

Geology ES 392**Spring 2006****Instructor:** Dr. Jeff Myers**Office:** NS214**Ph:** 838-8365**email:** myersi@wou.edu**Office Hours:** MWF 12:00-1:00; T 8:00-9:00, T/Th. 8:00-9:00, by appointment, or any time my door is open**Text:** Prothero and Schwab, 2004, Sedimentary Geology 2nd ed.

Week of:	Topic	Reading	LAB
4/3	Scope of the class Major groups of sedimentary rocks	Chapter 1	Mineral and Lithic Grains
4/10	Components of Siliciclastic Rocks Weathering Mineral and Lithic Components Compositional Nomenclature Provenance	Chapter 2 Chapter 5	Grain Textures Textural Description
4/17	Clastic Sedimentary Transport Textural Nomenclature	Chapter 5	Granulometric Analysis
4/24	Depositional Processes and Bedforms	Chapter 3-4	Coarse-grained sedimentary Rocks Quiz 1
5/1	Post Depositional Structures	Chapter 4	Bedforms and their interpretation
5/8	Sequences and facies Field trip overview	Chapter 4	Paleocurrent Analysis
May 12-13 Fieldtrip Leave 12:00 PM –Ret 4:00 PM - The Eocene Elkton and Coaledo Formations at Sunset Bay			
5/15	Field trip workshop	Chapter 4/7	Bedforms and their interpretation Quiz #2
5/22	Clastic Sedimentary Environments 1 Alluvial environments	Chapter 8	Secondary Structures and Diagenesis
5/29	Clastic Sedimentary Environments 2 Marine Transitional Environments Shallow marine environments	Chapter 9 Chapter 10	Secondary Structures and diagenesis Quiz #3
6/5	Clastic Sedimentary Environments 3 Deep Marine Environments	Chapter 10	Makeup period

Final Exam: Tuesday, June 13, 8:00-10:00 AM, NS 218

Grading:	Lab reports	20%
	Rock Reports	15%
	Fieldtrip Project	15%
	Mini-Midterms (3)	20%
	Final	30%

Graded Assignments:

Lab reports are due ONE WEEK from the date the lab takes place. Late reports will be docked 10%/day late (yes, including weekends!, and NO exceptions). Because this is a 300 level course, I expect you to devote adequate time outside of class hours to complete assignments.

Field trips are mandatory, and cannot be made up. Although the field trip project is valued at a relatively small percentage of your course grade, field trip information IS fair game on tests. It is your responsibility to arrange time off for the trips well in advance.

Because midterm exams and the final require considerable setup, I will not offer makeup exams except in exceptional cases arranged through the Dean's Office. If I do permit you to make up an exam, you must be prepared to do so within three days of the original exam time. I reserve the right to assign you a grade or give the exam orally in lieu of the original exam at my discretion.

Grades:

My grading policy is simple. Grades will not be curved; however the grading scale is adjusted in such a way that the highest score given for any test or assignment is equivalent to a 100% score. Hence, if the highest grade given on a midterm is 93/100, grades will be calculated out of a score of 93, rather than 100.

Course Policies:

- You are required to attend lab. Attendance will be assessed from your turned-in assignments. Tests will emphasize information covered in lecture. You will find that the readings are NOT a substitute for participation in lecture.
- Quizzes will be announced one or more lectures beforehand. Quizzes will NOT be cumulative, will emphasize material covered in homework questions, and may not be made up without a formal WRITTEN explanation forwarded to me through the Dean's office. BLANKET EMAILS FROM YOUR COACH/CLUB ADVISOR/PROFESSOR ARE NOT CONSIDERED "FORMAL", and I do not read them. The final examination WILL be cumulative.
- If for any reason you expect to miss class, **let me know beforehand if at all possible**. If you are going to be out of town for a game, you **MUST** tell me personally beforehand. There are no exceptions to these rules. If you cannot reach me, contact the Office of Student Affairs (88821), and they will notify me.
- If you would benefit from an alternative testing environment I encourage you to work with the Office of Disability Services (Werner Center 012 phone 88250).
- Cheating or copying in either lab or lecture is unacceptable, and will result in a ZERO score on that assignment, and may result in consequences at the administrative level.
- I do not assign incompletes in class unless instructed to do so by the Dean's Office.
- Office hours are YOUR time. Please use them to your benefit. If you would like to organize a study group during office hours, please do it. If you need to see me at a time outside of normal office hours time, please stop by or call. If I'm busy, please don't take it personally.

