Recent Announcements

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Ch 1 and 2 powerpoints
(https://imperial.instructure.com/courses/8650/discussion_topics/50912)
Ch01_02_Images 2PPoint 2013.ppt
(https://imperial.instructure.com/courses/8650/discussion_topics/50912)

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Ch 3 powerpoints
(https://imperial.instructure.com/courses/8650/discussion_topics/50911)
Ch03_Images PPoint 2013.ppt
(https://imperial.instructure.com/courses/8650/discussion_topics/50911)

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Ch 4 powerpoints
(https://imperial.instructure.com/courses/8650/discussion_topics/50910)
Ch04_Images PPoint 2013.ppt
(https://imperial.instructure.com/courses/8650/discussion_topics/50910)

Posted on:

SP19 - GEOL 100: General Geology (20057)

Jump to Today ✎ Edit

Geology 100: Physical (or General) Geology

"Mudcracks at the Salton Sea" (2016)

Basic Course Information

Semester	Spring 2019	Instructor Name	Kevin Marty

Course Title & #	Geology 100	Email	kevin.marty@imperial.edu (mailto:kevin.marty@imperial.edu)
CRN #	20057, 20058	Webpage (optional)	www.kevinmartyphotography.artspan.com (http://www.kevinmartyphotography.artspan.com/)
Room	2733	Office	2772
Class Dates	Feb 11-June 7	Office Hours	TBA
Class Days	CRN:20057 T,Th CRN:20058 M, W	Office Phone #	760-355-5761
Class Times Units	CRN:20057 1-4:10 pm CRN:20058 11:20-2:30 pm 4	Office contact if student will be out or emergency	Ofelia Duarte (Science Dept) at 760-355-6155

Course Description

This course is designed as an introduction to Earth's physical processes, structures, and composition, and includes coverage of Earth's internal processes, such as those that cause earthquakes, volcanoes and mountain building; surface processes, such as rivers and waves, wind, glaciers and the landforms that result from these processes; the nature and origin of rocks and minerals that form the Earth's crust; and structures related to folding and faulting, will be studied. (C-ID GEOL 101) (CSU, UC)

(More)

The Earth is diverse and dynamic, featuring volcanoes, earthquakes, tsunamis, landslides, floods, and so on. As citizens, we want to understand what is going on in our natural world and which aspects directly affect us or are most interesting. Understanding past events helps us comprehend what has happened and begin to predict future events. With the Earth, we examine past events and current natural processes to understand how this past and these processes affect humans. Accordingly, this course examines the processes and materials composing Earth's physical environment, for example, its landscapes and interior. We will explore topics such as natural hazards and disasters, fossils, energy resources, and much more. To do so, we will learn some underlying principles of the natural world, from small things like the very building blocks of matter (atoms), to large things, like the cause and effect of regional forces that build mountains (e.g., the Himalayas) and make new oceans (e.g., the Red Sea). These processes are active today on Earth, and give rise to earthquakes, volcanoes, and landslides, all of which obviously affect humans. The class will meet generally twice per week (once for lecture; once for lab) over a 16 week-long semester. This course is taught using a hybrid approach, partly as a normal lecture in the classroom during our normal meeting time, and partly as an online course, which you do on your own outside of class. During this time outside of class, you are required to complete online quizzes and investigations assigned for that week.

Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1 Gain awareness of geological events on a global scale and understand/evaluate why events/features occur where they do. Assessment done through tracking earthquake and volcanic eruptions events and building on knowledge of plate tectonics. (ILO5)

2 Gain critical thinking ability/skills through observations and applying scientific inquiry to understand geologic features and processes. Understand and use principles of the scientific method. (ILO2)

3 Develop oral and written skills through various labs, research papers and presentations. (ILO1)

4	Gain knowledge of geologic history, features and processes through lectures, research papers, exams and labs. (ILO4)

Course Objectives

Upon satisfactory completion of the course, students will be able to:

1. Explain the basic divisions of the earth, their compositions, and their role in plate tectonics
2. Discuss physical properties used to identify common minerals.
3. Demonstrate an understanding of Bowen's Reaction Series and the mineralogy of magma.
4. Describe the relationship between cooling rates and mineral crystal sizes in igneous rocks.
5. Describe the processes and pathways of the Rock Cycle.
6. Describe types of volcanoes, lava viscosity and compositions and their relation to plate tectonics and volcanic activity.
7. Give a basic explanation of the effects of physical and chemical weathering.
8. Explain how sedimentary rock composition, textures, sedimentary structures and fossils indicate specific environments of deposition.
9. Discuss the process and grades of metamorphism.
10. Demonstrate an understanding of the earth's history as related to the fossil record and to geologic time.
11. Construct models illustrating how basic geologic principles relate to the juxtaposition of rock structures.
12. Relate the concepts of plate tectonics to seismology, the Rock Cycle, and structural geology.
13. Explain the relationship between sea-floor physiographic features, sea floor core data, sediments, and paleomagnetics as supportive evidence for plate behavior.
14. Recognize the types of plate boundaries and explain their relationship to crustal movement and mountain building.
15. Demonstrate an understanding of stream dynamics with regard to the transport and deposition of sediments.
16. Identify major surface landform features and relate them to the geologic agents that formed them, including stream, ground water, glacial, and marine processes.
17. Demonstrate a knowledge of crustal deformation and recognition of geologic faults and structures.
18. Discuss Earth's natural resources.
19. Describe the possible causes of an Ice Age.
20. Explain groundwater pollution problems.

Textbooks & Other Resources or Links

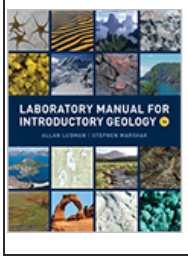
1) (LECTURE) Exploring Geology,Reynolds,S., J, and others, 2nd Edition. New York, McGraw Hill. ISBN: 9780073135151

This is a unique textbook designed to help you learn geologic concepts and processes on your own and to complement what we do in class. Nearly all the information in the book is built around illustrations and photographs, rather than being in long blocks of text. The entire book consists of a series of two-page spreads organized into chapters. Each two-page spread is a self-contained block of information about a specific topic, and has a short list indicating what you should be able to do before you leave these pages. The items from these lists for which you will be held responsible for knowing are compiled into a What-To-Know List that is downloadable from this course's Blackboard website. The What-To-Know List is your guide to what is important, and all online quizzes and in-class exams are derived from this list. If, when studying from the book, you construct your own answer to each item on the What-To-Know List, then I predict you will do well in the class. Required reading is listed in the right column of the Lecture Schedule later on in this document. If

you revisit the chapter corresponding to the most recently finished lecture after we cover that topic, the material will be best retained. Each two-page spread in the book has a unique number (e.g., 11.4), and these numbers are referenced for online quizzes and other course assignments. Each chapter ends with an investigation concerning a problem associated with a "virtual place". These investigations are assigned as online homework (during some semesters) and are automatically graded by Canvas.

