

ASCI 3443 – Genetics of Livestock Improvement

Fall Semester 2019

Instructor:

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Class Time:

The course is being taught as a hybrid distance education class. What this means is that a large portion of the material will be delivered using an online interface (blackboard). Initially, all lecture times will be online and laboratories will meet every Wednesday afternoon from 1:00-2:50 pm in VIN 250. Lecture is not scheduled in a particular location or time because it will be handled through Blackboard.

Office Hours:

My office door is always open and I am generally in the office starting at 8:00 am until noon Monday – Wednesday and most afternoons Monday and Tuesday. Fridays I am in and out so call before. You may make an appointment or simply stop in if I am here.

Final Exam:

The final exam in this course will take place during laboratory finals week during the scheduled lab time. Since the lecture is scheduled online and the exams are administered during lab, there is not a specified Final Exam time during finals week. See the schedule of topics and dates below for the actual date.

Text (recommended but not required):

Understanding Animal Breeding, 2nd edition, by Richard M. Bourdon

The class lecture will follow the text for the most part. It is highly recommended that you obtain the text because it will supplement what is discussed in class. Some problems found in the book will be used in class, but photocopies will be available of questions/problems.

Blackboard:

Blackboard will be utilized to deliver the lecture material. All lecture material will be presented using this format. All assignments must be submitted using blackboard.

Learning Outcomes:

1. The students should gain a basic understanding of animal breeding.
2. The students should understand how genetics influences animal production.
3. The students will gain an understanding of how animal breeding and basic genetic principles can be used to improve livestock.

Assessment:

Learning outcomes will be assessed through regular assignments, problems, quizzes, and specific sections on exams.

Lecture Topics:

Lecture topics will include history of animal breeding, Mendelian genetics, population genetics, quantitative genetics, inheritance, gene frequencies, environmental influences on genetics, progeny testing, selection and how genetics can be used in livestock production and improvement. At the end of the syllabus a complete list of lecture sections, dates and exam dates is provided.

Laboratory:

Laboratory may be used as an additional lecture or it may be used as a time to teach and explain genetic problems. At the end of the syllabus there is a list of Laboratories that will be covered throughout the semester. You will notice that all lecture exams will be taken during laboratory times.

Exams:

There will be a total of five exams. Four of the exams will be administered during the semester and one during LAB FINALS WEEK (no exemptions). The class begins with simple genetic principles and must be understood before the remainder of the material can be understood. Therefore, each exam is essentially comprehensive. The exam dates are predetermined so missing an exam is not acceptable.

Quizzes, Homework, Discussion Posts and Problems:

The semester is divided into 5 major sections (modules) and within each section the lecture material is broken into multiple sets of notes. Following each set of notes there is a quiz that must be taken. The availability of each quiz is limited. Therefore, it is vital that you stay up to date on lectures and quizzes. Once the quiz is no longer available, it cannot be taken and the resulting grade is a zero. The value of each quiz varies based on the number of questions. Each question is worth 1 point.

Discussion topics will be assigned throughout the semester with at least 10 and each is worth 20 points (this includes 2 extras). They will be available for limited times and once they are no longer available you cannot respond to them (Stay up to date on your posts). There will be extra credit posts available during the semester. I highly encourage you to take advantage of those opportunities. Discussions are intended to provoke your thoughts and have a source of dialogue in the class since we do not meet

face-to-face. Genetic concepts, animal or human, can often cause anguish in trying to develop one's opinion because technology is moving so fast. Having honest and intelligent conversation will provide a chance to investigate other's thoughts. Therefore, I highly recommend you use this as an opportunity to expand your thoughts and help each other.

During lab we will be covering calculations and problems. Some will be collected and graded for credit and some are for your benefit. The distinction will be made at the time the concept is discussed in class.

Attendance:

This is a hybrid online course and attendance is not taken in lecture. However, failure to participate in the discussion board, to communicate or respond to e-mails from the professor, is an indication something is wrong. Therefore, we have made both a significant component of the course grade as an enticement to keep you engaged in the learning process. Failure to participate or communicate on the part of a student will result in an appropriate reduction of your grade.

However, laboratory is a face-to-face portion of the class and attendance will be taken during each scheduled lab time. Laboratory attendance is part of your 50 points for laboratory.

Additional Information:

All lecture material will be found on blackboard or through links provided on blackboard. Calculations and problems will be discussed during the face-to-face lab time and will be evaluated on major exams and through homework problems. The class closely follows the text book. Problems in the text may be used during class and in such cases, photocopies of the problems will be scanned to blackboard.

The only method of electronic communication used in this course is the ASU (username@angelo.edu) email that is attached to blackboard. Alternative emails will not be used. I also suggest downloading ASU mobile to your smartphone so that you receive email notifications and due date notifications on your smartphone. This also allows you to work in blackboard on your phone.

Grading:

Refer to the tables below for class grading information.

