COURSE INFORMATION
GEO 444 Applied Groundwater Modeling
Fall 2011

Instructor: Dr. Eric Peterson  
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E-mail: ewpeter@ilstu.edu  
Office Hours: 9:00 – 10:00 AM MF or by appointment

Course Webpage: http://lilt.ilstu.edu/ewpeter/GEO444.htm

Goals of the Course:
1) Students will create models to
   a) predict how changes in either physical conditions or hydrologic conditions alter a hydrogeologic system (MS outcome 3)
   b) design a strategy to remediate a contaminated site (MS outcome 2)
   c) interpret a hydrogeologic setting (MS outcomes 1,5,6,8)
2) Students will design and execute a scientific research (MS outcomes 2,5,6,7,8)

Suggested Text:
Anderson, M.P. and Woessner, W.W., 1992, Applied Groundwater Modeling: Simulation of Flow and Adveective Transport, Academic Press, San Diego. We will be using Ground Water Vista and the USGS VS2DI software. Information on how to see PDF files of the manuals will be provided as needed.

Reference Texts:
See additional handout for other reference texts.

COURSE POLICIES

Academic Honesty: Any form of academic dishonesty will result in a zero for that exam or assignment, as well as possible disciplinary action. See your student handbook for University guidelines

Participation in Lecture: Students are responsible for all material covered in class, and thus your attendance is expected at all lecture sessions. Repeated unexcused absences will affect your Participation score. Students that have prior knowledge of absences on lecture or exam dates owing to religious, athletic, band, or other legitimate ISU sponsored activities should give Dr. Peterson at least one week prior notice of the absence.

GRADING:

There are four grading mechanisms in this class; a project (which reflects your ability to develop a research project and see the process through fruition), homework (which reflects an individual’s ability to handle practical and theoretical calculations and interpret and summarize geologic data), a group project (which reflects your ability to work with others and to collective solve a problem), and participation (which reflects your ability to interact with others and to assess and synthesize the information discussed in class).

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<tr>
<th>Grading Category</th>
<th>Percentage</th>
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<tr>
<td>Project</td>
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<td>Homework</td>
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<td>Group Project</td>
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<td>Participation</td>
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Grading is done via a broken curve. That is, instead of following a normal curve with predetermined grade cut-offs, I look for natural breaks in the final grade distribution. These breaks become the dividing lines between letter grades, but shall under no circumstances result in grade cut-offs higher than the classical 90-80-70-60 levels.

Homework assignments will be given regularly and will cover material discussed in class. You will have at least one week to complete the assignment. Additional reading assignments will also be made that will be discussed in class. Everyone will lead at least one paper review over current literature. The review and discussion of the reading assignments will be part of the participation score.

The projects will be a modeled after a research project. Specifics of the projects are discussed in a subsequent handout.

DEADLINES ARE TAKEN SERIOUSLY IN THIS CLASS. Think of it this way, in the environmental consulting field, companies are penalized (they pay fines) for missing deadlines. You could cost your company thousands of dollars by missing a deadline and may even lose your job. Think of this class as practice. PLAN AHEAD. Late assignments are not accepted and will be given a ZERO. The date your assignments are due will be given either in the upper right-hand-corner of the assignment or posted clearly on the board. READ IT and HEED IT.