2) (LAB) The lab manual (described below) is required for the second meeting of each week (for your lab)...it can be purchased through Norton directly: **https://books.wwnorton.com/books/webad.aspx?id=4294986063 (https://books.wwnorton.com/books/webad.aspx?id=4294986063)**

or through the IVC bookstore. There are various options, it looks like the three-hole punch for $74.00 will work (you do need a hard copy). If you decide to use some other website or way of obtaining your lab manual, please be aware that sometimes they are sold and pages have been ripped out (most of the manuals are made this way to turn in the labs after they are completed).



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Laboratory Manual for Introductory Geology
Third Edition
Allan Ludman and Stephen Marshak

Course Requirements and Instructional Methods

Course Philosophy and Teaching Method:

The greater subject of Physical Geology is as vast and diverse as the natural world around us. Together, we will explore and visualize this dynamic world in a number of ways; in no way will it be a static collection of facts. Accordingly, we will concentrate on understanding natural processes and how we explore and learn things about our planet, rather than terms and factual trivia. We will concentrate on active, inquiry-based learning and will learn how to observe, think about, and understand our place in the natural environment. The critical inquiry and observational skills that we cultivate this semester should be useful in any profession, since they give you an appreciation of how geologic processes in our natural world impact our environment and society. Class time will not simply consist of me repeating via lecture everything that is in the book! It is your responsibility and obligation to complete the required readings prior to quizzes. Class time may be used for clarifying written materials, introducing new material, small-group activities, discussions, independent work projects, and/or identifying and applying principles and concepts, including in-class demonstrations and working on lecture assignments including sketches.

Course Expectations:

My role in this class is to provide a framework that includes theory, best practices, activities, and assignments for you to utilize in the development of your knowledge, understanding, and skills. I care very much how and what you learn in this class, but I believe that you are responsible for participating in learning from the activities provided. This class requires significant outside preparation and reading. It will be impossible to cover all issues in the textbook during class time. This is partly why I use a hybrid approach in this course.

Lab:

In order to receive a laboratory science credit, you must also take the laboratory. The lecture and lab complement each other by covering different aspects of the same material.

Field Trips:

Geology is best seen, learned, and taught outdoors. During the semester, the lab course offers a field trip, which gives you the opportunity to experience geology first hand. You will receive points for going on any required field trips, but no points for optional field trips. Each trip is fun and interesting, and you'll get some exercise and a chance to be outside.

There will also be an optional (extra credit) moonlight hike to the wind caves of the Coyote Mountains (to be discussed in class)l

Course Grading Based on Course Objectives:

Grades: In this course, your grade will be based on points that you earn. There are approximately 700 possible points, which are written out below:

Point Distribution Summary (lecture in red; lab in blue)	Points
Three evaluations as follows (over lecture material): **-Two (500-750 word; double spaced) research papers (40 pts each; to be submitted online through turn-it-in for plagiarism check); and -Three Sketch Tests @ 40 pts each** **-Sketch Homework will be assigned weekly as a study guide for the Sketch Tests and collected for P/F mark**	200
Geologic Artwork presented during final's week	60
Weekly Journals- 10 posts (20 entries) @ 10 pts each, and occasional Journal Discussions	100
Online Quizzes (12 @ 7.5 points each); AND/OR Investigation Worksheet Quizzes (your choice)-can earn grading-curve points	90
In-Class Labs (12 @ 10 points each); this will vary depending on lab exercises completed online including pre-lab worksheets and possible volcano and/or earthquake assignments	~200
Lab Practicum (1 @ 50 points)	50
Total Points Possible	~700

In-Class Exams Or Research Papers and Sketch Tests (concept sketches): Generally, after every four chapters there will be an in-class exam consisting of two-three concept-sketch style questions and your choice of a research paper (for two of the exams) to be submitted through Canvas for a plagiarism check. There are 3 total exams. Two of the 3 in-class exams/research papers is worth 80 points (the last one worth 40 points), for a semester total of 200 points. In advance of each in-class exam, you will be given a list of 4 possible concept-sketch questions, and two-three of these will be on the exam. These possible questions are generally developed from the What-To-Know List (which are provided in your lab manuals under the "Lecture Sketches" section), along with the multiple choice questions, some of which will come from your weekly (or daily) quizzes and investigations (see below). You can make up exams only if you have a note from a doctor, a letter from the university regarding some university-sponsored activity, a copy of a jury summons, a police report, or some other document that can be verified. This legitimate proof for why you cannot attend class that day must be provided to the instructor as far in advance of the exam as possible.

- **Online Quizzes Or Investigation Worksheet Quizzes:** Every week on your own time outside of lecture (some may be done during class time), you will complete either an online quiz Or (you're choice) investigation quiz (from the investigations at the back of each chapter) that covers information from the textbook and from online materials. Each of the 12 online quizzes/investigations is worth approximately 7.5 points (with variations), for a total of 90 points. See the Lecture Schedule at the end of this syllabus for due dates. You can use your textbook or your notes to answer these quizzes, but not another person. Each quiz/investigation has a time limit of 60 minutes, which will not be enough to look up every answer during a quiz. In other words, you will need to read the textbook, view online materials, and study your notes before beginning the time-limited online quiz/investigations. Use the What-to-Know List as your guide of what to study in preparation for the online quizzes. Some of the quiz questions might relate to assigned readings that are not discussed in lecture; you are thus expected to read all of the assigned reading. Quizzes cannot be reopened after the due date has passed. **PLEASE NOTE: 90 POINTS (MENTIONED ABOVE) ARE POSSIBLE FOR ALL OF THE QUIZZES- YOU CAN TAKE ALL OF THE QUIZZES AND ANY OF THE INVESTIGATIONS FOR EACH CHAPTER- ANY POINTS YOU EARN OVER 90 POINTS (AND LESS THAN 110 POINTS) WILL BE USED FOR YOUR GRADING CURVE AT THE END OF THE SEMESTER. SO, YOU ARE RESPONSIBLE FOR YOUR CURVE (UP TO 20 POINTS). IF YOU ARE CONFUSED ON THIS, WE WILL DISCUSS IT IN CLASS; AND PLEASE NOTE THE DUE DATES FOR ALL QUIZZES AND INVESTIGATIONS.**
- **Geology Journal with sketches, photos, entries, etc., that show how geology relates to your life.** The purpose of your journals is to relate science (specifically geology or earth science) to your everyday life. You are expected to make entries no less than 2x per week (on two separate days- make sure the day/date/time/location is noted), and these will be checked occasionally during the semester prior to the due date. Making connections is a big part of your task; by connecting processes, features, principles of what you are learning to what you experience throughout your day, you can relate the influence of earth science on your life and become educated in understanding more of your daily experience through new perspectives.

