

Course Information

◆ Course

SWS 3022 – Introduction to Soils in the Environment – Spring 2017

Class Chats on Tuesdays 6-8 pm ET using Adobe Connect.

◆ Professor

Dr. Samira Daroub

Dr. Daroub is a Professor in the Soil and Water Sciences Department and works in Belle Glade and Ft. Lauderdale, Florida.

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Teaching Assistants for Spring 2017



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◆ Office Hours:

Always open. Please call or email me if you want to set up an appointment. You can reach me in the Ft. Lauderdale campus on Wednesdays and the rest of the week in Belle Glade.

◆ Credits: 3 credits

◆ Text: **Elements of the Nature and Properties of Soils**

by Nyle C. Brady & Ray R. Weil. 3rd edition, Pub Date 2009, ISBN-13: 9780135014332; publisher Prentice Hall.

◆ Class and Communications

- I. Class meets every **Tuesday 6-8 pm** for questions, discussion and problem solving via Adobe Connect. Please make every effort to attend if you have questions or just to say hi and discuss any class matters.
- ◆ Adobe Connect URL for spring semester 2017 (connect from your own computer- sign in as a guest using your **full name**- no password needed:
<http://mbreeze.ifas.ufl.edu/r4b9ai53x15/>
 - ◆ **Communication** with the instructor will be via e-mail, phone calls, discussion posts, chat meetings every Tuesday from 6-8 pm ET. **Please try to use the Canvas email** and always write SWS 3022 in the subject line in addition to any other description of email
 - ◆ **Hardware requirements and internet accessibility are mandatory.** You will need high-speed internet access (for accessing class website), a webcam, a microphone, and a headset when using Adobe Connect. **Speakers create feedback and are not adequate** for online communications. All hardware and connectivity must be tested prior to course commencement.

◆ Course Description

This course emphasizes soil physical, chemical, and biological properties in relation to plant growth, the environment, and the soil's place in our daily lives. The course is intended to introduce students to the importance of soils to humans and the environment through study of their morphology, physical and chemical properties, their distribution, and their biological significance. Each student who successfully completes the course should have a practical understanding of the following:

- ◆ Properties common to all or most soils on various scales.
- ◆ Vocabulary to communicate with agricultural and environmental professionals.
- ◆ Management strategies for different soils.
- ◆ Problem solving skills to manage soils effectively.
- ◆ The importance of soils in sustaining life.
- ◆ The impact of soils on environmental quality

◆ Objectives

- ◆ **Course Objectives:**

This course satisfies the (P) designation for the physical sciences general education requirement.

Physical science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the physical sciences. Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern physical systems. Students will formulate empirically-testable hypotheses derived from the study of physical processes, apply logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to evaluate outcomes of experiments.

Theses general education objectives will be accomplished through

1. Evaluation of how physical properties of soils influence the behavior, function, and productivity of soils in environmental and agricultural settings.
2. Analysis and computation of how water and chemicals move through soils.
3. Formulation and critical evaluation of hypotheses related to the interaction of soil solution constituents with the soil solid phase.
4. Identification of the major classes of soil organisms and how they influence the cycling of carbon and nutrients in soils.
5. Definition and synthesis of the fundamental elements of soil morphology and taxonomy to communicate important concepts related to soils in the environment.

◆ **Student Learning Outcomes**

This course also will assess Student Learning Outcomes which can be defined as:

Content: Students demonstrate competence in the terminology, concepts, and methodologies used within the discipline

Communication: Students communicate knowledge, ideas, and reasoning clearly and effectively in written and oral forms appropriate to the discipline.

Critical Thinking: Students analyze information carefully and logically from multiple perspectives using discipline-specific methods, and develop reasoned solutions to problems.

The Student Learning Outcomes will be assessed through ongoing evaluation. Content will be tested using exams, multiple choice and True/False quizzes, discussions and homework assignments incorporating fundamental concept knowledge and computations relevant to course material. Critical thinking will be assessed through computation, analysis, and application of data/results to issues related to soil management.

