South Plains College Common Course Syllabus: AGRI_1307_001_SP2023

Department: Science

Discipline: Agriculture

Course Number: AGRI 1307

Course Title: Agronomy

Available Formats: Conventional.

Campuses: Levelland.

Instructor Ron Presley Agricultural Building Office 100B 806-716-2328

Preferred Contact: Through e-mail.

RPresley@SouthPlainsCollege.edu

Office Hours:

Monday –	1:00 - 3:00	Online
Tuesday	1:00 - 3:00	
Thursday-	1:00 - 3:00	
Friday –	9:00 - Noon	

Course Description: Principles and practices in the development, production, and management of field crops including growth and development, climate, plant requirements, pest management, and production methods. Laboratory activities will reinforce the fundamental principles and practices in the development, production, and management of field crops including growth and development, climate, plant requirements, pest management, and production methods.

Prerequisite: None

Credit: 3 Lecture: 3 Lab: 0

Textbook: : Craig, Sheaffer C, and Kristine M Moncada. *Introduction to Agronomy _ Food, Crops and the Environment*. 2nd ed., Delmar Cengage Learning, 2012.

Supplies: Device allowing student the capability to use the internet.

This course partially satisfies a Core Curriculum Requirement: Life and Physical Sciences Foundational Component Area (030)

Core Curriculum Objectives addressed:

Communication - to include effective written, oral and visual communication.

Critical Thinking Skills – to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.

Empirical and Quantitative Skills – to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

Teamwork Skills – to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

Student Learning Outcomes: Upon successful completion of this course, students will:

Lecture:

- 1. Summarize the role of climate and geography in present and past crop production.
- 2. Explain the growth and development of crops.
- 3. Analyze the impact of climate on crops.
- 4. Assess the interactions of soils, water, and fertility on crop production.
- 5. Contrast methods of pest management in crop production.
- 6. Differentiate production methods based on geography and crop selection.

Lab iCEV. Students will be sent instructions regarding how to join iCEV labs.

- 1. Apply scientific reasoning to investigate questions and utilize scientific and agronomic tools.
- 2. Use critical thinking and scientific problem solving to make informed decisions.
- 3. Communicate effectively the results of scientific investigations.
- 4. Summarize the role of climate and geography in present and past crop production.
- 5. Explain the growth and development of crops.
- 6. Analyze the impact of climate on crops.
- 7. Assess the interactions of soils, water, and fertility on crop production.
- 8. Contrast methods of pest management in crop production.
- 9. Differentiate production methods based on geography and crop selection.

CLASSROOM CONDUCT:

Within the classroom setting, a "Business Etiquette" code of conduct will be expected of each student. Language and appearance that is appropriate to an adult oriented educational setting will be expected. Gentlemen will remove hoods, hats and caps. No tobacco usage. NO cell phones.

E-Mails will be answered within 24 hours.

I will not serve as a student's secretarial staff.

Meaning, "Hey, is there a Chemistry class at Reese next semester at 9:00 AM?" Since this is a question that the student can easily look up, I will not feel compelled to spend my time in looking up the answer.

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You are ALWAYS welcome to contact me or come by my office.

COURSE OUTLINE:

On Mondays, lecture presented regarding week's topics.

On Wednesdays, <u>students will work together</u> on practice exams, preparing for weekly exam due at end of the day on Wednesday.

Anatomy of Plants

1.To identify plant structures and functions.

- 2.To describe the structure of plant cells.
- 3.To explain the process of reproduction in plants.

Scientific Classification & Nomenclature of Plants

- 1.To identify different plant types.
- 2.To identify techniques used in plant classification.
- 3.To evaluate the plant naming system.
- 4.To identify different types of organisms in an ecosystem.
- 5. To evaluate the levels of organization in multicellular organisms.

Fundamental Plant Processes

- 1.To identify the importance of plants.
- 2.To discuss the cell cycle.
- 3.To discuss the plant life cycle.
- 4.To identify factors which affect plant growth and development.
- 5.To evaluate the effects of plant growth regulators.
- 6.To discuss important plant processes.