Your creativity is important in making these connections as some will be more obvious than others (yet everything can be connected in some way). These connections should show how they influence (or affect) your daily life on a personal level.

Your weekly entries should follow the subject matter studied each week (such as when we discuss "minerals" you should connect minerals to your life); your judgement and creativity are important in making your entries.

Ten journal posts are required (two entries per post) for a total of 20 entries (over a ten week period); you instructor will provide you with half of the journal topics.

Please find a journal (or some type of sketchbook) that is easy to carry around (you can find relatively cheap ones at Michaels, for example...or I'm sure at Wal-mart) so you can make entries on the spot (when you are experiencing or observing something that you want to use as an entry).

The above information about journals is also provided under the "Discussions" link to the left along with a grading rubric.

- **Geologic Art Exhibition**: This will be worth 60 points and presented at the end of the semester (in place of a research paper during your third evaluation). You will work with two other classmates to create geology-themed artwork for an exhibition (presentation) during final's week (to be discussed in class).
- **Sketch Homework:** Weekly Assignments- lecture sketches/short answer questions. Each chapter generally has three sketches/short answer questions associated with the chapter material that will be assigned. This is where I will choose your test questions for the "Sketch Tests" described above. I will review your work in this section occasionally (generally prior to each test) and while the work can be done at your own pace, all of the work assigned is required to be done prior to each test (for the chapters being tested over). We will also spend much time in class discussing and working on your sketches preparing you for the lecture tests (which are a significant part of your grade).
- **Semester Assignment**: Possible Earthquake or Volcano Assignment...to be assigned and done during the lab time (to be discussed in class).
- **In-Class Participation:** During the semester we will spend a significant part of your lecture meeting discussing and working on your sketches and journals (and any other questions you might have over the class material). You are expected to participate in discussions and while there are no points awarded directly for participation, it can hurt your grade if you are frequently absent or don't contribute to the activities. d
- **Labs/Lab Practicum:** Our labs will compliment the lectures, and are generally tied to the material we cover in lecture each week; for example, the week we cover minerals in lecture will be followed by a minerals lab that week. Our labs will be mostly done in-class using the required lab manual (see "textbooks" above) and there will be an online component for completing lab exercises. There will be approximately 12 labs at 10 points each for a total of 120 points and another ~80 pts possible online; and there will be one lab practicum worth 50 points over rock and mineral ID.

Due Dates: The above assignments have specifically defined due dates as noted in the Course Schedule and Assignment Schedule later on in this syllabus. It is your responsibility to consult the Lecture Schedule and Assignment Schedule for all due dates. The instructor will not assume the responsibility of reminding you that an assignment is due or that an exam will be given.

Score/Grade Posting: All scores will be posted on Blackboard. You have 7 days after a score has been posted to dispute an entry. After the 7-day period, the score stands as entered. Do not wait until the end of the semester to check your scores (e.g., for quizzes, test, labs, etc). Grades are not assigned by a “curve”, where a certain percent is assigned “A”, “B”, etc. Instead, you are competing against my expectations, not your classmates, and there is no predetermined percentage of “A”, “B”, and “C”. The exact division between letter grades will not be determined until the final points are totaled, but the grade breaks will not be raised above typical values (e.g., the A-B grade break will be 90% or lower, etc.). No items are weighted—your grade is based solely on total points received.

Dates for Withdrawals: There is a course withdrawal deadline—check the university calendar to find the course withdrawal deadline for this semester. The course withdrawal deadline is a no-tolerance policy. When the withdrawal period ends, students only have one option – a grade of F for the course.

Incomplete Grade: A mark of “I” is given only when a student who is otherwise doing acceptable work is unable to complete a course because of an illness or other situation beyond the student’s control. The student is required to arrange for the completion of the course requirements with the instructor. The university does not allow instructors to assign a grade of “I” simply because a student has quit attending classes and/or completing assignments.

Attendance

- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See General Catalog for details.
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

Classroom Etiquette

Class Disruptions:

These disruptions are defined as activities that distract the instructor or other students from the course content. Such activities include talking or whispering, cell phones ringing, tardiness or whispering about another tardy student, noisily preparing to leave the class prior to the end of the period, etc. Disruptive students will be asked to leave the class. Students who disrupt or interfere with a class repeatedly may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the General Catalog.

Audio/Visual Recording:

Neither audio nor video recording will be permitted except under special circumstances prescribed by the DSPS. You are also not allowed to use the camera in your phone to record pictures or video, without expressed consent of the instructor.

Cellular Telephones/Text Messaging/Pagers:

Please turn off all cellular telephones and pagers during class time – this includes text messaging. If your work situation requires that you be on call, please notify the instructor prior to class. Text messaging is not permitted in this class.

Use of Laptops In the Classroom:

You are not permitted to use laptops in class during lectures or during work on lecture assignments/checkpoints/exercises from your class handbook (one exception is if you are using an electronic book for class, then you are permitted to use your laptop only during work out of the class handbook). You may use your laptop during breaks only as long as you are not disturbing your neighbors. If you use your laptop during lecture you will lose all in-class points for the day; and if you continue to use your laptop during unauthorized times or are disrupting other students you will be asked to leave the classroom. If it is essential that you use your laptop to take notes during lectures please see me about this and we can possibly work something out.

Food and Drink:

Food and drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed.

Children in the Classroom:

Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

Academic Honesty:

- **Plagiarism** is taking and presenting as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to 'cite a source' correctly, you must ask for help.
- **Cheating** is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.
- Anyone caught cheating or will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the General School Catalog for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to, the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment; (e) using a commercial term paper service.

Additional Help – Discretionary Section and Language

Help Along The Way: Many students enter this class with a bit of anxiety. Other students may have various disabilities, including test anxiety, which may make traditional classroom environments very difficult. Don't worry, almost all such students before you have passed this course – many with very high grades! The success of many of these students, though, was in part because they attended class regularly, took advantage of my office hours, or obtained help from their peers. If you are having difficulty understanding the course work, please contact me immediately. Also, the college has learning centers, disability resource centers, and counseling centers to address the various needs of students. (see examples next).

- **Learning Labs**:There are several 'labs' on campus to assist you through the use of computers, tutors, or a combination. Please consult your college map for the Math Lab, Reading & Writing Lab, and Study Skills Center (library). Please speak to the instructor about labs unique to your specific program.
- **Library Services**: There is more to our library than just books. You have access to tutors in the Study Skills Center, study rooms for small groups, and online access to a wealth of resources.

Disabled Student Programs and Services (DSPS)

Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible. The DSP&S office is located in Building 2100, telephone 760-355-6313, if you feel you need to be evaluated for educational accommodations.

Student Counseling and Health Services

Students have counseling and health services available, provided by the pre-paid Student Health Fee. We now also have a fulltime mental health counselor. For information see **http://www.imperial.edu/students/student-health-center/ (http://www.imperial.edu/students/student-health-center/)** . The IVC Student Health Center is located in the Health Science building in Room 2109, telephone 760-355-6310.

