SYLLABUS: GEOLOGY 120 (Section 01) – Planet Earth
Spring 2009

***Credits**:* 3.0
Section : 01
CRN : 138
Lecture meets Tuesday and Thursday, 10:00-11:50 a.m., SCI1
Lab meets: Tuesday, 2:00-3:50 p.m., SCI1 202
Prerequisites: None. Satisfies LA, CPA, and General Education 2000 attribute NL2.

Instructor

Les Hasbargen
Office: 219 Science 1
Ph.: 607-436-2741
Email: hasbarle@oneonta.edu
Office hours: MW 10:00-11:00 a.m.; Tues 11:00-11:55 a.m.
Instructor's web site: http://employees.oneonta.edu/hasbarle/index.html

Text (*Required*): **Essentials of Geology**, Stephen Marshak, 2nd Edition, W. W. Norton & Company, Inc. ISBN: 978-0-393-18307-8. The textbook is packaged with Geotours Workbook. I will allow students to purchase the ebook online at www.NortonEbooks.com for a substantial discount. Here's the publisher's web site with helpful quizzes, etc.: http://www.wwnorton.com/college/geo/egeo/ .

Course Description This course provides an introduction to earth materials, structures, and processes and the basic geological principles used to interpret the evolution of the earth through time. Laboratory exercises promote skills in 1) mineral and rock identification; 2) topographic map comprehension and interpretation; and 3) interpretation of geological materials, structures, and processes from maps, digital datasets and direct observations.

SUNY Learning Outcome "Students will demonstrate understanding of the methods scientists use to explore natural phenomena including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical analysis. Students will demonstrate application of scientific data, concepts, and models in one of the natural sciences."

Course Goals/Objectives The primary goal of the course is to provide students with an awareness and basic understanding of Earth's geological systems and how these systems interact with human activities. More specific objectives include the development of basic skills in map reading, identification of rocks and minerals, and an understanding of the process of scientific inquiry.

Course Overview

Welcome to Planet Earth! This is an overview course that serves as an introduction to the solid Earth's structure and chemical make-up; processes that operate within the Earth and on Earth's surface; and the rocks that give us the story of such interactions. You

will learn about minerals; about weathering, transport, and deposition of sediments; about melting, recrystallization and flow of rocks; about huge forces that fold and rupture continents; about surprises on the sea floor that gave scientists the clues to understand Earth's crustal dynamics; and about the vigorous interactions between rocks, atmosphere, climate and water at Earth's surface. These processes operate over long, long, unthinkably long, time scales, though often we can see the processes operate in real time, such as a volcanic eruption or an earthquake. So you will be introduced to aspects of geologic time, how we measure it, and how the rocks reveal the unfolding of Earth history. Bring your curiosity, bring your questions, and come prepared to learn!

Course Expectations and Guidelines

I expect you to know and follow the Student Responsibilities established by SUNY Oneonta. I excerpt key aspects of these responsibilities below:

"In class responsibilities

Students will:

- Attend all classes and arrive punctually.
- If unavoidably late for a class, enter quietly and unobtrusively, and behave in other required ways to minimize distraction.
- Remain alert and attentive during lectures, discussions, and other class/lab activities.
- Avoid unnecessary conversation during lectures, discussions, and other class/lab activities.
- Contribute to class experiences by asking relevant questions, offering relevant examples or views, adequately answering questions posed by others, engaging in critical and independent thought, and challenging both the instructor and the curriculum materials assigned for the course.
- Demonstrate courtesy and respect in dealing with instructors and classmates.
- Recognize and seek to understand diverse points-of-view.

Out-of-class responsibilities

Students will:

- Place academic obligations at the top of the list of college-related priorities.
- Plan to spend 2 to 3 hours out-of-class time in academic study for every one hour of class attendance.
- Thoroughly plan and prepare for classes.
- Notify the instructor in advance, if possible, or in a timely fashion, if unable to attend a class or lab, take a scheduled exam or quiz, submit a scheduled assignment, or remain in the classroom for the entire class meeting because of unavoidable circumstances."

You are expected to read each chapter before we cover it in class. This will allow you to formulate questions concerning material that is not clear, or that you would like to have covered in greater detail. I use lectures to focus on the most important aspects of the topic. I strongly encourage you to ask questions during lecture. There are no 'dumb' or 'stupid' questions. Often the questions you have are shared by others. You should view lectures as the time and place for discussion, and I welcome your thoughts and questions!

Any reasonable accommodation will be provided for students with physical, sensory, learning, or psychiatric disabilities. Please contact me for assistance as early as possible.

If English is not your primary language and you would like to have additional time in which to take the exams, let me know. Anyone who needs additional time for the exams will be extended the same courtesy.

This course uses an online course management system, Angel, to transmit information such as the syllabus, lecture schedule, and lecture notes; administer quizzes; post grades on quizzes and exams; and provide links to online information. You will need a university email ID and password to access course information on Angel. You can find a link to Angel on SUNY Oneonta's main web page (from the pull down menu).

Academic dishonesty will not be tolerated and those engaging in it will be prosecuted. See the Academic Honesty & Dishonesty pamphlet published by the Dean of Students Office for further information.

Finally, turn off cell phones before coming to class! A ringing (or singing!) phone is almost impossible for others to ignore. Especially the lecturer, who may wander so far off course that everyone will get upset...Of course, medical conditions can override this request.

Grading

Grades will be based on midterm exams, lab grades, online quizzes, and a final exam.

Exams. There will 3 midterm exams and 1 cumulative final exam in the lecture part of this course. Exam questions will consist of multiple-choice, short answer, and true-false questions. There will be roughly 50-60 questions on the midterm exams, and roughly 120 questions on the final. If you anticipate missing an exam, **you must contact the instructor before the date of the exam**. Suitable reasons for absence include serious illness, a death in the family, or a personal tragedy. See the Undergraduate Catalog for excusable absences. A make-up exam will be provided at an alternative time.

