

AGRONOMY 478
Properties of Soil
Fall 2009

Instructor: Dr. Joel Gruver

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Office: Knoblauch Hall 302

Office hours: M, W 9-10, Th 10-12

Class meeting time and location: M, W 8-8:50 in Knoblauch Hall 307, Lab in 301, Th 8-9:50

Text: The Nature and Properties of Soil - NC Brady and RR Weil

13th or 14th edition strongly recommended but not required- Additional readings will be provided.

Course description:

This course is intended to expand upon the concepts presented in an Intro to Soil Science course. We will investigate important chemical, physical and biological properties of soil related to student interests.

Course objectives:

At the end of the course students should be able to:

- interpret how chemical, physical and biological soil properties affect soil functions
- apply soil science principles to agricultural and natural resource management problems

Lecture schedule:

Week	Class meetings	Topic
1	8/24, 8/26, 8/27L	What is soil??
2	8/31, 9/2, 9/3L	Soil physical properties
3	9/7, 9/9, 9/10L	Soil physical properties
4	9/14, 9/16, 9/17L	Soil physical properties
5	9/21, 9/23, 9/24L	Soil chemical properties
6	9/28, 9/30, 10/1L	Soil chemical properties
7	10/5, 10/7, 10/8L	Soil chemical properties
8	10/12, 10/14, 10/15L	Soil biological properties
9	10/19, 10/21, 10/22L	Soil biological properties
10	10/26, 10/28, 10/29L	Soil biological properties
11	????????????????	Soil property wrap-up
12	11/9, 11/11, 11/12L	Special Topic 1
13	11/16, 11/18, 11/19L	Special Topic 2
14	-----	Happy Thanksgiving !!
15	11/30, 12/2, 12/3L	Special Topic 3
16	12/7, 12/9, 12/10L	Special Topic 4
17	12/14	Take home FINAL EXAM is due !

Lab overview:

Lab activities will include discussion, quantitative problem solving, demonstrations and hands-on experimentation. The main focus will be comparing the physical, chemical and biological properties of paired soils from your family’s farm or some other location of special interest to you. Paired soils will consist of soil from a farm field and soil from an adjacent fencerow or other area with long term sod or native vegetation (> 20 years without cropping). Paired soils should be mapped as the same soil type.

How will your grade for the course be calculated ?

Questions/problem sets	=	30 %	A > 90
Weekly lab reports	=	20 %	B = 80 - 89
Paired soil summary report	=	20 %	C = 70 - 79
Special topic presentation	=	20 %	D = 60 - 69
Take home final exam	=	10%	F < 60

Attendance and deadlines:

You are expected to attend every lecture and every lab !!

All students that miss lectures or labs (with or without advance notice) **must** schedule an appointment to discuss the material that they missed.

You are expected to turn in all assignments on designated due-dates !!

Students that do not submit assignments on time **must** schedule an appointment to discuss the assignment.

Academic honesty:

The WIU academic integrity policy will be strictly followed in this class.

<http://www.wiu.edu/policies/acintegrity.shtml>

NO CHEATING, PLAGIARISM, OR OTHER VIOLATIONS OF THE WIU ACADEMIC INTEGRITY POLICY WILL BE TOLERATED.

Please talk to me if you have any questions about the WIU academic integrity policy.

All suspected violations of the WIU academic integrity policy will be addressed promptly and individually.