

# **SOIL 365/565 – SOIL QUALITY ASSESSMENT AND SOIL SURVEY INTERPRETATION**

## **SYLLABUS**

### **Instructor**

Bryant C. Scharenbroch, Ph.D.

TNR 278 (office hours by appointment)

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### **Catalog description**

3 cr. Apply soil survey information to make interpretations for various land uses; identify the limitations and suitability of soils for specific planning purposes. Understand and assess soil quality in situations where soil survey information will not suffice; interpret soil quality assessment for land use and management. Prerequisites: none.

### **Course overview**

This course covering soil quality assessment and soil survey interpretation is designed for undergraduate and graduate students in soils, natural resources, and related fields. Weekly, the course includes a one-hour lecture, a one-hour discussion and a two-hour laboratory session. The course is divided into two sections: (1) soil quality assessment and (2) soil survey interpretation.

### **Course goal**

Students will understand and demonstrate how soil quality assessment and soil survey interpretation information can be used for evaluating soils for use and management.

### **Course learning outcomes**

1. Students will understand what soil quality is and why it is important
2. Students will perform soil quality assessments
3. Students will interpret soil quality for land use and management purposes
4. Students will understand what soil survey is and why it is important
5. Students will understand the data contained within soil survey
6. Students will utilize data from soil survey in land use planning

### **Textbook and readings**

- No textbook is required for this course.
- All required reading for the course will be placed on the course website.

## Evaluation

A variety of methods will be used for student evaluation. These include performance in examinations and exercises. Exercises will include field and laboratory activities that may include groupwork. The examinations may include multiple choice, true/false, fill in the blank, matching exercises, calculations, problems sets, short answers, and/or essay questions. Course grading will be based upon quality of work with components weighted as follows.

ITEM	VALUE	WEEK DUE
Exercise 1 – Introduction to Soil Quality	5	5
Exercise 2 – Soil Quality Indicators	5	9
Exercise 3 – Soil Quality Project	20	11
Exercise 4 – Introduction to Soil Survey	5	12
Exercise 5 – Web Soil Survey	5	13
Exercise 6 – Soil Survey Project	20	16
Exam 1	20	8
Exam 2	20	16
Total	100	N/A

## Grading scale

A = 93-100; A- = 90-92; B+ = 87-89; B = 83-86; B- = 80-82; C+ = 77-79; C = 73-76; C- = 70-72; D+ = 67-69; D = 60-66; F = <60

## Schedule

DATE	WK	LECTURE	DISCUSSION/LAB
8/30	1	NO MEETING	NO MEETING
9/6	2	Introduction to Soil Quality (SQ)	NO MEETING
9/13	3	Physical Indicators	Ex1: Introduction to SQ
9/20	4	Chemical Indicators	Ex1: Introduction to SQ
9/27	5	Biological Indicators	Ex2: SQ Indicators
10/4	6	SQ Indices (ONLINE)	Ex2: SQ Indicators
10/11	7	SQ Indices	Ex3: SQ project
10/18	8	EXAM 1	
10/25	9	Introduction to Soil Survey (SS)	Ex3: SQ project
11/1	10	Introduction to SS	Ex3: SQ project
11/8	11	SS Properties and Qualities	Ex4: Introduction to SS
11/15	12	SS Properties and Qualities	Ex5: Web Soil Survey
11/22	13	SS Properties and Qualities	Ex6: SS project
11/29	14	SS Suitabilities and Limitations	Ex6: SS project
12/6	15	SS Suitabilities and Limitations	Ex6: SS project
12/13	16	SS Suitabilities and Limitations	Ex6: SS project
12/14	16	EXAM 2 (During final exam period, 12/14/21 at 1015-1215)	

### Meeting times and locations

- Lecture will meet on Tuesdays at 9-950 in TNR 120.
- Laboratory and discussion meetings are combined for each section. Laboratory and discussion meetings will meet in TNR 255, in a computer lab, and/or outside. Meeting locations will be announced.
  - Mondays at 14-1650 (section 2 laboratory/discussion time)
  - Wednesdays at 8-1050 (section 1 laboratory/discussion time)

### **Participation and late work**

Students are responsible for all material covered in course lectures, laboratory, and discussion sessions. Exercises that are submitted to the instructor late and without prior approval will not be accepted and scored a zero. Scheduling of make-up examinations will be done only if an absence is due to personal illness, accident, death in the family, or a circumstance deemed legitimate by the instructor. Make-ups for in-person activities are not available. Students wishing to attend alternate laboratory and discussion sections must attain instructor approval prior to doing so.

### **Professionalism and cheating**

UWSP students must maintain high degrees of professionalism and commitment to active learning. You are expected to maintain integrity in your behavior in and out of the classroom. Cheating and/or plagiarism will not be tolerated under any circumstance. Any student found guilty of either will be prosecuted following UWSP Academic Honesty Policy and Procedures.

### **Use of course materials**

Materials and recordings for this class are protected intellectual property at UW-Stevens Point. Students in this course may use the materials and recordings for their personal use related to participation in this class. Students may also take notes solely for their personal use. If a lecture is not already recorded, you are not authorized to record my lectures without my permission unless you are considered by the university to be a qualified student with a disability requiring accommodation. [Regent Policy Document 4-1] Students may not copy or share lecture materials and recordings outside of class, including posting on internet sites or selling to commercial entities. Students are also prohibited from providing or selling their personal notes to anyone else or being paid for taking notes by any person or commercial firm without the instructor's express written permission. Unauthorized use of these copyrighted lecture materials and recordings constitutes copyright infringement and may be addressed under the university's policies, UWS Chapters 14 and 17, governing student academic and non-academic misconduct.

### **Emergency procedures**

In the event of a medical emergency, call 911 or use the red emergency phones located throughout the campus. Offer assistance if trained and willing to do so. Guide emergency responders to victim. In the event of a tornado warning, proceed to the lowest level interior room without window exposure. Avoid wide-span rooms and buildings. In the event of a fire alarm, evacuate the building in a calm manner and meet outside the building. Notify instructor or emergency command personnel of any missing individuals. In the event of an active shooter, run, escape, hide and fight. If trapped hide, lock doors, turn off lights, spread out and remain quiet. Follow instructions of emergency responders. See UW-Stevens Point Emergency Management Plan at [www.uwsp.edu/rmgt](http://www.uwsp.edu/rmgt) for details on all emergency response at UW-Stevens Point.

## **Special rules and considerations during COVID19**

### ***Face coverings:***

- At all UW-Stevens Point campus locations, the wearing of face coverings is mandatory in all buildings, including classrooms, laboratories, studios, and other instructional spaces.
- Any student with a condition that impacts their use of a face covering should contact the Disability and Assistive Technology Center to discuss accommodations in classes.
- Please note that unless everyone is wearing a face covering, in-person classes cannot take place. This is university policy and not up to the discretion of individual instructors.
- Failure to adhere to this requirement could result in formal withdrawal from the course.

### ***Other guidance:***

- Please monitor your own health each day using this screening tool. If you are not feeling well or believe you have been exposed to COVID-19, do not come to class; email your instructor and contact Student Health Service (715-346-4646).
- As with any type of absence, students are expected to communicate their need to be absent and complete the course requirements as outlined in the syllabus.
- Maintain a minimum of 6 feet of physical distance from others whenever possible.
- Do not congregate in groups before or after class; stagger your arrival and departure from the classroom, lab, or meeting room.
- Wash your hands or use appropriate hand sanitizer regularly and avoid touching your face.
- Please maintain these same healthy practices outside the classroom.