## SYLLABUS GROUNDWATER FIELD METHODS -2011 Geology 376L & Geology 382C

All times, locations, and field experiments subject to change!

- All days start promptly. Be packed and ready to leave for the field by 8:00 AM (0800), unless otherwise noted.
- All reports are also due at 0800, so this means it is best show up *before 0755*. in JGB (GEO) 2.310. The general program will consist of a morning organizational talk and equipment introduction (if needed), loading equipment, and transport to the field.
- We will try to leave the field at or before 5:00 PM (1700) each day. However, there may be exceptions for certain field experiments.
- All equipment must be cleaned and stored appropriately before anyone is excused for meals, other personal business, etc.
- Evening lectures start at 7:00 PM (1900) in JGB (GEO) 2.310.

Instructor: Jack Sharp (ably augmented by several guest lecturers and your TAs)

Aaron Jones John Nowinski Wendy Robertson Travis Swanson

## Grading:

TAs:

- 20 Daily field reports
- 20 Group projects
- 50 Participation (judged by faculty, TAs, and your fellow field students)
- 10 Pop Quiz
- 10 Graduate student only (preparation of field check list on a selected topic)

17 May	Tuesday	<u>Evening</u> meet in JGB (GEO) 2.310. Organizational meeting-orientation, release forms, insurance, and thank-you notes for those that were awarded scholarships. All students must have health insurance. Hand out homework #1 and syllabus. Additional homework problems may be assigned as well as possible pop quizzes (we do have to assign grades).
18 May	Wednesday	Field geochemistry Stream gauging & dilution gauging Total station & GPS Infiltrometers <u>Evening</u> : grain-size analyses for infiltrometer team
19 May	Thursday	Morning: GPR demonstration with Dr. Jack Holt (UTIG) Field geochemistry Stream gauging & dilution gauging Total station & GPS Infiltrometers Evening: grain-size analyses for infiltrometer team

20 May	-	Field geochemistry Stream gauging & dilution gauging Total station & GPS Infiltrometers arly (before 2:30 PM/1430) for GEH ceremonies and vehicle exchange (Sharp
	&TAs)	<u>Evening</u> : grain-size analyses for infiltrometer team <u>Evening</u> : GEH graduation ceremonies
21 May	Saturday	No class meeting (graduation ceremonies)
22 May	Sunday	Field geochemistry Stream gauging & & dilution gauging Total station & GPS Infiltrometers <u>Evening</u> : grain-size analyses for infiltrometer team
23 May	Monday	<ul> <li>Well installation &amp; water level monitoring Hobos and pressure transducers</li> <li>ER &amp; EM</li> <li>Install vadose zone field test</li> <li>Evening: soil moisture &amp; grain-size analyses for vadose zone team Divine(?)</li> </ul>
24 May	Tuesday	<ul> <li>Well installation &amp; water level monitoring Hobos and pressure transducers</li> <li>ER &amp; EM</li> <li>Vadose zone field test</li> <li>Evening: soil moisture &amp; grain-size analyses for vadose zone team (Devine (?)</li> </ul>
25 May	Wednesday	Morning: Dr. Michael Young (BEG) – vadose zone analysis Well installation & water level monitoring Hobos and pressure transducers ER & EM Vadose zone field test Evening: soil moisture & grain-size analyses for vadose zone team
26 May	Thursday	Fracture characterization (Pedernales Falls) <u>Evening</u> : Field projects introduction.
27 May	Friday	Field projects: Hornsby Bend Gilleland Creek Decker Creek
28 May	Saturday	Field projects:
29 May	Sunday	Field projects or <u>no</u> class. These two no-class days depend upon our progress and whether or not we have lost days to inclement weather.

30 May	Monday	Memorial Day – <u>no class</u>
31 May	Tuesday	Field projects & Geoprobe (Bob Reedy- BEG demonstration
1 June	Wednesday	Field projects & Geoprobe demonstration
2 June	Thursday	Field projects
3 June	Friday	Field projects
4 June	Saturday	TAs: Remove vadose zone test plots Final reports due at noon (1200) All: Clean, pack and store equipment <u>Evening</u> : "Cast party" - Potluck – Prof. furnishes BBQ meats and some veggies and first round of beer and soda.

6 June Monday to( approximately) July 8 - Volunteers work on poster sessions for GSA 2011 annual meeting in Minneapolis.