



Math 1342.037IN
Elementary Statistical Methods
Online
Spring 2022

Instructor Information:

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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. *I recommend downloading the Outlook app on your smart phone so you can check your email easy and often. It is CRUCIAL to your success in the course that you check your email AT LEAST once per day.*

Remind101: To get text reminders about assignments that are due and to be able to text me from your phone, join your class's Remind101 by one of the methods below:

- 1) Join Remind101 by clicking the link. [Click here to join Remind101](#)
- 2) Join by texting **@ c2gde4b** to the number 81010
- 3) Download the Remind101 app on your smart phone. Choose "Join class" in the left-hand toolbar. Enter **@ c2gde4b**

class remind code: @ c2gde4b

Microsoft Teams: Join the Team for your class by either of the two methods below. You will need to join to be able to come to virtual office hours. Login using your COM email address and password.

1) clicking the link [Click here to join the Virtual Office Hours Team](#)

2) Downloading Microsoft Teams or going to Microsoftteams.com. Click join/create team. Input the Team code: **73e624w**

Student hours and location: Office hours are to be held my office: *STEAM Bldg, 325-05* or virtually via Microsoft Teams. You'll need to join the class "Team" to come to virtual office hours.

Days/Times: M, W: 11:00AM-1:30PM
T, TH: 11AM-12:30PM

-If you are needing to meet with me virtually for assistance, please send me an email.

-If you have a question outside of office hours, please send me an email, and I will find a time to meet with you virtually.

Required Textbook/Materials:

1. Textbook:

ISBN: 9780134856254

Title: Statistics: Informed Decisions Using Data with Integrated Review, Books a la Carte Edition plus MyStatLab with Pearson eText

Author: Michael Sullivan

Edition: 5

Copyright: 2017

Publisher: Pearson

2. A computer/laptop and internet service are required to gain access to the required assignments.

3. *MyMathLab* access code is required for this class and Math 0308 (**two separate purchased access codes**). Your homework, quizzes, and tests will be located at www.mymathlab.com

-Make sure you use your COM email when registering for MyMathLab.

-Go to your Blackboard (BB) math course and register for MML. Look for Pearson:

MyMathLab link in the left-hand toolbar of BB.

4. A **TI-84 Plus calculator** is needed for this course.

5. A free PDF converter app or a printer that can scan documents is needed to submit scratch work/worksheets, etc.

Purchasing options for the MML access code:

1. You can purchase an access code with a textbook from the bookstore.

2. You can also purchase the access code by itself directly through MyMathLab. (This is usually the cheapest option)

3. You can gain a two-week temporary access to *MyMathLab*, but you must purchase permanent access in *MyMathLab* immediately once this has ended, using the same account, for you to be able complete any assignments after the temporary access ends. ***Due dates will not be extended for losing access after the temporary access has ended due to you falling more and more behind with an extension. Please make sure you have the funds for MyMathLab within the two-week temporary access.***

You will gain access to the e-book with purchase of an access code.

Accessing MyMathLab:

-Make sure you use your COM email when registering for MyMathLab.

-Go to the course in Blackboard (BB) to register for MML. Look for **Pearson: MyMathLab link in the left-hand toolbar of BB.**

-You will not need a course ID since BB and MML are linked.

-It is recommended that you go to MML from BB since they are linked. You will not need to login to MML if you access MML through BB.

-If BB is ever down, you can access MML by going to mymathlab.com. You will need your username and password when going this route.

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:

Homework Assignments

There is assigned homework for each section to be done online using *MyMathLab* as well as test reviews.

Quizzes:

-There are six quizzes to be done online using *MyMathLab*. You can retake each quiz just once to improve your score; the higher score will be the one that counts.

-There will be two slots in BB for you to upload your quiz scratchwork. This is required so I can review your quiz with you or to see if any partial points can be awarded for any problems MML counted wrong. For example, you put a comma in the wrong spot, typed a number in wrong, etc.

-Email me if there are any problems on a quiz you want to review with me virtually and/or want me to review to give partial credit on.

