

CSEM/PSAS 447: Fertilizers and Soil Fertility
Spring Semester 2014
Mon., Wed., Fri. 10:00-10:50 p.m., Agriculture Building, Room 216

Instructor: Dr. Rachel Cook, rachel.cook@siu.edu, Ag Bldg Room 161E, Ph: 453-1795

Office Hours: Monday, Wednesday, and Friday 11:00 a.m. - 12:00 p.m. or by appointment

Required Text: "Soil Fertility and Fertilizers - An Introduction to Nutrient Management", 8th Edition by J.L. Havlin, S.L. Tisdale, W.L. Nelson, and J.D. Beaton

Purpose of the Course: This is a 3-credit hour course designed to introduce the student to the applied concepts of Soil Fertility and Fertilizers which will include but is not limited to the following objectives:

- A. Understand plant nutrient use and the importance of nutrients in the soil-plant system.
- B. Understand the essential plant nutrients required by plants, their role and function in plants, and nutrient deficiencies/toxicities in plants.
- C. Understand the relationships between fertilizers, soils, plant growth, nutrient management, and humans in agricultural systems to maximize productivity while minimizing environmental, social, and economic impacts.

Course Requirements:

- A. **Lectures:** Materials will typically be covered in PowerPoint presentations and will be posted in D2L after lecture.
- B. **Tests:** Tests will cover all materials given to that date since the previous test. These will be 100-point exams covering lectures and assignments. A final, comprehensive examination, valued at 200 points, will also be given. **No make-up exams** unless arranged **prior** to the scheduled exam. The dates for the examinations will be as follows:

1st Hourly Exam:	February 21th
2nd Hourly Exam:	April 4th
Final Exams:	Friday, May 9th, 2014 7:50 – 9:50 a.m.

- C. **Assignments:** There will be one (1) Abstract and two (2) problems sets worth 50 points each. These will be discussed at a later date in class with regards to their details and due dates. Turning in assignments after the due date will result in declining credit of 5% (1/2 letter grade) for every day that they are late.
- D. **Quizzes:** Quizzes will be given at the discretion of the instructor during class.

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Grading: Grades will be based upon a 90% - 80% - 70% - 60% grading scale with NO curving of the final grades.

2 Hourly Exams (200 pts)	36% of course grade
Final Exam (200 pts)	36% of course grade
Abstract/Grad Project (50 pts)	9% of course grade
Problem Sets (100 pts)	18% of course grade
Quizzes (points to be determined)	

CSEM 447 FINAL EXAM: Friday, May 9, 2014
7:50 a.m. - 9:50 a.m.

Presentation of Course Materials

- A. Chapter 1: Introduction and Chemistry Review
- B. Chapter 2: Basic Soil-Plant Relationships
- C. Chapter 3: Soil Acidity and Alkalinity
- D. Chapter 4: Nitrogen
- E. Chapter 5: Phosphorus
- F. Chapter 6: Potassium
- G. Chapter 7: Sulfur, Calcium, and Magnesium
- F. Chapter 8: Micronutrients
- G. Chapter 9: Soil Fertility Evaluation
- H. Chapter 10: Nutrient Management
- I. Chapter 11: Nutrient Interactions and Economics
- J. Chapter 12: Productivity and Environmental Quality
- K. Topics that may be covered: Cover crops, hydraulic fracturing, and/or soil quality

Note: Changes to syllabus may be made at the instructor's discretion.

PLSS 447: Fertilizers and Soil Fertility
Spring Semester 2012
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The Academic Honesty Policy will follow the Student Conduct Code, Section II, Article A:

Article A. Acts of Academic Dishonesty

In keeping with the principles and values of the University, students shall not:

1. Plagiarize or represent the work of another as ones own work;
 2. Prepare work for another that is to be used as that persons own work;
 3. Cheat by any method or means;
 4. Knowingly or willfully falsify or manufacture scientific or educational data and represent the same to be the result of scientific or scholarly experiment or research;
 5. Knowingly furnish false information to a university official relative to academic matters;
 6. Solicit, aid, abet, conceal, or attempt acts of academic dishonesty.
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Emergency Procedures:

Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the SIUC Emergency Response Plan and Building Emergency Response Team (BERT) program. Emergency response information is available on posters in buildings on campus, available on the BERT's website at www.bert.siu.edu, Department of Public Safety's website at www.dps.siu.edu (Disaster Drop Down), and in the Emergency Response Guidelines pamphlet. Know how to respond to each type of emergency.

Americans with Disabilities (ADA) Statement:

Southern Illinois University Carbondale encourages all persons with disabilities requiring special accommodations to meet the expectations of this course to bring this to the attention of the instructor as soon as possible. Written documentation of the disability should be submitted during the first week of the semester along with a request for special accommodations. Please contact the SIU Disability Support Services (DSS) to facilitate requests:

SIU Disability Support Services
Woody Hall, B-150
Mail Code 4705
Carbondale, Illinois 62901
DSSsiu@siu.edu
Phone 618-453-5738
Fax 618-453-5700
TTY 618-453-2293