



ANSC 5322
Statistics for the Animal Sciences
Spring 2015



Instructor

Christopher M. Estep, PhD
Assistant Professor
Office: 108 RAS
Phone: Office - 432-837-8210;
Cell – 979-224-6013
Email: cestepp@sulross.edu
Office Hours: M, W, F: 9:00am – 11:00am
Or by appointment

Time and Location

Web-based Course – Blackboard 9 Course Management System (www.sulross.edu/bb)

Course Description

This course emphasizes statistical literacy, use of data and technology, and statistical conceptual understanding.

Course Objectives

At the completion of the course, the learner will be able to:

1. Discuss the importance of the application of statistics in the agricultural and life sciences.
2. Identify parametric and nonparametric tests, descriptive statistics and inferential statistics
3. List the basic assumptions involved in statistical methods.
4. Solve basic statistical tests.
5. Interpret statistical results.

(ANSC) Program Learning Outcomes

Student will demonstrate that he/she is able to:

1. Apply statistical concepts and procedures to animal science data.
2. Evaluate literature and references as they apply to the animal science field.
3. Demonstrate their knowledge of the fundamentals and advanced concepts relating to animal science.

Required Materials (Available online)

Sullivan III, M. (2013). *Statistics: Informed decisions using data*. Boston, MA: Pearson.

You will need a calculator that will perform statistical functions – a TI-36X or better should work; be sure to keep the instructions!

You will need access to Microsoft Excel

Other materials as assigned – provided by instructor

DESCRIPTION OF COURSE ASSIGNMENTS

Quizzes

Weeks in this course will run from Monday – Sunday (with the exception of week 1). The quiz covering each week's material will be available on Blackboard starting Thursday morning and will be up through Sunday night at midnight.

Problem Sets

Problem sets will be made available with each week's instruction. The instructor will give a minimal amount of assigned problems, however if you wish to have more practice, the textbook has many problems in the "Assess your Understanding" areas located after each section of instruction.

COURSE ASSIGNMENTS	Due Date	Points
Quizzes – 14@50pts	Weekly	700
Discussion Board Participation	Weekly	200
Problem Sets	Weekly	100

A note about the discussion boards:

While this course is being taught at a distance, students are expected to be active participants in the classroom web-discussions and exercises. The discussion board provides a venue to increase interaction and is used to replicate a traditional class discussion. To facilitate this discussion, the instructor will provide guiding questions for each discussion. Therefore, all students will be required to participate in the weekly discussion board forums.

Additionally, the instructor will create a "Questions" forum where students can ask questions about topics or problem sets. If students who have a good understanding of the topic wish to contribute to answering questions in this forum, please feel free to do so. Active participation in this way increases not only your knowledge, but the knowledge of others participating in the course. You all bring a wealth of knowledge and information to this class from which others can benefit.

Grading Scale

A = 90-100%

B = 80-89%

C = 70-79%

D = 60-69%

F = below 60%

Make-up Exams & Late Work

Students' class "attendance" and participation are required. No consideration of extending a due date will be considered on the day an assignment is due, if you have circumstances that will prevent you from taking a quiz contact Dr. Estep ahead of time. Any late problem sets will be assessed with a 10% deduction per day late.

Academic Honesty

On all work submitted for credit by students at the university, the following pledge is either required or implied: **"On my honor, I have neither given nor received unauthorized aid in doing this assignment."**

As members of a learning community, all should strive to be honest in all endeavors. A fundamental principle is that the whole process of learning and pursuit of knowledge is diminished by cheating, plagiarism and other acts of academic dishonesty. In addition, every dishonest act in the academic environment affects other students adversely, from the skewing of the grading curve to giving unfair advantage for honors or for professional or graduate school admission. Therefore, the university will take severe action against dishonest students. Similarly, measures will be taken against faculty, staff and administrators who practice dishonest or demeaning behavior.

About the Course

Statistics can be a daunting subject. However, the goal of this course is to help you conquer your fear of statistics as you learn. Accordingly, there are some expectations that I have of you, and conversely, there are some expectations that you should have of me. The expectations for this course are as follows:

I will expect you to:

- Complete all assignments thoroughly, in a timely manner.
- Look at each assignment as an occasion for you to learn, and make the most of every learning opportunity.
- Be honest and submit your own original work.
- Participate in class discussions and activities; this helps you as well as all of your classmates.
- Enjoy this class!

