

**Field Geology I
GEOLOGY 235**

Instructor: Dr. Miranda

Office: Live Oak Bldg., Room 1204

Office Hours: Tuesdays 2 p.m. – 3 p.m., or by appointment
(818) 677-4671

Email: elena.miranda@csun.edu

TEXTBOOK (REQUIRED): Geology in the Field by Robert R. Compton, 1985.

SYLLABUS

The Field Geology I course is designed to teach you the basics of field geology procedures. The primary objectives of this course are for you to learn the basic techniques and skills needed to 1) make observations in the field 2) collect geologic data and 3) *interpret* field relationships. During the course, you will learn how to properly take notes and make illustrations in a geologic notebook, take measurements of planar and linear features using a Brunton compass, orient yourself in the field using a topographic base map and your compass, learn basic geologic mapping techniques, and learn how to construct a formal written field report.

POLICIES

It is the student's responsibility to know and follow the rules and policies that I have outlined in this syllabus. You agree to abide by these policies by accepting this syllabus and any subsequent updated syllabi.

This is a challenging course for geology majors. It will require time, diligence and a significant amount of effort in order to master the material. As a rule of thumb, one unit of undergraduate course credit for an average student at an accredited university (that's CSUN!) will require 2 hours of outside study. This course is worth 2 credits; an average student (C grade) can expect to work at least 4 hours *outside of class* per week for this course. If you want to earn a B or an A in the course, then you should expect to work more hours than the minimum expectation. I expect that you will spend at least this amount of time outside of lecture reading the textbook *before* coming to class, doing the lab exercises, and reviewing/studying key concepts. I expect exemplary and punctual attendance, participation, and mental engagement in the lectures. I encourage you to take advantage of office hours and the classroom forum for discussion; I am here to help you with your learning process. **That being said, I want to emphasize that the responsibility for learning the material is ultimately yours.** Learning new material means that you have internalized and retained new concepts well enough to apply to new situations to solve geologic problems—this comes with time and effort.

Syllabus

At times through the semester, it may become necessary for me to update the syllabus to match the topics and pace that we cover the material. Therefore, future syllabi may replace this version that you have received on the first day of class. You will find the updated syllabi on the Moodle page for this course.

Email

I will often send important course information via email. Check your account for important 'GEOL 235' messages on a daily basis. University policy states that you are responsible for course information sent via email. Your responsibility includes keeping your inbox under quota in order to receive incoming messages, understanding how to forward email to an off-campus account (if you choose to do so), understanding how to download and save files sent via email, and following instructions and due dates for assignments, announcements, or queries sent via email. *Be advised: I do not re-send or forward course email correspondence to alternate email addresses for students who cannot successfully forward their CSUN email to an off-campus account.*

Below are some guidelines for completing each homework/lab and field exercise.

1. **NO LATE WORK will be accepted or graded for feedback.** I am extremely strict about this policy. An assignment is considered 'late' whether it is turned in one minute or one hour after a deadline.
2. Each homework/lab is due at the beginning of the class period a week after the day it is assigned, unless otherwise designated in class or via email or Moodle. **I do NOT accept or grade late homework/labs.** If you turn in an on-time, but incomplete, homework/lab exercise, you must have at least 60% of the material completed in order for me to grade it. Otherwise, your homework/lab exercise grade will be an automatic zero.
3. Your name must be on every page of the materials that you hand in to me, or it must be stapled.
4. Strive for clear, professional work—this will help you form good habits of documentation both in the field and in the laboratory.
 - a) Use a *sharp* pencil—preferably mechanical (0.5 mm)
 - b) Circle your final answers
 - c) Write legibly
 - d) Label all parts of the diagrams or sketches that you create
 - e) Show all your work—I will assign partial credit if I can follow your thought process, but I will be unforgiving in grading if you do not show the work that led you to a particular answer.

EVALUATION DETAILS

Your grade in this course will be assessed by reviews of your geologic field notebook, field and laboratory quizzes (including pop quizzes), laboratory assignments, geologic field maps and cross-sections, electronic field maps and cross-sections, written geologic field reports, field and classroom participation (helping load and unload vehicles, field meal cooking and cleanup teams), and punctual attendance both in the field (includes field trip departure times, in-field morning departure and rendezvous times) and in the classroom.

