

NRM 380 - SOILS AND THE ENVIRONMENT SYLLABUS

Fall - 2019

Course outline: The course offers fundamental knowledge in soil sciences, which include soil taxonomy, soil physics, soil chemistry, and soil biology and biochemistry both in theory and in applications. Briefly, five areas are covered in the lecture and labs, 1) soil physics and soil formation, 2) soil chemistry, 3) soil biology, 4) soil and plant nutrients and their management; and 5) soil contamination and erosion control. Lectures and laboratory work compromise each other so that what students learned in the lecture can be applied in the laboratory experiments. It is a step stone for students who are pursuing degrees in plant, animal and soil sciences, forestry science, biology, ecology, geography, natural resource management, and environmental sciences.

Lecture methods: Face to face or distance delivery through zoom. Online laboratory video is

Student outcome:

Upon completion of the class, students should:

Have a deep understanding the complexity of soil as a natural resource for food production and as an important component in natural ecosystem.

Understand soil physical properties, and laboratory methods to measure those properties.

Understand soil chemical properties and laboratory methods to measure those properties.

Understand soil biological properties and laboratory methods to measure those properties.

Have knowledge to differentiate a good soil management plan from improper ones.

Be able to use soil web survey to collect soil information and use learned soil knowledge to develop soil management plans for different land uses.

Be able to write a integrated soil technical report for a given area in US.

NRM-380 SOILS GRADING POLICY

This is a "writing-intensive" course, meaning that a majority of the 768 total points available is based on written assignments and questions. One third of the grade for weekly lab reports and 20% of the final project grade will be determined by the student's ability to write in a clear, concise and correct manner. Each student will be responsible for scheduling at least one personal conference with the instructor concerning his/her writing ability and whether he/she should seek help from the Writing Center. Individual conferences should be scheduled following the first hour exam. Students are required to attend the classes and labs, which will be used to evaluate student performance. Grade will be deducted for late submission of assignments. Plagiarism or academic misconduct is zero tolerance in the class.

| Points | Basis |
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|--------|-------|--|----|
| 87 | 89.9% | | B+ |
| 82 | 86.9% | | B |
| 80 | 81.9% | | B- |
| 77 | 79.9% | | C+ |
| 72 | 76.9% | | C |
| 70 | 71.9% | | C- |
| 60-69% | | | D |
| <60% | | | F |

Passing grade for the class is C-

Student protection and service

Every qualified student is welcome in my classroom. As needed, I am happy to work with you, disability services, veterans' services, rural student services, etc. to find reasonable accommodations. Students at this university are protected against sexual harassment and discrimination (Title IX), and minors have additional protections. As required, if I notice or am informed of certain types of misconduct, then I am required to re

Lecture, exam, and homework schedule