

COLLEGE OF SCIENCE AND ENGINEERING TECHNOLOGY
Sam Houston State University

Course Description and Syllabus

DEPARTMENT: Agricultural Sciences
COURSE NUMBER AND TITLE: AGRI 5369 – Advanced Animal Breeding and Genetics
SEMESTER: Fall 2017
LOCATION OF CLASS MEETING: Fred Pirkle Engineering Technology Center 300 A&B
CLASS MEETING TIME: Tuesday and Thursday, 12:30 – 1:50 pm
INSTRUCTOR: Kyle J. Stutts, Ph.D., Associate Professor - Animal Science
OFFICE LOCATION: Fred Pirkle Engineering Technology Center 450 D
TELEPHONE: 936-294-1219 (office)
E-MAIL: stutts@shsu.edu
OFFICE HOURS: As posted or by appointment

COURSE DESCRIPTION: This course integrates general principles of genetics with practical selection procedures used to identify and produce superior livestock. Students will explore the latest technology applicable to the breeding of livestock. Topics to be covered include: Mendelian inheritance, population genetics, selection for traits, heritability and repeatability, mating strategies, and crossbreeding systems.

REFERENCE AND TEXTBOOK: Understanding Animal Breeding. Bourdon, R. M., 2nd edition, Prentice Hall.

Course Notes Packet – available at Eagle Graphics

Blackboard

ATTENDANCE POLICY:

Regular and punctual class attendance is expected. If a student misses an exam due to an EXCUSED absence, arrangements must be made IN ADVANCE with the instructor to take the exam. Work turned in late (unexcused) will not be accepted and will result in a grade of zero for the assignment. In addition, SHSU policy states that a student may be penalized for more than three hours of absences at the discretion of the instructor

EXAMS AND GRADING PLAN:

Grades will be determined based upon performance on four (4) lecture exams, quizzes, homework assignments, and a research project. Exams will contain additional critical thinking questions in excess of all questions asked of undergraduate students in the companion class. Students will have reading assignments including research articles and extension publications and will have additional questions on the exams in reference to these assignments.

Students will choose a current research topic related to animal breeding and approved by the instructor. Students will write a research paper about the chosen topic and make a formal presentation about the topic to the class.

Grade distributions will be based upon the following scale:

A = 90 – 100 B = 80 – 89 C = 70 – 79 F = <70

ACADEMIC DISHONESTY:

All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives 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 which is to be submitted, plagiarism, collusion and the abuse of resource materials.

Cheating **WILL NOT** be tolerated. Students caught cheating on an exam or quiz will be given a zero (0) for the exam or quiz grade and a letter will be written to the student's file.

CLASSROOM RULES OF CONDUCT:

Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Cellular phones and pagers must be turned off before class begins. Students are prohibited from making offensive remarks, sleeping, talking at inappropriate times, wearing inappropriate clothing, or engage in any other form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with university policy.

USE OF TELEPHONES AND TEXT MESSAGING DEVICES IN ACADEMIC CLASSROOMS:

The use by students of electronic devices that perform the function of a telephone or text messaging during class-time may be prohibited if deemed disruptive by the instructor to the conduct of the class. Arrangements for handling potential emergency situations may be granted at the discretion of the instructor. Failure to comply with the instructor's policy could result in expulsion from the classroom or with multiple offenses, failure of the course.

Any use of a telephone, text messaging device, or any device that performs these functions during a test period is prohibited. These devices should not be present during a test and should be stored securely in such a way that they cannot be seen or used by the student. Even the visible presence of such a device during the test period will result in a zero for that test. Use of these devices during a test is considered de facto evidence of cheating and could result in a charge of academic dishonesty.

AMERICANS WITH DISABILITY ACT:

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should register with the Office of Services for Students with Disabilities located in the Lee Drain Annex (telephone 936-294-3512, TDD 936-

294-3786, and e-mail disability@shsu.edu). They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired.

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Services for Students with Disabilities and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Services for Students with Disabilities. For a complete listing of the university policy, see:

<http://www.shsu.edu/dept/academic-affairs/documents/aps/students/811006.pdf>

RELIGIOUS HOLIDAYS:

University policy states that a student who is absent from class for the observance of a religious holy day shall be permitted to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. A student who wishes to be excused for a religious holy day must present the instructor with a written statement describing the holy day(s) and the travel involved. The instructor should provide the student with a written description of the deadline for the completion of missed exams and/or assignments.

TOBACCO POLICY:

In order to promote a healthy, safe, and aesthetically pleasing work, educational, and living environment, Sam Houston State University (SHSU) will endorse a smoke free and tobacco free environment. The primary purpose of this policy is to establish guidelines prohibiting smoking and the use of all tobacco products. Tobacco products include cigarettes, cigars, pipes, smokeless tobacco, and all other tobacco products. This policy applies to all faculty, staff, students, employees of contractors, and visitors of Sam Houston State University on the premises of the university.

COURSE OUTLINE:

- History and philosophy of animal breeding
- Genetic improvement of populations
- Mendelian inheritance
- Genes in populations
- Simply-inherited and polygenic traits
- Basic statistics for animal breeding
- Inheritance of quantitative traits
- Principles of selection
- Breeding values
- Multiple trait selection