

# GEOL 011 A– The Dynamic Earth Through Google Earth<sup>®</sup> Fall, 2018

Professor John M. Hughes  
321 Delehanty Hall  
*jmhughes@uvm.edu*  
Office Hours: MWF, 10:00-11:00 and by appointment  
Class: T-R, 10:05-11:20

**Course Goals:** For obvious reasons, throughout history humans have been fascinated by the Earth; fundamental questions of early Philosophy and Religion revolved around Earth composition and history. In the past 150 years, understanding of Earth processes has advanced greatly, although there is still much we don't understand about our planet. Coincident with this increased understanding of the Earth is humankind's ability, through technological advancements, to bring about change to the Earth at rates that are much greater than other natural agents. Society is just now beginning to realize the impact that it can have on the Earth, often detrimental, and this realization has come about principally through a more general awareness of the various dynamic processes on Earth. For this reason, the main objectives of this course are to:

1. Make you a more educated citizen of the planet Earth.
2. Afford you an understanding of the atmosphere, hydrosphere, and lithosphere of the Earth and their interactions.
3. Afford you an awareness of the constancy of geologic events in the news.
4. Afford you an understanding of the Earth processes that have shaped the planet throughout its history.
5. Make you aware of the recent impact of humans on the Earth.
6. Give you facility with the Google Earth platform.

**Course Evaluation:** Your grade in the course will be determined on the basis of eight quiz grades and three papers based on geologic phenomena of your choice, as well as class attendance.

**Quizzes (64%):** The short quizzes will be held on the tentative dates noted on this syllabus, and are designed to keep you up to date on the material. You will be allowed to bring one 3 x 5 card with information on it to each quiz. There will be nine quizzes total, and you will be allowed to drop the lowest grade.

**Papers (36%):** Participation in a TAP course allows closer interaction between the faculty member and the students in the course. It also affords an opportunity for us to work together to improve your writing skills. During the semester, three writing assignments will be collected. On **October 2**, a five-page paper will be due on any geologic topic of your choice (**6%**). I will work with you on revision of that paper in a one-on-one meeting, and that revision of the paper will be due on **October 29 (10%)**. Finally, on **December 6**, a 10-page paper (**20%**) on another geologic topic is due. **Papers must be submitted electronically (see email address above)**, with details of the submission to follow.

**Attendance:** According to the Classroom Code of Conduct, students are expected to attend all regularly scheduled classes. Excused absences are allowed for athletic, religious and medical reasons, according to UVM Policy. You are responsible for everything noted in class, including changes in quiz dates.

**Textbook:** *Essentials of Geology, 5<sup>th</sup> Edition*, by Stephen Marshak. W.W. Norton & Company.

Lecture	Date	Tentative Topic	Reading
1	8/28/2018	Introduction to the Earth	Prelude
2	8/30/2018	The Macroscopic Earth	Chapter 1
3	9/4/2018	Geologic Time	Chapter 10
4*	9/6/2018	Geologic Time	Interlude E, Chapter 10
5	9/11/2018	Plate Tectonics	Chapter 2
6	9/13/2018	Plate Tectonics	Chapter 2
7*	9/18/2018	Elements, Atoms, Minerals	Chapter 3
8	9/20/2018	The Rock Cycle; Igneous Rocks	Interludes A, C, Chapter 4
9	9/25/2018	Volcanoes	Chapter 5
10*	9/27/2018	Sedimentary Rocks	Interlude B, Chapter 6
11	10/2/2018	Metamorphic Rocks	Chapter 7
12	10/4/2018	Crustal Deformation	Chapter 9
13*	10/9/2018	Earthquakes and Seismicity	Chapter 8
14	10/11/2018	Earthquakes and Seismicity; Earth's Interior	Interlude D
15	10/16/2018	Weathering and Erosion	Interlude F, Chapter 13
16*	10/18/2018	Rivers and Streams	Chapter 14
17	10/23/2018	Ground Water Systems	Chapter 16
18	10/25/2018	Glacial Systems	Chapter 18
19*	10/30/2018	Ocean Basins	Chapter 15
20	11/1/2018	Coastal Processes	Chapter 15
21	11/6/2018	<i>College of Arts and Science Advising: Ms. Dana Christiansen</i>	
22*	11/8/2018	Deserts	Chapter 17
23	11/13/2018	Climate, Climate Change	Chapter 19
24	11/15/2018	Energy and Resources	Chapter 12
-----Thanksgiving Recess-----			
25*	11/27/2018	Energy and Resources	Chapter 12
26	11/29/2018	Environmental Geology	---
27	12/4/2018	Geology and Society	---
28*	12/6/2018	Geology and Society	---