The plus/minus letter grading system will be used for this course. I don't "grade on a curve". In the event that you have a borderline grade, I will use your attendance, class participation, and overall effort dedicated to the course as a basis for assigning you a grade. The grading scale for the graded option is as follows:

A = 93-100

A- = 90-92

B+ = 87-89

B = 83-86

B- = 80-82

C+ = 77-79

C = 73-76

C- = 70-72

D+ = 67-69

D = 63-66

D- = 60-62

F = < 60

I do not give 'Incompletes' for grades. No exceptions.

If you choose to drop the course, it is your responsibility to formally drop the class before the first add/drop date; I will not administratively drop you from the course. Under normal circumstances, you cannot drop the course after the second week. Only with proof of a serious and compelling reason (see Schedule of Classes) will a student be allowed to drop after the second week.

MISSED CLASSES

I expect that you will attend every class unless you are seriously ill. Though attendance is not formally graded, I keep track of attendance as a means of assessing your commitment to the course. Should your grade fall on a borderline between two letter grades, I will use attendance as a deciding factor. The last few weeks of the course will not have formal lectures, as you are expected to make regular progress on your field report. Though there are not formal lectures, your attendance is still required in the classroom so that your progress may be monitored.

As this is a course in field geology techniques, field trip attendance is crucial. **You are required to attend the weekend field trips.** Failure to do so will result in no credit for field participation. If bad weather causes cancellation of one or more field days, the missed days will be made up when the weather is good, so keep your weekend calendar open for any such occurrence.

CLASSROOM ETIQUETTE

Cell phones and pagers are an unwanted and rude distraction during the lecture. Either turn them off during class, or do not bring them to class. You may bring a laptop for the computer exercises, but you are to be working on course-related material while you are in my class.

Playing games, surfing the internet and instant messaging are unprofessional distractions from your primary responsibilities: paying attention and learning the material.

Make every attempt to get to class on time. I will begin lectures promptly at the start of class; if you are late, it is your responsibility to get notes or information about assigned work from another student. If you must be late to class due to an unforeseen event, enter the room as quietly as possible so as to not disturb your fellow students. You are already familiar with the parking and traffic situations in the Los Angeles area; these are not valid excuses for tardiness.

EQUIPMENT FOR THE CLASS

Classroom Supplies:

- Graph paper (10 squares per inch)
- USB flash drive or external hard drive
- Pencils – 2H, 4H (2 each)
- Ball point pens (2)
- Colored pens—red, black, blue, green fine point
- Colored pencils
- Eraser
- Protractor or Zip-A-Dip (purchase in Dept. Office)
- Ruler
- *Field notebook(s) (purchase in Dept. Office) – use in first 4 weeks of class*
- *Brunton compass (check out from Tech. Office) – use in first 4 weeks of class*
- *Field pouch – use in first 4 weeks of class*
- *Field belt – use in first 4 weeks of class*

Geologic equipment for the field

- Digital camera
- Map board
- Binder clips/rubber bands for field notebook and map board
- Hammer
- Brunton compass (check out from Tech. Office)
- Hand lens
- Field notebook(s) (purchase in Dept. Office)
- Field map(s) (provided)
- Covered clipboard or case for field map
- Acid bottle (optional)
- Safety pin, dissecting needle or hat pin (2)
- Marking pen (Sharpie)
- Masking tape (optional)
- Compton's GEOLOGY IN THE FIELD
- Field pouch
- Field belt

Clothing and accessories for the field

- Long pants
- Long-sleeved shirts

- Extra socks
- Warm coat or sweater
- Boots (water proofing recommended)
- Hat (wide brim recommended)
- Work gloves (optional)
- Rainsuit or poncho
- Water bottles, **2-liter capacity minimum**
- Map case or vest with pockets
- Day pack large enough for lunch, samples, and cold/rainy weather gear

Miscellaneous items

- Toilet paper
- Sunscreen
- Camera
- First aid kit
- Chapstick
- Insect repellent
- Fine-tooth comb and/or tweezers (for pulling cactus spines out!)

Overnight equipment

Be prepared to camp in a fairly primitive fashion without running water or flush toilets.

