ANSC/NRM 3308 – Agricultural Statistics
Fall 2023 – Syllabus

Course Information

Lecture
MWF at 2:00 – 2:50pm in RAS 130

Instructor
Name: Dr. Maureen Frank
Office: RAS 113
Main Phone: (830) 261-0539 (cell, 8-5 daily)
Email: maureen.frank@sulross.edu
    A text or call is usually the best way to reach me quickly! I check my email daily unless I am
    in the field without service. I will let you know in advance when this will be.
Office Hours: 9:00am – 12:00pm on M/W/F
    I also have an open-door office hour policy – please feel free to come in anytime you see me
    in my office!

Course Description
This course is an introduction to statistical concepts that are applied to agricultural and
biological systems. The course introduces the scientific method, inferential theory, data types,
descriptive statistics, goodness of fit, the normal distribution, hypothesis testing, and linear
regression.

Enhanced Course Description
Many students do not look forward to taking a statistics course. But my goal is to make this
course as applicable to your interests as possible! There are good reasons to learn statistics and
take this class seriously:

- Knowing statistics helps you get a job!
- In a world where we constantly get "new information" and "new studies," you can more
  easily discern the truth.
- You can be a better advocate for your passions and profession when you can back up
  your arguments with data.

Does eating meat really threaten our environment? This is one example of a common question that, as an agriculture or natural resources student, you have probably already faced. Knowing statistics can help you answer this kind of question, make decisions, and defend your work in a world where many daily interactions can end up being scrutinized on a large scale.

Course Objectives

At the completion of the course, the student will be able to:
1. Discuss the importance of statistics in agriculture and natural resources.
2. Identify parametric and nonparametric tests, descriptive statistics, and inferential statistics.
3. List the basic assumptions involved in statistics.
4. Solve basic statistical tests.
5. Interpret statistical results.

Student Learning Objectives, ANSC

Student will demonstrate that he/she is able to:
1. Use the scientific method to approach problems and questions in the animal science field.
2. Apply statistical concepts and procedures to animal science data.
3. Evaluate data and information as they apply to the animal science field.

Student Learning Objectives, NRM

Student will demonstrate that he/she is able to:
1. Use the scientific method to approach problems and questions in the natural resources field.
2. Apply statistical concepts and procedures to natural resources data.
3. Evaluate data and information as they apply to the natural resources field.

TEA AFNR Educator Standards

The AFNR teacher understands:
1. The foundations of agricultural education
   a. (Competency I: F and G) Understands the use of scientific principles, methods, measurements and calculations in agriculture and agricultural education, and
   b. Collects organizes, displays and analyzes data according to an orderly plan, using data, tables, graphs, narrative descriptions and other methods as appropriate.

ANSC and NRM BS Marketable Skills

Students will acquire these marketable skills:
1. Students evaluate new information for applicability to current and future problem-

solving and decision-making.

2. Students will use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.
3. Students identify complex problems and review related information to develop and evaluate options and implement solutions.
4. Students apply knowledge to projects that include biostatistics and research methods.

Course Materials

Textbook and Supplies
1. Hawkes Online Software Access Code
2. Hawkes, J.S. (2019). Discovering Statistics and Data (3rd edition)
3. Statistics-capable calculator (recommend TI-84)

Important: you **must** buy the software access code! If you have not purchased the online software access (Hawkes license) by the end of the second week of class (09/08/23), you will be dropped from this class with an "F." If you need help with Hawkes access, you can contact Hawkes Technical Support: M-F, 7:00am – 9:00pm (Central), (843) 571-2825, http://support.hawkeslearning.com/supportcenter/.

An e-book is automatically included with the purchase of a software access code. Buying a physical copy of the textbook is optional but encouraged.

Items can be ordered at the SRSU online bookstore, http://sulross.textbookx.com. Be sure to read the **Course Note** on the website.
- Calculators can be borrowed from NRM on a first-come, first-served basis. Students must come to Dr. Frank's office to check out a calculator and then return it at the end of the semester. Failure to return a borrowed calculator will result in a Hold being placed on your SRSU account until the calculator is returned, or the student has paid SRSU the cost of replacement for a new calculator.
- You can also purchase a new or used calculator, or you may find one online to rent.
- If you use something other than a TI-84, you are responsible for learning to use it. If you use a TI-83, most of the instructions for this course will work but some operations will be limited. Dr. Frank can help you with issues on a TI-83.