Student Rights and Responsibilities

Students have the right to experience a positive learning environment and due process. For further information regarding student rights and responsibilities, please refer to the IVC General Catalog available online at **http://www.imperial.edu/index.php?option=com_docman&task=doc_download&gid=4516&Itemid=762 (http://www.imperial.edu/index.php?option=com_docman&task=doc_download&gid=4516&Itemid=762)**

Information Literacy

Imperial Valley College is dedicated to helping students skillfully discover, evaluate, and use information from all sources. Students can access tutorials at **http://www.imperial.edu/courses-and-programs/divisions/arts-and-letters/library-department/info-lit-tutorials/ (http://www.imperial.edu/courses-and-programs/divisions/arts-and-letters/library-department/info-lit-tutorials/%20)**

Anticipated Class Schedule / Calendar

Lecture/Test/Quiz Schedule for Geol 100: Physical Geology, Spring 2019

Week of	Topic/Lecture/Test/Quiz	Readings
Feb 11-17 (Presidents Holiday Feb 15-18)	Introduction; short lecture-Nature of Geology	Chapter 1
Feb 18-24	Investigating Geologic Questions *Quiz or Investigation 1&2; due Sunday	Chapter 2
Feb 25-Mar 3	Geologic Time	Chapter 9

	*Quiz or investigation 9; due Sunday	
Mar 4-10	Plate Tectonics *Quiz or Investigation 3; due Sunday	Chapter 3
Mar 11-17	Earthquakes and Earth's Interior *Quiz or investigation 12; due Sunday	Chapter 12
Mar 18-24	**Test1: Chapter's 1-3,9 and 12 (Lecture Sketches; Research Paper)**	Chapter 4
Mar 25-31	Minerals *Quiz or investigation 4; due Sunday	Chapter 4
Apr 1-7	Igneous Rocks *Quiz or investigation 5; due Sunday	Chapter 5
Apr 8-14	Volcanoes *Quiz or investigation 6; due Sunday	Chapter 6
Apr 15-21 (Easter Sunday)	Sedimentary Rocks *Quiz or investigation 7; due Sunday	Chapter 7
Apr 22-28	Spring Break	Spring Break
Apr 29-May 5	Metamorphic Rocks *Quiz or investigation 8 due Sunday	Chapter 8
May 6-12	**Test 2: Chapter's 4-8 (Lecture Sketches; Research Paper)**	Chapter 18
May 13-19	Energy and Mineral Resources *Quiz or investigation 18; due Sunday	Chapter 18
May 20-26	Seafloor and Continental Margins *Quiz or investigation 10; due Sunday	Chapter 10

May 27-June 2 (Memorial Day May 27)	Shoreline, Glaciers and Changing Sea Levels *Quiz or investigation 14 due Sunday	Chapter 14
June 3-8	**GEOLOGIC ART EXHIBITION**	

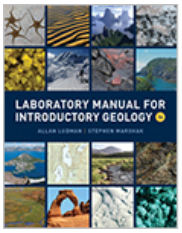
*All due dates and distribution of grade points is subject to change according to class needs.

Lab Schedule Geol 100 Spring 2019-no traditional manual required; you will need to purchase a copy of the lab manual from reprographics prior to our first lab during the second week of classes.

Week of	Topic/Lecture/Test	Readings
Feb 11-17 (Presidents Holiday Feb 15-18)	Exercises from Chapter 1 (Setting the Stage for Learning about the Earth) Video: Mystery of the Megaflood	Lab Manual
Feb 18-24	Continue "Setting the Stage" and Intro Chapters	Lab Manual
Feb 25-Mar 3	Exercises from Chapter 17 (Geologic History)	Lab Manual
Mar 4-10	Exercises from Chapter 2 (Plate Tectonics)	Lab Manual
Mar 11-17	Exercises from Chapter 16 (Earthquakes) **SEMESTER ASSIGNMENT over EARTHQUAKES (possible)**	Lab Manual
Mar 18-24	Exercises from Chapter 4 (Minerals, Rocks and Rock Cycle)	Lab Manual
Mar 25-31	Exercises from Chapter 3 (Minerals)	Lab Manual
Apr 1-7	Exercises from Chapter 5 (Igneous Rocks)	Lab Manual
Apr 8-14	Field Trip Salton Sea **SEMESTER ASSIGNMENT over VOLCANOES (possible)**	Field Trip
Apr 15-21	Exercises from Chapter 6 (Sedimentary Rocks)	manual
Apr 22-28	Spring Break	Spring Break
Apr 29-May 5	Exercises from Chapter 7 (Metamorphic Rocks)	Lab Manual
May 6-12	Exercises from Chapter 15 (Geologic Structures)	Lab Manual
May 13-19	Exercises from Chapter 8 (Earth's Landforms)	Lab Manual
May 20-26	Exercises from Chapter 9 (Topographic Maps)	Lab Manual
May 27-June 2 (Holiday May 27)	Exercises from Chapter 11 or 13 (your choice) on Glacial or	Lab Manual

	Desert landforms	
June 3-8	**Lab Practicum over Rocks and Mineral ID** **Test 3: Chapter's 10 and 14, 18 (Lecture Sketches)**	Final's Week

*All due dates and distribution of grade points is subject to change according to class needs.



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Laboratory Manual for Introductory Geology
Third Edition
Allan Ludman and Stephen Marshak

Navigating your course

- Modules will bring you to the complete list of resources for your text.
- Support for WW Norton resources can be requested at **support.wwnorton.com (http://books.wwnorton.com/books/helpdeskrequest.aspx)** .

Instructors

- Please customize due dates and republish quizzes before use.

Course Summary:

Date	Details	
Wed Feb 20, 2019	**EXERCISE 1.1: The Submergence Rate Along the Maine Coast (https://imperial.instructure.com/courses/8650/assignments/130796)**	due by 11:59pm
	EXERCISE 1.6: The Challenge of Perspective and Visualizing Scale (https://imperial.instructure.com/courses/8650/assignments/130779)	due by 11:59pm
Sun Feb 24, 2019	**investigation Ch 1 (https://imperial.instructure.com/courses/8650/assignments/125899)**	due by 11:59pm
	investigation Ch 2 (https://imperial.instructure.com/courses/8650/assignments/125898)	due by 11:59pm
	Mystery of the Megaflood (https://imperial.instructure.com/courses/8650/assignments/125912)	due by 11:59pm
	Quiz Chapters 1 and 2 (https://imperial.instructure.com/courses/8650/assignments/125905)	due by 11:59pm
Wed Feb 27, 2019	**EXERCISE 17.2: Relative Ages in Cross-Cutting Situations (https://imperial.instructure.com/courses/8650/assignments/130696)**	due by 11:59pm
Sun Mar 3, 2019	**investigation Ch 9 (https://imperial.instructure.com/courses/8650/assignments/125909)**	due by 11:59pm
	Quiz Chapter 9 (https://imperial.instructure.com/courses/8650/assignments/125887)	due by 11:59pm

