

Date	Class	Topic	Text	Assignment		AV show (optional)	
				Internet	Lab manual		
Jan.	16	1	Intro to Geology	1-13	{Ch 1}		
	18	2	Overview of the Earth	13-23	{Ch 4} skim		
	20	3	Minerals I	216-241	{Ch 9}		
	23	4	Igneous Rocks	242-255	{Ch 11}		
	25	5	Intrusive Features	272-286		(40)	
	27	6	Volcanoes I	255-271	{Ch 10}		
	30	7	Volcanoes II	286-291			
Feb.	1	8	Igneous Processes	291-297		(38-39)	
	3	9	Volcano Film	67-70		[AV-32]	
	6	10	Sedimentary Rocks	340-369	{Ch 14}	(56-57)	
	8	11	Sedimentary Features	190-215	{Ch. 8}	(48); (74-75)	
	10	12	Metamorphic Rocks	370-391	{Ch 15}	(69-70)	
	13	13	Weathering	298-310	{Ch 12}		
	15	14	Soils	310-317		[AV-35]	
	17	14	TEST 1 (class 1-12; mineral & rock labs)				
	20	16	Mass Wasting	318-339	{Ch 13}	(123)	
	22	17	Stream Flow	392-403	{Ch 16}		
	24	18	Stream Dynamics	403-412			
	27	19	Stream Profiles and Patterns	412-419			
	Mar.	1	20	Streams and Landforms	419-427		(106-108) [AV-34]
		3	21	Ocean Wave Mechanics	504-514		[AV-36]
13		22	Shoreline Processes I	514-518	{Ch 20}		
15		23	Shoreline Processes II	518-523		(160-164)	
17		24	Alpine Glaciers	474-486		(140-143)	
20		25	Alpine Glacial Landforms	486-490			
22		26	Continental Glaciers I	490-496	{Ch 19}	(151-153)	
24		27	Continental Glaciers II	496-503			
27		28	TEST 2 (CLASSES 13-27)				
29		29	Desert Processes	452-468	{Ch 18}		
31		30	Desert Landforms	472-473		[AV-39]	
Apr.		3	31	Ground Water Processes	428-443	{Ch 17}	[AV-38]
		5	32	Ground Water Landforms	443-451		(129-130)
	7	33	Earthquakes I	156-169	{Ch 7}		
	10	34	Earthquakes II	169-189		[AV-40]	
	12	35	Interior of Earth [DRILLBIT due]		{Ch 2}		
	19	36	Ocean Floors I	50-73	{Ch 3}	(223-227)	
	21	37	Plate Tectonics	74-83	{Ch 4}	(238-239)	
	24	38	Plate Tectonics II	83-93		(252-253) [AV-41]	
	26	39	Plate Tectonics III	93-109		(264-265)	
	28	40	Evolution of Continents	110-131	{Ch 5}	(276-277)	

No bracket, brace, or parentheses indicates assignment from textbook.

() Indicates pages assigned from laboratory manual. The questions within the manual do not need to be answered.

{ } Indicates activities from www.mhhe.com/mcgeary6e Internet web site. Click "Student Edition."

[] Indicates optional slide/tape show which is on reserve in the library; number in bracket is reserve number.

The syllabus is provided to you so that you may plan your activities during the semester and follow along with the assignments.

Lecture topics may run ahead or behind scheduled dates, but they will be taken in the order listed.

The final exam is scheduled by the Registrar. (final exam is comprehensive, with emphasis on the last third of the course).

Copies of the previous lecture tests are kept on reserve in the Library.

Cell phones and pagers should be turned off in the Earth Science Classroom.

Course Objectives: Students will understand the following:

- composition and properties of the important rocks and rock forming minerals
- the unifying theory of plate tectonics and how it applies to the geology of the local region
- methods by which geologic materials, structures, and landforms are measured, portrayed, analyzed and predicted.
- forces that affect earth materials on the surface and within the earth
- dynamics of earth processes on various spatial and temporal scales
- the earth as a system of separate but interacting parts
- effects of geologic processes on humans and vice versa
- application of appropriate fundamental scientific principles to complex natural systems
- the local area is a manifestation of the processes and products of former and current geological activity

	Date	Lab	Topic	Assignment		
				lab manual	Internet & slide shows	text
Jan.	18+19	1	Minerals	(10-25)		
	25+26	2	Igneous Rocks	(26-43)		
Feb.	1+2	3	Sedimentary and Metamorphic Rocks	(43-73)		
	8+9	4	Making Topographic Maps	(88-91)		
	15+16	5	Aerial Photographs; Strike and Dip	(81-84); (92-100)		137-139
Mar.	22+23	6	Rock and Mineral Test , Folds	(186-193)		139-143
	1+2	7	Folds and Faults	(194-197)	[AV-33] {Ch. 6}	143-155
	15+16	8	Topographic and Geologic Maps		{Ch 10}	
	22+23	9	Field Trip I (Structure to the south)			
Apr.	29+30	10	Field Trip II (Structure to the north)	(234-235)		428-431
	5+6	11	Field Trip III (Pleistocene glaciations)			
	12+13	12	Computer Applications			
	19+20	13	Maps and Aerial Photographs			
	26+27	14	Lab Exam (topographic and geologic maps)			

TEXT:

Physical Geology: Earth Revealed, Carlson, Plummer and McGeary, 6th Edition, McGraw-Hill Publishing, 2006.

Internet web site: www.mhhe.com/mcgeary6e Click "Student Edition."

LAB MANUAL

Exercises in Physical Geology, 12th edition, W. K. Hamblin and J. D. Howard, Prentice Hall, 2005.

NOTE:

Bring the laboratory manual to all laboratories except those times field trips are scheduled.

A pencil with eraser also should be brought to each laboratory period.

COMPUTER PROGRAMS ON THE MORAVIAN INTRANET

On all Moravian public computers at "Start – Programs – Moravian Courseware – Geology Programs –"

Most geology programs can be downloaded from "My Computer – S drive – Moravian Courseware – Geology Programs -"

PUBLISHER'S INTERNET RESOURCES Available from <http://www.mhhe.com/mcgeary6e>.

FIELD TRIPS:

Three half-day field trips are scheduled. The trips usually are not cancelled unless the weather is most severe.

Consequently, students are advised to dress according to the prevailing weather and to keep in mind that temperatures in the mountains in the late afternoon are usually lower than those on campus at noon. Attendance on each field trip is required.

Trips depart from the front steps of the Hall of Science at 12:45 pm and return approximately 5:30pm. Field trips routes and summaries are on the web at http://home.moravian.edu/users/phys/mejjg01/geology/field_trips/pages/field_trip_intro1.htm

COMPUTER: Students will run the DRILLBIT program and submit the completed assignment. The DRILLBIT assignment is due on the 35th class period

FINAL GRADE COMPOSED OF:

Rock & Mineral Quizzes	9 %	DRILLBIT assignment	10 %
Rock & Mineral Test	10 %	Lab Exam	15 %
Lecture Test 1	18 %	Final Lecture Exam	20 %
Lecture Test 2	18 %	Total	100 %

The academic policy stated on the appropriate pages of the most recent edition of the *Student Handbook* will prevail for all graded portions of this course.

ATTENDANCE POLICY:

Attendance will be taken in each class and laboratory period. Unexcused absences in excess of five will reduce the final average of a student at a rate of 1% per absence. Attendance for the field trips is required. Students have the responsibility to secure and present evidence of the nature of the excused absence.