



Department of Mathematics

Math 1324.037IN
Math for Business and Social Sciences
Fall 2023
Internet Class

Instructor: Danielle Smith
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Office: N/A

Student hours: Mondays 3:00-4:00pm online in D2L or by appointment

1. 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.

2. Required Textbook/Materials

The textbook is Finite Mathematics with Applications, 12th edition, by Goldstein, Schneider and Siegel, Pearson Publishing Company. A hard copy of the textbook is helpful but it is optional since the software used, MyMathLab (MML), has the electronic version of the textbook in it.

3. Course Description

Topics include introductory treatments of sets and logic, financial mathematics, probability, and statistics with appropriate applications. Number sense, proportional reasoning, estimation, technology, and communication will be embedded throughout the course

4. Course Requirements

Homework Assignments (10%) - There is a homework assignment for each unit covered. These are listed on the course outline in this syllabus. Each day's homework assignments must be completed by 11:59 pm on the due date shown on both the course outline (page 4-5) and on the list of assignments on MyMathLab. 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 MyMathLab. Although the answers for the homework are entered online, you should write your work on paper, neatly showing all steps, and keep it in your notebook with your notes for future reference. Your work will be a useful aid for preparing for quizzes and exams, and as a place to begin when seeking assistance from your peers, your professor, or the college tutoring center.

Quizzes (10%) - Four quizzes which relate to the student learning outcomes, will be taken on MyMathLab. You can retake each quiz just once to improve your score; the higher score will be the one that counts. The quizzes must be taken in one sitting, they are timed, and the student gets only one attempt to answer each question. Be sure to label and write out your work/solutions for all quizzes in a neat and organized manner, *you may be asked to submit photos of your work in D2L for credit*. The work from these problems will also come in handy to review as you prepare for subsequent tests and the final exam.

Exams (75%): There are four exams which cover the chapters in the textbook and a comprehensive final exam. Tests must be completed within the given window stated on the course outline (page 4-5) and the student has two hours to take each exam once they start. **There are no retakes on any of the exams.** Be sure to label and write out your work/solutions for all exams in a neat and organized manner, *you will be required to submit photos of your work in D2L for credit*. The work from these problems will also come in handy to review as you prepare for the final exam. The final exam may be used to replace the lowest test score if it benefits the student.

Discussion Boards (5%): You will be required to participate in up to 4 discussion boards/flip grid activities during the semester. Active participation in online discussions helps create a learning community and gives you opportunities to learn from and get to know other students. Discussion questions and clear instructions will be announced in D2L as the semester progresses. Your grade on the discussion board will be based on participation but must satisfy the minimum requirements detailed in the instructions for each specific discussion post. Posts must be relevant to the topic being discussed and should use correct grammar, punctuation, and vocabulary appropriate for a university level course. Misuse of the discussion boards will not be tolerated.

5. **Late Work, Make-Up, and Extra-Credit Policy**

As a general rule, there are no make-up exams. Students must make every effort to complete the exam within the exam window. Extensions for exams will only be considered under extenuating circumstances. If you need to miss an exam, you must **petition the instructor prior to the exam window and have a legitimate reason**. If you do not reach out prior to the exam, an extension will not be granted. All missed chapter tests will be assigned a zero, and the zero(s) will be used to calculate final grade in course.

Due dates for homework WILL NOT be extended (see Course Outline on pages 4-5 for due dates). 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 and quizzes until the corresponding exam date. Any homework assignments or quizzes that are not finished by the due date of the related exam will be given a grade of zero at that time.

There is no guaranteed extra-credit for this course. Extra credit may be offered at the professor's discretion for completion of assignments or activities outside of the normal scope of the course.

6. Determination of Course Grade/Detailed Grading Formula

Grading Formula:

The course grade will be determined by the following formula:

Final Avg =

60% Unit Exam Avg + 15% Final Exam + 10% HW Avg + 10% Quiz Avg + 5% Discussion Boards

***The Final Exam score will replace the lowest Unit 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. 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 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.

8. Table Mapping SLO's and Core Objectives

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

9. 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 for Math & Computer Science, Leslie Richardson at lrichardson@com.edu, 409-933-8329.

10. Attendance Policy:

Students enrolled in this course are required to sign on to MyMathLab through D2L and work on their assignments a minimum of two times each week during the semester. Students who fail to meet this requirement will be considered absent and will be referred to Student Services.

