

CE 516 Geohydrology

Fall 2013

Schedule: 6:30-9:10 pm KAP148

Instructor: Felipe de Barros

Office: KAP 224B

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Office Hours: Tuesday 10:30 - 12:30

TA: Weixuan Li

Textbook: C. W. Fetter. *Applied hydrogeology*. 4th Edition, Prentice Hall, 2000.

Topics to be covered:

1. Hydrologic Cycle and Hydrogeology
2. Soil and Hydraulic Properties. Basic principles.
3. Principles of Groundwater Flow and Flow Equations.
4. Well Hydraulics: Confined Aquifers, Leaky Confined Aquifers and Unconfined Aquifers.
5. Principle of Superposition.
6. Basics of Mass Transport.
7. Modeling Contaminant Transport.

Computing: This course requires basic plotting and calculations with commonly used mathematical tools (e.g., MATLAB, Mathematica, Maple).

Grading: Homework assignment 30%; Midterm 30%; Final Exam 40%.