



# MATH 1342-306C3 Elementary Statistical Methods Spring 2025

**Instructor Information:** Christopher Billot, [cbillot@com.edu](mailto:cbillot@com.edu), 281-482-3413 ext. 3654

**Student hours and location:**

Class hours: MTWRF from 2:09 pm – 2:59 pm in room 2429

Office hours: MTWRF from 7:30-8:30 am; 11:17 am – 12:12 pm; 3:05 – 4:20 pm in room 2429

**Required Textbook/Materials:**

1. Textbook: Statistics: Informed Decisions Using Data with Integrated Review with Pearson eText, by Michael Sullivan III, 7<sup>th</sup> edition, Pearson Education, 2024.
2. Access to a desktop computer or laptop and internet service outside of class is required to gain access to the necessary online assignments.
3. MyLab Math/Statistics (MLM) software is required for Math 1342.
4. MyLab (Statistics) provides access to the eText for the textbook and all course assignments. **(No Purchase Necessary)**
5. TI-84 Plus graphing calculator is required for this course. A TI-89 or higher or a TI-Nspire are not permitted.

**Course Description:** This course includes collection, analysis, presentation, and interpretation of data and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals, and hypothesis testing.

**Course requirements:**

**MyLab Math (MLM) Online Assignments – Go to your Brightspace course. You can access D2L Brightspace at COM at <http://com.brightspace.com>.**

- **Homework:** Homework assignments will be given each chapter covered in the course. Homework assignments will count as 10% of your final grade.
- **Quizzes:** Four quizzes will be given online using MyLab. You need to show work on paper that will be turned in to the instructor. You retake each quiz just once to improve your score. The retake must be completed on the same day that the quiz was given. You will have until the end of the day to complete the retake. The highest score from either the original or retake will be the one that counts. Cumulatively, the quizzes will count as 10% of your final grade.
- **Exams:** Four exams will be given, and you will be provided with a review to prepare for each exam. The exams will be taken in person and on paper. Each exam will count as 16% of your final grade.
- **Final Exam:** The comprehensive final exam will be given at the end of the course during Week 16. The final exam will count as 16% of your final grade and will replace your lowest exam grade if it is higher.

**Determination of Course Grade/Detailed Grading Formula:**

**Grading Formula:**

The course grade will be determined by the following formula:

		<u>COM Grading Scale</u>		<u>FISD Grading Scale</u>	
<b>Final Average:</b>	<b>64%</b>	<b>Chapter Exam Average</b>	<b>A: Final Average [89.5 – 100]</b>	<b>Grade of 97:</b>	<b>Final Average [89.5 – 100]</b>
	<b>16%</b>	<b>Final Exam</b>	<b>B: Final Average [79.5 – 89.5]</b>	<b>Grade of 87:</b>	<b>Final Average [79.5 – 89.5]</b>
	<b>10%</b>	<b>Homework Average</b>	<b>C: Final Average [69.5 – 79.5]</b>	<b>Grade of 77:</b>	<b>Final Average [69.5 – 79.5]</b>
	<b>10%</b>	<b>Quiz Average</b>	<b>D: Final Average [59.5 – 69.5]</b>	<b>Grade of 70:</b>	<b>Final Average [59.5 – 69.5]</b>
			<b>F: Final Average [0 – 59.5]</b>	<b>Grade of 67:</b>	<b>Final Average [0 – 59.5]</b>

**The Final Exam score will replace the lowest Chapter Exam Score when it is larger.**

### Late Work, Make-Up, and Extra-Credit Policy:

- **Homework:** You are expected to complete your work by the due date. Late work will not be accepted for any assignment.
- **Quizzes:** You cannot make up a quiz. A specified deadline will be given, and you will not be allowed to submit late.
  - If a quiz or homework assignment is not submitted by the deadline, a grade of zero will be recorded for the grade.
- **Unit Exams:** Generally, there are no make-up exams. A make-up exam will only be allowed at the discretion of the instructor and only under extenuating circumstances and is limited to one make-up chapter exam. If it is necessary to miss an exam:
  1. You are required to petition the instructor in writing using your COM email **before** the exam is given to be considered for a make-up exam.
  2. Only in extenuating circumstances of a serious nature that are documented will be considered.Realize not being prepared for the exam is not a legitimate reason for a make-up exam nor is scheduling work/appointments/vacations during the class period.  
**All other missed tests will be assigned a zero, and the zero(s) will be used to calculate the overall grade in the course.**
- **Extra Credit:** Occasionally, extra credit points will be offered to the entire class; however, individually, extra credit assignments will not be available.

