

ANSC 5325 Agricultural Genetics and Biotechnology

Fall 2022

Time: Web-Delivered | Meeting Place: Web-Delivered through Blackboard

Class correspondence will be through Blackboard or a student's SRSU email account.

Instructor Information

Instructor	Contact	Office Location & Hours
Dr. Hugo Santos	Email: hugo.santos@sulross.edu Phone: 432-837-8210	By appointment Please allow 24-48 hours for a response

General Information

Description

This course provides solid grounding in core genetics and biotechnology concepts, as well as information on cutting-edge science and technology and their applications in real-world agriculture, medicine, and health care.

Expectations and Goals

Student objectives include demonstrating understanding of the following:

1. Essential topics such as cell functions, genetics and biotechnology applications
2. Genetic engineering, genetically modified organisms and cloning
3. Potential dangers of biotechnology to humans and the environment

Departmental Projected Learning Outcomes

Student will demonstrate that he/she is able to:

1. Demonstrate the basic skills of interpreting research data gathered in an agricultural context
2. Apply critical thinking skills to mitigate potential challenges in diverse animal sciences and related agricultural industries
3. Develop problem solving skills
4. Demonstrate the ability to communicate through written, spoken, and graphical methods.

Quality Enhancement Plan (QEP) Student Learning Outcomes:

1. The student will demonstrate effective development and expression of ideas in writing
2. The student will exhibit skill in prepared, purposeful oral communication of material or concepts
3. The student will create and deliver visual works that facilitate audience understanding of a central message or purpose

SRSU Library Services

Subject to Change

This syllabus and schedule are subject to change at the discretion of the instructor. You will be provided information in advance. If you are absent from class, it is your responsibility to check on announcements made while you were absent.

The Sul Ross Library offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, library.sulross.edu. Off-campus access requires logging in with your LoboID and password. Librarians are a tremendous resource for your coursework and can be reached in person, by email (srsulibrary@sulross.edu), or phone (432-837-8123).

SRSU Distance Education Statement

Students enrolled in distance education courses have equal access to the university's academic support services, such as library resources, online databases, and instructional technology support. For more information about accessing these resources, visit the SRSU website. Students should correspond using Sul Ross email accounts and submit online assignments through Blackboard, which requires secure login. Students enrolled in distance education courses at Sul Ross are expected to adhere to all policies pertaining to academic honesty and appropriate student conduct, as described in the student handbook. Students in web-based courses must maintain appropriate equipment and software, according to the needs and requirements of the course, as outlined on the SRSU website. Directions for filing a student complaint are located in the student handbook.

Reasonable Accommodation Statement

It is the SRSU policy to provide reasonable accommodation to students with disabilities. Accessibility services support for students with physical and psychological disabilities are available at Ferguson Hall 112. To make an appointment regarding disability accommodations, please call 432-837-8203.

Anti-Discrimination Statement

No person shall be excluded from participation in, denied the benefits of, or be subject to discrimination under any program or activity sponsored by Sul Ross State University on any basis prohibited by applicable law, including but not limited to race, color, national origin, religion, sex, age, disability, sexual orientation, or gender identity.

Academic Integrity

Students are expected to submit original work without unauthorized assistance. Academic dishonesty, which includes cheating, unauthorized collaboration, plagiarism, fabrication, multiple submissions, and aiding and abetting, will result in a grade of 0 on the work in question. Subsequent instances of academic dishonesty may result in more serious sanctions.

Late Work

It is expected that all assignments will be submitted on time. Valid absences include: 1) medical emergencies with a signed note from a doctor; 2) participation in a SRSU-sanctioned activity with a letter from faculty advisor; or 3) other emergencies or conflicts that are allowed at the professor's discretion. Students are expected to make up missed work within a week of the original due date. Late assignments will be accepted for 4 days following the initial due date and time with a 20% penalty per day late.

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Grading scale (% of total class points):

A = 90-100%

B = 80-89.99%

C = 70-79.99%

D = 60-69.99%

F ≤ 59.99%

Tentative Course Schedule

Date	Topic	Note
08.26	The Biotechnology Century and Its Workforce	
09.02	An Introduction to Genes and Genomes	
09.09	Recombinant DNA Technology and Genomics	+ Exam 1 available
09.16	Proteins as Products	
09.23	Microbial Biotechnology	+ Exam 2 available
09.30	Plant Biotechnology	
10.07	Animal Biotechnology	+ Exam 3 available
10.14	DNA Fingerprinting and Forensic Analysis	
10.21	Bioremediation	+ Exam 4 available
10.28	Aquatic Biotechnology	
11.04	Medical Biotechnology	+ Exam 5 available
11.11	Biotechnology Regulations	
11.18	Ethics and Biotechnology	
11.25	Special Topics on Biotechnology	
12.02-7	Final Examinations	Exam 6 – Final

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