

Course Content

This course

- transfers to four-year colleges and universities
- satisfies the physical/natural science GE requirements
- is the first geology course for both geology and non-geology and non-science majors

The course content is set by the four year colleges and universities (your LPC instructor does not get to decide the course content).

To meet the transfer requirements for Geology 1, this course must cover the contents of your textbook. All 24 chapters. We can not ignore some of the chapters at our own choice. This course needs to transfer to whatever four-year college LPC students want to transfer to, whether that is Berkeley, UC Davis, Cal State East Bay or the University of Michigan!

So what you need to do, is learn the basics of the topics in the textbook. You don't have to learn all the nitty gritty details, and you don't have to read every case study or example. What you need to get is the basic concepts and principles.

Course Organization

Here's where the instructor gets to choose. I get to choose what order we cover the topics in. There is no set order and each instructor has their own opinions and preferences. Geology textbooks do not agree, as there is no 'set' or obvious order. Learning the basics of geology is not like learning the basics of a math class.

These are the basic fundamentals of geology:

- The Geologic Time Scale
- Basic common rock types
- Plate Tectonics
- Surface Processes (erosion, weathering, etc.)
 - Including the Atmosphere and Oceans
- Internal Processes (what goes on in the mantle and core)
- Applications (e.g., the geology of other planets)

Of these, the first three are the basic starting points where intro students need to begin. To understand Geology, you need a basic understanding of the Geologic Time Scale, the basic rock types and Plate Tectonics. And each of these three fundamentals is inter-related. It is very difficult to fully appreciate the Geologic Time Scale if you don't know anything about rocks, which is where the basic data for the time scale comes from. On the other hand, it is challenging to fully appreciate the basic rock types if you don't understand Plate Tectonics, which is how many of the rocks are formed. And Plate Tectonics is difficult to understand if you don't have a basic understanding of both the Geologic Time Scale and the basic rock types.

So where to start?

If you skim through the first chapter in your textbook, you'll find that it includes

- An introduction to what Geology is
- An introduction to the Geologic Time Scale (not in detail)
- An introduction to the basic rock groups (again, without details)
- An introduction to the formation of the Earth (very brief)
- An introduction to the Earth itself (again, very brief)

All in Chapter 1. And Chapter 2 is dedicated to Plate Tectonics.

Later in the textbook, an entire chapter is devoted to Geologic Time, and another entire chapter for Geologic History and the formation of the Earth, and then there are four chapters on rocks and the process that create them.

I follow your textbook's approach with this brief introduction at the beginning of the course, with more intensive focus on the topics later in the term.

Course and Module Topics

match the topics to the chapter titles in the textbook

HOMEWORK TOPICS		LECTURE TOPICS
VOCABULARY LIST /Student Glossary and Exam	MODULE 1 Intro To The Earth Geologic Time	MODULE 2 Intro To The Earth Plate Tectonics
MODULE 3 Mass Wasting Deserts & Eolian (Wind) Systems Metamorphic Rocks		MODULE 4 An Intro To Rocks and Minerals Igneous Rocks Volcanoes
MODULE 5 Natural Resources Glaciers & Global Climate Rock and Mineral Review		MODULE 6 Sedimentology/Stratigraphy Weathering/Erosion Rivers
MODULE 7 Groundwater Planetary Geology Final Exam Review Section		MODULE 8 Shorelines/Beaches Geomorphology (Landforms) Structural Geology: Faults & Folds Earthquakes & Seismology: Inside the Earth

Modules

- The course content is grouped into 8 modules.
- Each Module generally covers the content of 2-4 of the textbook chapters.
- There is a one-page summary study guide for each Module in the back of the course syllabus/handbook
- The Green Geology Study Guide is grouped to follow the Module organization

Order of Topics

For the traditional on-campus classes, I lecture on the even-numbered Module topics, in the order they are presented in the syllabus. (Intro to the Earth, Formation of the Earth, Plate Tectonics, then an Intro to Rocks and Minerals, followed by Igneous Rocks and then Volcanoes, etc.).

The Odd-numbered Modules are homework topics. For example, Module 1 is homework while we work on Module 2 in class. The exams for Modules 1 and 2 timeout at the same time. Module 3 is homework while we work on Module 4 in class, and the exams for Modules 3 and 4 timeout at the same time.

The course starts with

- The Vocabulary List Overview
- and then
- in class, we go over Module 2, the introduction to the Earth and then Plate Tectonics while
 - students learn the basics of Module 1, the Geologic Time Scale, in their homework

-> Online Distance Ed Students may choose to work on Modules 1 and 2 at the same time, or they may choose to simply work through the content of Module 1 and then Module 2 and then Module 3. It's your choice. Just remember that Modules 1 and 2 timeout at the same time. Watch the calendar and the timeout dates.

-> The Friday Geology 9 course covers the content of the odd-numbered Modules.

See the [Geology 9 course syllabus](#) for the schedule of topics.

Listen to the [Geology 9 audio file](#) for more information and details.

-> The topics in the odd-numbered Modules are the ones that are assigned as homework. These topics are generally the easier, simpler topics and chapters. The order of the even-numbered Modules follows a flow and progression that I find natural and useful in terms of the building and layering of geologic ideas and principles. The odd-numbered Modules are generally topics that do not need to be in a specific order, nor do they need a linear progression of previous topics. Mass Wasting (landslides), for example, is not a topic that relies much on other geologic topics.

To summarize:

- The course content is mandated by the transfer agreements with the four-year colleges and universities, and this course must cover the basics of the chapters in your textbook.
- For this course, the topics are organized into 8 Modules, with 2-4 chapters per Module.
- Students in the on-campus class should be working on the odd-numbered modules while we go over the even-numbered Modules in class. The Friday Geology 9 course covers the basic content of the odd-numbered modules.
- Students in the online DE (distance education) sections can follow the same and work on Modules 1 and 2 together, or you may choose to work more linearly, and work Module 1 and then Module 2. Always remember, however, that Modules 1 and 2 timeout at the same time.