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)
TAs: Aaron Jones
     John Nowinski
     Wendy Robertson
     Travis Swanson

Grading:
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 Evening 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
Evening: 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  Friday  
Field geochemistry  
Stream gauging & dilution gauging  
Total station & GPS  
Infiltrometers  
Leave field early (before 2:30 PM/1430) for GEH ceremonies and vehicle exchange (Sharp & TAs)  
Evening: grain-size analyses for infiltrometer team  
Evening: GEH graduation ceremonies  

21 May  Saturday  
No class meeting (graduation ceremonies)  

22 May  Sunday  
Field geochemistry  
Stream gauging & dilution gauging  
Total station & GPS  
Infiltrometers  
Evening: grain-size analyses for infiltrometer team  

23 May  Monday  
Well installation & water level monitoring  
Hobos and pressure transducers  
ER & EM  
Install vadose zone field test  
Evening: soil moisture & grain-size analyses for vadose zone team  
Divine (?)  

24 May  Tuesday  
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  
(Divine ?)  

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)  
Evening: 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 no 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 – no class
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
   Evening: “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.