

GLY 4400 (Sections 2308 and 5020)
Structural Geology/Tectonics
(Spring 2011)

Lecturer: J. Channell (Office: WH 219, Office Hours: MWF Period 3)

Lecture Location: WH 202

Lecture Time: **Mondays, Wednesdays and Fridays, Period 6** (12.50-1.40 pm)

Lecture Textbook: *Foundations of Structural Geology* by R.G. Park

Publisher: Chapman & Hall; 3rd edition (August 1997)

ISBN: 0412644002

This book was first published in 1983, and several editions have been published since.

Another useful text (optional) :

Earth Structure: An introduction to structural geology and tectonics. by B. van der Pluijm and S. Marshak. (McGraw Hill) 2nd Edition (2001).

Lab. Instructor: Paul Bremner (Office: WH 261)

Lab. Time : **Thursday, Periods 2-3** (8.30-10.25) **or Periods 4-5** (10.40-12.35)

Lab. Location: WH 215

Lab. Manual: *Basic Methods of Structural Geology*, by S. Marshak and G. Mitra (Prentice Hall) 1st Edition (1988)

Grading: 30% Lab

20% Test 1

20% Test 2

30% Final Exam

GLY 4400 Structural Geology/Tectonics

Provisional Dates	Topic	Chapter in Park/VanD
1/5	Introduction	
1/7-1/14	Stress, Strain	5, 6 /3,4
1/17	Martin Luther King Day (no class)	
1/19-1/26	Rheology and behavior of materials	7/5
1/28-2/4	Determination of strain in rocks	8/4
2/7-2/9	Contacts (depositional contacts, unconformities, introduction to faults, intrusive contacts)	
2/11-2/14	Primary Structures (cross bedding, graded bedding etc.)	-/2
2/16	TEST 1	
2/18	Fractures: Joints	2/7
2/21-2/25	Fractures: Faults	2, 9/8
2/28-3/2	Folds	3, 10/10
3/4	Foliations	4/11
3/7-3/11	SPRING BREAK	
3/14-3/16	Foliations and Lineations	4/11
3/18	Introduction to Plate Tectonics	13, 14/14
3/21-3/23	Nature of Earth's interior	
3/25-3/28	Field Methods Field Trip (no class)	
3/30	Divergent plate boundaries	13/14
4/1	TEST 2	
4/4-4/6	Passive continental margins	15/15
4/8-4/11	Convergent plate boundaries	15/16, 17
4/13	Conservative plate boundaries	15/18

4/15-4/18 Driving forces of Plate Tectonics
4/20 Review (last class)
4/28 **FINAL EXAM (4/28 7.30-9.30 am, WH 202)**