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Tue Mar 5, 2019	EXERCISE 2.11: Plate Direction: Footprints of a Moving Plate (https://imperial.instructure.com/courses/8650/assignments/130746)	due by 11:59pm
	EXERCISE 2.12: Long-Term Movement of the Pacific Plate (https://imperial.instructure.com/courses/8650/assignments/130686)	due by 11:59pm
Wed Mar 6, 2019	EXERCISE 2.10: Estimating the Amount and Rate of Motion in a Continental Transform Fault (https://imperial.instructure.com/courses/8650/assignments/130811)	due by 11:59pm
	EXERCISE 2.1: Recognizing Plates and Plate Boundaries (https://imperial.instructure.com/courses/8650/assignments/130750)	due by 11:59pm
Sun Mar 10, 2019	investigation Ch 3 (https://imperial.instructure.com/courses/8650/assignments/125904)	due by 11:59pm
	Quiz Chapter 3 (https://imperial.instructure.com/courses/8650/assignments/125886)	due by 11:59pm
Wed Mar 13, 2019	EXERCISE 16.2: Locating Earthquake Epicenters (https://imperial.instructure.com/courses/8650/assignments/130801)	due by 11:59pm
	EXERCISE 16.3: Reading a Travel-Time Curve (https://imperial.instructure.com/courses/8650/assignments/130816)	due by 11:59pm
Thu Mar 14, 2019	Research Paper #1 For Evaluation 1 (https://imperial.instructure.com/courses/8650/assignments/125940)	due by 6:30pm
Sun Mar 17, 2019	investigation Ch 12 (https://imperial.instructure.com/courses/8650/assignments/125888)	due by 11:59pm
	Quiz Chapter 12 (https://imperial.instructure.com/courses/8650/assignments/125892)	due by 11:59pm
Wed Mar 20, 2019	EXERCISE 4.1: Environments of Rock Formation (https://imperial.instructure.com/courses/8650/assignments/130781)	due by 11:59pm
Wed Mar 27, 2019	EXERCISE 3.3: People Have Diagnostic Properties Too (https://imperial.instructure.com/courses/8650/assignments/130745)	due by 11:59pm
	EXERCISE 3.8: Everyday Uses of Minerals (https://imperial.instructure.com/courses/8650/assignments/130719)	due by 11:59pm
Sun Mar 31, 2019	investigation Ch 4 (https://imperial.instructure.com/courses/8650/assignments/125902)	due by 11:59pm
	Quiz Chapter 4 (https://imperial.instructure.com/courses/8650/assignments/125896)	due by 11:59pm
Wed Apr 3, 2019	EXERCISE 5.3: Interpreting Igneous Cooling Histories from Grain Size (https://imperial.instructure.com/courses/8650/assignments/130711)	due by 11:59pm
Sun Apr 7, 2019	investigation Ch 5 (https://imperial.instructure.com/courses/8650/assignments/125911)	due by 11:59pm
	Quiz Chapter 5 (https://imperial.instructure.com/courses/8650/assignments/125903)	due by 11:59pm
Sun Apr 14, 2019	investigation Ch 6 (https://imperial.instructure.com/courses/8650/assignments/125897)	due by 11:59pm
	Quiz Chapter 6 (https://imperial.instructure.com/courses/8650/assignments/125908)	due by 11:59pm
Sun Apr 21, 2019	investigation Ch 7 (https://imperial.instructure.com/courses/8650/assignments/125910)	due by 11:59pm
	Quiz Chapter 7 (https://imperial.instructure.com/courses/8650/assignments/125890)	due by 11:59pm
Tue Apr 23, 2019	Research Paper #2 for Evaluation 2 (https://imperial.instructure.com/courses/8650/assignments/125941)	due by 6:30pm
Tue Apr 30, 2019	Ch 18 Hmwk (https://imperial.instructure.com/courses/8650/assignments/125915)	due by 6:30pm

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Sun May 5, 2019	investigation Ch 8 (https://imperial.instructure.com/courses/8650/assignments/125901)	due by 11:59pm
	Quiz Chapter 8 (https://imperial.instructure.com/courses/8650/assignments/125893)	due by 11:59pm
Sun May 19, 2019	Quiz Chapter 18 (https://imperial.instructure.com/courses/8650/assignments/125889)	due by 11:59pm
Tue May 21, 2019	Research Paper #3 for Evaluation 3 (https://imperial.instructure.com/courses/8650/assignments/125942)	due by 6:30pm
Sun May 26, 2019	investigation Ch 10 (https://imperial.instructure.com/courses/8650/assignments/125895)	due by 11:59pm
	Quiz Chapter 10 (https://imperial.instructure.com/courses/8650/assignments/125900)	due by 11:59pm
Sun Jun 2, 2019	investigation Ch 14 (https://imperial.instructure.com/courses/8650/assignments/125891)	due by 11:59pm
	Quiz Chapter 14 (https://imperial.instructure.com/courses/8650/assignments/125907)	due by 11:59pm
	bioclastic assign 10-16 (https://imperial.instructure.com/courses/8650/assignments/125913)	
	CEEP 1 Theory (https://imperial.instructure.com/courses/8650/assignments/125914)	
	CH 01 PRE-LAB WORKSHEET (https://imperial.instructure.com/courses/8650/assignments/130819)	
	CH 02 PRE-LAB WORKSHEET (https://imperial.instructure.com/courses/8650/assignments/130695)	
	CH 03 PRE-LAB WORKSHEET (https://imperial.instructure.com/courses/8650/assignments/130777)	
	CH 04 PRE-LAB WORKSHEET (https://imperial.instructure.com/courses/8650/assignments/130728)	
	CH 05 PRE-LAB WORKSHEET (https://imperial.instructure.com/courses/8650/assignments/130780)	
	CH 06 PRE-LAB WORKSHEET (https://imperial.instructure.com/courses/8650/assignments/130712)	
	CH 07 PRE-LAB WORKSHEET (https://imperial.instructure.com/courses/8650/assignments/130773)	
	CH 08 PRE-LAB WORKSHEET (https://imperial.instructure.com/courses/8650/assignments/130737)	
	CH 09 PRE-LAB WORKSHEET (https://imperial.instructure.com/courses/8650/assignments/130762)	
	CH 10 PRE-LAB WORKSHEET (https://imperial.instructure.com/courses/8650/assignments/130691)	
	CH 11 PRE-LAB WORKSHEET (https://imperial.instructure.com/courses/8650/assignments/130742)	
	CH 12 PRE-LAB WORKSHEET (https://imperial.instructure.com/courses/8650/assignments/130729)	
	CH 13 PRE-LAB WORKSHEET (https://imperial.instructure.com/courses/8650/assignments/130783)	
	CH 14 PRE-LAB WORKSHEET (https://imperial.instructure.com/courses/8650/assignments/130813)	
	CH 15 PRE-LAB WORKSHEET (https://imperial.instructure.com/courses/8650/assignments/130804)	
	CH 16 PRE-LAB WORKSHEET (https://imperial.instructure.com/courses/8650/assignments/130704)	
	CH 17 PRE-LAB WORKSHEET (https://imperial.instructure.com/courses/8650/assignments/130770)	
	Ch 4 Assign (https://imperial.instructure.com/courses/8650/assignments/125916)	
	chap 5 Assign oct 9 (https://imperial.instructure.com/courses/8650/assignments/125917)	
	chapter 14 hmwk (https://imperial.instructure.com/courses/8650/assignments/125918)	
	Chapter 5 Investigation Hmwk (https://imperial.instructure.com/courses/8650/assignments/125919)	
	chapter 8 hmwk (https://imperial.instructure.com/courses/8650/assignments/125920)	
	EXERCISE 1.10: Rates of Mountain and Ocean Formation (https://imperial.instructure.com/courses/8650/assignments/130761)	
	EXERCISE 1.2: Reservoirs in the Earth System (https://imperial.instructure.com/courses/8650/assignments/130795)	