◆ **Internet Access:**

Go to <http://elearning.ufl.edu> ; Sign in to **Canvas** using your **Gatorlink** account. This will automatically take you to class website. Please note that you must have completed registration to be added to the class list on Canvas:

The class web site has links to:

- ◆ Syllabus with schedule of lectures and deadlines. Please note all deadlines are posted on calendar as well as under the syllabus tab. Some deadlines may be updated as needed.
- ◆ All lecture materials: including PDFs of Power point presentations and narrated lectures in Adobe Presenter and MediaSite
- ◆ Handouts for the lecture to print in pdf format.
- ◆ Study guides for the various lectures for the course. The study guides include a list of objectives and material covered in the lectures. The study guides will help you in your study for the course.
- ◆ Homework assignments: Submit all assignments using the Assignment tab. No email submission of HW.
- ◆ Your grades for exams, quizzes, discussions and homework
- ◆ Questions submitted by other students. Answers will be posted on the Discussion tab.

◆ **Assignments, Discussions & Exams**

- ◆ **HW Assignments:** All homework assignments need to be submitted using Assignments tool in Canvas. HW is used to emphasize learning concepts in the lectures. NO emailed or faxed HW will be accepted. Please turn in your HW on time. Late assignments are not accepted All HW will stay open for 48 h after due date with 10% penalty on grade.
- ◆ **Discussion:** Topics for discussion will be included as part of some lecture materials and are graded. You need to have one original posting as well as a reply to at least two fellow students. **Please note that you are not able to view other students' contributions to the discussion until your first submission is posted.** Please post early so other students have time to comment on your discussion.
- ◆ **Quizzes:** will be conducted online. Each quiz will consist of 10 questions randomly selected from a larger bank of questions. You may take the quiz two times during the prescribed period following completion of each related course module. The highest grade will be registered.
- ◆ **Exams** are open-book and consist of interpretive questions as well as objective multiple choice and true/false questions. Quizzes are designed as partial exam preparation. Students are expected to synthesize course concepts to respond to short answer, short essay questions that are designed to explore student application of fundamental processes and concepts. All exams are online on Canvas and will allow ample time for completion. Exam dates and deadlines are detailed below. Submissions will be via the "Assessments" tab in Canvas. Therefore, you are expected to complete the exams in a timely manner and not wait until the last minute. **Connectivity, hardware, or other computer-related issues are no excuse for lack of timely submission without proper documentation.** Exams also are timed (1 hour)

◆ **Grade Scale:**

<u>Assignment</u>	<u>Point Value</u>	<u>Approx. Percent of Grade</u>
Exams	360	44%
HW Assignments	175	22%
Quizzes	165	21%
Discussion	100	13%
TOTAL	800	100%

In addition, there will be opportunities during exams and discussions to earn a total of extra 35 points: **HW 5 (soil water 2) (25 bonus points) and soil colloids bonus quiz (10 bonus points) for a cumulative 835 points total.**

<u>Letter Grade</u>	<u>Points</u>	<u>Numerical Grade</u>	<u>GPA Points</u>
A	≥ 736	92-100	4.0
A-	≥ 720	90-91.9	3.67
B+	≥ 688	86-89.9	3.33
B	≥ 664	83-85.9	3.0

B-	≥ 632	79-82.9	2.67
C+	≥ 616	77-78.9	2.33
C	≥ 576	72-76.9	2.0
C-	≥ 560	70-71.9	1.67
D+	≥ 528	66-69.9	1.33
D	≥ 504	63-65.9	1.0
D-	≥ 472	59-62.9	0.67
E	< 472	<59	0

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Attendance and Make-Up Work

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Online Course Evaluation Process;

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>

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.

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/

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.

1. *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
2. U Matter We Care, www.umatter.ufl.edu/
3. *Career Resource Center, First Floor JWRU, 392-1601, www.crc.ufl.edu/*

Distance Classes:

Each online distance learning program has a process for, and will make every attempt to resolve, student complaints within its academic and administrative departments at the program level. See <http://distance.ufl.edu/student-complaints> for more details.