Course Details and Policies

Grade Breakdown

		Grading Scale
Homework	20%	A: 89.5 – 100%
Exam I	20%	B: 79.5 – 89.4%
Exam II	20%	C: 69.5 – 79.4%
Exam III	20%	D: 59.5 – 69.4%
Exam IV (Final)	20%	F: below 59.4%

Please do not ask me what your grade is – check Blackboard! If you do have a question, you **must** send a Blackboard message. Due to privacy concerns, I cannot tell you your grade through email.

Attendance

Students are expected to attend every class. If class must be missed, the student is expected to find out what was missed, and it is advised you obtain any hand-taken notes from a classmate. As much information as possible from lectures (PowerPoints, announcements, etc.) will be posted in Blackboard, but it is not guaranteed that everything will make it to Blackboard. Roll will be taken every lecture.

- It is the policy of this class to **drop a student with a grade of "F" if the student has 9 or more absences**. Any time class is missed, for any reason, it will be recorded as an absence, unless the class is missed due to a university-approved event.

Students are expected to arrive to class on time. Arriving more than 10 minutes late to class will count as an absence.

Participation

I expect a high level of engagement to enhance everyone's learning. This includes interacting with the instructor and other students, asking questions during class, attending office hours, completing readings and assignments, and being prepared to participate in class discussions.

Readings

The course and its materials are organized by chapter. Each chapter has a reading assignment that explains the material. The assigned readings are essential; completing 100% of the assigned readings is expected.

Homework

Homework will be completed in Hawkes. It is considered completed when a 90% mastery level

is achieved in the Hawkes Certify mode for that lesson. A zero is earned if the mastery level of 90% is never reached.

- If the 90% mastery level is achieved, and the homework is completed on time, a score of 100% is earned. However, students are highly encouraged to achieve 100% mastery in all lessons, as all lesson material is potential exam material.
- If the mastery level is achieved, but the homework is late, the score will be assigned as follows:
    - 1 day late: 75%
    - 2 days late: 50%
    - 3 days late: 25%
    - 4+ days late: 0%
- Therefore, the only possible homework scores are 0, 25, 50, 75, and 100.

Exams

Four exams will be given in the course (see schedule). Exams are not cumulative in the sense that Exam II does not test the material tested on Exam I, and Exam III does not test material tested on Exams I and II, etc.; however, concepts from throughout in the course will always be needed to complete every exam. No make-up exams will be given for an unexcused absence. Use of internet-capable devices (e.g. smartphones) is not allowed for exams.

Due Dates/Times/Extensions

All graded work, including exams, are expected to be on-time. No due dates for ANY graded work, including exams, will be extended without **PRIOR e-mail arrangements** initiated by the student, and only for valid reasons.

Communication

You are required to check your Sul Ross email and Blackboard announcements several times per week. I do not use the personal or preferred email addresses that you may have on record with the university.

Electronics in the Classroom

The use of personal laptops, cell phones, tablets, and other electronic devices can create distractions for learning, both for yourself and others. However, such devices can also be great tools to aid learning. Therefore, using electronic devices for class purposes (e.g., taking notes, working out problems, searching the internet) is allowed in silent mode. If you choose to use electronic devices in class, you must do so in a professional manner that does not impede others' learning. **The use of internet-capable devices (e.g., smartphones) is not allowed for exams. Headphones/earbuds will not be allowed in class for any reason.**

Academic Integrity

Students in this class are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. A scholar is expected to be punctual, prepared, and focused. Academic dishonesty hurts everyone and reduces the value of college degrees. Examples of academic dishonesty include but are not limited to: Turning in work as original that was used in whole or part for another course and/or professor; turning in another person's work as one's own; copying from professional works or internet sites without citation; collaborating on a course assignment, examination, or quiz when collaboration is forbidden. It is your responsibility to read and understand the university's policy on academic dishonesty in the SRSU Student Handbook, as all violations will be taken seriously and handled through the appropriate university process. The Student Handbook can be found at: www.sulross.edu/wp-content/uploads/2020/09/student_handbook_2019-2020_revision_12.7.2020.pdf (Academic Honesty is on page 88-89). Any student shown to violate academic integrity will receive no credit (score of 0) for work done and/or may be penalized in accordance with published University Rules.