11. Course Outline

This is a tentative schedule. As the semester progresses, adjustments may be needed

Week	Section, Topic, Due Date
1-3 (8/28-9/17)	Math 0315 Flip Grid Introduction (in Math 0315) (DUE 9/10)
4 (9/18)	M/W – Math 0315 F – 3.1 Functions Due 9/24
5 (9/25)	M/W – Math 0315 F – 3.2 Graphs of Functions Due 10/01
6 (10/02)	Discussion Board 1 Due 10/15 M/W – Math 0315 F – 3.3 Applications of Linear Functions Due 10/08 3.4 Quadratic Functions and Applications Due 10/08
7 (10/09)	M – Math 0315 W – 3.5 Polynomial Functions Due 10/15 F – 3.6 Rational Functions Due 10/15 Quiz 1 (3.1 – 3.6) Due 10/15
8 (10/16)	M – 4.1 Exponential Functions Due 10/22 4.2 Applications of Exponential Functions Due 10/22 W – 4.3 Logarithmic Functions Due 10/22 4.4 Logarithmic and Exponential Equations Due 10/22 F – Review for Exam 1 Due 10/22 Exam 1 (3.1 – 4.4) OPEN 10/20-10/22 Math 0315
9 (10/23)	Discussion Board 2 DUE 11/05 M - 5.1 Simple Interest and Discount Due 10/29 5.2 Compound Interest Due 10/29 W - 5.3 Annuities, Future Value, and Sinking Funds Due 10/29 5.4 Annuities, Present Value, and Amortization Due 10/29 F - Quiz 2 (5.1 – 5.4) Due 10/29 Math 0315
10 (10/30)	M - 6.1 Systems: 2 Linear Equations in 2 Variables Due 11/05 6.2 Larger Systems of Linear Equations Due 11/05 W - 6.3 Applications of Systems of Linear Equations Due 11/05 6.4 Basic Matrix Operations Due 11/05 F - 6.5 Matrix Products and Inverses Due 11/05 Review for Exam 2 Due 11/05 Math 0315
11 (11/06)	M - Exam 2 (5.1 – 6.5) *OPEN 11/05-11/08 7.1 Graphing Linear Inequalities in Two Variables Due 11/11 W - 7.2 Linear Programming: The Graphing Method Due 11/11 7.3 Applications of Linear Programming Due 11/11 F - Math 0315
12 (11/13)	M - 7.4 The Simplex Method: Maximization Due 11/19 7.5 Maximization Applications Due 11/19 W - Quiz 3 (7.2 – 7.5) Due 11/19 8.1 Sets Due 11/19 F - 8.2 Apps: Venn Diagrams, Contingency Tables Due 11/19 Math 0315 – EXAM 4

Continued →

Week	Section, Topic, Due Date
13 (11/20)	<p>Discussion Board 3 DUE 12/03</p> <p>M - 8.3 Introduction to Probability Due 11/26 8.4 Basic Concepts of Probability Due 11/26 8.5 Conditional Probability and Independent Events Due 11/26</p> <p>W - Math 0315 – FINAL EXAM</p> <p>F - Thanksgiving Holiday</p>
14 (11/27) *W-day 11/28*	<p>M - 8.6 Bayes Formula Due 12/03 Review for Exam 3 Due 12/03</p> <p>W - Exam 3 (7.1 – 8.6) OPEN 11/29-12/03</p> <p>F - 9.1 Probability Distributions and Expected Value Due 12/03 9.2 Multiplication Principle, Permutations, Combinations Due 12/03 9.3 Applications of Counting Due 12/03</p>
15 (12/04)	<p>M - 9.4 Binomial Probability Due 12/10 Quiz 4 (9.1 – 9.4) Due 12/10</p> <p>W - 10.1 Frequency Distributions Due 12/10 10.2 Measures of Center Due 12/10</p> <p>F - Review for Exam 4 Due 12/10 Exam 4 (9.1 – 10.2) OPEN 12/08 – 12/10</p>
16 (12/11)	<p>M - Review for Comprehensive Final Exam *Due 12/13 Comprehensive Final Exam *OPEN 12/11-12/13</p>

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 8-week session is October 11. The last date to withdraw from the 16-week session is November 28. The last date to withdraw for the 2nd 8-week session is December 7.

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.