



Syllabus: **ANR 221 Soil Science**

Course Information

Course Prefix/Number: ANR 221N Semester: Fall 2017 Class Days/Times: Tuesday & Thursday 9–11:45 AM Room 1, Gewkdag Son Ki	Credit Hours: 4 Course Title: Soil Science
PREREQUISITE: CHEM 080 or high school equivalent, or permission of instructor.	

Instructor Information: Name: Melanie Lenart US Mail: P.O. Box 3129 Sells, AZ 85634	Phone/Voice Mail: (520) 383-0071 / (520) 465-6877 E-mail: mlenart@tocc.edu Office: Room 101, Hamascadam Ha Ki Office hours: Th 12 - 2, or by appointment. But feel free to stop by my office anytime
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Instructional Materials will be posted on the Canvas site, with hard copies handed out in class as relevant.

Required Textbook:

In lieu of a textbook, this course requires that students have their own computer. For those who do not currently have a personal computer, laptops are available for sale in the Bookstore at a reduced cost of \$286. This course has been submitted as one of the courses in which students have access to the laptops at the reduced price.

Recommended Text:

- ***Elements of the Nature & Properties of Soils***. Brady, N.C. & R.R. Weil. Pearson Prentice Hall.

Useful websites:

- NRCS (Natural Resource Conservation Service) soils homepage
 - <http://soils.usda.gov/>
 - For instance, here's a page on soil orders:
 - https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/edu/?cid=nrcs142p2_053588
- National Geographic cover story about soil "The Good Earth"
 - <http://ngm.nationalgeographic.com/2008/09/soil/mann-text>

This course fulfills the AGEC Biological and Physical Sciences requirement.

****Please turn off your cell phone and refrain from checking your e-mail, instant messaging, or surfing the internet during class unless specifically related to a class assignment.****

Course Description:

Fundamental principles of soil science, including the origin, nature, and classification of soils, emphasizing the chemical, physical and biological properties in relation to growth and nutrition of plants.

Course Objectives:

1. Identify the Five Key Functions of Soil in our ecosystem.
2. Describe how indigenous people, including Tohono O'odham, evaluate soils.
3. Describe the factors influencing the formation of soils.
4. Recognize the distribution and use of the 12 soil orders.
5. Relate the influence of the 7 soil physical properties to the functions of soils.
6. Apply soil-water functions to soil management.
7. Associate soil aeration and soil temperature with the soil environment.
8. Recognize the nature and properties of colloidal soil properties.
9. Determine the influence of soil reaction, pH, on soil management decisions.
10. Identify the properties of alkaline and salt affected soils of arid regions.
11. Recognize the importance of soil organisms and organic matter in soil ecology.
12. List the macro-nutrient and micro-nutrient elements of soils.
13. Recognize the goals of practical nutrient management.
14. Associate the significance of soil erosion with land degradation.
15. Recognize how soils can affect plant communities and plant growth.
16. Apply data found in the Soil Survey of the Tohono O'odham Nation to the practical use of soil science principles.

FIELD TRIP Date: Tentatively scheduled for Friday, Sept. 15

Workload:

Students are expected to spend an average of 15 hours per week attending class sessions, doing assignments and research, reading and preparing for exams. The standard Carnegie Unit of college credit assigns one credit hour for each 15 hours of class time throughout the semester and assumes that students spend two hours working outside the classroom for each hour of classroom instruction. For a four-credit course that includes a lab, this translates to 225 hours per semester or an average of fifteen hours per week for a 15 or 16-week semester.

Incomplete (I) grade:

To receive an "I" grade, you must have finished at least 1/2 of the course requirements and specifically request the grade. Please call before the last week of class to be sure that there is sufficient time to consider your request. An incomplete grade generally implies that a student has shown sufficient initiative to complete the course on his or her own. You will receive a copy of the standard "I" form filed with the grade. This form details specifically what must be done to complete the course. A student has one semester (4 months) to complete the required work, after which the grade automatically reverts to an "F."

Special Withdrawal (Y) grade:

The “Y” grade is an administrative withdrawal given at the instructor’s option when no other grade is deemed appropriate. Your instructor must file a form stating the specific rationale for awarding this grade. “Y” grades are discouraged since they often affect students negatively. Your instructor will not award a “Y” grade without a strong reason. Any student missing 4 consecutive class meetings without prior approval may be withdrawn by the instructor.

Make-up Exams:

- There can be one makeup exam **only** with prior approval by the instructor. Any missed exam without approval will receive zero points for that exam.

Final Grades: Students will receive a grade transcript from the college mailed to the address given with registration materials at the end of the semester when all grades have been recorded. Students who wish to check grades may call 520-383-8401.

SPECIAL NOTE TO STUDENT: For privacy and security reasons, instructors are advised **NOT** to give grades over the telephone.

CAVEATS:

- *Your instructor will make every attempt to follow the above procedures and schedules, but they may be changed in the event of extenuating circumstances.*
- *Students submitting assignments through the mail are advised to make copies for their own protection.*
- *If you move during the semester, please file a change of address form at any PCC campus registration office.*

Attendance:

- **When you do not attend class, it is your responsibility to make up what you have missed.**
- Add/drop/refund/audit deadline is **Thursday, Jan. 22nd**.
- Students must attend a minimum of 20 class sessions to receive a grade or an incomplete. It is the responsibility of the student to withdraw from the class if he or she has excessive absences, or decides to discontinue the class. Students who discontinue attending the class without withdrawing will receive an “F”, which may affect scholarship status. **The deadline for withdrawal is Wednesday, April 8th.**

Academic Integrity: Violations of scholastic ethics are considered serious offenses by Tohono O’odham Community College and by your instructor. Students are expected to abide by the Student Code of Conduct and the Scholastic Code of Conduct found in the Tohono O’odham Community College Student Handbook. Copies are available at the bookstore.

ADA Compliance:

Pima Community College and Tohono O’odham Community College strive to comply with the provisions of the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. Students with disabilities requiring special accommodations must notify the instructor of this need or directly contact the office of the Vice President of Student Services (Leslie Luna can be reached at: **520-383-0010**) at the beginning of the semester.

Classroom Behavior:

- Because of insurance limitations, non-registered visitors are not allowed at class sessions or on field trips.
- Possession of drugs, alcohol or firearms on college property is illegal.

- Eating, drinking, smoking and soliciting are not allowed in classrooms.
- Pets, telephones, pagers and other electronic devices that distract students are not allowed in classrooms.
- Students creating disturbances that interfere with the conduct of the class or the learning of others will be asked to leave.

Course Feedback:

Exams will be returned within one week of the examination date. Quizzes will be handed back the following classroom period. E-mail and voice messages will be returned promptly. Student conferences can be arranged by appointment with the instructor. Each student will receive a mid-semester grade report to know how you are doing academically.

Instructor Withdrawals:

Students may withdraw from class at any time during the first 2/3 of the semester without instructor permission and without incurring any grade penalty. Students who have not submitted any assignments nor taken any exams by the 45th day census report, due on **Friday, Feb. 27th**, are assumed NOT to be participating in the class and will be withdrawn. Please be sure to withdraw yourself by **Wednesday, April 8th** if you do not expect to complete the class, otherwise you may receive an "F" grade.