Course Syllabus
GEOL302 – Spring Semester 2016
Fundamentals of Structural Geology

Instructor: Dr. Eric Ferré
301B Parkinson Lab - MC4324
Office Hours: M12-2, W8-9, F9-10 or by appointment
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Classes: Monday 10.00-10.50 am  Parkinson 110
Wednesday 10.00-10.50 am  Parkinson 110
Friday 10.00-10.50 am  Parkinson 110
Laboratory: Tuesday 01.00- 03.50 pm  Parkinson 110

Course Content and Objectives: GEOL302 Fundamentals of Structural Geology is an introductory course in the scientific study of geological structures and their significance, designed for both science and non-science oriented students. The objectives of the course are to familiarize students with the principles of Structural Geology and to provide a working knowledge of strain analysis. The topic is multi-disciplinary by nature and reference to other geologic disciplines, such as sedimentology, petrology, hydrogeology and economic geology will be numerous. GEOL302 Fundamentals of Structural Geology will promote active learning through laboratory projects, student activities and one field trip. Check the list of subjects and assignments to be covered during the lecture part of GEOL302. If it becomes necessary to alter the sequence, topics, or assignments, notice will be given in class.

Honors - Students taking this course as an Honors course must design an analog deformation experiment illustrating the rheological behavior of commonly available materials. Analog deformation experiments typically use materials such as sand, flour, plasticine, oil, rice grains to model viscous, plastic or elastic behaviors. The experiment needs to include a variable yielding distinct deformation pathways, such as temperature or strain rate. The student will demonstrate the experiment to the class during a lab period. The student will write a 2-page illustrated outline of the experiment. The outline will be graded on scientific content, organization, ability to present thoughts clearly, grammar, and spelling. The experiment will be graded on creativity, reproducibility and quantification of results.

Required Texts


Recommended Readings:

Requirements: Successful completion of GEOL302 "Fundamentals of Structural Geology I" is required for the B.A. and B.Sc. degrees in Geology. This is justified by the fact that the boundaries between rock units are often defined by geological structures resulting from rock deformation. Regardless of your specific interest in Geology or future specialty, you will need a working knowledge of Structural Geology. Also remember that students who have successfully completed Structural Geology GEOL302 find the Field Geology GEOL454 easier.

• Questions and comments during the lecture period are welcome and encouraged.
• Each laboratory is designed to investigate a structural geology concept or method. You are expected to collaborate but each student is responsible for written materials.
• Attendance for the full duration of all lectures and laboratory sessions is required. It is essential for success in this course.
• It is essential that reading assignments are completed BEFORE the material is discussed in class. Short quizzes designed to test comprehension of reading assignments will be given from time to time.
• Academic honesty: Any form of academic dishonesty will result in a zero for that assignment, quiz, exam, as well as possible disciplinary action. See your student handbook for guidelines.

How to get a good grade in GEOL302?
* attendance at all lectures and labs
* completion of reading and problem assignments on time
* completion of lab assignments on time

Grading: All graded material should be labeled with your name, student ID number and date.

Exams: Two mid-term exams and one final exam will be given during the semester. All examinations will be comprehensive. Attendance at the final exam is mandatory.

Exam schedule:  
February 24 mid-term exam 1
April 4  mid-term exam 2
May 9-13 (TBA) final exam

Field Trip
A 3-day weekend field trip to the Appalachian Mountains of North Carolina will be arranged from Friday April 15 to Sunday, April 17, 2016.

Point percentage  
mid-term exam 1 15%
mid-term exam 2 15%
field trip #2 report 10%
laboratory 25%
final exam 35%
SIU Carbondale emergency procedures

Emergency Procedures. Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the SIUC Emergency Response Plan and Building Emergency Response Team (BERT) program. Emergency response information is available on posters in buildings on campus, available on BERT's website at http://www.bert.siu.edu Department of Safety's website http://www.dps.siu.edu (disaster drop down) and in Emergency Response Guideline pamphlet. Know how to respond to each type of emergency. Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency. The Building Emergency Response Team will provide assistance to your instructor in evacuating the building or sheltering within the facility.