GEOL 310 (Structural Geology)

No assigned text, though for review I recommend *Structural Geology of Rocks and Regions*, 3rd edition, by Davis, Reynolds, and Kluth, or refer to other structural geology textbooks available to you.

Also, available in the classroom for reference, a copy or two of *Geology of Earthquakes*, by R. S. Yeats, K. E. Sieh, and C. R. Allen: Oxford University Press.

Additional reading will include technical papers on earthquake case studies.

Description
This course is interdisciplinary and a brief background review is provided. The texts listed above can provide further review. The course is divided into three parts: (1) background material and homework assignments, (2) seminar discussion of publications on earthquake faults and case studies, and (3) field (lab) exercises.

Evaluation for GEOL 533 will be class participation, presentation of paper summaries, and quizzes/exams.

Evaluation for GEOL 533L will be completed field assignments.

Schedule (class meetings in bold, field trips (labs) in *bold italics*)

**Part 1 - Background**

**Week 1**
*January 26*: Lecture - Introduction to course. Plate tectonics review. Structural geology review. Homework #1

**Week 2**

**Week 3**
Part 2 - Seminars on Earthquake Environment and Case Studies

Week 4
February 16: San Andreas Fault case study papers I. (graduate students A and B). Homework #3 due. Take-home exam #1 due.

Week 5
February 23: San Andreas Fault case study papers II (graduate students C and D).

Week 6
March 2: San Andreas Fault case study papers III (graduate students E and F).

Week 7
March 9: San Andreas Fault case study papers IV (graduate students G and H). Take Home Exam #2 posted (open note on San Andreas Fault papers).

Week 8
March 16: Cascadia subduction zone megathrust case study papers I (graduate students I and J). Take-home exam #2 due.

Week 9
March 23: SPRING BREAK

Week 10
March 30 – April 2: Field Trip.

Week 11
April 6: Cascadia Subduction zone megathrust case study papers II (undergraduate students A and B)

Week 12
April 13: Cascadia Subduction zone megathrust case study papers III (undergraduate students C and D)

Week 13
April 20-23: Field Trip.

Week 14
APRIL 27. Cascadia Subduction zone megathrust case study papers IV (undergraduate students E and F). Take Home Exam #3 posted (open note on Cascadia papers).

Week 15
MAY 4: Central Nevada Seismic Belt case study papers I (normal faults) (undergraduate students G and H). Take Home Exam #3 due.

Week 16
MAY 11: Central Nevada Seismic Belt case study papers II (normal faults) (undergraduate students I and J). Take Home exam due May 15.