

GEOS 5470
Structural Geology
Spring 2006
Wednesdays and Fridays 9:00 – 11:45 a.m.
FO 2.604

Instructor:

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Text Book:

Hatcher, R.D., 1995, Structural Geology: Principles, Concepts, and Problems, Merrill Publishing Company, 531 p.

Grading:

Labs = 40%
Midterm = 25%
Final = 25%
Term Paper = 10%

Schedule:

January	11	Introduction to GEOS 3470	
		Introduction to Structural Geology	Chapter 1
	13	Structural Contours – Lab 1	
	18	Non-tectonic Structures	Chapter 2
	20	Three Points Problems – Lab 2	
	25	Stress	Chapter 3

	27 Mohr Circle – Lab 3	
February	01 Strain	Chapter 4
	Strain Measurement	Chapter 5
	03 Mechanical Behavior of Rock Materials	Chapter 6
	Microstructures and Deformation Mechanisms	Chapter 7
	08 Strain Measurement – Lab 4	
	10 Joint and Shear Fractures	Chapter 8
	15 Fault Classification and Terminology	Chapter 9
	17 Fault Analysis – Lab 5	
	22 I will be in Saudi Arabia	
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March	01 Midterm Examination	
	03 Fault mechanisms	Chapter 10
	08 Spring Break	
	10 Spring Break	
	15 Thrust Faults	Chapter 11
	Strike-Slip Faults	Chapter 12
	Normal Faults	Chapter 13
	17 Thrust, Strike-Slip, and Normal Faults – Lab 6	
	22 Fold Geometry and Classification	Chapter 14
	Fold Mechanics	Chapter 15
	25 Fold Geometry – Lab 7	
	26 Arbuckle Mountains – Weekend Field Trip	
	29 Complex Folds	Chapter 16
	31 Stereonet – Lab 8	
April	05 Cleavage and Foliations	Chapter 17
	Linear Structures	Chapter 18
	08 Complex Folds – Lab 9	
	09 Broken Bow Area - Weekend Field Trip	
	12 Tectonic Structures in Plutons	Chapter 19
	14 Catching Up With Your Homework	
	19 Structural Analysis	Chapter 20
	21 Structural Analysis – Lab 10	
	26 Review to the Final Examination	
April	28 Final Examination	