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	EXERCISE 1.5: Measuring the Density of Earth Materials (https://imperial.instructure.com/courses/8650/assignments/130741)
	EXERCISE 1.7: Moving Along (https://imperial.instructure.com/courses/8650/assignments/130799)
	EXERCISE 1.9: Picturing Geologic Time (https://imperial.instructure.com/courses/8650/assignments/130710)
	EXERCISE 10.10: Estimating Potential Flood Problems (https://imperial.instructure.com/courses/8650/assignments/130812)
	EXERCISE 10.11: U.S.- Mexico Border Issue (https://imperial.instructure.com/courses/8650/assignments/130698)
	EXERCISE 10.1: Differences Between Streams (https://imperial.instructure.com/courses/8650/assignments/130823)
	EXERCISE 10.2: Getting Familiar With Properties of Streams (https://imperial.instructure.com/courses/8650/assignments/130718)
	EXERCISE 10.3: Why Some Streams Meander But Others Are Straight (https://imperial.instructure.com/courses/8650/assignments/130797)
	EXERCISE 10.4: Interpreting Stream Behavior (https://imperial.instructure.com/courses/8650/assignments/130821)
	EXERCISE 10.6: Recognizing Drainage Patterns (https://imperial.instructure.com/courses/8650/assignments/130748)
	EXERCISE 10.7: Recognizing Stages of Landscape Erosion (https://imperial.instructure.com/courses/8650/assignments/130725)
	EXERCISE 10.8: Deducing the History of the Susquehanna River (https://imperial.instructure.com/courses/8650/assignments/130707)
	EXERCISE 10.9: Origin of Incised Meanders (https://imperial.instructure.com/courses/8650/assignments/130784)
	EXERCISE 11.1: Comparison of Glaciers and Streams (https://imperial.instructure.com/courses/8650/assignments/130808)
	EXERCISE 11.2: Comparison of Landscapes Formed By Glaciers and Streams (https://imperial.instructure.com/courses/8650/assignments/130771)
	EXERCISE 11.3: Erosional Features of Continental Glaciation (https://imperial.instructure.com/courses/8650/assignments/130739)
	EXERCISE 11.4: Landforms at the Terminus of a Continental Glacier (https://imperial.instructure.com/courses/8650/assignments/130769)
	EXERCISE 11.5: Eskers and Drumlins (https://imperial.instructure.com/courses/8650/assignments/130726)
	EXERCISE 11.7: Case Histories in Geologic Reasoning: A Glacial Dilemma (https://imperial.instructure.com/courses/8650/assignments/130826)
	EXERCISE 11.8: Retreat of the Athabasca Glacier, Alberta, Canada (https://imperial.instructure.com/courses/8650/assignments/130743)
	EXERCISE 12.2: The Difference Between Porosity and Permeability (https://imperial.instructure.com/courses/8650/assignments/130803)
	EXERCISE 12.3: Karst Topography (https://imperial.instructure.com/courses/8650/assignments/130778)
	EXERCISE 12.5: A Geological Puzzle (https://imperial.instructure.com/courses/8650/assignments/130687)
	EXERCISE 12.6: Environmental Issue 1: Where Has My Water Gone? (https://imperial.instructure.com/courses/8650/assignments/130752)
	EXERCISE 12.7: Environmental Issue 2: Someone Is Polluting My Water! (https://imperial.instructure.com/courses/8650/assignments/130715)
	EXERCISE 13.1: Comparing Arid and Humid Landscapes (https://imperial.instructure.com/courses/8650/assignments/130701)

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	EXERCISE 13.2: Comparing Processes in Arid and Humid Regions (https://imperial.instructure.com/courses/8650/assignments/130786)
	EXERCISE 13.3: Interpreting Arid Landscapes (https://imperial.instructure.com/courses/8650/assignments/130807)
	EXERCISE 13.4: Interpreting the History of Sand Dunes (https://imperial.instructure.com/courses/8650/assignments/130815)
	EXERCISE 14.12: Coastal Damage (https://imperial.instructure.com/courses/8650/assignments/130702)
	EXERCISE 14.1: Erodability and Stability of Shoreline Materials (https://imperial.instructure.com/courses/8650/assignments/130791)
	EXERCISE 14.2: Effects of Climate Change on Shorelines (https://imperial.instructure.com/courses/8650/assignments/130703)
	EXERCISE 14.3: Effects of Plate Tectonic Processes on Shorelines (https://imperial.instructure.com/courses/8650/assignments/130768)
	EXERCISE 14.4: Recognizing Emergent and Submergent Shorelines (https://imperial.instructure.com/courses/8650/assignments/130793)
	EXERCISE 14.7: Erosional Processes and Shoreline Landforms (https://imperial.instructure.com/courses/8650/assignments/130708)
	EXERCISE 14.8: Interpreting Depositional Shoreline Processes (https://imperial.instructure.com/courses/8650/assignments/130798)
	EXERCISE 14.9: Depositional Processes and Shoreline Landforms (https://imperial.instructure.com/courses/8650/assignments/130697)
	EXERCISE 15.10: Completing Block Diagrams (https://imperial.instructure.com/courses/8650/assignments/130814)
	EXERCISE 15.13: Interpreting Simple Geologic Maps (https://imperial.instructure.com/courses/8650/assignments/130806)
	EXERCISE 15.14: Horizontal and Vertical Contacts on a Geologic Map (https://imperial.instructure.com/courses/8650/assignments/130766)
	EXERCISE 15.15: Interpreting Structurally Controlled Landscapes (https://imperial.instructure.com/courses/8650/assignments/130736)
	EXERCISE 15.16: The Observation Peak Quadrangle of Wyoming (https://imperial.instructure.com/courses/8650/assignments/130788)
	EXERCISE 15.17: The Grand Canyon in Arizona (https://imperial.instructure.com/courses/8650/assignments/130692)
	EXERCISE 15.18: Making a Geologic Map From Outcrop Data (https://imperial.instructure.com/courses/8650/assignments/130782)
	EXERCISE 15.19: Practical Applications of Structural Geology (https://imperial.instructure.com/courses/8650/assignments/130744)
	EXERCISE 15.1: Picturing Stress (https://imperial.instructure.com/courses/8650/assignments/130731)
	EXERCISE 15.2: The Basic Types of Contacts (https://imperial.instructure.com/courses/8650/assignments/130709)
	EXERCISE 15.5: Age Relations of Folded Strata (https://imperial.instructure.com/courses/8650/assignments/130759)
	EXERCISE 15.6: Basins and Domes (https://imperial.instructure.com/courses/8650/assignments/130820)
	EXERCISE 15.7: Faulted Strata on a Block Diagram (https://imperial.instructure.com/courses/8650/assignments/130734)
	EXERCISE 15.8: Interpreting Unconformities on a Block Diagram (https://imperial.instructure.com/courses/8650/assignments/130735)
	EXERCISE 15.9: Interpreting Intrusions on a Block Diagram (https://imperial.instructure.com/courses/8650/assignments/130713)

