

# Math 1324.001I4 Mathematics for Business and Social Sciences Summer 2025 Online

Instructor Information: James Griffiths 409-933-8225 jgriffiths@com.edu

Student hours and location: MTWTh 9:45 am - 10:45 am in STE325-08

**Required Textbook:** The textbook is <u>Finite Mathematics with Applications</u>, 13<sup>th</sup> edition, by Lial, Hungerford, Holcomb, and Mullins, Pearson Publishing Company. The e-text is provided with *MyLab Math*. The student will need a computer and internet service outside of class to gain access to the online assignments on *MyLab Math*. Computers and internet access are available on campus during specified times. A Texas Instruments TI30XIIS scientific calculator is recommended.

**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:**

**Homework Assignments on** *MyLab Math*: There is a homework assignment for each unit covered. 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*. The student should do the assignments as soon as possible after doing one or more of the following: reading the appropriate section in the text book (on *MyLab Math*), watching the video lecture or reading the lecture notes (on D2L), or watching the associated videos by Pearson, (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 the professor or the college tutoring center.

**Quizzes on** *MyLab Math*: Four quizzes 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, they are timed, and the student gets only **one** attempt to answer each question. The quizzes may be retaken **one** time. The higher of the two grades will be used to determine the student's quiz average.

It is important that the student read and understand the warnings on page 2 of the Orientation Notes, concerning taking quizzes or exams on *MyLab Math*. The Orientation Notes can be found among the major tabs for this course on D2L. Failing to follow the suggestions presented in that document may cause a quiz or exam to be terminated. The instructor will not change a grade on any assignment on *MyLab Math*. Nor will the instructor reopen a quiz or exam from which the student has been locked out. The instructor will only submit the grade earned by the student up to that point.

**Chapter Exams:** There are four exams which cover the chapters in the text book. The exams are taken on *MyLab Math* on the due date shown on the course outline in the syllabus and on the list of assignments on *MyLab Math*. The student has 1hour 50 minutes to take each chapter exam. **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. If a student makes up a missed exam, the final exam will no longer replace the student's lowest exam grade. So, do not miss an exam.

**Comprehensive Final Exam:** The final exam is taken on *MyLab Math* on the due date shown on the course outline in the syllabus and on the list of assignments on *MyLab Math*. The student has 1hour 50 minutes to take the final exam. **The final exam may not be retaken**.

Comprehensive Final Exam	20%
Average of Chapter Exams	60%
Homework Average	10%
Quiz Average	10%
Final Average	100%

**Grade I**: Given unforeseen circumstances that result in the inability to successfully complete the course objectives, an I-Contract can be requested from the instructor assuming you meet the following criteria:

- 1. Have a passing overall average (70 or higher)
- 2. All work has been completed except for The Final Exam.

### **Grading Scale:**

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

## Late Work, Make-Up Exams, and Extra-Credit Policy:

Late Work: There is a twenty (20) point penalty for all homework and quizzes submitted after the due date. Any homework assignments or quizzes that are not finished by the due date of the associated exam will be given a grade of zero at the time the exam is given.

### Make-Up Exams: There are no make-up exams, unless:

- 1) the student notifies the instructor that they will miss the exam before the time and date the exam is scheduled, and
- 2) the reason for the requested make-up exam is extraordinary, such as the death of a close family member, or the student's admittance to the hospital.

(Transportation problems, minor illness, or scheduled doctor appointments are not extraordinary reasons for missing an exam.)

Students will **not** be permitted to make up more than **one** exam, and if a student makes up a missed exam, the final exam will no longer replace the lowest exam grade.

**Extra Credit: Three** points extra credit is given on exams if the student earns a score of **100** on the review. Extra-credit assignments may also be given throughout the course at the discretion of the instructor. The total extra credit points for any exam may not raise an exam grade above **100**. Extra credit is never given at the end of the semester to bring up a grade. Do not even ask.

Attendance Policy: Students at COM are expected to attend and participate in every session of all classes for which they are registered. College of the Mainland recognizes no excused absences other than those prescribed by law. Students in an online class are expected to sign into MyLab Math and work toward finishing their weekly assignments a minimum of two times per week. During a summer five-week course, the student should plan to work on their assignments much more frequently. This could be as much as three times the expected participation during a sixteen week semester, (up to five or six times per week). If a student is forced to not participate in the course for some period of time, the missed time must be made up immediately if the student is to have any chance of being successful. The student is still responsible for work that is assigned during an absence and due dates are firm.

**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 **preferred** method of communication in this course is in person. If that is not possible, an email or phone call will be satisfactory, but do not leave a message on my phone. If you cannot reach me by phone, email me. Be sure to include your name, the course in which you are enrolled, and state your question completely.

