

South Plains College
Common Course Syllabus: AGRI1307_ALL_SP2020
Revised 01/08/2020

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 on Blackboard

Reese Building 8 Office 826-A

Office Hours:

Monday – Levelland Office 1:30 – 4:00 Online

Tuesday – Reese Office 11:00 - Noon

Thursday- Reese Office 11:00- Noon

Friday – Levelland Office 9:00 - Noon

Levelland

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

1. Apply scientific reasoning to investigate questions and utilize scientific and agronomic tools to collect and analyze data and demonstrate methods.
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.

I expect educated and professional grammar, punctuation, spelling and form.

Meaning, "Dude, I gotta get acct. @Reese, find 1 4 me." This will not be answered. Until we are close friends, I am Mr. Presley, and the rest speaks for itself.

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

COURSE OUTLINE:

MID-TERM PAPER:

Each student will be expected to submit a Mid-Term paper concerning a topic to be assigned during the third class meeting. The paper will be due on **Wednesday, March 11, at 11:00AM**. Late Papers will not be accepted under **ANY** circumstance. Each student will later present their paper to the class. The grading scheme for the term paper is listed below:

I. Format:

- | | |
|---|------------|
| a. Cover Sheet | 5 points. |
| b. Table of Contents / with page numbers | 10 points. |
| c. Body (Minimum of 10 pages) | 15 points. |
| d. End notes / References | 10 points. |
| e. Bibliography (Minimum of five sources) | 10 points. |
| f. Margins L1", TRB 3/4", double spaced | 5 points. |

II. Figures, tables and graphs. No more than five or less than 2 1/2 pages.	5 points.
III. Grammar, punctuation and spelling.	5 points.
IV. Readability.	10 points.
V. Oral presentation.	
Instructor Evaluation. 25 points.	Total 100 points.

SECTION 1: Course Introduction / Professor Introduction / Student Introductions

- 1.1 Determine the background of students:
 - a. Origin (rural/farming/urban)
 - b. Family background (farming, white collar, blue collar, etc.)
 - c. Knowledge of basic science (completed basic science course?)
- 1.2 Determine “agricultural awareness” and perception of the field.
 - a. How important is the field?
 - b. How is it perceived in society (e.g., prestige, profitability etc.)
- 1.3 Determine students’ goals
 - a. Just taking the course for the sake of it?
 - b. Taking the course to prepare for a career in agriculture?
- 1.4 “Goals Roles and Priorities.” An in-depth lecture and discussion regarding methodology from Dr. Stephen Covey and other business writers regarding how one should review and prioritize relationships along with career, personal planning and goals.

SECTION 2: Crop Production and Society

Student Outcomes:

- 2.1 Discuss the different views on the evolution of crop production.
- 2.2 Discuss the importance of crops to society as sources of food, feed, and fiber.
- 2.3 Discuss crop production as a science, an art, and a business.
- 2.4 Provide a list of important cereal, feed grains, oil, and fiber crops.
- 2.5 Discuss factors determining the dynamic structure of agriculture.
- 2.6 Trace a brief history of agriculture in the US.
- 2.7 Discuss the structure of US crop farms, including size, crop types, and sales.
- 2.8 Discuss the characteristics of the US farmer including age, education, and cropland use.
- 2.9 Describe the farming regions of the US.
 - 2:10 Describe specific government programs available to producers.

SECTION 3: Plant Morphology

Student Outcomes:

- 3.1 Define the term plant taxonomy (relate to other kinds of taxonomy—animal, soil—and point out the common purpose).
- 3.2 Discuss the rules pertaining to plant taxonomy.
- 3.3 Classify plants on operational basis, including agronomic use, adaptation, growth form, stem type, and growth cycle. Point out the importance or utility of each.
- 3.4 List and give examples of important crop plant families. Discuss their local, national and global importance
- 3.5 Describe how plants are identified using morphological features of the leaf, stem, flower and seed in dicots and monocots.
- 3.6 List the major cellular organelles and describe their functions
- 3.7 List the different types of plant tissues. Discuss the structure and functions of simple and complex tissues. Identify specific roles they play in crop production in terms of kinds of products and how they impact product quality (e.g., delay in harvesting a crop makes increases fiber content

and reduced succulence and quality)

3.8 Describe the structure and function of the leaf, stem, root, and flower. How are crop cultural practices designed to optimize these functions for increased productivity?

