

Statistics (MATH 1342 9S1 and 9S2)

CREDIT

3 Semester Credit Hours (3 hours lecture, 0 Lab hours lab)

MODE OF INSTRUCTION

Face-to-Face

PREREQUISITE/CO-REQUISITE:

TSI Complete for Math

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

Upon completion of this course, the student will be able to

1. Explain the use of data collection and statistics as tools to reach reasonable conclusions.
2. Recognize, examine, and interpret the basic principles of describing and presenting data.
3. Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics.
4. Explain the role of probability in statistics.
5. Examine, analyze, and compare various sampling distributions for both discrete and continuous random variables.
6. Describe and compute confidence intervals.

CORE OBJECTIVES MEASURED

1. **Critical Thinking Skills:** To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
2. **Communication Skills:** To include effective development, interpretation and expression of ideas through written, oral, and visual communication.
3. **Empirical and Quantitative Skills:** To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

Join Remind!

4th Period: @shs4-mrsh

8th Period: @shs8-mrsh



**LAMAR INSTITUTE
OF TECHNOLOGY**

INSTRUCTOR CONTACT INFORMATION

Instructor: Mrs. K. Herrera

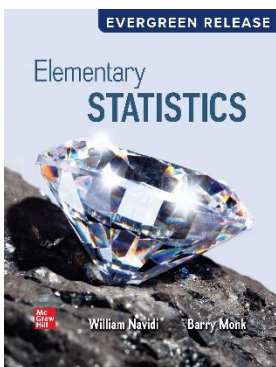
Email: kimberly.herrera@silsbeeisd.org

Office Phone: Silsbee High School (409) 980-7877

Office Location: Silsbee High School 232

Office Hours: Monday through Friday 3:30 pm to 4:00 pm

REQUIRED TEXTBOOK AND MATERIALS



ALEKS *Elementary Statistics*. Physical textbook not required. Online subscription to ALEKS is required and comes with eBook. This is included in the ELE bundle, or you may purchase subscriptions directly from ALEKS.

The following information references cost of paper copy of the text and ISBN, actual cost through ALEKS may vary.

ISBN10: 1266936629 | **ISBN13:** 9781266936623

\$128.99

Paper, pencils, and a calculator, access to a computer with internet access.

ATTENDANCE POLICY

Attendance is required, online students should login and work on assignments 2-3 times per week, minimum.

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified date as listed in the College Calendar on the [Student Success](#) web page. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

COURSE CALENDAR

DATE	TOPIC	ASSIGNMENTS (Due on this Date)
8/24-8/28	Initial Knowledge Check..... Section 1.1 Sampling..... Section 1.2 Types of Data Section 1.3 Design of Experiments	Must be completed Tuesday, September 1 Tuesday, September 1 Tuesday, September 1
8/31-9/4	Section 2.1 Graphical Summaries for Qualitative Data Section 2.2 Frequency Distributions and Their Graphs..... Section 2.3 More Graphs for Quantitative Data.....	Tuesday, September 8 Tuesday, September 8 Tuesday, September 8
9/7-9/11	Section 3.1 Measures of Center Section 3.2 Measures of Spread Section 3.3 Measures of Position	Tuesday, September 15 Tuesday, September 15 Tuesday, September 15
9/14-9/18	Exam 1 Chapters 1 – 3 (two part exam) Section 4.1 Correlation Section 4.2 The Least-Squares Regression Line..... Section 4.3 Limitations of Least-Squares Regression Line Core Assessment Given	Monday, September 14 Tuesday, September 22 Tuesday, September 22 Tuesday, September 22 Tuesday, October 20
9/21-9/25	Section 5.1 Basic Concepts of Probability Section 5.2 The Addition Rule and Rule of Complements..... Section 5.3 Conditional Probability and Multiplication Rule	Tuesday, September 29 Tuesday, September 29 Tuesday, September 29
9/28-10/2	Section 5.4 Counting..... Section 6.1 Random Variables..... Section 6.2 Binomial Distribution	Tuesday, October 6 Tuesday, October 6 Tuesday, October 6
10/5-10/9	Section 6.3 The Poisson Distribution..... Section 7.1 The Standard Normal Curve Section 7.2 Applications of the Normal Distribution	Wednesday, October 14 Wednesday, October 14 Wednesday, October 14
10/12-10/16	Exam 2 Chapters 4 – 7 (two part exam)	Thursday, October 15
10/19-10/23	Core Assessment Due Section 8.1 Confidence Intervals for Mean, Sigma Known Section 8.2 Confidence Intervals for Mean, Sigma Unknown	Tuesday, October 20 Tuesday, October 27 Tuesday, October 27
10/26-10/30	Section 8.3 Confidence Intervals for a Population Proportion Section 8.4 Confidence Intervals for a Standard Deviation..... Section 8.5 Determining Which Method to Use	Tuesday, November 3 Tuesday, November 3 Tuesday, November 3
11/2-11/6	Section 9.1 Basic Principles of Hypothesis Testing..... Section 9.2 Hypothesis Test for Population Mean, Sigma Known Section 9.3 Hypothesis Test for Population Mean, Sigma Unknown	Tuesday, November 10 Tuesday, November 10 Tuesday, November 10
11/9-11/13	Section 9.4 Hypothesis Test for Proportions..... Section 9.5 Hypothesis Test for a Standard Deviation	Tuesday, November 17 Tuesday, November 17
11/16-11/20	Exam 3 Chapter 8 – 9 (two part exam)..... Final Review	Tuesday, November 17 Last day of regular class

Final Exam (two part exam) will be during the final exam week.

The Course Calendar is subject to change with or without notice

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- Test.....60%
- Assignments 20%
- Core Assessment.....20%

GRADE SCALE

- 90-100 A
- 80-89 B
- 70-79 C
- 60-69 D
- 0-59 F

TECHNICAL REQUIREMENTS

For the latest technical requirements, including hardware, compatible browsers, operating systems, etc., review the Minimum Computer and Equipment Requirements on the [LIT Online Experience](#) page. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

ARTIFICIAL INTELLIGENCE STATEMENT

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses.

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

MATH AI POLICY

- No AI tools, apps, software, etc. are to be used on any work that is scored, graded, assessed, etc.
 - This includes all homework, exams, tests, projects, assessments, quizzes, discussions, etc.
- Failure to follow these guidelines (as deemed by the instructor) may be considered academic dishonesty and will be managed by instructor discretion or for exams, the Math testing policy.

MATH TESTING POLICY

- If a student is suspected of cheating, such as with AI use or other cheating methods, the student will be given a zero on the exam. The student will have one week of being notified to have a meeting with the instructor either face to face in the instructor's office or through an online method through such means as Microsoft Teams or Zoom. During this meeting, the student may be asked to work out problems or even the entire test in front of the instructor to adjust the student's grade.
- If the student is caught using AI or the student fails to meet with instructor within one week of notification or the student is unable to complete the work on the exam with instructor present, a zero will be given for that exam or assignment, and there will be no opportunity for a redo.

ADDITIONAL COURSE POLICIES/INFORMATION

Late work will **not** be accepted for this course. All exams must be taken on the assigned day.