NOTE ON USE OF COMPUTER TECHNOLOGY Local and system-wide malfunctions are a normal and expected aspect of any computer system. It is YOUR responsibility to save files on drives that are always accessible to you. Computer malfunction is NOT an excuse for turning in late or incomplete assignments.

Writing Guidelines

"Scientific writing" should be direct, simple, brief, vigorous, lucid and precise.

1) Start out by asking yourself what is your main message - the single point or points you want your reader to know, to remember?

a) who is your reader? Geologist? Layman? Amateur? Politician? The answer will determine the terminology and detail you will put in your report.

b) what do you think your reader wants to know? The answer may surprise you and cause you to write the paper for the reader and not for yourself.

2) What is the problem, what techniques were used to solve it, where was it solved, when, by whom? This will be the introduction. In brief papers the introduction may be limited to one sentence.

3) Then write the title. The title abstracts your paper; and the entire paper should reflect the title.

4) Then write the main conclusions. This will focus your attention upon #5.

5) List information (observations) required to substantiate those conclusions. For example:

a) decide what figures you need to substantiate or illustrate the conclusions.

b) describe the kinds of rocks and their relations to one another

i) stratigraphy, contacts, structure

ii) how they got to be that way - geologic history

c) observations must have a specific bearing on the problem addressed in your paper

6) Derive logical and clearly expressed interpretations from the data. Interpretation may follow observation in a paragraph or a separate section of the paper, but observation and interpretation must at all times be clearly distinct.

7) Summarize data and interpretation critical to the resolution of the problem in a tight conclusion.

Five rules:

1) Be simple and concise - "make every word tell" (Strunk)

"Insufficient data are presently in hand to completely negate the distinct possibility that partial or entire removal of the above mentioned augite from the magma chamber is not a factor of importance." Huh?

2) Make sure of the meaning of every word - this, above all, increases precision

"Jennifer had not the slightest idea what Latitude was or Longitude either, but she thought they were nice grand words to say."

Don't be like Jennifer, look up these words in your dictionary before you use them:
constrain, comprise, manifest, obviate, evince.

3) Use verbs instead of abstract nouns

Type B lava lies upon type A (direct, vigorous). But we have to suffer the following woolly syntax:

"The separation of type A from Type B was evidenced by a contact where type B cinders were placed upon the type A by B flowage onto A."

Non-verbs: evidence, source, outcrop

Colorless verbs: accomplished, achieved, attained, carried out, conducted, done, effected, experienced, facilitated, given, implemented, indicated, involved, made, obtained, occurred, performed, proceeded, produced, required, utilized

Woolly words - area, character, conditions, field, level, nature, problem, process, situation, structure, system

Words incorrectly used as synonyms (look up each in your dictionary): amount, concentration, content, level; it's, its; alternate, alternative; majority, bulk; minimal, negligible, slight; to, too, two; varying, various, varied, variable, different; further, farther; comprise, compose, constitute, consist; between, among

Vague qualifiers - can usually be omitted because they mean nothing: fairly, quite, rather, several, very much, all of

Buzzwords - everyone has to use these words at least once: constrain, essentially, architecture, scenario

4) Avoid or break up noun clusters and stacked modifiers, e.g., single component rock acquisition system = rock hammer

5) Avoid "school newspaper" syntax - ponderous left branching sentences

"Avoiding the obvious in the preceding instructions, students commonly major in geology."