-To upload your quiz scratchwork, go to BB, the appropriate week containing the quiz, and click on the quiz folder. You will find a link to upload the quiz scratchwork in that folder.

-Scratchwork must be neat, organized, and legible to obtain partial credit. If I can't follow your work or it is illegible, I will not provide partial credit.

Exams:

-There are four-unit exams and a comprehensive final exam to be done online using *MyMathLab*.

-There are no retakes on any of the exams, and there is only one attempt for each exam.

-If you have problems with your computer or internet in the process of taking an exam, contact the instructor immediately.

-You will have one day after the due date to take the exam with a 20% penalty. *There are no extensions for exams.*

Submitting Exam Scratch Work:

-You will be required to submit scratchwork for each exam to Blackboard. To upload scratchwork, go to BB, click the appropriate week containing the exam, and click on the exam folder. You will find a link to upload the exam scratchwork in that folder.

-Exam scratchwork needs to be submitted using the following criteria or will not be accepted:

1) Pages must be numbered and submitted in the correct order
2) Problems must be numbered and worked according to the methods provided in the instructor's lecture videos and/or Pearson resources. Problems worked via methods not appropriate for this course may not be given credit. **Scratchwork that is not legible will not be graded.** I will choose between 4-8 questions to grade by hand per exam.

3) You must take pictures of your scratchwork using a smart phone, convert to a **SINGLE PDF FILE** (multiple PDFs will not be accepted) using a PDF converter app such as CamScanner, and upload to BB within **15 - 20minutes** of completing the exam.

-Exam scratchwork submitted after 20 minutes will have a 5-point late penalty

-Exam scratchwork that is submitted between a day and a week late will have a 10-point late penalty

-If you do not submit exam scratchwork, you will have a 15-point penalty.

Exam Pre-requisites:

- **There is a pre-test quiz that contains testing instructions that must be completed prior to the exam opening.** Also, any quizzes over the material covered on that exam must be attempted at least once before the exam review will open. The review for the exam must be at least opened before the testing instructions quiz will open. The testing instructions quiz must be completed before the exam will open. Make sure you are leaving yourself plenty of time to attempt the quizzes and reviews prior to completing the exam.

Class discussions:

-There are weekly discussions, 4 topic discussions, and 4 exam review discussions. The weekly discussions are to discuss the content that we learned that week. The topic discussions are to discuss 4 specific topics throughout the semester. The exam review discussions are for you to post questions you are having problems with from the online review. If you do not have any questions on the review, you will make a post stating that you do not have any problems to discuss from the review.

Discussion 1: Level of Measurement Discussion – Week 2

Discussion 2: Box Plot Discussion – Week 6

Discussion 3: Z Scores Discussion – Week 11

Discussion 4: Type I & II Errors Discussion – Week 14

For the weekly discussion posts, you will make the initial post by Friday and the follow up post(s) by Sunday.

For the topic discussion posts, you will make the initial post on Monday and the two follow up post(s) are due by Wednesday.

For the exam review discussion posts, you will make at least one post by the day the exam is due. At the minimum, you will make a post stating that you do not have any questions. I encourage you to respond to your classmates' posts and try to assist them, but you do not have to. I will also respond to the exam review discussion posts.

Determination of Course Grade/Detailed Grading Formula:

- **Homework:** Homework assignments (exam reviews are included in this) will count as 10% of your final grade.
- **Quizzes:** Cumulatively, the quizzes will count as 10% of your final grade.
- **Unit Exams:** Each test will count as 15% of your grade.
- **Final Exam:** The comprehensive final exam will count as 15% of your grade.
- **Discussion Posts:** The discussion posts will count as 5%

Final Average =

.60(Exam AVG) +.15(Final Exam) +.10(Homework AVG) +.10(Quiz AVG) +.05(Discussion AVG)

Grading Scale: The course grade will be determined using the following scale:

Grade A: Final Average [89.5, 100]

Grade B: Final Average [79.5, 89.5)

Grade C: Final Average [69.5, 79.5)

Grade D: Final Average [59.5, 69.5)

Grade F: Final Average [0, 59.5)

Your overall average/grade will be located in you MML Course and BB. However, BB will only contain your overall average. To view individual grades on homework, quizzes, and exams and to review quizzes and exams, you will resort to your MML Course Gradebook.