**Attendance Policy:** Attendance and classroom participation is required. Excessive absenteeism may result in a student being withdrawn from the course. More than three absences are considered excessive. Students will also be counted absent:

1. Arriving to class 10 minutes late or later.
2. Taking a break during the class period for a significant amount of time (more than 10 minutes) or multiple breaks.
3. Sleeping during the class period.
4. Leaving early (10 minutes or longer).
5. Using cellphone(s) and /or earbuds/headsets during the class period unless authorized by the instructor.

You cannot make up classes, and it is your responsibility to be punctual and regular at attending class. If you find that you are having trouble arriving on time, adjust your schedule accordingly. Also, please be advised that it is **your** responsibility to get caught up when a class is missed.

**Communicating with your instructor:** ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means. (Faculty may add additional statements requiring monitoring and communication expectations via Blackboard or other LMS.)

**You must log in and be active in MyLab at least three times each week.** In addition to time spent doing homework, taking quizzes and exams it will be necessary to study, using the course materials, at least 4 hours per week to be successful in the class.

### Table Mapping SLO's and Core Objectives

Student Learner Outcomes	Maps to Core Objective	Assessed via this assignment
1. Explain the use of data collection and statistics as tools to reach reasonable conclusions.	Critical Thinking Skills (CT)	Quiz 1/Exam 1
2. Recognize, examine, and interpret the basic principles of describing and presenting data.	Empirical and Quantitative Skills (EQS)	Quiz 1/Exam 1
3. Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics.	Critical Thinking Skills (CT)	Quiz 2/Exam 2
4. Explain the role of probability in statistics.	Visual Communication Skills (CS)	Quiz 2/Exam 2
5. Examine, analyze, and compare various sampling distributions for both discrete and continuous random variables.	Critical Thinking Skills (CT)	Quiz 3/Exam 3
6. Describe and compute confidence intervals.	Empirical and Quantitative Skills (EQS)	Quiz 3/Exam 3
7. Solve linear regression and correlation problems.	Critical Thinking Skills (CT)	Quiz 2/Exam 2
8. Perform hypothesis testing using statistical methods.	Critical Thinking Skills (CT)	Quiz 4/Exam 4

### **Academic Dishonesty:**

College of the Mainland is committed to a high standard of academic integrity. All students are responsible for honesty and independent effort. Incidents of academic and scholastic dishonesty (including cheating, plagiarism, and collusion) will be dealt with in a manner that is consistent with College Policy and the Student Handbook. Any student found to have been academically dishonest on an assignment, quiz, or exam will receive a zero for that assignment, quiz, or exam, and he or she will be referred to the Office of Student Conduct for further disciplinary action. Please read the sections on *Standards of Student Conduct and Discipline and Penalties* in the online Student Handbook.

**Student Concerns:** If you have questions or concerns about any aspect of this course, please contact me at [cbillot@com.edu](mailto:cbillot@com.edu). If after discussing your concern with me and you continue to have questions, please contact Mr. Leslie Richardson at (409) 933-8329 or [lrichardson@com.edu](mailto:lrichardson@com.edu).

### **Additional Policies**

#### **Productive Workplace**

Students are expected to bring all tools necessary for success to class every day. These tools include writing implements, notebook/note paper, and an approved calculator. All other items (backpacks, purses, bags, laptops, etc.) must be placed under your desk. In addition, headsets/wireless earbuds are to be placed in your backpacks and cell phones will need to be placed in the cellphone rack before class starts.

#### **Recording of Class**

Students may not record all or part of class and/or part of a livestream without advanced written consent of the instructor. If you have or think you have a disability such that you need to record class-related activities, please contact the Student Disability Services. If you have an accommodation to record class-related activities, those recordings may not be shared with any other student, whether in this course or not, or with any other person or on any other platform. If any instructor's recordings are provided, students may use instructor's recordings for their own studying and notetaking. Instructor's recordings are not authorized to be shared with anyone without the prior written approval of the instructor. Failure to comply with requirements regarding recordings result in a disciplinary referral and/or disciplinary action.

