

## Statistics (MATH 1342)

### INSTRUCTOR CONTACT INFORMATION

Instructor: Chris Sams

Email: casams@lit.edu

Office Phone: 409-247-5186

Office Location: T5 Rm. 103

Office Hours: M: 8:00am-9:00pm; 11:00am-12:00pm; 2:00pm-3:00pm  
W: 8:00am-9:00pm; 10:00am-12:30; 2:00pm-3:00pm  
TR: 8:00am-9:00am; 10:00am-11:00am; 12:30pm-3:00pm  
F: 8:00am-9:00pm; 10:00am-12:30



**LAMAR INSTITUTE  
OF TECHNOLOGY**

### CREDIT

3 Semester Credit Hours (3 hours lecture, 0 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.

Approved: Initials/date

## **REQUIRED TEXTBOOK AND MATERIALS**

1. MyStatLab/Mymathlab access code for submission of homework assignments/test. This means that the student must have access to a computer and the internet.
2. Binder for keeping and organizing notes and handouts.
3. Paper, pencils, and a graphing calculator.

## **ATTENDANCE POLICY**

Face to face classes: you are expected to attend every class. Failure to attend may result in being dropped or loss of credit (failing the course), with or without warning.

Online classes: do not attend class but are expected to login to blackboard at least twice a week and complete assignments prior to due date. Failure to complete assignments prior to the due date may result in loss of credit. Late work may not be accepted.

## **DROP POLICY**

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

## **STUDENT EXPECTED TIME REQUIREMENT**

For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. For a 3-credit-hour class, students should prepare to allocate approximately six to nine hours per week outside of class in a 16-week session OR approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class.

**COURSE CALENDAR (Subject to change with or without notice)**

<i>Week Of:</i>	<i>Sec</i>	<i>Topic</i>	<i>Homework due:</i>
1/16		Self introduction (Blackboard)	
	1.1	Getting Started	
1/22	1.2	Data Classification	
	1.3	The Process of a Statistical Study	
	2.1	Frequency Distributions	
1/29	2.2	Graphical Displays of Data	
	2.3	Analyzing Graphs	
	3.1	Measures of Center	
	3.2	Measures of Dispersion	
2/5	3.4	Measures of Position	
	3.5	The Five Number Summary	
2/12		<b>EXAM I Ch.1-3</b>	
	4.1	Scatter Diagrams and Correlation	
	4.2	Least Squares Regression	
2/19	5.1	Probability Rules	
	5.2	Addition Rule and Complements	
	5.3	Independence and Multiplication Rule	
2/26	6.1	Discrete Random Variables	
	6.2	Binomial Probability Distribution	
	6.3	Poisson Probability Distribution	
3/04	6.4	Hypergeometric Probability Distribution	
	7.1	Properties of the Normal Distribution	
	7.2	Applications of the Normal Distribution	
3/18		<b>Test II Ch.4-7</b>	
	8.1	Distribution of the Sample Mean	
	8.2	Distribution of the Sample Proportion	
3/25	9.1	Estimating a Population Proportion	
	9.2	Estimating a Population Mean	
	9.3	Estimating a Population Standard Deviation	
4/1	10.1	Language of Hypothesis Testing	
	10.2	Hypothesis Testing for Population Proportions	
	10.3	Hypothesis Testing for Population Means	
4/15	10.4	Hypothesis Testing for Population Standard Deviation	
		<b>Test III Ch.8-10</b>	
4/22	11.1	Inference about Two Population Proportions	

	11.2	Inference about Two Means: Dependent Samples	
	11.3	Inference about Two Means: Independent Samples	
4/29	11.4	Inference about Two Population Standard Deviations	
	12.1	Goodness-of-Fit Test	
	13.1	Comparing Three or more Means (One Way ANOVA) <b>(If time allows)</b>	
		Project Presentations Due	
<b>5/5</b>		<b>Final Exam</b>	

### COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- Test 60%
- Assignments 20%
- Participation 10%
- Final Exam 10%

### GRADE SCALE

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

LIT does not use +/- grading scales

### ACADEMIC DISHONESTY

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at <http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty>.

### TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <https://lit.edu/online-learning/online-learning-minimum-computer-requirements>. 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](mailto: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](http://www.lit.edu). Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

### **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.

### **ADDITIONAL COURSE POLICIES/INFORMATION**