SECTION 4: SOIL AND LAND

Student Outcomes

- 4.1 List and briefly describe the twelve soil orders (according to US NRCS) in relation to crop production.
- 4.2 Discuss the soils in the state and those used for agriculture where applicable.
- 4.3 Discuss the role soil physical characteristics (texture, structure, soil bulk density, porosity, permeability, and aggregation) play in crop production.
- 4.4 Define and discuss CEC and its importance.
- 4.5 Define and discuss soil pH and its importance.
- 4.6 Discuss the distribution of arable land in the world.
- 4.7 Describe and discuss soil organisms and their importance.

SECTION 5: PLANT NUTRIENTS AND FERTILIZERS

Student Outcomes

- 5.1. List the essential nutrients for plant growth and development.
- 5.2. Discuss the role of essential nutrients in plant nutrition.
- 5.3. Describe how the soil losses nutrients.
- 5.4. Discuss the methods of diagnosing soil nutrient status.
- 5.5. Discuss the methods of providing supplemental nutrients to the soil for crop production.
- 5.6. Discuss nutritional utilization patterns of crop plants.
- 5.7 Discuss nutrient cycling.
- 5.8 Discuss the importance of climate in soil productivity.
- 5.9 Mathematically determine percentage of macronutrients in specified fertilizer weight.

SECTION 6: PLANT AND SOIL WATER

Student Outcomes

- 6.1 Discuss the hydrological cycle.
- 6.2 Classify soil water according to availability to plants.
- 6.3 Discuss the role physical soil factors play in soil water availability.
- 6.4 Discuss how water moves in the soil.
- 6.5 List and discuss the primary goals of soil water management.
- 6.6 Discuss water use efficiency and factors that affect it.
- 6.7 Discuss water management in rain fed production in humid conditions.
- 6.8 Discuss the methods of irrigation and the role of water quality

SECTION 7: PESTS IN CROP PRODUCTION

Student Outcomes

- 7.1 List and describe the categories of organisms that cause diseases.
- 7.2 Discuss the factors that cause disease.
- 7.3 Describe the disease cycle.
- 7.4 Discuss the strategies and mechanisms plants adopt to resist disease.
- 7.5 Discuss the genetic basis of disease resistance.
- 7.6 Discuss how pathogens affect crop productivity.
- 7.7 Describe insect pests their classification, and economic importance.
- 7.8 Describe weeds their classification, and economic importance.
- 7.9 Discuss abiotic disease agents.
- 7.10 List and describe important crop pests.
- 7.11 Discuss the principles of pest management.
- 7.12 Describe how pest attack may be prevented.
- 7.13 List and discuss the methods of pest management.
- 7.14 Describe the steps in selecting and applying pesticides safely.
- 7.15 Discuss the impact of pesticides in the environment.

SECTION 8: MID-TERM PAPER

Student Outcomes

- 8.1 The student will determine the subject of a mid-term paper that fits within his or her specific interests in materials and data associated with Agronomy.
- 8.2 The student will be required to practice pro-active planning and calendar skills to meet submission deadline.
- 8.3 The student will present the paper to the class using power point or other presentation technology.

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 a 5 Major exams and a Final, each worth 100 points. Total lab grade will be worth 100 points and Mid Term paper will be worth 100 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 750 of 800 points available, $750/800 = .94$ Thus the student would achieve a 94% which is an "A" in the class.

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.]

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.

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 activate 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 point during the semester.