



Department of Mathematics

Syllabus for

Math 1324-301C3 – Spring 2025

Dual Credit Mathematics for Business & Social Sciences

M-F in Room J204

Instructor Information: Danielle H. Smith
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281-229-6553

Student Hours (Tutorials): T/TH 2:45-3:30pm in J204
Conference: 7th Period (1:45-2:35pm)

Course Textbook: The textbook is Finite Mathematics with Applications, 13th edition, by Lial, Hungerford, Holcomb, and Mullins, Pearson Publishing Company. The e-text is provided with MyLab Math through D2L. The student will need a computer and internet service outside of class to gain access to the online assignments.

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.

Course requirements

(10%) Homework: There is a homework assignment for each unit covered. These are listed on the course outline in the syllabus (p.3-4) and on the list of assignments on MyLab Math. Each day's 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 the sections have been covered in class.

(90%) Quizzes/Exams: There are six quizzes to be done online using MyLab Math. You can retake each quiz just once to improve your score; the higher score will be the one that counts. There may also be in-class quizzes. In-class quizzes cannot be made-up or retaken. There will be six chapter-exams and a comprehensive final. These will be done in class. **There are no retakes on any of the exams.**

Determination of Course Grade/Detailed Grading Formula: The course grade will be determined by the following formula:

$$10\% \text{ HW Average} + 20\% \text{ Quiz/CFA Average} + 60\% \text{ Exam Average} + 10\% \text{ Final Exam} = \text{Final Average}$$

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)

Late Work, Make-Up, and Extra Credit:

Late homework can be submitted, but there is a 20% grade penalty on late assignments. Late work will only be accepted until the date of the corresponding exam. In class quizzes and tests must be taken on days scheduled unless you notify me in advance of any issues. There is no extra credit.

Attendance Policy: Attendance and participation is required.

Table Mapping SLO's and Core Objectives:

Student Learner Outcome	Maps to Core Objective	Assessed via
1. Solve mathematics of finance problems, including the computation of interest, annuities, and amortization of loans	Empirical and Quantitative Skills (EQS)	Exam 1, 2
2. Apply basic matrix operations, including linear programming methods, to solve application problems.	Critical Thinking Skills (CT)	Exam 2, 3
3. Demonstrate fundamental probability techniques and application of those techniques, including expected value, to solve problems.	Visual Communication Skills (CS)	Exam 3, 4
4. 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 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.

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 Leslie Richardson, Mathematics Dept. Chair at lrichardson@com.edu.

Productive Workplace

Students are expected to bring all tools necessary for success to class every day. These tools include writing implements, notebook/notebook paper and an approved calculator. All other items (back packs, purses, bags, etc.) must be removed from your desk. Your cell phone is to be placed on SILENT and placed in your purse, backpack, or pocket. It is not to be out during class. ***Having a cell phone out during class is an interruption to the learning environment for your classmates, yourself, and the instructor.***

Week/ Date	Topic
0 1/7	3.1 Functions Due 1/16 3.2 Graphs of Functions Due 1/16
1 1/13	Orientation Exercises Due 1/16 3.3 Applications of Linear Functions Due 1/19 3.4 Quadratic Functions and Applications Due 1/19
2 1/20	1/20 Holiday Quiz 1 (3.1, 3.3, 3.4) Due 1/23 3.5 Polynomial Functions 1/23 3.6 Rational Functions 1/26 Review Exam 1
3 1/27	Exam 1 Monday 1/27 (Chapter 3) 4.1 Exponential Functions Due 1/30 4.2 Applications of Exponential Functions Due 2/2 4.3 Logarithmic Functions Due 2/6
4 2/3	4.4 Logarithmic and Exponential Equations Due 2/6 Quiz 2 (4.1-4.4) Due 2/9 5.1 Simple and Compound Interest Due 2/9
5 2/10	5.2 Annuities, Future Value, and Sinking Funds Due 2/13 5.3 Consumer Loans and Amortization Due 2/17
6 2/17	2/17 Holiday Review for Exam 2 Due 2/19 Exam 2 Wednesday 2/19 (Chapters 4, 5) 6.1 Systems: 2 Linear Equations in 2 Variables Due 2/23 6.2 Larger Systems of Linear Equations Due 2/27
7 2/24	6.3 Applications of Systems of Linear Equations Due 2/27 6.4 Basic Matrix Operations Due 3/2 Quiz 3 (6.1-6.4) Due 3/2 6.5 Matrix Products and Inverses Due 3/2
8 3/3	Review for Exam 3 Due 3/5 Exam 3 Wednesday 3/5 (Chapter 6) 7.1 Graphing Linear Inequalities in Two Variables Due 3/9
9 3/10	7.2 Linear Programming: The Graphing Method Due 3/13 7.3 Applications of Linear Programming Due 3/13 7.4 The Simplex Method: Maximization Due 3/16 Quiz 4 (7.1 – 7.4) Due 3/24
3/17	Spring Break

Note: W-Day 4/21 COM Last Day 5/8

Course outline cont'd: **subject to change at instructor's discretion**

10 3/24	<p>2/17 Holiday</p> <p>7.5 Maximization Applications Due 3/27 Review Exam 4 Due 3/27 Exam 4 Thursday 3/27 (Chapter 7) 8.1 Sets Due 3/30</p>
11 3/31	<p>8.2 Apps: Venn Diagrams, Contingency Tables Due 4/3 8.3 Introduction to Probability Due 4/3 8.4 Basic Concepts of Probability Due 4/6 Quiz 5 (8.1-8.4) Due 4/6</p>
12 4/7	<p>8.5 Conditional Probability and Independent Events Due 4/10 Review for Exam 5 Due 4/11 Exam 5 Friday 4/11 (Chapter 8)</p>
13 4/14	<p>9.1 Probability Distributions and Expected Value Due 4/17 9.2 Multiplication Principle, Permutations, Combinations Due 9/17 4/18 Holiday</p>
14 4/21	<p>9.3 Applications of Counting Due 4/24 9.4 Binomial Probability Due 4/24 Quiz 6 (9.1 – 9.4) Due 4/27 10.1 Frequency Distributions Due 4/27</p>
15 4/28	<p>10.2 Measures of Center Due 5/1 Review Exam 4 Due 5/1 Exam 6 Thursday 5/1 Review for Comprehensive Final Exam Due 5/7</p>
16 5/5	<p>Review for Comprehensive Final Exam Due 5/7 Comprehensive Final Exam Tuesday/Wednesday 5/6-5/7</p>

Note: W-Day 4/21 COM Last Day 5/8

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_2024-2025_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, Student Accessibility Services Coordinator
Phone: 409-933-8919 Email: AccessibilityServices@com.edu
Location: COM Doyle Family Administration Building, 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 February 26. The last date to withdraw from the 16-week session is April 21. The last date to withdraw for the 2nd 8-week session is April 30.

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.