Math 1324.101CL
Mathematics for Business & Social Sciences
Fall 2022
STEAM Building, Room 119
MW 9:30 - 10:50pm; F 10:00am – 10:50am

Instructor Information: Theophilus, Boye, tboye@com.edu, 409-933-**8758**

Student hours: MWF: 11:00 -12:30pm; and **TTh**: 3:30-5:30pm
location: STEAM **325-3**

Required Textbook/Materials: Minimally, you are required to purchase the access code for MyMathLab to access the eText for the textbook and all course assignments. A hard copy of the textbook is recommended, but not required.

ISBN: 9780134767611
Title: Finite Mathematics with Applications in the Management, Natural, and Social Sciences
Author: Lial, Hungerford, Holcomb, and Mullins
Edition: 12
Copyright: 2019
Publisher: Pearson

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.

Course requirements:

- **Homework:** Homework assignments will be given each week for every section covered in the course. Homework assignments will count as 10% of your final grade.
- **Quizzes:** Four quizzes will be given. Cumulatively, the quizzes will count as 10% of your final grade.
- **Unit Exams:** Four exams will be given, and you will be provided with a review to prepare for each exam. Each test will count as 16% of your 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 grade and will replace your lowest exam grade if it is higher.

Required Technology:
A TI-84 Plus graphing calculator is required for this course. A TI-89 or higher or a TI-Nspire are not permitted. Internet capability is also required to gain access to course materials and online assignments via MyMathLab software.

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

Final Average = .64(Exam Average) +.16(Final Exam) +.10(Homework) +.10(Quizzes)

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)

Late Work, Make-Up, and Extra-Credit Policy: If you are unable to make a scheduled exam, you will be allowed to make up the exam outside of class provided you notify the instructor prior to the exam and have a legitimate reason for the absence. All makeup exams must be taken in the Testing Center by appointment. The late penalty for past due assignments is 20% of your grade. Extra credit assignments will not be available.

Attendance Policy: Attendance is required for all class meetings. 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.

Electronic Device Policies
You may use your laptop or tablet for taking notes during lecture; however, that privilege will be lost if I find that you are using them for non-course-related reasons (e.g., news, social media, shopping).
All other electronic devices should be **silenced and hidden**. If there is an emergency and your phone must be on/visible, please inform me of this at the beginning of class

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 (CT)	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

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 will 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	Dates	Topics	Sections	Due
1	Aug 22 - 26	Functions	3.1	Aug 28
		Graph of Functions	3.2	
2	Aug 29 – Sep 2	Linear Functions	3.3	Sep 4
		Quadratic Functions	3.4	
		Polynomial Functions	3.5	
3	Sep 5 – Sep 9	Rational Functions	3.6	Sep 11
		Quiz 1: Chapter 3		
		Exponential Functions	4.1	
		Application of Exponential Functions	4.2	
4	Sep 12 – 16	Logarithmic Functions	4.3	Sep 18
		Logarithmic and Exponential Equations	4.4	
		Exam 1: Chapter 3, 4		
5	Sep 19 - 23	Simple Interest and Discount	5.1	Sep 25
		Compound Interest	5.2	
		Annuities, Future Value, and Sinking Funds	5.3	
6	Sep 26 - 30	Annuities, Present Value, and Amortization	5.4	Oct 2
		Quiz 2, Chapter 5		
		Systems of Two Linear Equations in Two Variables	6.1	
		Larger Systems of Linear Equations	6.2	
7	Oct 3 - 7	Applications of Systems of Linear Equations	6.3	Oct 9
		Basic Matrix Operations	6.4	
		Matrix Products and Inverses	6.5	
8	Oct 10 - 14	**Exam 2: Chapters 5, 6**		Oct 16
9	Oct 17 - 21	Graphing Linear Inequalities in Two Variables	7.1	Oct 23
		Linear Programming: The Graphical Method	7.2	
10	Oct 25 - 29	Applications of Linear Programming	7.3	Oct 30
		The Simplex Method: Maximization	7.4	
		Maximization Applications	7.5	

Week	Dates	Topics	Sections	Due
11	Oct 31- Nov 4	**Quiz 3, Chapter 7**		Nov 6
		Sets	8.1	
		Applications of Venn Diagrams	8.2	
12	Nov 7 - 11	Introduction to Probability	8.3	Nov 13
		Basic Concepts of Probability	8.4	
		Conditional Probability and Independent Events	8.5	
		Bayes' Formula	8.6	
13	Nov 14 - 18	**Exam 3: Chapter 7, 8**		Nov 20
		Probability Distributions and Expected Value	9.1	
14	Nov 21 - 23	The Multiplication Principle, Permutations and Combinations	9.2	Nov 27
		Applications of Counting	9.3	
		Binomial Probability	9.4	
15	Nov 28 - Dec 2	**Quiz 4: Chapter 9**		Dec 4
		Frequency Distributions	10.1	
		Measures of Center	10.2	
		Review for Exam 4 **Exam 4 Chapter 9, 10**		
16	Dec 5 - 7			**Dec 7**
		Review for Final Exam		
		Final Exam (comprehensive)		

*W-Day is Nov 18
*Class ends on Dec 7
*Calendar is subject to change

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 Michelle Brezina at 409-933-8124 or mvaldes1@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 8-week session is October 5. The last date to withdraw from the 16-week session is November 18. The last date to withdraw for the 2nd 8-week session is December 1.

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.