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# Soil Physics/Vadose Zone Hydrology (Soils 413)

## Syllabus Fall 2009

Markus Flury

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- **Course:**

Soils 413 Soil Physics/Vadose Zone Hydrology

Lectures: Monday 8.10-9.00 am, Wednesday 8.10-9.00 am, Johnson 204

Laboratory: Monday 2.10-5.00 pm, Vogel Plant Biosciences (PBS) Room 39

Computer Exercises: Monday 2.10-5.00 pm, Hulbert Hall Room 21

- **Course Website::**

<http://akasha.wsu.edu/teaching/soils413.html>

- **Instructor:**

Markus Flury, Johnson 243

e-mail: [flury@wsu.edu](mailto:flury@wsu.edu)

www: <http://akasha.wsu.edu>

- **Office Hours:**

anytime I am in my office or by appointment

- **Course Objectives:**

1. To provide an understanding of the fundamental physical properties of soils.
2. To provide a quantitative discussion of static and dynamic physical processes in soils.
3. To demonstrate and apply laboratory methods and instrumentation techniques for characterizing physical properties of soils.
4. To apply soil physical concepts to contemporary problems in soil and water resources management.

- **Textbook and Reading Assignments:**

Required textbook: Hillel, D., 2004. *Introduction to Environmental Soil Physics*, Academic Press, San Diego.

You are responsible for the reading assignments in the text, which are listed on the class schedule.

- **Exams:**

There will be two exams. Exams will cover lectures, and laboratory sections. Exams are open books (lecture notes and course textbook allowed to use), and just cover the material from the last exam. Calculator or Laptop Computer is allowed and necessary. You will need to bring your own paper to write on.

- **Homework and Laboratory Reports:**

Homework will be assigned in class and is due one week after assignment. For all laboratory exercises, a write-up is required, also due one week after completion of the lab session. The

report should include a statement of the objectives, a sketch of the experimental setup, if any, computations, analysis and discussion, and answers to the questions, if any. Example spreadsheet for the data analyses are available on my course website. Each lab report will be graded between 0 and 10, with 10 being the highest grade.

- **Grading:**

Midterm Exam	20%
Final Exam	25%
Laboratory write-ups	25%
Homework	30%

- **Students with Disabilities:**

Reasonable accommodations are available for students with a documented disability. If you have a disability and may need accommodations to fully participate in this class, please visit the Disability Resource Center (DRC). All accommodations MUST be approved through the DRC (Admin Annex Bldg, Room 205). Please stop by or call 509-335-3417 to make an appointment with a disability specialist.