



Department of Mathematics

Math 1324.037IN Fall 2021
Mathematics for Business & Social Sciences
Fall 2021
Online

Class meets: Internet Course
Professor: Megan Dulude
E-mail: mdulude@com.edu

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 will make every effort to respond to your email within 24 hours of receiving it.

Student hours

Office Hours: M – 7:00-8:00 PM via TEAMS
TWR – by appointment only
Office: Email

1. Required Textbook

The textbook used in this course is: Finite Mathematics with Applications in the Management, Natural, and Social Sciences, Twelfth edition, by Lial, Hungerford, Holcomb and Mullins, Pearson Publishing Company. The homework and quizzes as well as the e-text and videos for this course are on line at mymathlab.com. The access code for MyMathLab may be purchased with the textbook or may be purchased separately on line at mymathlab.com. You need the access code and the course code to gain access to MyMathLab today. The course code is [dulude92032](#).

2. Textbook Purchase

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.

3. Course Description

The application of common algebraic functions, including polynomial, exponential, logarithmic, and rational, to problems in business, economics, and the social sciences are addressed. The applications include mathematics of finance, including simple and compound interest and annuities; systems of linear equations; matrices; linear programming; and

probability, including expected value.

4. **Technology**

A graphing calculator is needed for this course. A Texas Instruments TI 83 Plus or TI 84 Plus is recommended. A TI 89 or higher cannot be used in this course.

You will need access to the internet to gain access to course materials using the MyMathLab software. If you do not have your own internet access, you can get access on campus in the Innovations Computer Lab, TVB 1324, in the Atrium in the Science Building, the Library and the Math Lab, TVB 1310..

5. **Course Requirements**

Homework Assignments

There is an assigned homework for each section to be completed online using MyMathLab.

Quizzes and Exams

There are four quizzes, four chapter exams and a comprehensive final exam. All of the quizzes and exams are 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 are no retakes on any of the exams.

6. **Determination of Course Grade**

Grading Formula:

The course grade will be determined by the following formula:

$$\text{Final Average} = 64\% \text{Chapter Exam Average} + 16\% \text{Final Exam} \\ + 10\% \text{Homework Average} + 10\% \text{Quiz Average}$$

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

Grading Scale:

Grade A: Final Average in [89.5, 100]
Grade B: Final Average in [79.5, 89.5)
Grade C: Final Average in [69.5, 79.5)
Grade D: Final Average in [59.5, 69.5)
Grade F: Final Average in [0, 59.5)

7. **Make-up Policy**

You will be given two days to take a chapter exam and two days to take the final exam. If you are unable to make a scheduled exam within days specified in the course outline, **you will be allowed to make up the exam provided that you notify the instructor before the end of the scheduled exam period and have a legitimate reason for not be able to take the exam.**

8. Course Outline

<u>Week</u>	<u>Topic</u>	<u>Sections</u>
2	Functions, Graphs of Functions	3.1, 3.2
	Linear, Quadratic Functions	3.3, 3.4
	Polynomial Functions	3.5
	Rational Functions	3.6
	Quiz 1, Chapter 3	
3	Exponential Functions	4.1
	Applications	4.2
	Logarithmic Functions	4.3
	Logarithmic, Exponential Equations	4.4
4	Review	
	Exam 1: Chapters 3, 4	
5	Simple Interest, Compound Interest	5.1, 5.2
	Annuities, Future Value, Sinking Funds	5.3
	Present Value, Amortization	5.4
6	Quiz 2, Chapter 5	
7	Systems of Linear Equations	6.1, 6.2
	Applications, Basic Matrix Operations	6.3, 6.4
	Matrix product, inverses	6.5
7	Review	
8	Exam 2: Chapters 5, 6	
9	Linear Programming	7.1
	Linear Programming, Graphically	7.2
	Applications	7.3
	Simplex Method	7.4
10	Maximization Applications	7.5
	Quiz 3, Chapter 7	
11	Sets, Venn Diagrams	8.1, 8.2
	Basic Concepts of Probability	8.3, 8.4
	Conditional Probability, Indep Events	8.5
	Bayes' Formula	8.6
12	Review	
	Exam 3: Chapters 7, 8	
13	Prob Distributions, Expected Value	9.1
	Multiplication Principle, Permutations and Combinations	9.2
	Applications of Counting	9.3
	Binomial Probability	9.4
	Quiz 4, Chapter 9	
	Frequency Distributions,	10.1
14	Measures of Center, Review	10.2
15	Exam 4: Chapters 9, 10	

9. Attendance Policy

You must log in and be active in MyMathLab at least four times each week. In addition to time spent in 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.

10. 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.

11. 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 only permitted to withdraw six times during their college career by State law. The last day to is November 19th for 16-week courses.

11. Early Alert Program

The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success is 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.

12. 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 on-line Student Handbook.

13. Concerns about the Instructor

If you have any concerns or issues with the instructor, you should first attempt to resolve the issue with the instructor. If you are unable to resolve the issue with the instructor, you should then contact the Department Chair, Leslie Richardson, at (409) 933-8329, lrichardson@com.edu

14. Table Mapping SLO's and Core Objectives

Student Learner Outcomes	Maps to Core Objective	Assessed via this assignment
1. Apply elementary functions, including linear, quadratic, polynomial, rational, logarithmic, and exponential functions to solving real-world problems	Critical Thinking Skills	Exam
2. Solve mathematics of finance problems, including the computation of interest, annuities, and amortization of loans.	Empirical and Quantitative Skills (EQS)	Exam
3. Apply basic matrix operations, including linear programming methods, to solve application problems.	Critical Thinking Skills (CT)	Exam
4. Demonstrate fundamental probability techniques and application of those techniques, including expected value, to solve problems.	Visual Communication Skills (CS)	Exam
5. Apply matrix skills and probability analyses to model applications to solve real-world problems.	Critical Thinking Skills (CT)	Quiz

15. 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

16. Academic Success & Support Services

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

17. 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.

18. Counseling Statement: Any student that is 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 setup their appointment. Appointments are strongly encouraged; however some concerns may be addressed on a walk-in basis

19. 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.