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	EXERCISE 16.4: Locating an Earthquake Epicenter and Determining When it Occurred (https://imperial.instructure.com/courses/8650/assignments/130827)
	EXERCISE 16.5: Determining the Magnitude of an Earthquake (https://imperial.instructure.com/courses/8650/assignments/130740)
	EXERCISE 16.8: Why is a Tsunami so Powerful? (https://imperial.instructure.com/courses/8650/assignments/130758)
	EXERCISE 17.1: Relative Ages of Horizontal Rocks (https://imperial.instructure.com/courses/8650/assignments/130732)
	EXERCISE 17.3: Applying the Principle of Inclusions (https://imperial.instructure.com/courses/8650/assignments/130753)
	EXERCISE 17.5: Applying Physical Principles of Relative Age Dating (https://imperial.instructure.com/courses/8650/assignments/130751)
	EXERCISE 17.6: Dating Rocks by Overlapping Fossil Range (https://imperial.instructure.com/courses/8650/assignments/130754)
	EXERCISE 17.7: Combining Numerical and Relative Age Dating (https://imperial.instructure.com/courses/8650/assignments/130717)
	EXERCISE 17.8: Lithologic Correlation (https://imperial.instructure.com/courses/8650/assignments/130720)
	EXERCISE 2.13: Why Are There More Earthquakes and Volcanoes on One Side of Some Continents Than on the Other? (https://imperial.instructure.com/courses/8650/assignments/130776)
	EXERCISE 2.3: Putting the Early Evidence Together (https://imperial.instructure.com/courses/8650/assignments/130694)
	EXERCISE 2.4: Interpreting Ocean Ridge Magnetic Stripes (https://imperial.instructure.com/courses/8650/assignments/130730)
	EXERCISE 2.5: Estimating Seafloor Spreading Rates (https://imperial.instructure.com/courses/8650/assignments/130763)
	EXERCISE 2.6: Comparing Seafloor Spreading Rates of Different Ocean Ridges (https://imperial.instructure.com/courses/8650/assignments/130767)
	EXERCISE 3.1: Classifying Earth Materials (https://imperial.instructure.com/courses/8650/assignments/130785)
	EXERCISE 3.2: Is It a Mineral or a Rock? (https://imperial.instructure.com/courses/8650/assignments/130724)
	EXERCISE 3.4: Constructing and Using a Relative Hardness Scale (https://imperial.instructure.com/courses/8650/assignments/130809)
	EXERCISE 3.5: Recognizing Breakage in Minerals (https://imperial.instructure.com/courses/8650/assignments/130774)
	EXERCISE 3.6: Heft and Specific Gravity (https://imperial.instructure.com/courses/8650/assignments/130756)
	EXERCISE 4.2: Describing a Rock's Texture (https://imperial.instructure.com/courses/8650/assignments/130760)
	EXERCISE 4.3: Understanding the Origin of Rock Textures (https://imperial.instructure.com/courses/8650/assignments/130716)
	EXERCISE 4.4: Interpreting the Texture of Real Rocks (https://imperial.instructure.com/courses/8650/assignments/130775)
	EXERCISE 4.5: Identifying Minerals in Rocks (https://imperial.instructure.com/courses/8650/assignments/130824)
	EXERCISE 4.6: Classifying Rocks: Igneous, Sedimentary, or Metamorphic? (https://imperial.instructure.com/courses/8650/assignments/130772)
	EXERCISE 5.10: Origin of Mafic Magmas in Different Tectonic Settings (https://imperial.instructure.com/courses/8650/assignments/130733)

