

**SUL ROSS STATE UNIVERSITY  
ELEMENTARY STATISTICAL METHODS  
SYLLABUS MATH 1342  
FALL 2015**

**Instructor: Robie Golden**

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**Office hours: TTH 9 – 11 or by appointment (Please call/text or see me before/after class to schedule) Office is located in the ACR Building in the Computer Science/Math Office 107.**

**Time and Place of Class Meetings: Math 1342 – TTH 11:00 BAB317**

**Time and Place of Class Meetings: Math 1342 – TTH 2:00 ACR 204**

**COURSE DESCRIPTION** (MATH 1342) An introductory statistics course designed to give the student the critical thinking skills necessary to interpret statistical information. This course will prepare the student for further statistical work in his/her field. Topics include: measures of central tendency, measures of variation, normal distributions, hypothesis testing, and graphical representations. Use of statistical software and real-world data is integrated throughout the course.

**PREREQUISITES** Completion of Math 1301 (A, B, or C) or a satisfactory score on the THEA, COMPASS or other mathematics test.

**COURSE OBJECTIVES**

By the end of the course, the successful student will be able to:

- Gather, organize, calculate, and present data;
- Work with probability distributions, both discrete and continuous, and recognize the proper distribution to use for different applications;
- Estimate populations proportions, means, variances, and standard deviations; and
- Use regression and correlation understand and depict the nature of a set of data.

**MATHEMATICS PROGRAM LEARNING OUTCOMES**

The graduating student will demonstrate that he/she is able to:

- Apply knowledge of basic mathematics principles;
- Identify and provide valid proofs or solutions for theorems and problems;
- Recognize and dispute invalid mathematical statements using counter-examples.

## EC TO 6 TEACHER COMPETENCIES

- Competency 013 (Mathematics Instruction) The teacher understands how students learn mathematical skills and uses that knowledge to plan, organize and implement instruction and assess learning.
- Competency 014 (Number Concepts and Operation) The teacher understands concepts related to numbers, operations and algorithms and the properties of numbers.
- Competency 015 (Patterns and Algebra) The teacher understands concepts related to patterns, relations, functions and algebraic reasoning.
- Competency 016 (Geometry and Measurement) The teacher understands concepts and principles of geometry and measurement.
- Competency 017 (Probability and Statistics) The teacher understands concepts related to probability and statistics and their applications.
- Competency 018 (Mathematical Processes) The teacher understands mathematical processes and knows how to reason mathematically, solve mathematical problems and make mathematical connections within and outside of mathematics.

## COURSE TEXT AND MATERIALS

Triola, M.F. Elementary Statistics, 12th Edition. Pearson. ISBN 978-0-321-83696-0  
A TI-83 or TI-84 is strongly recommended for this course. A cell phone calculator will not be acceptable.

### COURSE CONTENT/MATERIAL (tentative and as time permits)

Chapter 1: Introduction to Statistics - all  
Chapter 2: Summarizing and Graphing – all  
Chapter 3: Statistics for Describing, Exploring, and Comparing Data – all  
Chapter 5: Discrete Probability Distributions – Sections 1-4  
Chapter 6: Normal Probability Distributions – Sections 1-5  
Chapter 7: Estimates and Sample Sizes – all  
Chapter 8: Hypothesis Testing - all  
Chapter 10: Correlation and Regression – Sections 1 – 3

## ATTENDANCE & CONDUCT POLICIES

Class will start at the designated time and will fill the scheduled period with no breaks. Plan to arrive on time, attend all classes, stay for the duration of class time and be prepared to learn the material being covered. Bring all materials needed, including your textbook, take notes and participate in class discussion. Turn-off prior to entering the class room any electronic, non-task oriented device such as cell phones and MP3 players. You may not read or send text messages while class is in session. Devices for recording lectures will be permitted after discussion with the instructor. **No makeup exams will be given.**

If you miss class for any reason, contact me, preferably before the absence, to obtain assignments and be prepared for the next class meeting. Absences should be the result of an emergency or some other reasonable activity that occurs during class time. A student with six absences may be dropped from the course for non-attendance with a grade of F.

## DISABILITIES ACCOMMODATION

It is Sul Ross State University policy to provide reasonable accommodations to students with documented disabilities. If you would like to request such accommodation because of a physical, mental or learning disability, please contact the ADA Coordinator in the Counseling and Accessibility Services Office, Ferguson Hall 112, or phone 432-837-8203 or email Mary Schwartze, M.Ed., L.P.C. in Counseling and Accessibility Services at mshwartze@sulross.edu..

## GRADING

These are the requirements for a successful completion/passing grade in this course. Your grade will be based on the following percentages:

Exams	#1	25%
	#2	25%
	Homework/Quiz Average	25%
	Final Exam	25%

Exams – depending on the material, note cards or formula sheets may be allowed or will be provided. **There will be no make-up exam given should you miss the exam as scheduled.**

Quizzes –will cover primarily the previous class-day materials

Grades will be earned as follows:

100% to 90%	A – Excellent
89.9% to 80%	B – Good
79.9% to 70%	C – Average
69.9% to 60%	D – Poor
59.9% & below	F – Failing

## Tentative Schedule – subject to change

### Class Meetings

August 25  
August 27  
September 1  
September 3  
September 7  
September 8  
September 10  
September 15  
September 17  
September 22  
**September 24**  
September 29  
October 1  
October 6

### Material to be covered

1-1 Review and Preview  
1-2 Statistical and Critical Thinking, 1-3 Types of Data  
1-3 continued and 1-4 Collecting Sample Data  
2-1 Review and Preview, 2-2 Frequency Distributions  
**Labor Day Holiday**  
2-2 continued, 2-3 Histograms  
2-4 Graphs that Enlighten/Deceive, Section 3-1 Review/Preview  
3-2 Measures of Center, 3-3 Measures of Variation  
3-3 continued, 3-4 Measures of Relative Standing and Boxplots  
**Review**  
**EXAM # 1**  
5-1 Review and Preview, 5-2 Probability Distributions  
5-2 continued, 5-3 Binomial Probability Distributions  
5-4 Parameters for Binomial Distributions, 6-1 Review/Preview

October 8	6-2 The Standard Normal Distribution
October 13	6-3 Applications of Normal Distribution
October 15	6-3 continued and 6-4 Sampling Distributions and Estimators
October 20	6-5 The Central Limit Theorem
October 22	6-5 continued and begin Review
October 27	<b>Review</b>
<b>October 29</b>	<b>EXAM # 2</b>
November 3	7-1 Review and Preview, 7-2 Estimating a Population Proportion
November 5	7-3 Estimating a Population Mean, 7-4 Estimating a Population Standard Deviation or Variance
November 10	7-4 continued and 8-1 Review and Preview
November 12	8-2 Basics of Hypothesis Testing and 8-3 Testing a Claim about Proportion
November 13	8-3 continued and 8-4 Testing a Claim about a Mean (Last Day to drop with a W)
November 17	8-5 Testing a Claim about Standard Deviation or Variance and 10-1 Review and Preview
November 19	10-2 Correlation, 10-3 Regression
November 24	10-3 continued
November 25 –29	<b>Thanksgiving Holiday</b>
December 1	<b>Review</b>
December 3	<b>Dead Day no class</b>
<b>Tuesday, December 8</b>	<b>Final Exam 11:00 a.m. class 10:15-12:15 p.m.</b>
	<b>Final Exam 2:00 p.m. class 12:30 - 2:30 p.m.</b>