Quizzes. There will weekly quizzes during the course administered online through Angel. The questions will be multiple-choice and true-false. Each quiz will usually have ~10-20 questions, and be available to take for credit for 1 week. There are no make-ups for missed quizzes. The quizzes are designed to help you learn content, as well as introduce you to the way that your instructor frames questions. Because the goal of these quizzes is to help you learn (and we often learn best by making mistakes!!), you can take the quiz as often as you like until you get a score you are happy with. Students will have around 10-15 minutes to take the quiz. The times in which to take the quiz for credit will be posted on Angel.

Lab Grade

You must pass the lab portion of this course in order to pass the course! Attend all labs, do the exercises, ask questions, and the lab grade will be the "easy" part of the course.

Here's the breakdown on grading:

35%	Lab (comprising lab exercise scores and lab quiz)
10%	Quizzes
30%	Midterm Exams (3)
25%	Final exam (1)
100%	

Students will receive 1% point added to their grade by participating in an online course evaluation at the end of the semester.

Final grade assignments will be guided by the standard University curve given below.

Percent	***Grade***	***Percent***	***Grade***	***Percent***	***Grade***	***Percent***	***Grade***
93-100	A	87-89.9	B+	77-79.9	C+	67-69.9	D+
90-92.9	A-	83-86.9	B	73-76.9	C	63-66.9	D
< 60	F	80-82.9	B-	70-72.9	C-	60-62.9	D-

Optional Field Trip

There will be an optional field trip for the interested on Saturday, April 18. The trip will take 6-8 hours, and will explore evidence of past environments exposed in sedimentary rocks and displayed in the beautiful landscapes in the area. More info on this trip will be provided as the date for the trip draws close. The University will supply transportation, but you will need to bring lunch, camera, notebook, sturdy hiking shoes, lunch, snacks, and water.

Lecture Schedule (*this schedule is subject to change if more time is required for some topics*).

Date	Day	***Read***	***Topic***	***Lab***
Jan 15	Th	Prelude	Course Mechanics; Intro	
Jan 20	T	Ch 1-2	Plate Tectonics	
Jan 20	T	Ch 1-2	Plate Tectonics	Lab 1 Plate Tectonics
Jan 22	Th	Ch 1-2	Plate Tectonics	
Jan 27	T	Ch 3	Minerals	
Jan 27	T	Ch 3	Minerals	Lab 2 Minerals
Jan 29	Th	Ch 4	Igneous Rocks	
Feb 3	T	Ch 4	Igneous Rocks	
Feb 3	T	Ch 4	Igneous Rocks	Lab 3 Igneous Rocks
Feb 5	Th	Ch 5	Sedimentary Rocks	
Feb 10	T	Ch 5	Sedimentary Rocks	
Feb 10	T	Ch 5	Sedimentary Rocks	Lab 4 Sed Rocks
Feb 12	Th	Ch 6	Metamorphic Rocks	
Feb 17	T	Ch 6	Metamorphic Rocks	
Feb 17	T	Ch 6	Metamorphic Rocks	Lab 5 Metamorphic Rocks
Feb 19	***Th***		***Exam 1***	
Feb 24	T		**Spring Break 1!**	
Feb 24	T		**Spring Break 1!**	
Feb 26	Th		**Spring Break 1!**	
Mar 3	T	Ch 10	Geologic Time/History	
Mar 3	T	Ch 10	Geologic Time/History	Lab 6 Geologic Time
Mar 5	Th		Crustal deformation	
Mar 10	T	Ch 9	Geologic Structures	
Mar 10	T	Ch 9	Crustal deformation	Lab 7 Structure
Mar 12	Th	Ch 9	Earthquakes	
Mar 17	T	Ch 8	Earthquakes	
Mar 17	T	Ch 8	Earthquakes	Lab 8 Quakes
Mar 19	Th	Ch 8	Earthquakes	

Mar 24	T	Ch 8	Earthquakes	
Mar 24	T	Ch 8	Earthquakes	Lab 9 Movie
Mar 26	Th		Volcanoes	
Mar 31	T	Ch 7	Volcanoes	
Mar 31	T	Ch 7	Volcanoes	Lab 10 Volcs/Plates
Apr 2	***Th***	***Ch 7***	***Exam 2***	
Apr 7	T		Spring Break 2!	
Apr 7	T		Spring Break 2!	
Apr 9	Th		Spring Break 2!	
Apr 14	T	Ch 7	Volcanoes	
Apr 14	T	Ch 7	Volcanoes	Lab 11 Movie
Apr 16	Th	Ch 7	Volcanoes	
Apr 18	**SAT**		**Field Trip; Optional**	
Apr 21	T	Ch 14	Streams and Floods	
Apr 21	T	Ch 14	Streams and Floods	Lab 12: Streams
Apr 23	Th	Ch 14	Streams and Floods	
Apr 28	T	Ch 15	Coastal Processes	
Apr 28	T	Ch 15	Coastal Processes	Lab 13 Coastal Processes
Apr 30	**Th**		***Exam 3***	
May 5	T		Review for Final	
May 5	T		Review for final, in needed	
May 7	***Th***		***Final Exam, 8:00-10:30 am***	

Spring 2009*

January 11-13	Sunday-Tuesday	New student arrival & orientation
January 14	Wednesday	Classes begin
February 20	Friday	College closes after last evening class
March 2	Monday	Classes resume
April 3	Friday	College closes after last evening class
April 14	Tuesday	Classes resume
May 7-13	Thursday-Wednesday	Finals Week
May 16	Saturday	Commencement