I. **TITLE:**

Soil and Water Engineering

II. **CATALOG DESCRIPTION:**

This course is designed for students in Agricultural and Environmental Engineering majors. The students will learn the principles of soil and water conservation engineering. The emphasis in the course is to learn principles of soil-water and soil-water-plant relationships and their engineering application to support useful plant life, with minimum degradation of land and water resources.

This class will involve active, hands-on learning with interactive class activities and student presentations rather than straight lectures. This course will help to improve the basic principles of soil and water conservation, as well as to critically examine the issues in soil and water relationships as related to agricultural purposes.

PowerPoint notes will be used in class for lecture material, but not all of these will be made available to you on Blackboard. If you have a question regarding your score, please set-up an appointment with me so we can discuss it privately.

III. **PURPOSE:**

The purpose of this course is to study the basic principles of soil and water conservation and management as it relates to agriculture and environment protection.

IV. **COURSE OBJECTIVES:**

To develop a basic understanding of soil and water conservation engineering.

V. **CONTENT OUTLINE:**

The course includes the following topics (**reading is required before the class**):

*Notes: The Instructor has the right to readjust the amount of topics covered depending on the class dynamics and time.*

- Conservation and the Environment
- Water Quality
- Precipitation
- Evaporation and Evapotranspiration
- Infiltration and Runoff
- Principles of Hydrology
- Soil Erosion
- Terraces and Vegetated Waterways
- Water Supply
- Drainage Principles
- Water Table Management
- Irrigation Principles
- Global and Local Issues in Soil and Water Conservation Engineering

VI. INSTRUCTIONAL ACTIVITIES:

Lectures, reading assignments, student presentations, slides, videos, small group discussion.

VII. FIELD AND CLINICAL EXPERIENCES:

None

VIII. RESOURCES:

Classroom, textbook, articles, websites

IX. GRADING PROCEDURES:

Lab :
- Weekly exercises 12x (@ 20) 240
- Field Trip & Report 2x (@ 30) 60
- Project 100
- Attendance 100

Class :
- Exam 3 @ 100 points 300
- Attendance 30
- Presentation 50
- Participation (12x @10) 120

Total 1000

EVALUATION CRITERIA

I will evaluate your understanding of the course material using a combination of class participation/attendance, assignments and exams. I will give the detail of the assignments during class or lab time.

The grades in this course are assigned as follows:
- 90 – 100% : A - Superior
- 80 – 89% : B - Very Good
- 70 – 79% : C - Acceptable
- 60 – 69% : D - Passing
- Below 60% : Failing

* Instructor reserves the right to curve the final average based on the performance of the class.
X. ATTENDANCE POLICY:

Please refer to the most current copy of the Murray State University’s Undergraduate Bulletin and Graduate Bulletin. Students enrolled in this class are required to attend, on time, all scheduled class meetings. It is your responsibility, as a student, to attend classes. I realize that there is more to your life than college coursework. Therefore, if you must miss class (particularly when an assignment is due) you must notify me ahead of time (except in the case of an emergency, where you must let me know as soon as you return to class). It is the student’s responsibility to obtain any assignment or lecture material missed due to absence or tardiness.

Assignments must be received on time in order for the student to receive full credit. Late work will be lowered by 2% each day it is delinquent. Work will NOT be accepted after three weeks past the due date. Attendances, class participations, field trips, and presentations CAN NOT be made up. Make-up exams will be only given where a student contacts me before and offers an acceptable excuse.

Please do not use any tobacco products during class and do not eat and drink during class.

XI. ACADEMIC HONESTY POLICY:

(Adopted by the MSU Board of Regents)
Cheating, plagiarism (submitting another person’s material as one’s own), or doing work for another person which will receive academic credit are all impermissible. This includes the use of unauthorized books, notebooks, or other sources in order to secure or give help during an examination, the unauthorized copying of examinations, assignments, reports, term papers, or the presentation on unacknowledged material as if it were the student’s own work. Disciplinary action may be taken beyond the academic discipline administered by the faculty member who teaches the course in which the cheating took place.

NOTE: The School of Agriculture Faculty have adopted and implemented an Academic Honesty Policy in addition to the University Honesty Policy, which can be found in the current Undergraduate Bulletin and Graduate Bulletin. The policy sets guidelines regarding acts of dishonesty and the procedure to follow should an event occur. It is each Agriculture student’s responsibility to obtain and read a copy of this document. The School’s Academic Honesty Policy can be obtained by asking for a copy from any Agriculture Faculty member or the Secretary.

XII. TEXT AND REFERENCES:


XIII. PREREQUISITES:

AGR 250 (Soil Science) or concurrently with AGR 250
or prerequisites by topic: Physical and Chemical Properties of Soil and Basic Math in Soils.
XIV. **STATEMENT OF AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY.**

Murray State University endorses the intent of all federal and state laws created to prohibit discrimination. Murray State University does not discriminate on the basis of race, color, national origin, gender, sexual orientation, religion, age, veteran status, or disability in employment, admissions, or the provision of services and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with disabilities equal access to participate in all programs and activities. For more information, contact Sabrina Y. Dial, Director of Equal Opportunity, Murray State University, 103 Wells Hall, Murray, KY 42071-3318. Telephone: 270-809-3155 (voice), 270-809-3361 (TDD).

XV. **MSU SCHOOL OF AGRICULTURE CELL PHONE POLICY**

The School of Agriculture recognizes that in today’s world cell phones are a familiar and often necessary form of communication for students.

It shall be the policy of the School that no cell phone usage shall be allowed in class and/or labs without the prior consent of the course instructor. This shall include verbal calling, incoming calls, email, text messaging, and use of cell phone calculators on tests and quizzes.

Cell phones must be kept off and out of sight (i.e. secured to a person’s belt or kept in a bag or purse away from desks and lab counters).

Should a student’s cell phone be visible, ring, or other form of unauthorized usage that is interruptive to the class or lab, the student may be asked to leave class and not return for that class/lab period.

Upon prior consent of the instructor, a student may obtain permission to have their phone on in case of an emergency or in critical family situations.

This policy also includes pagers and other electronic equipment such as blackberries and/or computers/laptops.