**Syllabus**

**SOIL 3993 Directed Study: Field Study of Soils**

***Fall 2020***

***This is a replacement for SOIL 4511: Field Study of Soils, which was cancelled in May 2020 due to COVID-19.***

**2 Credits**

**Course Description:** A field-based course that teaches students how to describe soil profiles and associated landscape characteristics. Class are taught in the field all day, every day and will culminate in a field exam where students will be expected to accurately describe soil profiles and make certain land-use interpretations. Field sites will be on the St. Paul Campus, the north Metro, Pine County (North of Twin Cities), Rosemount Research and Outreach Center and the Marcell Forestry Experiment Station (near Grand Rapids, MN) and points in between. Students should be prepared to work outside in inclement weather and must be punctual. Students taking this class will be prepared to participate in the Region V Soil Judging competition in Fall 2020.

**Instructors:**

Dr. Nic Jelinski

558 Borlaug Hall

[jeli0026@umn.edu](mailto:jeli0026@umn.edu)

(o) 612.626.6703 or 608.225.5691 (personal cell)

**Intended Audience:** Students interested in learning how to do soil profile descriptions and learning about soil-landscape relationships in the vicinity of the Twin Cities. A course in Basic Soil Science is a prerequisite.

**Course Materials:** Field Guide for Describing and Sampling Soils (v. 3.0)

Students can for order from the NRCS Distribution Center (Free) - optional

**About the Instructor:**

Dr. Nic Jelinski is an Assistant Professor of soil science in the Department of Soil, Water and Climate. His teaching responsibilities include Basic Soil Science, Field Study of Soils and Soil Judging. His research interests are centered around resolving problems of physical movement in soil genesis (eroded soils and cryoturbated soils), enhancing access to soil information, and improving teaching and outreach for soil science in higher education and to the general public. He has lived and worked around the world in soils and land management for state (Wisconsin Department of Natural Resources) and federal agencies (Department of Defense, National Park Service) as well as the private sector (Alliant Energy). He received his B.S. and M.S. from the University of Wisconsin-Madison and his Ph.D. from the University of Minnesota.

**Grading:**  100% Active participation in field trips

**Class Structure** Fridays and Saturdays (TBD)

**My expectations of YOU:**

* To read and be familiar with the information contained in this syllabus.
* To attend all field sessions.
* To become familiar with the Field Book for Describing and Sampling Soils
* To ask questions.
* To work together collaboratively and respectively in your group
* To come prepared for class every day. Includes proper attire for fieldwork, rain gear, footwear, and your own lunch and drink.
* To notify me ahead of time if you cannot be present. Please call Jay’s cell phone 651.328.1359 or Nic’s cell phone 608.225.5691 if you have any issue with the class.
* To actively participate in discussions in the field. .
* To complete and submit course evaluations.
* Be flexible. This is a field course. Depending on weather and other conditions

we may have to make adjustments as necessary.

* Be respectful of the diversity of cultures, backgrounds, preferences, and thought of the students and instructors in the class. We all have different ways of approaching and solving problems. Be aware of that as your work in your group.
* Bring motivation and a positive attitude!
* Stay on task. We have a lot to accomplish in a fairly short period of time. Pay attention to the task at hand and take your work seriously.
* Enjoy yourself! Soils are fascinating to study and having the opportunity to spend five days in the field with your peers and instructors can be a great experience. It always is for me.

**Student Learning Outcomes / Course Learning Outcomes**

The course primarily deals with the following student learning outcomes:

* Can identify, define, and solve problems
* Have mastered a body of knowledge and a mode of inquiry
* Can communicate effectively
* Have acquired skills for effective citizenship and life-long learning.

**More specifically, by the time you complete this course you should be able to:**

* Accurately describe a soil profile including horizon delineation and identification, soil texture, color, consistence, structure, coarse fragments, and pH.
* Accurately describe landscape characteristics affecting soil formation
* Make general land-use interpretations from the soil profile and landscape descriptions
* Classify soils of this region to the Great Group level based on a soil profile description
* Participate in Soil Judging
* Define a soil catena and explain its importance in understanding spatial patterns of soil variability.
* Work effectively in a small group setting to describe soil profiles and landscapes and solve problems related to interpretations.

**University Grading Standards**

A achievement that is outstanding relative to the level necessary to meet course

requirements.

B achievement that is significantly above the level necessary to meet course requirements.

C achievement that meets the course requirements in every respect.

D achievement that is worthy of credit even though it fails to meet fully the course

requirements.

F Represents failure (or no credit) and signifies that the work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an I.

I (Incomplete) Assigned at the discretion of the instructor when, due to extraordinary

circumstances, e.g., hospitalization, a student is prevented from completing the work of the course on time. Requires a written agreement between instructor and student.

# Academic Dishonesty

Academic dishonesty in any portion of the academic work for a course shall be grounds for awarding a grade of F or N for the entire course.

# Credits and Workload Expectations

For undergraduate courses, one credit is defined as equivalent to an average of three hours of learning effort per week (over a full semester) necessary for an average student to achieve an average grade in the course. For example, a student taking a three-credit course that meets for three hours a week should expect to spend an additional six hours a week on coursework outside the classroom.

## University Course Requirements

1. The two major grading systems used are the A-F and S-N. Departmental majors must take major courses on the A-F system; non-majors may use either system. The instructor will specify criteria and achievement levels required for each grade. All students, regardless of the system used, will be expected to do all work assigned in the course, or its equivalent as determined by the instructor.

2. The instructor will specify the conditions, if any, under which an "Incomplete" will be assigned instead of a grade. The instructor may set dates and conditions for makeup work, if it is to be allowed. "I" grades will automatically lapse to "F"s at the end of the next semester of a student's registration, unless an instructor agrees to submit a change of grade for a student during a subsequent semester to maintain the grade as an "I".

3. Inquiries regarding any changes of grade should be directed to the instructor of the course; you may wish to contact the Student Conflict Resolution Center (SCRC) in 211 Eddy Hall (624-7272) for assistance.

4. Students are responsible for all information disseminated in class and all course requirements, including deadlines and examinations.

5. A student is not permitted to submit extra work in an attempt to raise his or her grade, unless the instructor has specified at the outset of the class such opportunities will be afforded to all students.

6. Scholastic misconduct is broadly defined as "any act that violates the right of another student in academic work or that involves misrepresentation of your own work. Scholastic dishonesty includes, (but is not necessarily limited to): cheating on assignments or examinations; plagiarizing, which means misrepresenting as your own work any part of work done by another; submitting the same paper, or substantially similar papers, to meet the requirements of more than one course without the approval and consent of all instructors concerned; depriving another student of necessary course materials; or interfering with another student's work."

7. Students with disabilities that affect their ability to participate fully in class or to meet all course requirements are encouraged to bring this to the attention of the instructor so that appropriate accommodations can be arranged. Further information is available from Disabilities Services (230 McNamara).

8. University policy prohibits sexual harassment as defined in the December 1998 policy statement, available at the Office of Equal Opportunity and Affirmative Action. Questions or concerns about sexual harassment should be directed to this office, located in 419 Morrill Hall.