Elementary Statistical Methods

Time: MWF 8 – 8:50
Room: ACR 204

Instructor: Eric Funasaki
Office: ACR 109C
Phone: 432-837-8109
e-mail: eric.funasaki@sulross.edu

Office hours:

Textbook:

978-1-64277-011-7 Courseware, eBook, and Textbook

Calculator:
TI-83 or TI-84 is required.

Course Description:
Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals, and hypothesis testing. Use of appropriate technology is recommended.

Course Objectives:
The student will be able to:
1. Gather, organize, calculate, and present data;
2. Work with probability distributions, both discrete and continuous, and recognize the proper distribution to use for different applications;
3. Estimate population proportions, means, variances, and standard deviations; and
4. Use hypothesis testing on population proportions, means, and standard deviations.

Course Assessment:
Your grade will be based on the following components:
10% In-class problems and participation
24% Homework assignments and quizzes
66% Exams

The grading scale will be:
90 – 100 A  80 – 89 B  70 – 79 C  60 – 69 D  0 – 59 F
Course Schedule (tentative):

**Week 1**
- 8/26 M 1.6 Introduction to Statistical Thinking, 1.7 Descriptive vs. Inferential Statistics
- 8/28 W 2.2 Data Classification
- 8/30 F 3.1 Frequency Distributions

**Week 2**
- 9/2 M Labor Day (no class)
- 9/4 W 3.2 Displaying Qualitative Data Graphically
- 9/6 F 3.3 Constructing Frequency Distributions for Quantitative Data

**Week 3**
- 9/9 M 3.4 Histograms and Other Graphical Displays of Quantitative Data
- 9/11 W 4.1 Measures of Location
- 9/13 F 4.2 Measures of Dispersion

**Week 4**
- 9/16 M 4.3 Measures of Relative Position, Box Plots, and Outliers
- 9/18 W 4.3 Measures of Relative Position, Box Plots, and Outliers, 4.6 Proportions and Percentages
- 9/20 F Review for Exam 1

**Week 5**
- 9/23 M Exam 1
- 9/25 W 7.1 Types of Random Variables, 7.2 Discrete Random Variables
- 9/27 F 7.2 Discrete Random Variables

**Week 6**
- 9/30 M 7.2 Discrete Random Variables, 7.3 The Discrete Uniform Distribution
- 10/2 W 7.4 The Binomial Distribution
- 10/4 F 7.4 The Binomial Distribution

**Week 7**
- 10/7 M 8.1 The Uniform Distribution, 8.2 The Normal Distribution
- 10/9 W 8.2 The Normal Distribution, 8.3 The Standard Normal Distribution
- 10/11 F 8.3 The Standard Normal Distribution

**Week 8**
- 10/14 M 8.4 Applications of the Normal Distribution
- 10/16 W 8.4 Applications of the Normal Distribution
- 10/18 F Review for Exam 2

**Week 9**
- 10/21 M Exam 2
- 10/23 W 9.1 Random Samples, 10.1 Point Estimation of the Population Mean
- 10/25 F 10.2 Interval Estimation of the Population Mean

**Week 10**
- 10/28 M 10.2 Interval Estimation of the Population Mean, 10.3 Estimating the Population Proportion
- 10/30 W 10.3 Estimating the Population Proportion
- 11/1 F 10.4 Estimating the Population Standard Deviation or Variance
Week 11
11/4 M  11.1 Introduction to Hypothesis Testing
11/6 W  11.1 Introduction to Hypothesis Testing
11/8 F  11.2 Testing a Hypothesis about a Population Mean

Week 12
11/11 M  Veterans Day (no class)
11/13 W  11.2 Testing a Hypothesis about a Population Mean
11/15 F  11.4 Testing a Hypothesis about a Population Proportion

Week 13
11/18 M  11.4 Testing a Hypothesis about a Population Proportion
11/20 W  11.5 Testing a Hypothesis about a Population Standard Deviation or Variance
11/22 F  11.5 Testing a Hypothesis about a Population Standard Deviation or Variance

Week 14
11/25 M  11.6 Practical Significance vs. Statistical Significance
11/27 W  Thanksgiving (no class)
11/29 F  Thanksgiving (no class)

Week 15
12/2 M  Review for Exam 3
12/4 W  Review for Exam 3
12/6 F  Exam 3 (8 am – 10 am)

Attendance Policy:
Role will be taken. You are responsible for all material covered in class as well as any assignments and announcements that are made. If you miss an assignment, exam, or quiz you will receive a grade of zero unless I have been notified in advance.

Sul Ross State University policy allows an instructor to drop a student with a grade of W or F when 9 hours of class are missed. For this course that is when you miss 9 classes.

Cheating:
Cheating will not be tolerated. Anyone caught cheating will receive a grade of zero on that assignment. This includes homework assignments where the student who copied another student’s work and the student who allowed their work to be copied will both receive a grade of zero.

Cell Phones and Other Electronic Devices:
Your cell phone must be off while you are in class. You may not read or send text messages while class is in session. If there is an unusual situation where you simply must be able to read and send a message without delay, place your phone in vibrate mode and leave the room before reading and responding. No other electronic devices may be used during class without the permission on the instructor.
ADA Statement:

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, TX 79832. Telephone: 432-837-8691. E-mail: mschwartz@sulross.edu.