SCHOOL OF AGRICULTURE

COURSE NUMBER: AGR 240 CREDIT HOURS: 3

I. TITLE:

Crop Science

II. CATALOG DESCRIPTION:

A study of the fundamental principles underlying the production of agricultural crops. Lecture: two hours; laboratory: two hours. (Fall and Spring)

III. PURPOSE:

To introduce all agriculture majors to the principles underlying crop production.

IV. COURSE OBJECTIVES:

To develop the competencies listed below:
Upon completion of the course, you should be able to:
A. Identify the major crops and weeds of Mid-America.
B. Understand the possibilities for, and limitations on increased world food production.
C. Explain how superior cultivars are developed for the marketplace.
D. Have a keen awareness of the principle of limiting factors on agricultural productively of a region.
E. Explain the stages of growth and development of crop plants.
F. Know the basic principles and practices of crop rotation.
G. Explain the pest triangle and illustrate with the major crops how to control or prevent serious epidemics.
H. Know crop plants, their growth habits, and area of adaptation, uses and some major pest problems.
I. Give advice on planting and harvesting alternatives.
J. Explain nitrogen fixation in legume crops.
K. Explain the factors that determine grade or value of grain and hay.
L. Outline major cultural practices for efficient production of crops typical of Mid-USA.

V. CONTENT OUTLINE:

A. Crop development and Growth
B. Environmental Factors
C. Photosynthesis
D. Fertilization
E. Nitrogen Fixation
F. Crop Improvement
G. Integrated Pest Management
H. Specific Crops

VI. INSTRUCTIONAL ACTIVITIES:
A. Lecture
B. Field Trips

VII. FIELD AND CLINICAL EXPERIENCES:
Field Trips to the University Farm

VIII. RESOURCES:
A. Plant Samples
B. Handouts
C. Library
D. Videotapes
E. Crop Nursery at Pullen Farm
F. “How an Alfalfa Plant Develops” bulletin

IX. GRADING PROCEDURES:

The lecture portion is worth about 60% of your grade. Three mini-exams will be given with each being worth 100 points. Combined, the mini-exams will be worth 300 points. These mini-exams will be given at the beginning of class and only 15-25 minutes will be allowed for each exam. The remainder of each period will be used for new lecture material. It is important to be on time; students arriving late will have less time to take the mini-exams or will have to take a make-up mini-exam. A pop-quiz may be given; the quiz will be considered a part of the very next mini-exam. The comprehensive final will be worth 150 points. Up to 25% of the final exam may also contain selected portions of lab course material.

The lab portion is worth about 40% of your grade. **It is important to be on time for lab. Timeliness and attendance is worth 50 pts of lab score.** Ten lab scores from lab exams and/or lab reports will each be worth 25 points. Therefore, the overall lab portion will be worth 300 points. Each lab exam and report are given equal credit. No lab exams will be dropped and any missed lab exam must be made up.
Summary:

- 3 - Lecture Mini-exams @ 100 pts.
- Final Exam 150 pts.
- Lab exams and reports 250 pts.
- Lab Timeliness & Attendance 50 pts.

Make-up exams, with approved excuses, must be scheduled within one week of the original examination date. Exceptions to the above rule will be approved only when extreme cases arise, with instructor’s approval. Reasonable excuses include hospitalization, family crisis or official representation at a university function. Generally, no make-ups will be given for pop quizzes, unless given an approved excuse using the same guidelines for exams. Make-up exams will be more difficult, to adjust for transfer of information that usually takes place after an exam.

Graduating seniors are expected to take a final along with other students during finals week.

The total possible points is 750. Students obtaining the following amounts of total points are guaranteed the following grades:

- ≥ 675 points A
- ≥ 600 points B
- ≥ 525 points C
- ≥ 450 points D
- ≤ 450 points E

The instructor reserves the right to lower this scale on a linear basis, as the need arises.

X. **ATTENDANCE POLICY:**

Please refer to the most current copy of the *Murray State University's Undergraduate Bulletin and Graduate Bulletin.*

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:

None

XIV. EXPECTED STUDENT BEHAVIORS:

A. Exhibit a positive attitude toward the class.
B. Come to class prepared for discussion and interaction.
C. Be cooperative with peers and instructor.
D. Regular attendance.
E. Make-up work to be initiated by the student.
F. Another member of the class picks up handouts and provides notes if class is missed.

XV. EXPECTED INSTRUCTOR BEHAVIORS:

A. Be fair in all class-related activities.
B. Test questions should reflect material covered in class and assigned reading.
C. Be patient, keep office hours, be available after class.
D. Understand this class is not the only thing that students are taking.
E. Be sincere-treat students as people-follow the Golden Rule.
F. Keep the class on task-keep it focused on expected competencies.

XVI. 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.