You will need Adobe Flash Player to listen to narrated lectures and Adobe Acrobat Reader to download the handout for the lectures.
 Download FREE [Adobe Acrobat Reader](#), [Adobe Flash Player](#) and [PowerPoint viewer](#).

Tentative Schedule
Spring 2017

- ◆ **All HW are due on Fridays @ 11:59 pm ET unless otherwise indicated**
- ◆ **All Discussions are due on Sundays @ 11:59 pm ET unless otherwise indicated**
- ◆ **HW and Discussions remain open for 48 hours after deadline for 10% penalty.**
- ◆ **All quizzes/exams are open Saturday @ 6 am thru Monday @ 11:59 pm unless otherwise indicated**
- ◆ **Online Chat sessions are scheduled for Tuesdays 6-8 pm ET**

Week	Topics	Assessment	Due Date
	Introduction to Soils		
Week 1 Jan 4 2017	<u>Review Module:</u> 1) Syllabus Review 2) Review of chemical principles 3) Class introductions	1) Quiz 1- syllabus 2) HW 1: chem. review 3) Discussion 1- Introduce yourself	Jan. 9 Jan. 13 Jan. 17
Week 2 Jan 10	<u>Module 1: The soils around us</u> • Read in the textbook: (Chapter 1)	Quiz 2	<i>Due Tuesday</i> Jan. 17
Week 3 Jan. 17	<u>Module 2: Formation of soils from parent materials</u> • Read in the textbook: (Chapter 2) pgs. 26-57	HW 2	Jan. 27
Week 4 Jan 24	<u>Module 2: Formation of soils from parent materials (Chapter 2) Continued</u>	Quiz 3	Jan 30
Week 5 Jan 31	<u>Module 3: Soil physical properties</u> • Read in the textbook: (Chapter 4) pgs. 94-133	HW 3	Feb. 3
	Exam I: Modules 1-3 Open Saturday Feb 4- Monday Feb 6 @11:59 pm ET	Exam 1	Due Monday Feb 6
Week 6 Feb 7	<u>Module 4: Soil water</u> • Read in the textbook (Chapter 5) pgs. 134-161	HW 4 & 5 (HW 5 for bonus points)	Feb.17
Week 7 Feb 14	<u>Module 5: Soil water Calculations</u>	Quiz 4 Discussion 2	Feb 20 Feb. 26
Week 8 Feb 21	<u>Module 6: Soil Colloids</u> • Read in the textbook (Chapter 8) pgs. 235-265		

Week 9 Feb 28	<u>Module 7: Soil Colloids Calculations</u>	Quiz 5 (bonus pts) HW 6	Wed: March 15 Wed: March 15
Week 10	Spring break – March 4-11, 2017		
Week 11 March 14	<u>Module 8: Soil Acidity</u> <ul style="list-style-type: none"> • Read in the textbook (Chapter 9) pgs. 266-294 • Review for Exam 2 	Discussion 3 HW 7 Quiz 6	March 26 March 31 April 3 rd
	Exam II: Modules 4-7 Open Saturday March 18 through Monday March 20 @11:59 pm	Exam II	Due Monday March 20
Week 12 March 21	<u>Module 9: Soil Organic Matter</u> <ul style="list-style-type: none"> • Read in the textbook (Chapter 11) pgs. 353-385. 	Discussion 4	April 9
Week 13 March 28	<u>Module 10: Soil classification</u> <ul style="list-style-type: none"> • Read in the textbook (Chapter 3) 		
Week 14 April 4	<u>Module 10: Soil Classification (Chapter 3)</u>	Quiz 7 HW 8	April 10 April 14
Week 15 April 11	<u>Module 11: Soil salinity and alkalinity</u> <ul style="list-style-type: none"> • Read in the textbook (Chapter 9) pgs.298-315 	Quiz 8	April 17
Week 16 April 18	<u>Module 12: Nutrients – N & P</u> Review for Exam 3		
	Discussion 5- Course topics Classes end Wed April 19; April 20 and 21= Reading Days	Discussion 5	April 19
	Exam III Modules 8-12 Open Saturday April 22 through Tuesday April 25 @11:59 pm	Exam III	Due Tuesday April 25