#### **Testing Policy**

1. Prohibited devices include, but are not limited to:
  - Cell phones and smart watches
  - Audio players/recorders, tablets, laptops, notebooks, or any other personal computing devices
  - Cameras or any other photographic equipment
  - Any devices, including digital watches, that can be used to record, transmit, receive, or play back audio, photographic, text, or video content.
2. If your device makes a sound or is in your possession when the device goes off, you may be dismissed, and your score may be recorded as a zero.
3. **If you leave the classroom at any time during an exam, the exam must be submitted for grading.**
  - Therefore, it is strongly advised that students take care of all personal business prior to entering the classroom to take an exam.

Course outline: (included a calendar with lecture topics, due dates)

### Math 1342 Elementary Statistical Methods Spring 2025 Calendar

Month	Week	Date	Day	Topic	Sections
January	1	6	Monday	Student Holiday	Holiday
		7	Tuesday	Observational Studies vs Designed Experiments	1.1&1.2
		8	Wednesday	Simple Random Sampling	1.3
		9	Thursday	Other Effective Sampling Methods	1.4
		10	Friday	Bias in Sampling	1.5
	2	13	Monday	The Design of Experiments	1.6
		14	Tuesday	Lab Day	Lab
		15	Wednesday	Organizing Qualitative Data	2.1
		16	Thursday	Organizing Qualitative Data: The Popular Displays	2.2
	3	17	Friday	Additional Displays of Quantitative Data	2.3
		20	Monday	Student Holiday	Holiday
		21	Tuesday	Graphical Misrepresentations of Data	2.4
		22	Wednesday	Lab Day	Lab
		23	Thursday	Quiz 1 (Ch. 1 & 2)	Quiz
		24	Friday	Measure of Tendency	3.1
		27	Monday	Measures of Dispersion	3.2
	4	28	Tuesday	Measures of Tendency and Dispersion from Grouped Data	3.3
29		Wednesday	Measures of Dispersion and Outliers	3.4	
30		Thursday	The Five-Number Summary Boxplots	3.5	
31		Friday	Lab Day	Lab	
February	5	3	Monday	Review for Exam 1 (Ch. 1-3)	Review
		4	Tuesday	Review for Exam 1 (Ch. 1-3)	Review
		5	Wednesday	Exam 1 (Ch. 1-3)	Exam
		6	Thursday	Exam 1 (Ch. 1-3)	Exam
		7	Friday	Scatter Diagrams, Correlation, and the Coefficient of Determination	4.1
	6	10	Monday	Least Squares Regression	4.2
		11	Tuesday	Lab Day	Lab
		12	Wednesday	Probability Rules	5.1
		13	Thursday	The Addition Rule and Complements	5.2
		14	Friday	Student Holiday	Holiday
		17	Monday	Student Holiday	Holiday
	7	18	Tuesday	Independence and the Multiplication Rule	5.3
		19	Wednesday	Conditional Probability and the General Multiplication Rule	5.4
		20	Thursday	Counting Techniques	5.5
		21	Friday	Lab Day	Lab
		24	Monday	Quiz 2 (Ch. 4 & 5)	Quiz
	8	25	Tuesday	Discrete Random Variables	6.1
26		Wednesday	Lab Day	Lab	
27		Thursday	The Binomial Probability Distribution	6.2	
28		Friday	Lab Day	Lab	
March	9	3	Monday	Review for Exam 2 (Ch. 4-6)	Review
		4	Tuesday	Review for Exam 2 (Ch. 4-6)	Review
		5	Wednesday	Exam 2 (Ch. 4-6)	Exam
		6	Thursday	Exam 2 (Ch. 4-6)	Exam
	10	7	Friday	Probabilities of Normal Distributions	7.1
		10	Monday	Applications of Normal Distributions	7.2
		11	Tuesday	Distribution of the Sample Mean	8.1
		12	Wednesday	Distribution of the Sample Proportion	8.2
13	Thursday	Lab Day	Lab		
14	Friday	Quiz 3 (Ch. 7 & 8)	Quiz		