Assessment	Points
Lecture Quizzes at the end of each lesson	227
Exam 1	100
Exam 2	100
Exam 3	100
Exam 4	100

Assessment	Points
Final Exam	100
Laboratory (homework, problems, attendance)	120
Discussion Posts/Responses (8)	160
Total Points	1007

Letter Grade Points Value

Final Letter Grade	Required Points
Final Grade of A	901 and above
Final Grade of B	800 - 900
Final Grade of C	699 - 799
Final Grade of D	599 - 698
Final Grade of F	Below 599

Technical skills required for this course

As with all online courses, students must be able to operate a computer and have the necessary technical skills to navigate around a web page. Additional technical skills are not a prerequisite for this course, however your computer must meet [minimum requirements to operate Blackboard¹](#). Should you not have a personal computer, there are multiple computer labs across campus and many are open 24 hours per day.

Time spent on this course

Students can expect to spend a minimum of 6 hours per week to complete all the readings and assignments. The lessons themselves take as long as the student requires to read the material and watch or listen to media presentations.

Communication

In this class, we will communicate primarily by writing. Whether in the discussion forums, email, or any other form of communication, you are expected to treat your fellow students and your instructor with courtesy and respect. In this class, the following rules of etiquette apply:

- Spelling and grammar count. Don't use slang terms or shorthand "text-speak" abbreviations.
- It's okay to disagree, but it's not okay to insult. Flame-wars and [ad-hominem²](#) attacks are not acceptable.
- No profanity. Offensive language will not be tolerated.
- No racial, ethnic, or cultural slurs. This may result in your removal from the class.

Feedback

As the instructor of this course, it is my goal to respond to all communication within one working day. At a minimum, you can expect me to be actively engaged in this course during the stated office hours, and will strive to be responsive at other times as well. In addition, I will do my best to grade all writing assignments and provide feedback within 4 days of the due date for the assignment but when a large number of discussions and problems come due at the same time it may require a little more time but I will get them back ASAP.

Late Work

You must contact your professor before the assignment is due if you believe it will be late. Failure to do so will result in a zero for the assignment. You have the dates for everything that is due already except the laboratory problems that will be assigned during the face-to-face lab portion. Plan ahead.

Add/Drop dates

Students may add this course up to Thursday of the first week of class (August 30, 2019).

Students may drop this course up to the November 1, 2019 as specified by the University Administration.

Academic Honesty:

Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code, which is contained in both print and web versions of the Student Handbook. Refer to the Angelo State University Student Handbook for the definition and consequences of academic dishonesty.

Americans with Disabilities Act:

“Persons with disabilities which may warrant academic accommodations must contact the Student Life Office, Room 112 University Center, in order to request such accommodations prior to any accommodations being implemented. You are encouraged to make this request early in the semester so that appropriate arrangements can be made.” (325) 942-2191 (student.life@angelo.edu) ([Operating Policy 10.15](#).³)

Student Absence for a Religious Holy Day

1. “Religious holy day” means a holy day observed by a religion whose places of worship are exempt from property taxation under Texas Tax Code §11.20.
2. A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall

be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence.

3. A student who is excused under section 2 may not be penalized for the absence; however, the instructor may respond appropriately if the student fails to complete the assignment satisfactorily.

Lecture Dates: Slide set number

Section	Date Available @ 5:00 pm	Due Date @ 12:00 midnight	Slide Sets	Book Chapters
Section 1***	8/26/2019	9/15/2019	1.1, 1.2, 1.3, 1.4	1, 2, 3
Section 2	9/18/2019	10/6/2019	2.1, 2.2, 2.3, 2.4, 2.5, 2.6	4, 5, 6, 7, 8
Section 3	10/9/2019	10/20/2019	3.1, 3.2, 3.3	10, 11, 12, 13, 14
Section 4	10/23/2019	11/10/2019	4.1, 4.2, 4.3	15, 16, 17, 18, 19
Section 5	11/13/2019	12/1/2019	5.1, 5.2, 5.3, 5.4	20, 21

***Quiz 1.1 is to be completed during the two weeks of class and is Due September 6 by midnight. I know much of the information on the quiz you may not know and that is fine. This is a pre-class assessment for me to judge the knowledge at the beginning of class. Once everyone has taken quiz 1.1 and they have pulled the answers for me I will replace your grade with a 21, the full amount of the quiz. Everyone gets full credit for this one as long as you have attempted it on time.

Class Schedule

Lab Date (HHS 106)	Topics
August 28	First Week of class. Read email/announcement; Class organization; Industry Structure, interactions.
September 4	Zygote, allele, Punnett square, dominance
September 11	Gene, genotypic, phenotypic frequencies
September 18	Exam 1: Section 1 notes
September 25	Review frequencies, F1 populations and Test Mating Discussion
October 2	Statistical Tools and Normal Distribution
October 9	Exam 2

Lab Date (HHS 106)	Topics
October 16	Statistical Tools and Normal Distribution
October 23	Exam 3: Section 3 notes
October 30	Trait Ratios and Selection
November 6	Trait Ratios and Selection
November 13	Exam 4: Section 4 notes
November 20	Selection, General Discussion and course review
December 4	Exam 5: Section 5 notes

¹ <https://help.blackboard.com/Learn/Student>

² https://en.wikipedia.org/wiki/Ad_hominem

³ <http://www.angelo.edu/opmanual/>