

SUL ROSS STATE UNIVERSITY
ANSC 4305
Agrigenetics
Summer II: July 10 – August 16, 2018

Instructor:

Dr. Rebecca K. Splan

RAS 105

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Office hours: Please email to schedule appointment

Course Description: This class will give students a basic understanding of genetic improvement of livestock and other animals.

Student Learning Objectives:

Upon completion of this course, students should be able to:

- 1) Explain key concepts and principles of animal genetics, including important concepts and new developments in the field of molecular genetics.
- 2) Apply genetic principles in improving the well-being and economic value of livestock, wildlife, and companion animals.
- 3) Critically evaluate both scientific and popular information related to genetic control of trait expression and genetic change in animals.
- 4) Speak and write with informed authority about genetic improvement programs in animal agriculture and conservation.

Student Learning Outcomes, Department of Animal Science:

Student will demonstrate that he/she is able to:

- 1) Apply livestock management techniques to the care and sustainable management of domestic and captive animals,
- 2) Demonstrate the basic skills of interpreting information gathered in a research setting,
- 3) Apply critical thinking skills to deal with potential challenges in diverse animal sciences and related industries,
- 4) Develop problem solving skills, and
- 5) Demonstrate the ability to communicate through written, spoken, and graphical methods.

Textbook: Bourdon, R.M. 2000. Understanding Animal Breeding (2nd Ed, paperback). Pearson.

Additional reading or course material will be placed on the Blackboard course site.

Academic Integrity and Honesty: The University expects all students to engage in all academic pursuits in a manner that is beyond reproach and to maintain complete honesty and integrity in the academic experiences both in and out of their classroom. The University may initiate disciplinary proceedings against a student accused of any form of academic dishonesty, including but not limited to, cheating on an examination or other academic work, plagiarism, collusion, and the abuse of resource materials. For

more information, please see SRSU guidelines on Student Conduct and Discipline, found in the Student Handbook: http://www.sulross.edu/sites/default/files//sites/default/files/users/docs/stulife/student_conduct_discipline.pdf

Accommodations: Sul Ross State University is committed to equal access in compliance with the Americans with Disabilities Act of 1973. It is the student's responsibility to initiate a request for accessibility services. Students seeking accessibility services must contact Mary Schwartze, M. Ed., L.P.C., in Counseling and Accessibility Services, Ferguson Hall, Room 112. The mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas. Telephone: 432-837-8691. E-mail: mschwartz@sulross.edu

Distance Education Statement: Students enrolled in distance education courses have equal access to the university's academic support services, such as Smarthinking, library resources, such as 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 information to verify students' identities and to protect students' information. The procedures for filing a student complaint are included in the student handbook. 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.

Assessment and Grading:

Quizzes (4 @ 25 pts each) July 11 & 18, August 1 & 8

Problem Sets (5 @ 40 pts each)

Midterm Exam (1 @ 100 pts) Wednesday, July 25

Cumulative Final Exam (1 @ 100 pts) Thursday, August 16

Lectures will be given on Mondays, Tuesdays, and Wednesdays. Students will be given time to work on problem sets on Thursdays (Problem Sets are due Sundays). Quizzes will be given on Wednesdays.

Grading Scale:

A = 90-100% B = 80-89% C = 70-79% D = 60-69% F = below 60%

Tentative Lecture Schedule:

<u>Date</u>	<u>Topic</u>
Week of July 9	Chapters 1-3
Week of July 16	Chapters 4-6
Week of July 23	Chapters 7-9
Week of July 30	Chapters 10-12 (Problem Set on Friday this week)
Week of August 6	Chapters 13-15
Week of August 13	Chapters 16-19

**Genomic/Biotechnology topics may be added weekly with additional readings/lecture notes