\*Denotes tentative quiz date; changes to this schedule will be announced in advance.

**Academic Integrity:** The University of Vermont maintains a Code of Academic Integrity, which can be viewed at: <http://www.uvm.edu/policies/student/acadintegrity.pdf>. As a student at the University, you are required to adhere to the policy. If you are not familiar with the policy, you should access it at the above site and review its contents.

**Religious Holidays:** As quoted from UVM Policy, *Students have the right to practice the religion of their choice. Each semester students should submit in writing to their instructors by the end of the second full week of classes their documented religious holiday schedule for the semester. Faculty must permit students who miss work for the purpose of religious observance to make up this work.* To access the policy, please visit:

[http://www.uvm.edu/academics/catalogue2006-07/?Page=allpolicies.php&SM=policymenu.html&category=academic\\_policies&policy=Rights%20and%20Responsibilities%20of%20Undergraduate%20Students](http://www.uvm.edu/academics/catalogue2006-07/?Page=allpolicies.php&SM=policymenu.html&category=academic_policies&policy=Rights%20and%20Responsibilities%20of%20Undergraduate%20Students).

**The UVM Writing Center  
302 Bailey Howe Library**

**HOW THE WRITING CENTER CAN HELP STUDENTS**

1. **Individual tutoring:** Students can sign up for hour-long individual appointments for support in:
  - Understanding new types of assignments and genres (e.g. by looking closely at directions, rubrics, sample papers)
  - Experimenting with their writing process—because they have an hour to spend, tutors can help students try out different ways of going about writing and editing their work
  - Getting a fresh perspective on an idea or draft to see how to push their writing further
  - Interpreting an instructor’s comments and implementing the suggestions
  - Incorporating and citing sources effectively and appropriately
  - Approaching challenging texts that are central to a piece of writing
  
2. **In-Class Workshops:** A tutor can come to your class and facilitate a workshop that introduces students to the Writing Center and addresses some of the FWIL outcomes. We currently offer workshops on:
  - Developing an effective composing style (would include a discussion of revision)
  - Effective peer review
  - Developing a strong thesis (for classes in the humanities)
  - An introduction to writing a literature review (for classes in the social sciences or sciences)
  
3. **Writing Partners:** If a student would benefit from meeting weekly with the same tutor, encourage them to request a writing partner (instructions can be found on our webpage: [uvm.edu/writingcenter](http://uvm.edu/writingcenter)).

**Fall 2018\***

<b>Events</b>	<b>Dates</b>	<b>Days of Week</b>
First Day of Classes	Aug 27	M
Last Day to Add Classes without Instructor Permission	Aug 31	F
Labor Day Holiday	Sep 3	M
Add/Drop, Pass/No Pass, Audit Deadline <sup>1</sup>	Sep 10	M
Fall Recess	Oct 8	M
Last Day to Withdraw <sup>1</sup>	Oct 29	M
Thanksgiving Recess	Nov 19-23	M-F
Last Day of Classes	Dec 7	F
Reading Days <sup>2</sup>	Dec 8,9,12	Sa,Su,W
Exam Period	Dec 10-14	M-F
Exam Days <sup>2</sup>	Dec 10,11,13,14	M,T,R,F