Month	Week	Date	Day	Topic	Sections
March	11	Monday	24	Estimating a Population Proportion	9.1
		Tuesday	25	Estimating a Population Mean	9.2
		Wednesday	26	Review for Exam 3 (Ch. 7-9)	Review
		Thursday	27	Review for Exam 3 (Ch. 7-9)	Review
		Friday	28	Exam 3 (Ch. 7-9)	Exam
April	12	Monday	31	Exam 3 (Ch. 7-9)	Exam
		Tuesday	1	The Language of Hypothesis Testing	10.1
		Wednesday	2	Hypothesis Tests for a Population Proportion	10.2
		Thursday	3	Hypothesis Tests for a Population Mean	10.3
	13	Friday	4	Inference about Two Population Proportions	11.1
		Monday	7	Inference about Two Means: Dependent Samples	11.2
		Tuesday	8	Inference about Two Means: Independent Samples	11.3
Wednesday		9	Lab Day	Day	
Thursday		10	Quiz 4 (Ch. 10 & 11)	Quiz	
Friday		11	Goodness-of-Fit Test	12.1	
May	14	Monday	14	Tests for Independence and the Homogeneity of Proportions	12.2
		Tuesday	15	Inference About Two Population Proportions: Dependent Samples	12.3
		Wednesday	16	Lab Day	Lab
		Thursday	17	Review for Exam 4 (Ch. 10-12)	Review
		Friday	18	Student Holiday	Holiday
	15	Monday	21	Student Holiday	Holiday
		Tuesday	22	Review for Exam 4 (Ch. 10-12)	Review
		Wednesday	23	Exam 4 (Ch. 10-12)	Exam
		Thursday	24	Exam 4 (Ch. 10-12)	Exam
		Friday	25	Testing the Significance of the Least-squares Regression Model	14.1
16	Monday	28	Confidence and Prediction Intervals	14.2	
	Tuesday	29	Introduction to Multiple Regression	14.3	
	Wednesday	30	Interaction and Dummy Variables	14.4	
	Thursday	1	Polynomial Regression	14.5	
	Friday	2	Lab Day	Lab	
17	Monday	5	Review for Final Exam	Review	
	Tuesday	6	Review for Final Exam	Review	
	Wednesday	7	Final Exam	Exam	
	Thursday	8	Final Exam	Exam	
Friday	9	Finalize Grades			

**W-Day April 21, 2025**

## Institutional Policies and Guidelines

**Grade Appeal Process:** Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook [https://www.com.edu/student-services/docs/Student\\_Handbook\\_2024-2025\\_v2.pdf](https://www.com.edu/student-services/docs/Student_Handbook_2024-2025_v2.pdf). An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.

**Academic Success & Support Services:** College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

**ADA Statement:** Any student with a documented disability needing academic accommodations is requested to contact:

Kimberly Lachney, Student Accessibility Services Coordinator

Phone: 409-933-8919 Email: [AccessibilityServices@com.edu](mailto:AccessibilityServices@com.edu)

Location: COM Doyle Family Administration Building, Student Success Center

**Textbook Purchasing Statement:** A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

**Withdrawal Policy:** Students may withdraw from this course for any reason prior to the last eligible day for a "W" grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1st 8-week session is February 26. The last date to withdraw from the 16-week session is April 21. The last date to withdraw for the 2nd 8-week session is April 30.

**FN Grading:** The FN grade is issued in cases of failure due to a lack of attendance, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN grade

**Early Alert Program:** The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

### **Resources to Help with Stress:**

If you are experiencing stress or anxiety about your daily living needs including food, housing or just feel you could benefit from free resources to help you through a difficult time, please click here <https://www.com.edu/community-resource-center/>. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork, by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at [deanofstudents@com.edu](mailto:deanofstudents@com.edu) or [communityresources@com.edu](mailto:communityresources@com.edu).

### **Nondiscrimination Statement:**

The College District prohibits discrimination, including harassment, against any individual on the basis of race, color, religion, national origin, age, veteran status, disability, sex, sexual orientation, gender (including gender identity and gender expression), or any other basis prohibited by law. Retaliation against anyone involved in the complaint process is a violation of College District policy.