

Syllabus - Introduction to Soils in the Environment Laboratory – Fall 2014

Lab Coordinator: Dr. James Bonczek, Soil and Water Science Department
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Course Management: <http://lss.at.ufl.edu>

Office Hours: Monday, Wednesday, Friday 12:45-1:45 pm, Thursday 10:00-11:00.

Prerequisite/Co-requisite: None

Overview:

This laboratory is intended for students who have had limited exposure to Soil and Water Science, and to demonstrate many of the principles discussed in the associated lecture class. Laboratory observations and experiments will emphasize the physical, chemical, and morphological characteristics of soils as well as common soil science laboratory techniques. Initial exercises will explore soil physical properties in relation to the environment, and characteristic soil morphological features. Subsequent labs will focus on common soil chemical reactions. Field trips will provide a landscape-level context for the lab.

Objectives:

- Provide hands-on, practical experience with many of the tools and techniques of soil and water science in relation to the environment.
- Enhance student understanding of essential soil physical, chemical and morphological properties
- Encourage students' appreciation of soil as a crucial component to environmental systems.
- To reinforce, with practical exercises, the concepts presented in the lecture course.

Evaluation:

Grades will be based on weekly quizzes, lab reports from each applicable lab exercise, and two exams. **Quizzes** will be given at the commencement of each designated lab session indicated below, and cover the previous week's material unless otherwise specified. **Reports** are due one week following completion of the lab exercise. **Late work** will be penalized 10% per day. One lab report drop and one quiz drop are permitted.

Point Distribution

Lab Reports	40%
Quizzes	30%
Exam I	15%
Exam II	15%

Scale: 90-100 **A**; 85-89 **B+**; 80-84 **B**; 75-79 **C+**; 70-74 **C**; 65-69 **D+**; 60-64 **D**; <60 **E**

Lab Reports:

Lab reports consist of completed data tables and answers to questions provided by the instructor. The format for lab write ups will be provided on Sakai. Any additional requirements will be addressed during the first lab session.

Attendance is required. Any attendance problems must be arranged with your instructor in advance.

Although you will work in teams of two, ***each student must submit his/her own work.***

Lab Manual:

“Lab Manual for Introduction to Soils in the Environment.”
Available at Target Copy, University Avenue.

Laboratory Exercise Schedule:

- 1 **Introduction to the lab. Soil Color** (No Report)
- 2 **Soil Profiles, Soil Sampling** (No Report)
- 3 **Soil Texture and Particle Size Distribution**
A lab report is required for this exercise, due in 1 week
- 4 **Soil Bulk Density, Particle Density, Porosity**
Report 1 is due
Quiz 1 - Soil Texture and Particle Size Distribution
- 5 **Soil Water**
A lab report is required for this exercise, due in 1 week
Report 2 – Bulk Density is due
Quiz 2 – Soil Bulk Density
- 6 **Review of Soil Physical Properties**
Quiz 3 – Soil Water
Report 3 – Soil Water is due
- 7 **Exam I during regular lab session**

- 8 **Soil Mineral Colloids and Cation Exchange**
A lab report is required for this exercise, due in 1 week
- 9 **Soil Organic Matter**
A lab report is required for this exercise, due in 1 week
Report 4- Soil Mineral Colloids - is due
Quiz 4 – Soil Mineral Colloids
- 10 **Chemical Movement in Soils**
A worksheet is required for this exercise, due in 1 week
Report 5 – Soil Organic Matter – is due
Quiz 5 – Soil Organic Matter
- 11 **Soil Acidity**
A lab report is required for this exercise, due in 1 week
Worksheet – Chemical Movement in Soils – is due
Quiz 6 – Chemical Movement in Soils
- 12 **Soil Survey**
No Lab Report is required for this exercise
Report 6 – Soil Acidity – is due
Quiz 7 – Soil Acidity
- 13 **Field Trip: Basic Geology and Soil Formation**
- 14 **Exam II during regular lab session**

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment."*

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/SCCR/honorcodes/honorcode.php>.

Software Use:

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- *University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, www.counseling.ufl.edu/cwc/*

Counseling Services
Groups and Workshops
Outreach and Consultation
Self-Help Library
Training Programs
Community Provider Database

- *Career Resource Center, First Floor JWRU, 392-1601, www.crc.ufl.edu/*

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation

0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/