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	EXERCISE 5.11: Origin of Intermediate Magmas in Subduction Zones (https://imperial.instructure.com/courses/8650/assignments/130727)
	EXERCISE 5.12: Origin of Granite and Rhyolite in Continental Rifts (https://imperial.instructure.com/courses/8650/assignments/130721)
	EXERCISE 5.14: Living With Volcanoes (https://imperial.instructure.com/courses/8650/assignments/130723)
	EXERCISE 5.1: A First Look at Igneous Rocks (https://imperial.instructure.com/courses/8650/assignments/130817)
	EXERCISE 5.2: A First Look at Igneous Rock Textures (https://imperial.instructure.com/courses/8650/assignments/130705)
	EXERCISE 5.4: Interpreting Porphyritic Textures (https://imperial.instructure.com/courses/8650/assignments/130789)
	EXERCISE 5.5: Interpreting Fragmental (Pyroclastic) Textures (https://imperial.instructure.com/courses/8650/assignments/130810)
	EXERCISE 5.8: Insights From Melting Experiments (https://imperial.instructure.com/courses/8650/assignments/130699)
	EXERCISE 5.9: Explaining Igneous Features Found in the Field (https://imperial.instructure.com/courses/8650/assignments/130747)
	EXERCISE 6.10: Interpreting Outcrops (https://imperial.instructure.com/courses/8650/assignments/130690)
	EXERCISE 6.1: Looking at Weathering Products (https://imperial.instructure.com/courses/8650/assignments/130757)
	EXERCISE 6.4: What Could Move the Clasts? (https://imperial.instructure.com/courses/8650/assignments/130792)
	EXERCISE 6.5: Interpreting Sorting (https://imperial.instructure.com/courses/8650/assignments/130714)
	EXERCISE 6.6: Recognizing the Difference Between Breccia and Conglomerate (https://imperial.instructure.com/courses/8650/assignments/130700)
	EXERCISE 6.8: Identifying Cements (https://imperial.instructure.com/courses/8650/assignments/130805)
	EXERCISE 6.9: Gaining Insight Into Depositional Environments of Sedimentary Rocks (https://imperial.instructure.com/courses/8650/assignments/130825)
	EXERCISE 7.1: Effects of Metamorphic Agents (https://imperial.instructure.com/courses/8650/assignments/130706)
	EXERCISE 7.2: Metamorphic Minerals as a Key to Protolith Composition (https://imperial.instructure.com/courses/8650/assignments/130749)
	EXERCISE 7.3: Visualizing Preferred Orientation Due to Reorientation (https://imperial.instructure.com/courses/8650/assignments/130818)
	EXERCISE 7.5: Interpreting the Protoliths of Metamorphic Rocks (https://imperial.instructure.com/courses/8650/assignments/130764)
	EXERCISE 7.6: Mineral Alignment and Type of Metamorphism (https://imperial.instructure.com/courses/8650/assignments/130800)
	EXERCISE 7.7: Interpreting Metamorphic Rock History (https://imperial.instructure.com/courses/8650/assignments/130790)
	EXERCISE 7.8: Metamorphism and Investment (https://imperial.instructure.com/courses/8650/assignments/130722)
	EXERCISE 8.1: Which Image Works Best? (https://imperial.instructure.com/courses/8650/assignments/130802)
	EXERCISE 8.2: Locating Cities Using Latitude and Longitude (https://imperial.instructure.com/courses/8650/assignments/130755)
	EXERCISE 8.3: Locating Points with the Public Land Survey Grid (https://imperial.instructure.com/courses/8650/assignments/130688)
	EXERCISE 8.4: Locating Points with the UTM Grid (https://imperial.instructure.com/courses/8650/assignments/130765)

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	EXERCISE 8.5: Giving Directions (https://imperial.instructure.com/courses/8650/assignments/130794)
	EXERCISE 9.3: How Topographic Maps Show Landform Shapes (https://imperial.instructure.com/courses/8650/assignments/130693)
	EXERCISE 9.4: Determining Elevations From Topographic Maps (https://imperial.instructure.com/courses/8650/assignments/130738)
	EXERCISE 9.5: Understanding Stream Behavior From Topographic Maps (https://imperial.instructure.com/courses/8650/assignments/130822)
	EXERCISE 9.6: Rules of Contour Lines on Topographic Maps (https://imperial.instructure.com/courses/8650/assignments/130787)
	EXERCISE 9.8: Survival of the Fittest (Those Who Can Read Topographic Maps) (https://imperial.instructure.com/courses/8650/assignments/130689)
	Extra Credit Incl Hike (https://imperial.instructure.com/courses/8650/assignments/125921)
	Field Trip Salton Sea (https://imperial.instructure.com/courses/8650/assignments/125927)
	fold fault homework extra credit (https://imperial.instructure.com/courses/8650/assignments/125922)
	Geologic Art Exhibit for Evaluation 3 (https://imperial.instructure.com/courses/8650/assignments/134998)
	Investigation 1 (https://imperial.instructure.com/courses/8650/assignments/125906)
	Lab 10: Ch 15 Geo Structures (https://imperial.instructure.com/courses/8650/assignments/125923)
	Lab 11: Ch 8 Earth's Landforms (https://imperial.instructure.com/courses/8650/assignments/125932)
	Lab 12: Ch 9 Topo Maps (https://imperial.instructure.com/courses/8650/assignments/125953)
	Lab 1: Ch 1 Introductory (https://imperial.instructure.com/courses/8650/assignments/125928)
	Lab 2: Ch 17 Geo History (https://imperial.instructure.com/courses/8650/assignments/125924)
	Lab 3: Ch 2 Plate Tect (https://imperial.instructure.com/courses/8650/assignments/125930)
	Lab 4: Ch 16 Earthquakes (https://imperial.instructure.com/courses/8650/assignments/125931)
	Lab 5: Ch 4 Rock Cycle (https://imperial.instructure.com/courses/8650/assignments/125929)
	Lab 6: Ch 3 Minerals (https://imperial.instructure.com/courses/8650/assignments/125935)
	Lab 7: Ch 5 Igneous Rx (https://imperial.instructure.com/courses/8650/assignments/125925)
	Lab 8: Ch 6 Sedi Rx (https://imperial.instructure.com/courses/8650/assignments/125944)
	Lab 9: Ch 7 Meta Rx (https://imperial.instructure.com/courses/8650/assignments/125934)
	Lab Practicum (https://imperial.instructure.com/courses/8650/assignments/125926)
	Lecture Handbook (https://imperial.instructure.com/courses/8650/assignments/136760)
	moon lab (https://imperial.instructure.com/courses/8650/assignments/125936)
	Oct 2 Hmwk Ch 5 (https://imperial.instructure.com/courses/8650/assignments/125937)
	Personal Sketch (https://imperial.instructure.com/courses/8650/assignments/125938)
	Quiz and/or Investigation Total (https://imperial.instructure.com/courses/8650/assignments/125939)
	roll sept 13 (https://imperial.instructure.com/courses/8650/assignments/125943)
	Sketch Chapter 3 Hmwk (https://imperial.instructure.com/courses/8650/assignments/125946)
	Sketchbook Test 1 (https://imperial.instructure.com/courses/8650/assignments/134997)
	Sketchbook Test 2 (https://imperial.instructure.com/courses/8650/assignments/125945)
	Sketchbook Test 3 (https://imperial.instructure.com/courses/8650/assignments/125933)
	Sketches Rubric (https://imperial.instructure.com/courses/8650/assignments/136762)

Date	Details
	Test 1 Chapters 1,2,3 (https://imperial.instructure.com/courses/8650/assignments/125894)
	Test 1 Redo (https://imperial.instructure.com/courses/8650/assignments/125947)
	Test 1 Sketch Test (https://imperial.instructure.com/courses/8650/assignments/125948)
	Test 2 (https://imperial.instructure.com/courses/8650/assignments/125949)
	Test 2 Sketch Test (https://imperial.instructure.com/courses/8650/assignments/125950)
	Test 3 (https://imperial.instructure.com/courses/8650/assignments/125951)
	Test 3 Sketch Test (https://imperial.instructure.com/courses/8650/assignments/125952)
	Volcano Assignment (https://imperial.instructure.com/courses/8650/assignments/125954)
	Weekly Journal Posts (https://imperial.instructure.com/courses/8650/assignments/125955)
	Weekly Journal Rubric and 10 Journal Topics; Info on Geology Art Exhibit (https://imperial.instructure.com/courses/8650/assignments/136761)