You can expect me to:

- Provide learning opportunities that advance your knowledge and development in agricultural statistics.
- Be available to provide assistance and answer your questions.
- Be fair in my grading and assessment of your work.
- Provide you with timely, constructive feedback on your work.
- Enjoy this class!

About Me

I grew up in Elgin, Texas where I was a member of my high school FFA chapter. I attended Texas A&M University and received my BS degree in Animal Science. Afterwards, I worked for HEB Grocery Company for 2 years as a meat processor and then for Ruffino Meats as a sausage processing manager. My love of FFA and agricultural education led me to pursue my Master's degree in AgEd at Texas A&M. I was a high school ag teacher at Greenwood High School in Midland, Texas for three years. I then went to the University of Florida to work on my PhD in AgEd.

Reasonable Accommodation Statement

It is the SRSU policy to provide reasonable accommodation to students with disabilities. If you would like to request such accommodations because of physical, mental, or learning disabilities, please contact Mary Schwartz in Counseling and Accessibility Services: Ferguson Hall 112, 432-837-8203.

Technology Support

Since this is an online course, you will need to have dependable access to the appropriate technology. The Office of Information Technology at SRSU can assist you with any problems you might encounter. OIT can be reached by telephone at 432-837-8888 or you can access the Lobo Technology Assistance Center (LTAC) at <http://www.sulross.edu/page/2758/lobo-technology-assistance-center-ltac>.

Distance Education Statement

Students enrolled in distance education courses have equal access to the university's academic support services, library resources, and instructional technology support. For more information about accessing these resources, visit the SRSU website. Students should submit online assignments through Blackboard or SRSU email, which require 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.

ANSC 5322 Course Calendar (Subject to Change!!!!)

Dates	Topics / Learning Experiences	Readings
Week 1 Jan 20-25	Chapter 1 – Getting the information you need	Sections 1.1, 1.2, 1.3, 1.4, 1.5, & 1.6
Week 2 Jan 26-Feb 1	Chapter 2 – Organizing and Summarizing Data	Sections 2.1, 2.2, 2.3, & 2.4
Week 3 Feb 2-8	Chapter 3 – Numerically Summarizing Data	Sections 3.1, 3.2, 3.3, 3.4, & 3.5
Week 4 Feb 9-15	Chapter 5 - Probability	Sections 5.1, 5.2, & 5.3
Week 5 Feb 16-22	Chapter 6 – Discrete Probability Distributions	Section 6.1
Week 6 Feb 23-Mar 1	Chapter 7 – The Normal Probability Distribution	Sections 7.1, 7.2, & 7.3
Week 7 Mar 2-8	Chapter 8 – Sampling Distributions	Sections 8.2 & 8.2
Week 8 Mar 9-15	Chapter 9 – Estimating the Value of a Parameter	Sections 9.1, 9.2, 9.3 & 9.4
Week 9 & 10 Mar 16-29	Chapter 10 – Hypothesis Tests Regarding a Parameter (Spring break is March 16 – 20)	Sections 10.1, 10.2, 10.3, 10.4, & 10.5
Week 11 Mar 30-Apr 5	Chapter 11 – Inferences on Two Samples	Sections 11.1, 11.2, 11.3, & 11.5
Week 12 Apr 6-12	Chapter 12 – Inference on Categorical Data	Section 12.1
Week 13 Apr 13-19	Chapter 13 – Comparing Three or More Means	Sections 13.1, 13.2, 13.3, & 13.4
Week 14 Apr 20-26	Chapter 4 – Describing the Relation between Two Variables	Sections 4.1, 4.2, 4.3, & 4.4
Week 15 Apr 27-May 3	Chapter 14 – Inference on the Least-Squares Regression Model and Multiple Regression	Sections 14.1, 14.2, & 14.3

Quiz	Dates Available in Blackboard
Chapter 1 Quiz	January 22-25
Chapter 2 Quiz	January 29-February 1
Chapter 3 Quiz	February 5-8
Chapter 5 Quiz	February 12-15
Chapter 6 Quiz	February 19-22
Chapter 7 Quiz	February 26-March 1
Chapter 8 Quiz	March 5-8
Chapter 9 Quiz	March 12-15
Chapter 10 Quiz	March 26-29
Chapter 11 Quiz	April 2-5
Chapter 12 Quiz	April 9-12
Chapter 13 Quiz	April 16-19
Chapter 4 Quiz	April 23-26
Chapter 14 Quiz	April 30-May 3