Plant Genetics

- 1.To identify the process of cell reproduction and growth.
- 2.To evaluate the importance of DNA in plant cells.
- 3.To discuss terms related to plant genetics.
- 4.To evaluate cell structures and functions.
- 5.To identify the history and use of plant breeding.
- 6.To discuss technologies used in agricultural plants.

Plant Nutrition

- 1.To identify functions of plant parts.
- 2.To evaluate plant processes.
- 3.To analyze the structure and function of organic molecules in plants.
- 4.To identify plant growth requirements.
- 5.To evaluate the needs of soil and water for plants.
- 6.To identify nutrients and nutrient deficiencies in plants.
- 7.To evaluate the impact of human activity on ecosystems.

Plant Evaluation

- 1.To analyze the anatomy and physiology of plants.
- 2.To evaluate the environmental impacts made on plants.
- 3.To discuss the physiological disorders impacting plants.
- 4.To identify diseases affecting plants.
- 5.To discuss the application of plant evaluation in both urban and agricultural settings.

Crop Production in the United States: Midwest Region

- 1. To identify major crops grown in the Midwest region of United States.
- 2. To discuss the value of crop production in each state located in the Midwest Region.

3.To analyze trends in crop production for the Midwest Region.

Crop Production in the United States: Northeast Region

- 1. To identify major crops grown in the Northeast region of the United States.
- 2. To discuss the value of crop production for each state located in the Northeast region.
- 3.To analyze trends in crop production for the Northeast region.

Crop Production in the United States: Southern Region

1.To identify major crops grown in the Southern region of the United States.

2.To discuss the value of crop production in each state located in the Southern Region.3.To analyze trends in crop production for the Southern Region.

Crop Production in the United States: Western Region

1.To identify major crops grown in the Western region United States.

2.To discuss the value of crop production in each state located in the Western Region.

3.To analyze trends in crop production for the Western Region.

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Hydroponics

1.To analyze the process of growing plants using hydroponics.

2.To identify hydroponic systems and techniques.

3.To evaluate various plants grown hydroponically.

Plant Pests: Bacterial Diseases

1.To identify bacterial diseases associated with common plants and crops.

2.To analyze the characteristics associated with common bacterial diseases of plants.

3.To identify the uses and types of prevention and treatment methods.

4.To identify the scientific names, characteristics, environmental conditions, prevention methods and treatment methods.

5.To identify bacterial diseases.

Plant Pests: Fungal Diseases

1.To identify diseases associated with common plants and crops.

2.To analyze the characteristics associated with common diseases of plants.

3.To identify the uses and types of prevention and treatment methods.

4. To identify fungal disease characteristics, environmental conditions, prevention methods and treatment methods.

5.To identify fungal diseases.

Plant Pests: Viruses

1.To identify viruses associated with common plants and crops.

2. To analyze the characteristics associated with common viruses of plants.

3.To identify viruses.

Plant Pests: Chewing Insects

1.To identify pests associated with common plants and crops.

2.To analyze the characteristics associated with common pests of plants.

3.To identify the uses and types of pesticides.

4.To identify plant pests characteristics, effects on plants, prevention methods, treatment, life cycles and economic impact.

5.To identify chewing insects.

Plant Pests: Sucking Insects

1.To identify pests associated with common plants and crops.

2.To analyze the characteristics associated with common pests of plants.

3.To identify the uses and types of pesticides.

4.To identify plant pests characteristics, effects on plants, prevention methods, treatment, life cycles and economic impact.

5.To identify sucking insects.

Plant Pests: Vertebrates

1.To identify pests associated with common plants and crops.

2.To analyze the characteristics associated with common pests of plants.

3.To identify vertebrate pests.

Plant Pests: Weeds

1.To identify pest associated with common plants and crops.

2.To analyze the characteristics associated with common pests of plants.

3.To identify the uses and types of prevention and treatment methods.

4.To identify weeds.

Fertilizers & the Environment

1.To gain a basic knowledge of fertilizers.

2.To learn the proper application of plant and crop fertilizers.

3.To learn the importance of safety and environmental concerns related to fertilizers.

Pesticides & Herbicides: An Introduction

1.To identify a number of common pests.

