

CONTINENTAL TECTONICS

GEO 382T/GEO 339T

Fall, 2012

- Instructor: Mark Cloos and Daniel Stockli
- Office: GEO 6.112 GEO 5.224
Phone: 471-4170 475-6037
- Office Hours: Anytime my door is open or when you catch us in the hallway
- Lecture: TTH 2:00-3:30 GEO 2.202
27530 GEO 339T
27745 GEO 382T
- Text: None required –
Numerous handouts, some books/papers on reserve
- Prerequisite: Structural Geology (GEO 428) or equivalent course with a grade of C and consent of instructor.
- Topics Include: Geologic principles and early tectonic theories (3 lectures)
New observations leading to plate tectonic theory (3)
Key ideas in the plate tectonic revolution of the 1960s (4)
Origin and structure of the Earth (2)
Ocean spreading ridges and ophiolites (3)
Rifting, core complexes and passive margins (3)
Subduction zones, trenches and volcanic arcs (3)
Accretionary complexes, subduction zone seismicity (3)
Collisional orogenesis (2)
Transform margins (2)
- Grade: 1) two, one-page reviews of papers found in journals on the new issue shelf of the library (excluding *Geology*, *GSA Today*, *EOS*, *Leading Edge*). Reviews due September 15 and November 15.
2) review a pre-2005 UT MS thesis or PhD dissertation: Due October 15
3) 15± page NSF-style research proposal. (UG can write term paper).
4) 15 minute class presentation on research proposal/paper.
5) Mid-term exam. TBD
6) Final exam (3 hr). Friday, December 14, 9:00-12:00 noon
- Course Objective: To understand how different tectonic environments work.

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