

# Earth and Environment (GE141) Syllabus

Spring, 2012

## 1. Instructor

Dr. Walter A. (Bill) Sullivan

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## 2. Texts

Chernikoff, S., and Whitney, D., 2007, Geology: An introduction to Physical Geology, 4<sup>th</sup> edition: Pearson (Prentice Hall), Inc., Upper Saddle River, New Jersey, 679 p.

Lab manual by Bruce Rueger. Available in the bookstore.

## 3. Course objectives

The geosciences encompass the study of the Earth, its formation, its history, the processes that continue to shape it today, and our interaction with it. In my opinion, an introductory level geoscience course should help you learn: (1) How Earth processes operate, how they shape the environment we live in, and how they can affect people and; (2) where Earth resources come from, the impacts of using these resources, and how we can reduce these impacts. In addition to these two primary goals this course also seeks to improve your critical-thinking and data-analysis skills.

## 4. Course structure

Because of the class size, this course has a traditional lecture format with hour-long examinations. The laboratory part of the course is taught separately by Melvin Croft. We are doing our best to keep the lecture section of the course relevant to the lab section. However, there may not always be complete overlap between the two because the field trips have to be crammed into the second half of the course.

## 5. Assessment

Points and grades can be earned as follows. All exams will be cumulative.

Item	Points possible
In-class activities	20
Home-buyers projects	200
First one-hour exam	100
Second one-hour exam	100
Final exam	180
Lab	400
Extra credit	Up to 60 points

Grade	Percent	Grade	Percent
A+	≥97.5	C+	79.4–77.5
A	97.4–92.5	C	77.4–72.5
A-	92.4–89.5	C-	72.4–69.5
B+	89.4–87.5	D+	69.4–67.5
B	87.4–82.5	D	67.4–62.5
B-	82.4–79.5	D-	62.4–59.5

You may earn up to 60 points of extra credit by memorizing the geologic time scale posted on the website. The last question of *each* of the three exams will ask you to fill in the eras, periods, their beginning and ending dates, and the important geologic events. These are worth 5 points for the eras and periods, 5 points for the dates, and 10 points for the important events.

## 6. Attendance and academic dishonesty policies

You must take exams on the day scheduled. Absolutely no exams will be given early. The only acceptable reasons for missing an exam are: (1) an illness for which you were in the Health Center or a Doctor's care, (2) a death in your immediate family, or (3) participation in a

college-sanctioned activity that requires you to be away from campus. In case of an illness or death, please contact the Dean of Students' Office (207-859-4250; dosoffice@colby.edu) as soon as possible and request that they contact your advisor and your instructors. **The Health Center will inform the Dean for you ONLY if you request it—otherwise, they will not release this information to anyone.** For athletic activities, I should receive an e-mail notification from your coach prior to the exam.

If you miss a lecture for any reason, you are responsible for obtaining any notes and handouts from one of your peers. My *Power Point* slides will be posted on the course website. You will not be allowed to make up any in-class activity without a valid excuse as outlined for exams above. All assignments are due at the start of class. Unless prior arrangements are made, I will deduct 10% of the total grade for each 24-hour period an assignment is late. Make-up assignments and exams must be turned in within one week of your return to class.

Don't cheat. I will follow College policies on attendance and academic dishonesty. These can be found in the [College Catalogue](#) and the [Student Handbook](#).

### 7. Tentative course schedule

Topic	Assigned Reading
Course introduction	
An introduction to the Geosciences	Chapter 1
The early Earth	Chapter 1
Plate tectonics	Chapter 12
Minerals— <i>1st home buyers assignment</i>	Chapter 2
Igneous rocks	Chapter 3
Volcanoes and volcanism	Chapter 4
Weathering and soils— <i>2nd home buyers assignment</i>	Chapter 5
Sedimentary processes and sedimentary rocks	Chapter 6
Metamorphism and metamorphic rocks	Chapter 7
Geologic time— <i>3rd home buyers assignment</i>	Chapter 8
Folds, faults, and mountain belts	Chapter 9
Earthquakes	Chapter 10
Rivers and floods— <i>4th home buyers assignment</i>	Chapter 15
Ground water	Chapter 16
Glaciers and ice ages	Chapter 17
Earth resources	Chapter 20
Coastal processes	Chapter 19

Exam-I: Friday, March 2nd

Exam-II: Wednesday, April 11th

Final exam: May 10, 6:00 PM