- Tent with rainfly
- Sleeping bag
- Sleeping pad
- Thermo-rest/Crazy Creek camp chair
- Food and water
- Head lamp

SAFETY AND RESPONSIBILITY IN THE FIELD

Working in the field, while rewarding and exciting, can also be dangerous if you are unprepared or careless. Dangers in the field include: sunburn; heat exhaustion; hypothermia; giardia; insect stings/bites; snake bites; cactus needles; cuts, abrasions, sprains, broken bones, or concussion from falling or being hit by falling rocks; flash flooding; and being hit by lightning. To decrease your chance of injury, we advise you to:

- Work with a field partner
- Wear suitable field attire
- Carry rain gear, first aid, etc. in your daypack
- Drink plenty of water
- Work at a pace suited to your fitness level
- Exercise caution on steep slopes, especially when others are working downhill from you
- Use protective eyewear when hammering on the outcrop
- Exercise caution when hammering on the outcrop near others
- Move to lower ground during a thunderstorm; stay out of narrow dry washes

If you are afraid of any of the above dangers, to the extent that you do not want to take this course, then you advised to look for a different university or change your major immediately.

ACADEMIC DISHONESTY

Official California State University policy states: “The maintenance of academic integrity and quality education is the responsibility of each student within this university and the California State University system. Cheating or plagiarism in connection with an academic program at a campus is listed in Section 41301, Title 5, California Code of Regulations, as an offense for which a student may be expelled, suspended, or given a less severe disciplinary sanction. Academic dishonesty is an especially serious offense and diminishes the quality of scholarship and defrauds those who depend upon the integrity of the campus programs. Such dishonesty includes but is not limited to: cheating, fabrication, facilitating academic dishonesty, and plagiarism.”

I do not tolerate any form of academic dishonesty. We expect that you will uphold the integrity of the academic environment here at CSUN; however, if we find evidence of academic dishonesty, we will report such evidence to the Office of the Vice President for Student Affairs and recommend disciplinary action. If you are caught cheating in my class, you will be given a failing grade for the assignment, and possibly a failing grade for course depending on the severity of the incident (what constitutes a serious offence is at my discretion). This includes, but is not limited to, plagiarism, facilitating cheating by another student, using electronic files from peer or former student maps or cross-sections, or lying about an excuse for missing an assignment deadline. Plagiarism also includes the use of paragraphs or even long phrases and diagrams or parts of diagrams from peer or former student reports and maps in your own report without proper acknowledgement of the source. Proper acknowledgement of sources clears the student from academic dishonesty charges, but does not fulfill the work obligations of the student and the acknowledged item will count “0” points on the report.

SCHEDULE

WEEK 1 Introduction to field work, orientation measurements
Jan. 25 Compton 1, 2

WEEK 2 Brunton compass, topographic maps, geologic field notes
Feb. 1 Compton 2, 6
Deadline: Lab 1 Due

WEEK 3 Topography and geologic field contacts, rule of V's
Feb. 8 Compton 3
Deadline: Lab 2 Due

WEEKEND ONE-DAY FIELD TRIP: SATURDAY FEB 11

WEEK 4 Basics of Geologic Mapping, Geologic Structures
Feb. 15 Compton 4, 5

WEEK 5 Basics of Geologic Mapping, Geologic Structures
Feb. 22 Compton 4, 5

Deadline: Lab 3 Due

WEEK 6 Preparing Geologic Cross-Sections
Feb. 29 Compton 6

WEEK 7 Preparing Geologic Cross-Sections
Mar. 7 Compton 6

Deadline: Lab 4 Due

WEEKEND FIELD TRIP: MARCH 10 – MARCH 11

WEEK 8 Using Adobe Illustrator to Make Electronic Geologic Maps and Figures
Mar. 14 (Computer required)

WEEK 9 Using Adobe Illustrator to Make Electronic Geologic Maps and Figures
Mar. 21 (Computer required)

Deadline: Rough Draft of Adobe Illustrator Geologic Map Due (printout)

WEEK 10 Using Adobe Illustrator to Make Electronic Geologic Maps and Figures
Mar. 28 (Computer required)

Deadline: Rough Draft of Adobe Illustrator Cross-Section Due (printout)

Apr. 4 SPRING BREAK WEEK APRIL 4-8

WEEK 11 Preparing a Geologic Report
Apr. 11

Deadline: Final Adobe Illustrator Geologic Map Due (printout)

WEEK 12 No class
Apr. 18

Deadline: Final Adobe Illustrator Geologic Cross-Section Due (printout)

WEEK 13 Geologic Report Revisions
Apr. 25

Deadline: Rough Draft of Geologic Report due via TurnItIn.com at 2:00 p.m. SHARP

WEEK 14 Geologic Report Revisions
May 2

WEEK 15 Geologic Report Revisions
May 9

Deadline: Final Draft of Geologic Report due via TurnItIn.com at 2:00 p.m. SHARP