Elementary Statistical Methods

Time: MWF 10 – 10:50
Room: ACR 204

Instructor: Eric Funasaki
Office: ACR 109C (mornings)/BAB 203 (afternoons)
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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
8/24 M 1.6 Introduction to Statistical Thinking, 1.7 Descriptive vs. Inferential Statistics
8/26 W 2.2 Data Classification
8/28 F 3.1 Frequency Distributions

Week 2
8/31 M 3.2 Displaying Qualitative Data Graphically
9/2 W 3.3 Constructing Frequency Distributions for Quantitative Data
9/4 F 3.4 Histograms and Other Graphical Displays of Quantitative Data

Week 3
9/7 M Labor Day (no class)
9/9 W 4.1 Measures of Location
9/11 F 4.2 Measures of Dispersion

Week 4
9/14 M 4.3 Measures of Relative Position, Box Plots, and Outliers
9/16 W 4.3 Measures of Relative Position, Box Plots, and Outliers, 4.6 Proportions and Percentages
9/18 F Review for Exam 1

Week 5
9/21 M Exam 1
9/23 W 7.1 Types of Random Variables, 7.2 Discrete Random Variables
9/25 F 7.2 Discrete Random Variables

Week 6
9/28 M 7.2 Discrete Random Variables, 7.3 The Discrete Uniform Distribution
9/30 W 7.4 The Binomial Distribution
10/2 F 7.4 The Binomial Distribution

Week 7
10/5 M 8.1 The Uniform Distribution, 8.2 The Normal Distribution
10/7 W 8.2 The Normal Distribution, 8.3 The Standard Normal Distribution
10/9 F 8.3 The Standard Normal Distribution

Week 8
10/12 M 8.4 Applications of the Normal Distribution
10/14 W 8.4 Applications of the Normal Distribution
10/16 F Review for Exam 2

Week 9
10/19 M Exam 2
10/21 W 9.1 Random Samples, 10.1 Point Estimation of the Population Mean
10/23 F 10.2 Interval Estimation of the Population Mean

Week 10
10/26 M 10.2 Interval Estimation of the Population Mean, 10.3 Estimating the Population Proportion
10/28 W 10.3 Estimating the Population Proportion
10/30 F 11.1 Introduction to Hypothesis Testing
Week 11
11/2 M 11.1 Introduction to Hypothesis Testing
11/4 W 11.2 Testing a Hypothesis about a Population Mean
11/6 F 11.2 Testing a Hypothesis about a Population Mean

Week 12
11/9 M 11.2 Testing a Hypothesis about a Population Mean
11/11 W Veterans Day (no class)
11/13 F 11.4 Testing a Hypothesis about a Population Proportion

Week 13
11/16 M 11.4 Testing a Hypothesis about a Population Proportion
11/18 W 11.4 Testing a Hypothesis about a Population Proportion
11/20 F 11.5 Testing a Hypothesis about a Population Standard Deviation or Variance

Week 14
11/23 M 11.5 Testing a Hypothesis about a Population Standard Deviation or Variance
11/25 W Thanksgiving (no class)
11/27 F Thanksgiving (no class)

Week 15
11/30 M Review for Exam 3 (via Zoom)
12/2 W Review for Exam 3 (via Zoom)
12/4 F Exam 3 (take home)

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 (SRSU) is committed to equal access in compliance with the 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. Please contact Ms. Rebecca Greathouse Wren, M.Ed., LPC-S, Director/Counselor, Accessibility Services Coordinator, Ferguson Hall (Suite 112) at 432-837-8203; mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas 79832. Students should then contact the instructor as soon as possible to initiate the recommended accommodations.

Masks

Face coverings are required indoors and outdoors on SRSU campuses unless you are in a private space or engaged in an activity for which wearing a face covering is impractical. That is, a properly worn mask is required during class.

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