



Department of Mathematics

Syllabus
for
Math 1324.001IN
Math for Business & Social Science
Summer 2024

Professor: Andrea Lewis

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Virtual Office Hours: Monday and Wednesday 1:00 PM – 2:00 PM or by appointment

1. Required Textbook/Materials

- 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.
- 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 MML (MyMathLab) accessed through your D2L Brightspace course. If you do not have your own internet access, you can get access on campus in the computer lab 332 on the 3rd floor of the STEAM building, the Library, and the Tutoring Center, ICB 109.

2. 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.

3. Course Requirements

Homework Assignments

There is a homework assignment for each unit covered. These are listed on the course outline in the syllabus and on the list of assignments on MyLab Math. Each homework assignments must be completed by 11:59 pm on the due date shown on both the course outline and on the list of assignments on MyLab Math. You should do the assignments as soon as possible after

reading the appropriate section in the text book, and watching the associated video(s) on MyLab Math. Although the homework is online and the answers are entered online, you should write your work on paper, neatly showing all steps, and keep it in your notebook with your lecture notes for future reference, both as an aid for preparing for quizzes and exams, and as a place to begin when seeking assistance from your professor, your peers, or the college tutoring center.

Quizzes and Exams

There are 4 quizzes, 4-chapter exams and a comprehensive final exam.

- The four quizzes relate to the student learning outcomes and will be taken on MyLab Math. Like the homework assignments, the due dates are shown on both the course outline in this syllabus and on the assignment list on MyLab Math. Unlike the homework assignments, the quizzes must be taken in one sitting, and they are timed. The quizzes may be retaken one time. The higher of the two grades will be used to determine the student's quiz average.
- There are four exams which cover the chapters in the textbook. The exams are taken on MyLab on the due dates shown on the course outline in the syllabus. **Exams may not be retaken.** However, if the grade on the final exam is higher than the lowest chapter exam grade, the final exam grade will replace the lowest chapter exam grade.
- The final exam is taken on MyLab on the due date shown on the course outline in the syllabus. **The final exam may not be retaken. The Final Exam score will replace the lowest Chapter Exam Score when it is larger.**

4. Determination of Course Grade/Detailed Grading Formula

Grading Formula:

The course grade will be determined by the following formula:

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

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)

5. Make-up policy

You will be given two days to complete each 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 you notify the instructor before the end of the scheduled exam period and have a legitimate reason for not being able to take the exam.

6. Attendance Policy

You must log in and be active in MML 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.

7. 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. **The email account used to register for MML must be your COM email.**

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

8. 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

9. 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 way consistent with College Policy and the Student Handbook. Any student found academically dishonest on an assignment, quiz or exam will receive a zero for that assignment, and they 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.

10. Concerns about the Instructor

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 the Department Chair, Leslie Richardson, at (409) 933-8329, lrichardson@com.edu.

11. Course Outline

Week	Topic	Sections	Due
1	Functions	3.1	July 8
	Graphs of Functions	3.2	July 8
	Linear Functions	3.3	July 9
	Quadratic Functions	3.4	July 9
	Polynomial Functions	3.5	July 10
	Rational Functions	3.6	July 10
	Quiz 1, Chapter 3		July 11
	Exponential Functions	4.1	July 12
	Applications	4.2	July 12
	Logarithmic Functions	4.3	July 13
	Logarithmic and Exponential Equations	4.4	July 13
2	Exam 1: Chapters 3 and 4		July 15-16
	Simple Interest	5.1	July 17
	Compound Interest	5.2	July 17
	Annuities, Future Value, Sinking Funds	5.3	July 18
	Present Value, Amortization	5.4	July 18
	Quiz 2, Chapter 5		July 19
	Systems of Linear Equations	6.1, 6.2	July 20
	Applications	6.3	July 20
3	Basic Matrix Operations	6.4	July 22
	Matric Product, Inverses	6.5	July 22
	Exam 2: Chapters 5 and 6		July 23-24
	Linear Programming -	7.1, 7.2	July 25

	Graphically		
	Applications	7.3	July 25
	Simplex Method	7.4	July 26
	Maximization Applications	7.5	July 26
	Quiz 3: Chapter 7		July 27
4	Sets	8.1	July 29
	Venn Diagrams	8.2	July 29
	Basic Concepts of Probability	8.3, 8.4	July 30
	Conditional Probability, Independent Events	8.5	July 31
	Bayes' Formula	8.6	July 31
	Exam 3: Chapters 7 and 8		August 1-2
	Probability Distributions, Expected Value	9.1	August 3
	Multiplication Principle, Permutations and Combinations	9.2	August 3
	Applications of Counting	9.3	August 3
5	Binomial Probability	9.4	August 5
	Quiz 4, Chapter 9		August 5
	Frequency Distributions	10.1	August 6
	Measures of Center	10.2	August 6
	Exam 4: Chapters 9 and 10		August 7-8
	Final Exam		August 8-9

**** W-day: August 2nd ****

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_2023-2024_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 at 409-933-8919 or klachney@com.edu. The Office of Services for Students with Disabilities is located in the 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 5-week session is July 1. The last date to withdraw from the 10-week session is July 30. The last date to withdraw for the 2nd 5-week session is August 2.

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 or 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.