

Syllabus: Geology 370 – Fall 2013

Dr. William W. Little – ROM 146 – littlew@byui.edu – 208/496-7679

Office Hours: MWF 12:30 – 1:30

Description	Geology 370 is a combination lecture and laboratory course that covers the origin, classification, distribution, and correlation of sedimentary rock bodies and their use in interpreting geological history. This course will provide a broad overview of the processes involved in the production of sedimentary rock bodies and the formation of stratigraphic successions, the classification of sedimentary rocks and rock bodies, the recognition of ancient depositional environments, and the methods and uses of stratigraphic (basin) analyses.
Objectives	1) Develop a working knowledge of formal rock classification schemes 2) Recognize common sedimentary rock structures and understand their origins 3) Be able to make detailed descriptions of sedimentary rocks and rock bodies 4) Develop a working knowledge of basic sedimentological concepts, including facies, facies assemblages, depositional environments, depositional systems, systems tracts, vertical successions, and stacking patterns 5) Recognize common depositional environments and systems as preserved in the rock record 6) Develop a familiarity and understanding of the stratigraphic code 7) Develop a thorough understanding of more commonly used stratigraphic units 8) Develop a basic understanding of the principles of sequence stratigraphy 9) Be able to conduct regional stratigraphic correlations based on outcrop or subsurface data 10) Understand basic stratigraphic principles associated with base-level fluctuation, sediment supply, and the development of accommodation space
Texts	<i>Principles of Sedimentology and Stratigraphy</i> (any edition) by Sam Boggs; <i>The Sedimentary Record of Seal-level Change</i> by Coe. Other assigned readings.
Expectations	Attend all class sessions. Arrive on time and do not depart early . Study assigned materials prior to the class session in which they are to be covered and be prepared to participate in classroom discussions. Submit all assignments and exams by the due date. Complete work in a neat and professional manner . All writing should be typed using a technical style and correct grammar and spelling. Attend field trips and department seminars. Read weekly from professional journals. If you are an average student, it is expected that you will spend approximately 2 hours outside of class for each hour of lecture credit (i.e. 6 hours/week of homework). If you are an exceptional student, you will likely spend more. Comply with all school policies, including honesty and the dress code.
Grades	Grades will be based on scores from three exams, several laboratory-type exercises, an atlas of sedimentology and stratigraphy, a three-day field trip, class attendance (including being on time, not leaving early, and using time appropriately), attendance at department seminars and workshops, and completion of outside readings.
Exercises	The format of this course consists mostly of lectures followed by in-class exercises. Many, if not most, projects will need to be completed outside of class.
Exams	There will be three outside-of-class exams. These are designed to measure how well you understand and can apply the material you have studied.
Atlas/Notebook	You will be required to develop an atlas of sedimentology and stratigraphy that can be used as a professional reference. The atlas should include course notes that integrate lecture and reading materials; however, the primary component will consist of captioned figures representing features such as facies models, idealized stratigraphic columns, sedimentary structures, and conceptual diagrams.
Laboratory	The class is scheduled for a two-hour block each Monday, Wednesday, and Friday, rather than three one-hour lecture periods and a separate three-hour lab. This has been done to allow in-class time to begin work on exercises with assistance from a TA. You are expected to remain for the entire two hours and to spend that time working on lab exercises or your atlas . This is not a time to “get caught up” in other courses or do other non-Geology 370 activities.
Field Trips	The only way to truly learn geology is in the field; therefore, the course will include one major 3-day field trip and four local trips that will run for three to four hours each on Tuesday or Thursday afternoons (dates TBA). Departure time will be discussed in class.
Letter grades will be assigned as follows: 94-100% = A 80-82% = B- 67-69% = D+ 90-93% = A- 77-79% = C+ 63-66% = D 87-89% = B+ 73-76% = C 60-62% = D- 83-86% = B 70-72% = C- <60% = F	
Note: This syllabus is subject to change. If changes occur, they will be discussed in class.	