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

## Table Mapping SLO's and Core Objectives:

**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 of *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. 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 <u>lrichardson@com.edu</u>.

#### **Course outline:**

Week	Date	Sections
1	6/2	Orientation Exercises Due 6/4
		5.1 Simple and Compound Interest Due 6/4
	6/3	5.2 Annuities, Future Value, and Sinking Funds Due 6/5
		5.3 Consumer Loans and Amortization Due 6/5
		Quiz 1 (5.1 – 5.3) (online MyLab Math) Due 6/5
	6/4	<ul><li>6.1 Systems: 2 Linear Equations in 2 Variables Due 6/6</li><li>6.2 Larger Systems of Linear Equations Due 6/6</li></ul>
	6/5	<ul><li>6.3 Applications of Systems of Linear Equations Due 6/7</li><li>6.4 Basic Matrix Operations Due 6/7</li></ul>
	6/6	<ul><li>6.5 Matrix Products and Inverses Due 6/8</li><li>7.1 Graphing Linear Inequalities in Two Variables Due 6/8</li><li>Review for Exam 1 Due 6/9 (before Exam 1 is taken)</li></ul>

2	6/9	<ul> <li>Exam 1 (5.1 – 6.5) (online MyLab Math) Due 6/9</li> <li>7.2 Linear Programming: The Graphing Method Due 6/11</li> <li>7.3 Applications of Linear Programming Due 6/11</li> </ul>
	6/10	7.4 The Simplex Method: Maximization Due 6/12
	6/11	<ul> <li>7.5 Maximization Applications Due 6/13</li> <li>Quiz 2 (7.2 – 7.5) (online MyLab Math) Due 6/13</li> </ul>
	6/12	<ul><li>8.1 Sets Due 6/14</li><li>8.2 Apps: Venn Diagrams, Contingency Tables Due 6/14</li></ul>
	6/13	8.3 Introduction to Probability Due 6/15

8.3 Introduction to Probability Due 6/158.4 Basic Concepts of Probability Due 6/15

3	6/16	8.5 Conditional Probability and Independent Events Due 6/16 Review for Exam 2 Due 6/17 (before Exam 2 is taken)
	6/17	<b>Exam 2 (7.1 – 8.5) (online MyLab Math) Due 6/17</b> 9.1 Probability Distributions and Expected Value Due 6/20
	6/18	<ul><li>9.2 Mult. Principle, Permutations, Combinations Due 6/20</li><li>9.3 Applications of Counting Due 6/20</li></ul>
	6/19	HOLIDAY
	6/20	<ul> <li>9.4 Binomial Probability Due 6/22</li> <li>10.1 Frequency Distributions Due 6/22</li> <li>Quiz 3 (9.1 – 9.4) (online MyLab Math) Due 6/22</li> </ul>

4	6/23	10.2 Measures of Center Due 6/23 Review for Exam 3 Due 6/24 (before Exam 3 is taken)
	6/24	Exam 3 (9.1 – 10.2) (online MyLab Math) Due 6/24 3.1 Functions Due 6/26
	6/25	<ul><li>3.2 Graphs of Functions Due 6/27</li><li>3.3 Applications of Linear Functions Due 6/27</li></ul>
	6/26	3.4 Quadratic Functions and Applications Due 6/28

- Quiz 4 (3.1, 3.3, 3.4) (online MyLab Math) Due 6/28
- 6/27 3.5 Polynomial Functions Due 6/293.6 Rational Functions Due 6/29

# \*\*\*\*\* W-Day is Monday, June 30 \*\*\*\*\*

5	6/30	<ul><li>4.1 Exponential Functions Due 7/1</li><li>4.2 Applications of Exponential Functions Due 7/1</li></ul>
	7/1	<ul> <li>4.3 Logarithmic Functions Due 7/1</li> <li>4.4 Logarithmic and Exponential Equations Due 7/1</li> <li>Review for Exam 4 Due 7/2 (before Exam 4 is taken)</li> </ul>
	7/2	<b>Exam 4 (3.1 – 4.4) (online MyLab Math) Due 7/2</b> Review for Comprehensive Final Exam Due 7/3 (before the Final Exam is taken)
	7/3	Comprehensive Final Exam (online MyLab Math) Due 7/3
	7/4	HOLIDAY

# The syllabus is subject to change at the discretion of the instructor.

### **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: <u>AccessibilityServices@com.edu</u> 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 1<sup>st</sup> 5-week session is June 30. The last date to withdraw from the 10-week session is July 29. The last date to withdraw for the 2<sup>nd</sup> 5-week session is August 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 <u>https://www.com.edu/community-resource-center/</u>. 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 <u>deanofstudents@com.edu</u> or <u>communityresources@com.edu</u>.

#### **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.