Instructors
Markus Tuller
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Office Hours: Thursdays 2:00 – 3:00 PM or by appointment

Teaching Assistant:
TBA

Locations and Times – Spring 2015
Lectures: W, F 10:00 – 10:50 AM in Vet. Sci. 105
Laboratory: W 1:00 – 3:50 PM in Vet. Sci. 103 and 105

Prerequisites
SWES 200, PHYS 102, MATH 125
Prerequisites may be waived by instructor

Course Description
The Soil Physics course provides the theoretical and practical basis for understanding and quantifying physical and hydrological properties of soils. We focus on hydro-physical processes taking place near the Earth’s surface emphasizing mass and energy exchange, and transport processes in saturated and partially-saturated soils at multiple scales. The coupling with the atmosphere and the role of plants in the hydrological cycle will be studied. We will review modern measurement methods and analytical tools for hydrological data collection and interpretation.

Course Objectives
1.) To obtain basic understanding of soil physical properties and processes
2.) To gain practical experience with measurement and analysis of soil physical processes
3.) To become familiar with analysis methods and tools applicable to solving practical problems related to agricultural, hydrological and environmental problems.

Classnotes & Reading Materials
Classnotes for “Agricultural and Environmental Soil Physics” by O R., M. Tuller, and J.M. Wraith are available in the Student Union Book Store. A downloadable color pdf-version is available on the D2L course webpage.


Additional materials such as PowerPoint slides, research articles, web links, etc. will be made available on the D2L course webpage.
Assignments

Homework is due 1 week after being assigned. Lab reports are due at the beginning of the following lab session.

Assignments and reports need to be submitted in electronic format via the D2L dropbox before the deadline. Homework or lab reports turned in late will not be graded!

Students are encouraged to share intellectual views and to freely discuss principles and applications of the course materials. We encourage you to work with your lab partner(s) during data collection in a laboratory exercise. You may also analyze your data cooperatively, however, graded exercises must be written independently, except as noted by the instructor. This course operates under the UA Code of Academic Integrity as described in the UA Arizona Record 97-98 General Catalog.

Tentative Examination Schedule

All exams are open book. A pocket calculator is required for basic calculations.

1\textsuperscript{st} Exam – TBA
2\textsuperscript{nd} Exam – TBA
Final Exam - TBA

Grading Policy

Grading policies and homework assignments for SWES 570 and SWES 470 differ. Graduate students (SWES 570) will be assigned additional homework in form of paper reviews or supplemental problems. The final grades for both SWES 570 and SWES 470 will be based on:

- 35% homework problems
- 10% each of the three examinations
- 35% on laboratory reports and quizzes

Active participation during lectures and labs is encouraged and will be considered for the final grade.

Grade Scale: A≥90%; B=80-89%; C=70-79%; D=60-69%; E<60%.

Attendance Policy

Presence at all lectures is highly recommended although there will be no attendance check. Tests can only be made up with prior approval. In an emergency please notify the instructor as soon as possible. Missing a lab is strongly discouraged. Labs can be made up with prior approval of the lab instructor.

Special Needs and Accommodations Statement

Students who need special accommodation or services should contact the Disability Resources Center, 1224 East Lowell Street, Tucson, AZ 85721, (520) 621-3268, FAX (520) 621-9423, email: drc-info@email.arizona.edu, http://drc.arizona.edu/. You must register and request that the Center or DRC send me official notification of your accommodations needs as soon as possible. Please plan to meet with me by appointment or during office hours to discuss accommodations and how my course requirements and activities may impact your ability to fully participate. The need for accommodations must be documented by the appropriate office.

Student Code of Academic Integrity

Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercises must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity as described in the UA General Catalog. See: http://deanofstudents.arizona.edu/codeofacademicintegrity.
Confidentiality of Student Records

The University of Arizona is committed to providing services and support to meet your needs and achieve your educational goals. We are equally committed to protecting your privacy. For information regarding the confidentiality of student records please visit:
http://www.registrar.arizona.edu/ferpa/ferpa-compliance

Disclaimer

Information contained in the course syllabus, other than the grade and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.

Course webpage: http://ag.arizona.edu/classes/sw570/

D2L login page: http://d2l.arizona.edu/