Course: AGRO 350 - Introduction to Soils
Note: CHEM 105/106 are prerequisites for this course.

Something to think about: “It’s not that I’m so smart, it’s just that I stay with problems longer.” - Albert Einstein

Term: Spring 2009
Time: 11:10-12:30
Location: EST 248
Instructor: Dr. Becky Gilfillen, EST 256
745-5970 (office), 843-4083 (home)
becky.gilfillen@wku.edu

Office hours: I have an open-door policy, however if you would like to request a specific appointment time, please contact me.

Text: A resource if you wish - Soil Science Simplified. 4th or 5th ed. (can order online – see me if you need help)

Tentative Course Outline:

I Soil Development Systems
-Introduction to soil systems
-Landscapes and profiles
-Soil developmental processes
-Factors of soil formation
-Soil classification
-Soil resources

II Soil Physical Systems
-Soil physical properties
-Bulk density, particle density, and porosity
-Porosity management

EXAM 1 - 100 points

-Compaction, tillage, and seedbed properties
-Soil erosion
-Residue management/soil conservation
III  **Soil Water Systems**  
- Soil water properties  
- Soil water energy concepts  
- Infiltration, storage, and availability of soil water  
- Soil water movement  
- Soil water measurement and calculations  
- Soil water management  
- Water pollution: surface and subsurface  

**EXAM 2**  
- 100 points

IV  **Soil Chemical and Fertilizer Systems**  
- Clay minerals  
- Properties of soil colloids  
- Cation exchange capacity  
- Soil reaction  
- pH relationships  
- Liming materials and liming  
- Saline and sodic soils  
- Soil fertility: nitrogen, phosphorus, potassium  
- Secondary and micronutrients  
- Fertilizers

**EXAM 3**  
- 100 points

V  **Soil Biological Systems**  
- Soil organisms  
- Soil organism activities  
- Soil-plant-microbial interactions  
- Soil organic matter properties  
- Carbon and nitrogen cycles/ratios

- other nutrient cycles+

**Comprehensive Final Exam – Monday, May 11 (8-10 am)**  
- 150 points
Grading scale:
90-100% = A (585 points)  80-90% = B (520 points)  70-80% = C (455 points)
60-70% = D (390 points)  <60% = F (<390 points)

Calculation of grade: Three regular exams are 100 points each and a final comprehensive exam is 150 points. There will be a total of 5 quizzes worth 25 points each. The lowest quiz score will be dropped for a total of 100 points. In addition there will be 4 group projects done mostly in class worth 25 points each for a total of 100 points. Total points possible will be 650.

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<th>Grade</th>
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Class policies:

1. Make-up exams and group projects will **only** be given in extreme situations, such as sickness with a doctor’s note, court notice, death in the family, college club trip, etc. All other excuses will be invalid if not discussed and approved by the instructor beforehand.
2. Make-up quizzes will **not** be given for any reason. A **missed quiz will be the one that is dropped.**
3. Cell phones must be turned off or silenced during class (unless consent is given by the instructor in special circumstances). This would include **no texting.** The instructor reserves the right to penalize the student’s class grade for excessive problems of this nature.
4. Cheating will **not** be tolerated. Definitions of cheating are as follows, but are not limited to these acts alone.
   - **Plagiarism** - To represent ideas or interpretations taken from another source as one’s own is plagiarism. Plagiarism is a serious offense. The academic work of students must be their own. Students must give the author(s) credit for any source material used. To lift content directly from a source without giving credit is a flagrant act. To present a borrowed passage after having changed a few words, even if the source is cited, is also plagiarism. *(From *WKU Student and Faculty Handbook)*
   - **Cheating** - No student shall receive or give assistance not authorized by the instructor in taking an examination or in the preparation of an essay, laboratory report, problem assignment, or other project that is submitted for purposes of grade determination. *(From *WKU Student and Faculty Handbook)*
   - **Disposition of Offenses** - Students who commit any act of academic dishonesty may receive from the instructor a failing grade in that portion of the course work which the act is detected or a failing grade in the course without possibility of withdrawal. The faculty member may also present the case to the University Disciplinary Committee through the Office of the Dean of Student Life for disciplinary sanctions. Students who believe a faculty member has dealt unfairly with them in a situation involving alleged academic dishonesty may seek relief through the Student Complaint Procedure. *(From *WKU Student and Faculty Handbook)*
5. **Attendance in class is very important.** You need to be present in order to receive the information. If you miss a class, make certain to catch-up on the missing information from a fellow classmate as soon as possible. You need to have the material before the next class meeting.
6. Please come and see me as soon as you have any problems with this class.
7. In compliance with university policy, students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Student Disability Services in GCC 101. The phone number is 270-745-5004. Please **DO NOT** request accommodations directly from the professor or instructor without a letter of accommodation from the Office for Student Disability Services.