2. To become familiar with the various types of pesticides and herbicides.

3.To learn the proper pesticide and herbicide safety methods.

4.To become familiar with IPM (integrated pest management).

Water Resources

1.To influence of weather factors

2.To influence of climatic factors

3.To define watershed boundaries

4.To identify potential sources of pollution

5.To discuss policies of ecology management.

Water Measurement

1.To identify the origin and use of water in a watershed.

2.To describe the dynamics of a watershed.

3.To discuss the measurement of water quality and water resources in a watershed.

4.To describe how water quality is impacted by natural and anthropogenic influences.

5.To identify water and watershed conservation practices.

Student Learning Outcomes Assessment: A pre- and post-test and/or a writing assignment rubric will be used to determine the extent of improvement that the students have gained during the semester.

Course Evaluation: There will be 22 exams and a Final, each worth 100 points. Total lab grade will be worth 2200 points At the end of the semester, points earned by the student will be divided by points available to be earned. For example, if the student has earned 1980 of 2200 points available, 1980/2200= .90 Thus the student would achieve a 90% which is an "A" in the class.

If a student desires to take the final exam, it will lead to BASF Certification.

The Lab Exercises will be through iCEV. I will contact students through E Mail regarding how to subscribe to iCEV. The cost will be \$40.00

90% - 100% = A 80% - 90% = B 70% - 80% = C 60% - 70% = D Below 60% = F

Attendance Policy:

Students are expected to attend all classes in order to be successful in a course. The student may be administratively withdrawn from the course when absences become excessive as defined in the course syllabus. When an unavoidable reason for class absence arises, such as illness, an official trip authorized by the college or an official activity, the instructor may permit the student to make up work missed. It is the student's responsibility to

complete work missed within a reasonable period of time as determined by the instructor. Students are officially enrolled in all courses for which they pay tuition and fees at the time of registration. Should a student, for any reason, delay in reporting to a class after official enrollment, absences will be attributed to the student from the first class meeting.

Students who enroll in a course but have "Never Attended" by the official census date, as reported by the faculty member, will be administratively dropped by the Office of Admissions and Records. A student who does not meet the attendance requirements of a class as stated in the course syllabus and does not officially withdraw from that course by the official census date of the semester, may be administratively withdrawn from that course and receive a grade of "X" or "F" as determined by the instructor. Instructors are responsible for clearly stating their administrative drop policy in the course syllabus, and it is the student's responsibility to be aware of that policy.

It is the student's responsibility to verify administrative drops for excessive absences through MySPC using his or her student online account. If it is determined that a student is awarded financial aid for a class or classes in which the student never attended or participated, the financial aid award will be adjusted in accordance with the classes in which the student did attend/participate and the student will owe any balance resulting from the adjustment.]

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Plagiarism and Cheating: Students are expected to do their own work on all projects, quizzes, assignments, examinations, and papers. Failure to comply with this policy will result in an F for the assignment and can result in an F for the course if circumstances warrant.

Plagiarism violations include, but are not limited to, the following:

- 1. Turning in a paper that has been purchased, borrowed, or downloaded from another student, an online term paper site, or a mail order term paper mill;
- 2. Cutting and pasting together information from books, articles, other papers, or online sites without providing proper documentation;
- 3. Using direct quotations (three or more words) from a source without showing them to be direct quotations and citing them; or
- 4. Missing in-text citations.

Cheating violations include, but are not limited to, the following:

- 1. Obtaining an examination by stealing or collusion;
- 2. Discovering the content of an examination before it is given;
- 3. Using an unauthorized source of information (notes, textbook, text messaging, internet, apps) during an examination, quiz, or homework assignment;
- 4. Entering an office or building to obtain unfair advantage;
- 5. Taking an examination for another;
- 6. Altering grade records;
- 7. Copying another's work during an examination or on a homework assignment;

- 8. Rewriting another student's work in Peer Editing so that the writing is no longer the original student's.
- 9. Taking pictures of a test, test answers, or someone else's paper.

