CSS 305
Principles of Soil Science

Dr. Elizabeth Sulzman
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- Office Hours: W & R 3 – 4 PM, and by appt
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Course Content

- Paperback textbook designed around lectures: material taken originally from hard cover text
- Lecture notes
- Reading assignments
- Homework assignments
- Laboratory activities
- Blackboard, web, and email

Course webpage

http://cropandsoil.oregonstate.edu/classes/css305/

can also access website from Blackboard: External Links

Email Forwarding (a must!)

- Go to www.onid.orst.edu
- On left, click Login to ONID
- Enter login name and password
- Click Manage Mail (on left)
- Enter your preferred mailbox in the Mail Forwarding box

Required Materials

- Text book - ***Introduction to Soils***

2 Texts are on reserve in Valley Library
Call # VR 21 and S591 .B79

- **Lab Manual – bookstore**
  - **NEED IT THIS WEEK!**
- **Lecture Notes** – **bookstore;** pace of lecture assumes you have them
- Calculator

Week	Date	Day	Lecture	Relevant Chapter	Chapter in Brady	Laboratory Topic
1	Jan 3	M	Importance of soils	Ch. 1	Ch. 1	Intro lab: Missoula floods, color, structure, soil biology set-up
	Jan 5	W	Soil properties			
	Jan 7	F	Soil formation			
2	Jan 10	M	Soil formation	Ch. 2	Ch. 2	Field trip – landscape position
	Jan 12	W	Soil formation			
	Jan 14	F	Soil classification			
3	*Jan 17*	*M*	*No Class - Holiday*	Ch. 3	Ch. 3	*No lab this week*
	Jan 19	W	Soil classification			
	Jan 21	F	Soil classification			
4	Jan 24	M	Soil physical properties	Ch. 4	Ch. 4	Soil physical properties: texture, density, aggregate stability
	Jan 26	W	Soil physical properties			
	Jan 28	F	Soil physical properties			

Week	Date	Day	Lecture	Relevant Chapter	Chapter Brady	Laboratory Topic
5	Jan 31	M	EXAM 1 (Chs 1-4 + labs)	Ch. 5	Ch. 5	Redox, soil biology set-up
	Feb 2	W	Soil water			
	Feb 4	F	Soil water			
6	Feb 7	M	Soil water	Ch. 7	Ch. 8.1-8.7	Soil water
	Feb 9	W	Soil water			
	Feb 11	F	Clay structure			
7	Feb 14	M	Clay structure	Ch. 8	Ch. 8.8-8.13	Ion exchange, soil biology set-up
	Feb 16	W	Nutrient uptake			
	Feb 18	F	Nutrient uptake			
8	Feb 21	M	Nutrient uptake	Ch. 10	Ch. 11	Soil organisms and decomposition
	Feb 23	W	EXAM 2 (Chs 5-8 + labs)			
	Feb 25	F	Soil organisms			

Week	Date	Day	Lecture	Relevant Chapter	Chapter in Brady	Laboratory Topic
9	Feb 28	M	Microbial functions	Ch. 11, Ch. 12	Ch. 12, Ch. 13	Soil survey, CAL tour
	Mar 2	W	Microbial functions			
	Mar 4	F	Microbial functions			
10	Mar 7	M	Fertility	Ch. 13	Ch. 16, Ch. 17	No lab this week
	Mar 9	W	Fertility / Erosion			
	Mar 11	F	Erosion			
	Mar 18	F	**FINAL EXAM 7:30 – CUMULATIVE, 1/3 on material since Exam 2**			

Laboratory

- Attendance (ALS 0018)
- Quizzes
- Blackboard and Email (update your e-mail info in BB / use forwarding)
- Grading
- Lab (250 out of 550 points!!)

Lab sections – all meet in ALS 0018

CRN	Day	Time	# of students	Instructor
22443	Monday	1:30	19	Elizabeth
21027	Tuesday	9:00	18	Sarah
21024	Tuesday	2:00	20	Mark
21025	Wednesday	1:30	19	Laurel
21026	Thursday	2:00	14	Stacie

Certified 15-passenger van drivers? Let your TA know.
…need you for the second week of class.

Teaching Assistants

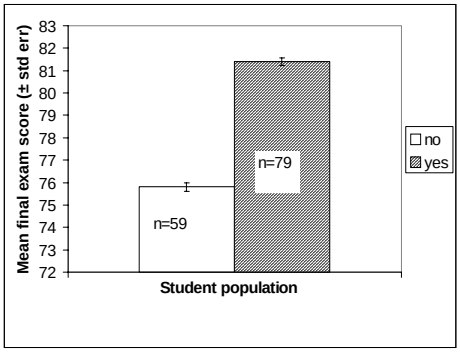
- **Sarah Beldin:** ALS 3075, 737-5719 Sarah.Beldin@oregonstate.edu
- **Mark Nielsen:** FRL 103, 737-9250 mnielsen@coas.oregonstate.edu
- **Laurel Kluber:** Gilmore 125A, 737-6290 Laurel.Kluber@oregonstate.edu
- **Stacie Kageyama:** ALS 3013A, 737-9129 Stacie.Kageyama@oregonstate.edu

Recitation (CSS 306)

CRN	Day	Time	Location	#Students	Instructor
26888	R	11:00	STAG 211	18	Sulzman
25567	R	14:00	STAG 412	12	Sulzman
25565	F	09:00	BEXL 320	20	Sulzman

1. forced to do homework before the night before the exam
2. lots of practice doing problems
3. structured exam review

Recitation Statistics



CSS Student Learning Outcomes

1. solid foundation of knowledge in the basic sciences … will enable them to **learn new concepts and techniques**
2. possess skills of discovery to **critically evaluate** important plant and **soil characteristics**
3. **analyze data, critically assess their validity, and interpret and discuss results**
4. **communicate effectively** to diverse audiences both orally and in writing
5. **work independently and collaboratively** to solve multidisciplinary environmental problems
6. appreciate the significance of global agricultural and natural resource issues
7. utilize information technologies (e.g. library, internet) to promote self-learning

Requirements: summary

- **PARTICIPATION (lecture and lab)**
- Use your resources (me, your TA)