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

-Due Dates – Most of the homework/quizzes will be due on Sunday by 11:59PM. Most of the exams will be due on Wednesday. *(The exception is Exam 4 which will be due on Monday)* The online reviews will be due the day before the exam due date. There will be homework to do after the exam that will be due on Sunday. ***It is your responsibility to look at the course calendar located in the syllabus frequently, so you do not miss any due dates.***

-Due dates for homework WILL NOT be extended. Homework worked after the due date will receive a 20% deduction on all problems worked after the due date. You'll be able to work on past due homework until the exam date.

-As a general rule, there are no make-up exams. *Make-up exams will only be allowed under extenuating circumstances. If you need extra time to complete the exam, you must petition the instructor **before** the due date.* If you do not reach out prior to the exam, an extension will not be granted. **Only extenuating circumstances of a serious nature that are documented will be considered such as a death in the family or hospitalization.** Realize not being prepared for the exam is not a legitimate reason for a make-up exam. **No one will be permitted to take more than one make-up exam. All other missed chapter tests will be assigned a zero, and the zero(s) will be used to calculate final grade in course.**

-There is no extra credit for this course.

Additional Policies

Testing Policy

Prohibited devices include, but are not limited to:

- Cell phones; smart phones; smart watches
- Audio players/recorders, tablets, laptops, notebooks, or any other personal computing devices
- Separate timers
- 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

Attendance Policy: Students at COM are expected to participate every week for which they are registered. Per COM policy, students are required to log on to their course at least twice per week, but it may be necessary to log on more times each week to complete the assignments required of this course. When students are not actively participating (e.g., contributing to discussions and completing weekly online homework), the faculty member can initiate an instructor drop and, subsequently, the student will receive a **W** for the course.

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.

Student Learner Outcomes

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

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 Conduct. 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 section on Standards of Student Conduct and Discipline and Penalties in the online Student Handbook.

Student Concerns: If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact Mr. Leslie Richardson, Math Department Chair, at (409) 933-8329 or at lrichardson@com.edu.

Course Outline:

| Week | Assignment | Due Date (by 11:59PM) |
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| 1 Jan 18-23 *MLK Day – Jan 17 | <i>Orientation</i> 1.1 Introduction to the Practice of Statistics 1.2 Observational Studies versus Designed Experiments 1.3 Simple Random Sampling | Jan 23 |
| 2 Jan 24-30 | *Discussion 1-level of measurement 1.4 Other Effective Sampling Methods 1.5 Bias in Sampling 1.6 The Design of Experiments 2.1 Organizing Qualitative Data | Jan 30 |
| 3 Jan 31-Feb 6 | 2.2 Organizing Quantitative Data: The Popular Displays 2.3 Additional Displays of Quantitative Data 2.4 Graphical Misrepresentations of Data Quiz 1 (1.1-1.6, 2.1-2.4) – SLO 1 and 2 | Feb 6 |
| 4 Feb 7-13 | 3.1 Measure of Central Tendency 3.2 Measures of Dispersion 3.3 Measures of Central Tendency and Dispersion from Grouped Data | Feb 13 |
| 5 Feb 14-20 | 3.3 Measures of Central Tendency and Dispersion from Grouped Data 3.4 Measures of Dispersion and Outliers 3.5 The Five-Number Summary Boxplots | Feb 20 |
| 6 Feb 21-27 | *Discussion 2-Box plot discussion <i>Review for Exam 1</i> Exam 1 (1.1-1.6, 2.1-2.4, 3.1-3.5)-Feb 23 4.1/4.2 Scatter Diagrams, Correlation, Coefficient of Determination, & Least Squares Regression Quiz 2 (4.1-4.2) – SLO 7 | <i>Review-Feb 22-T</i> Exam 1-Feb 23-W 4.1, 4.2, Quiz 2-Feb 27 |
| 7 Feb 28-Mar 6 | 5.1 Probability Rules 5.2 The Addition Rule and Complements 5.3 Independence and the Multiplication Rule | Mar 6 |
| 8 Mar 7-13 | 5.4 Conditional Probability and the General Multiplication Rule 5.5 Counting Techniques Quiz 3 (5.1-5.5) – SLO 3 and 4 | Mar 13 |
| Mar 14-20 | Spring Break | |
| 9 Mar 21-27 | 6.1 Discrete Random Variables 6.2 The Binomial Probability Distribution | Mar 27 |
| 10 Mar 28-Apr 3 | <i>Review for Exam 2</i> Exam 2 (4.1, 4.2, 5.1-5.5, 6.1, 6.2)- Mar 30 7.1 Properties of Normal Distribution 7.2 Applications of Normal Distribution Quiz 4 (6.1, 6.2, 7.1, 7.2) – SLO 5 | <i>Review-Mar 29-T</i> Exam 2-Mar 30-W Apr 3 |
| 11 Apr 4-10 | *Discussion 3: Z Scores Discussion 8.1 Distribution of the Sample Mean 8.2 Distribution of the Sample Proportion | Apr 10 |
| 12 Apr 11-17 | 9.1 Estimating a Population Proportion 9.2 Estimating a Population Mean Quiz 5 (9.1, 9.2) – SLO 6 | Apr 17 |
| 13 Apr 18-24 | <i>Review for Exam 3</i> Exam 3 (7.1, 7.2, 8.1, 8.2, 9.1, 9.2)- Apr 20 10.1 The Language of Hypothesis Testing 10.2 Hypothesis Tests for a Population Proportion | <i>Review-Apr 19-T</i> Exam 3-Apr 20-W Apr 24 |

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| 14 Apr 25-May 1 | *Discussion 4: Type I & II Errors Discussion. 10.3 Hypothesis Tests for a Population Mean 11.1 Inference about Two Population Proportions | May 1 |
| 15 May 2-May 8 | 11.2 Inference about Two Means: Dependent Samples 11.3 Inference about Two Means: Independent Samples Quiz 6 (10.1-10.3, 11.1-11.3) – SLO 8 Review for Exam 4 | May 8 |
| 16 May 9-13 | Exam 4 (10.1-10.3, 11.1-11.3)- May 9-M Final Exam Review Final Exam-May 11 -W | Exam 4-May 9-M <i>Review-May 10-T</i> Final Exam-May 11-W |

Census Date: Feb 2

Drop Date: Apr 25

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://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.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.* https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf

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 Holly Bankston at 409-933-8520 or hbankston@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center.

Counseling Statement: Any student needing counseling services is requested to please contact Holly Bankston in the student success center at 409-933-8520 or hbankston@com.edu. Counseling services are available on campus in the student center for free and students can also email counseling@com.edu to set up their appointment. Appointments are strongly encouraged; however, some concerns may be addressed on a walk-in basis.

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 March 2nd. The last date to

withdraw from the 16-week session is April 25th. The last date to withdraw for the 2nd 8-week session is May 4th.

F_N Grading: The F_N grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The F_N 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 F_N grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an F_N 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.

COVID-19 Statement: All students, faculty, and staff are expected to familiarize themselves with materials and information contained on the College of the Mainland's Coronavirus Information site at www.com.edu/coronavirus. In compliance with Governor Abbott's May 18 Executive Order, face coverings/masks will no longer be required on COM campus. Protocols and college signage are being updated. We will no longer enforce any COM protocol that requires face coverings. We continue to encourage all members of the COM community to distance when possible, use hygiene measures, and get vaccinated to protect against COVID-19. Please visit com.edu/coronavirus for future updates.

[College of the Mainland COVID-19 Reporting Form \(qualtrics.com\)](http://College of the Mainland COVID-19 Reporting Form (qualtrics.com))