Student Code of Conduct Policy: Any successful learning experience requires mutual respect on the part of the student and the instructor. Neither instructor nor student should be subject to others' behavior that is rude, disruptive, intimidating, aggressive, or demeaning. Student conduct that disrupts the learning process or is deemed disrespectful or threatening shall not be tolerated and may lead to disciplinary action and/or removal from class.

COVID/ Mask Statement: It is the policy of South Plains College for the Spring 2021 semester that as a condition of on-campus enrollment, all students are required to engage in safe behaviors to avoid the spread of COVID-19 in the SPC community. Such behaviors specifically include the requirement that all students properly wear CDC-compliant face coverings while in SPC buildings including in classrooms, labs, hallways, and restrooms. Failure to comply with this policy may result in dismissal from the current class session. If the student refuses to leave the classroom or lab after being dismissed, the student may be referred to the Dean of Students on the Levelland campus or the Dean/Director of external centers for Student Code of Conduct Violation. Students who believe they have been exposed or may be COVID-19 positive, must contact Health Services, DeEtte Edens, BSN, RN at (806) 716-2376 or dedens@southplainscollege.edu.

• Consistent with the latest CDC recommendations, we have revised our guidance for students, faculty, and staff who have a known exposure or have tested positive. Anyone with a known exposure should wear a mask for 10 days and should seek a COVID-19 test on day five after exposure. If you test positive or develop symptoms, you should immediately self-isolate and seek a COVID-19 test. Please immediately notify your instructor, supervisor, and DeEtte Edens, Associate Director of Health and Wellness, any time you test positive for COVID-19. Anyone who tests positive is required to self-isolate for five days. Following the five-day isolation period, if you are asymptomatic or your symptoms are resolving, you may return to work or class but should wear a mask for five additional days. If you are still symptomatic, please contact DeEtte Edens at dedens@southplainscollege.edu or 806-716-2376 prior to your return date.

Diversity Statement: In this class, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

Disability Statement: Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland (Student Health & Wellness Office) 806-716-2577, Reese Center (Building 8) 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

Nondiscrimination Policy: South Plains College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College, 1401 College Avenue, Box 5, Levelland, TX 79336. Phone number 806-716-2360.

Title IX Pregnancy Accommodations Statement If you are pregnant, or have given birth within six months, Under Title IX you have a right to reasonable accommodations to help continue your

education. To <u>activate</u> accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Director of Health and Wellness. Once approved, notification will be sent to the student and instructors. It is the student's responsibility to work with the instructor to arrange accommodations. Contact the Director of Health and Wellness at 806-716-2362 or email cgilster@southplainscollege.edu for assistance.

Campus Concealed Carry: Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in South Plains College buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and South Plains College policy, license holders may not carry a concealed handgun in restricted locations. For a list of locations and Frequently Asked Questions, please refer to the Campus Carry page

at: http://www.southplainscollege.edu/campuscarry.php

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all South Plains College campuses. Report violations to the College Police Department at 806-716-2396 or 9-1-1.

SPC Bookstore Price Match Guarantee Policy:

If you find a lower price on a textbook, the South Plains College bookstore will match that price. The difference will be given to the student on a bookstore gift certificate! The gift certificate can be spent on anything in the store.

If students have already purchased textbooks and then find a better price later, the South Plains College bookstore will price match through the first week of the semester. The student must have a copy of the receipt and the book has to be in stock at the competition at the time of the price match.

The South Plains College bookstore will happily price match BN.com & books on Amazon noted as *ships from and sold by Amazon.com*. Online marketplaces such as *Other Sellers* on Amazon, Amazon's Warehouse Deals, *fulfilled by* Amazon, BN.com Marketplace, and peer-to-peer pricing are not eligible. They will price match the exact textbook, in the same edition and format, including all accompanying materials, like workbooks and CDs.

A textbook is only eligible for price match if it is in stock on a competitor's website at time of the price match request. Additional membership discounts and offers cannot be applied to the student's refund.

Price matching is only available on in-store purchases. Digital books, access codes sold via publisher sites, rentals and special orders are not eligible. Only one price match per title per customer is allowed.

Note: The instructor reserves the right to modify the course syllabus and policies, as well as notify students of any changes, at any time during the semester.