General Expectations

I expect students to:

- ASK whenever something is unclear. Preferably in class, as it is likely that others have the same question.
- ATTEND lecture and be on time.
- PARTICIPATE in class.
- READ the required sections from the text. If you come to me with a question and it is clear that you haven't read the book or the lecture notes, I will direct you to the reading first.
- COMPLETE all assignments in a timely manner.
- BE HONEST in all of your work.

Students can expect me to:

- GIVE 100% effort in teaching you.
- BE AVAILABLE to help outside of class.
- ANSWER all of your questions to the best of my knowledge, and if I don't know the answer I will find out.
- BE FAIR in all grading.
- PROVIDE timely, constructive FEEDBACK regarding your work.

Resources

ADA Statement

Sul Ross State University (SRSU) is committed to equal access in compliance with Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the student's responsibility to initiate a request each semester for each class. Alpine students seeking accessibility/accommodations services must contact Mary Schwartze, LPC, SRSU's Accessibility Services Coordinator at 432-837-8203, or email mschwartze@sulross.edu. Our office is located on the first floor of Ferguson Hall – room 112, and our mailing address is P.O. Box C122, Sul Ross State University, Alpine. Texas, 79832.

Library Information

The Bryan Wildenthal Memorial Library in Alpine 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).

Tutoring

Help for a variety of subjects is available through the Lobo Den: https://www.sulross.edu/student-advising/lobo-den/.

Blackboard Support Desk

If you have any technical issues with Blackboard itself, the Blackboard Support Desk is open 24 hours a day, 7 days a week. You can reach the support desk by calling (888) 837-6055, emailing blackboardsupport@sulross.edu, using resources from the Technology Support tab within Blackboard, or clicking the Support Desk graphic on the course homepage.

Hawkes Technical Support

Assistance with the Hawkes online software for this course is available M-F, 7:00am – 9:00pm (Central) by calling (843) 571-2825 or visiting http://support.hawkeslearning.com/supportcenter/.

Please note that this schedule is subject to change. Any changes will be communicated in class and via Blackboard.

Agricultural Statistics – Fall 2023

Week	Dates	Due Monday	Reading Assignment	Pages	Due Friday
1	08/28 – 09/01	–	1.6 – 1.8	9	–
2	09/04 – 09/08	Intro Module, HW Ch. 1	2.1 – 2.2	26	–
3	09/11 – 09/15	HW Ch. 2	3.1 – 3.5	45	–
4	09/18 – 09/22	HW Ch. 3	4.1 – 4.3	43	–
5	09/25 – 09/29	HW Ch. 4	5.1 – 5.3	48	Exam I (Ch. 1-4)
6	10/02 – 10/06	HW Ch. 5	6.1 – 6.3	34	–
7	10/09 – 10/13	HW Ch. 6	7.1 – 7.3, 8.1 – 8.4	45	HW Ch. 7
8	10/16 – 10/20	HW Ch. 8	9.1 – 9.3, 9.5	23	–
9	10/23 – 10/27	HW Ch. 9	10.1 – 10.2	18	Exam II (Ch. 5-9)
10	10/30 – 11/03	HW Ch. 10	11.1 – 11.3, 11.6	40	–
11	11/06 – 11/10	HW Ch. 11	12.1 – 12.2	42	–
12	11/13 – 11/17	HW Ch. 12	13.1 – 13.3	28	Exam III (Ch. 10-12)
13	11/20 – 11/24	HW Ch. 13	15.1 – 15.3	39	–
14	11/27 – 12/01	HW Ch. 15	16.1 – 16.3	24	–
15	12/04 – 12/06	HW Ch. 16	n/a	–	–
16	Exam IV (Final Exam): 12/12, 3:00 – 5:00pm				

Holidays

Labor Day (no classes)	Monday, Sept. 4
Thanksgiving (no classes)	Wednesday – Friday, Nov. 22-24

Exam Schedule (tentative)

Exam I (Chapters 1-4)	Friday, Sept. 29
Exam II (Chapters 5-6, 8-9)	Friday, Oct. 27
Exam III (Chapters 10-12)	Friday, Nov. 17
Exam IV (Chapters 13, 15-16)	Tuesday, Dec. 12