
Laboratory Manual for Physical Geology (7th ed.), N. W. Jones & C. E. Jones
Honors Geology Course Manual (2010), W. N. Mode
RESERVE READING: *Understanding Earth*, F. Press and R. Siever
Earth and Life Through Time, H. L. Levin
MEETINGS: ***Lecture***: 9:40 to 11:10 a.m., Tuesday and Thursday in Harrington 217
Discussion: 11:30 a.m. to 12:30 p.m., Thursday Harrington 217
Lab: 3:00 p.m. to 5:10 p.m., Tuesday in Harrington 114
COURSE OBJECTIVES: Students will learn: 1) basic principles of geology and how to apply them to laboratory, field, and other practical situations; 2) ways in which geology influences their life and ways in which humans influence geologic systems; and 3) to see connections between geology and other areas of human endeavor such as art, literature, and politics. These objectives embody the goals of a liberal arts education.
INSTRUCTIONAL SYSTEM: This is a traditional lecture course with four scheduled examinations. Laboratory and discussion require active participation by students.
ATTENDANCE: Laboratory and discussion attendance is required, and I strongly recommend attending lecture. Your chance for success in the course will be much greater if you attend every class session.
EXAMINATIONS: Four exams are given. Attendance is required at each exam. Exams will consist of a mixture of essay, short answer, matching, and multiple choice questions. The *Course Manual* contains a study guide and sample exam questions.
EXAM 1: Thursday, February 25; Exam covers Chaps. 1 - 5 & 7 in Monroe and Wicander.
EXAM 2: Thursday, March 18; Exam covers Chaps. 6 and 8 - 12 in Monroe and Wicander.
EXAM 3: Thursday, April 15; Exam covers Chaps. 13 - 18 in Monroe and Wicander.
EXAM 4: Thursday, May 13; Exam covers Chaps. 19 - 24 in Monroe and Wicander
COURSE PROJECT: The course project will consist of journal writing each week, a 10-page paper **due May 14**, and a brief oral presentation of the paper in class.
FIELD TRIP: The required field trip is scheduled for **Saturday, April 17**.
GRADING: Lecture exams, the course project, and laboratory score will determine the grade for the course. The overall average for the course will comprise the average of the four exam scores, given a weight of 60%; the course project, 20%; and the laboratory score, 20%. The laboratory score is determined by participation (20%) and four quizzes (20% each). The grade scale will be no more rigorous than:

92 - 100%	A
90 - 92	A-
87 - 89	B+
83 - 86	B-
80 - 82	B-
77 - 79	C+
73 - 76	C
70 - 72	C-
67 - 69	D+
63 - 66	D
60 - 62	D-
<60	F

COURSE SCHEDULE

WK	LECTURE TOPICS	ASSIGNED READING TEXT (required)	RESERVE (recommended)	LAB
1	T: Fundamentals and plate tectonics Th: Plate tectonics	Chapters 1 & 2	Press & Siever, Chap. 1 & 20	Jones[2], Chap. 16 & 17, earthquakes and plate tectonics
2	T: Minerals Th: Rocks and igneous rocks	Chapters 3 & 4	Press & Siever, Chap. 2, 3, &4	Jones[2], Chap. 1 & 2, Minerals
3	T: Igneous Rocks Th: Volcanism	Chapters 4 & 5	Press & Siever, Chap. 5, 6, & 7	Jones[2], Chap. 3, Igneous rocks
4	T: Metamorphic rocks Th: **Exam 1**	Chapter 7	Press & Siever, Chap. 8	Jones[2], Chap. 4 & 5, Sedimentary & metamorphic rocks
5	T:Weathering, soil, and sedimentary rocks Th: Earthquakes & Sea floor	Chapters 6, 8 & 9	Press & Siever, Chap. 18, 19, & 17	**Quiz** on minerals & rocks**;** Jones[2], Chap. 6, Topographic maps
6	T: Mountain building Th: Mass wasting	Chapters 10 & 11	Press & Siever, Chap. 10 & 11	Jones[2], Chap. 14 & 15, Structural geology & geologic maps
7	T: Running water Th: **Exam 2**	Chapter 12	Press & Siever, Chap. 13	Jones[2], Chap. 8 & 9, Streams and groundwater,
8	T: Groundwater Th: Glaciers and glaciation	Chapters 13 & 14	Press & Siever, Chap. 12 & 15	**Quiz** on Chap. 16, 17, 6, 14, & 15; and Jones[2], Chaps. 10 & 12, Glaciation & dunes
9	T: Wind and deserts Th: Shorelines	Chapters 15 & 16	Press & Siever, Chap. 14 & 17	Jones[2], Chap. 11 & 13, Shorelines & geologic time
10	T: Geologic time & Evolution Th: **Exam 3**	Chapters 17 & 18	Levin, Chap. 4	Fossils; **Field trip on Saturday, April 17**
11	T: Precambrian earth Th: Precambrian life	Chapter 19	Levin, Chap. 6 & 7	**Quiz** on Chap. 8, 9, 10, 12, 11, & 13; and Paleozoic fossils*
12	Th: Paleozoic earth Th: Paleozoic life	Chapters 20 & 21	Levin, Chap. 8, 9, & 10	Mesozoic fossils*
13	T: Mesozoic earth Th: Mesozoic life	Chapter 22	Levin, Chap. 11, & 12	Cenozoic fossils*
14	T: Cenozoic earth and life Th: **Exam 4**	Chapters 23 & 24	Levin, Chap. 13, 14, & 15	**Quiz** on fossils & field trip

*If weather permits, we will take a two-hour field trip in Winnebago County on one of these three weeks.