



Math 1332.001IN
Quantitative Reasoning
Summer 2023
Online

Instructor Information: Sandra Coleman, scoleman11@com.edu, 409-933-8211

Student hours and location: Monday from 10:00-11:00 in [TEAMS](#) or by appointment

Required Textbook/Materials: You have purchased access to MyLab Math with your tuition. Multiple resources are available within this software package including a digital textbook and all course assignments. A hard copy of the textbook is not required. The textbook for this course is: A Survey of Mathematics with Applications, 11th edition with integrated review by Angel, Abbott, and Runde published by Pearson Education in 2021.

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

Course requirements:

- **Videos:** Video assignments will be given each week for every section covered in this course. Watching the required videos will count as 1% of your grade.
- **Homework:** Homework assignments will be given each week for every section covered in the course. Homework assignments will count as 9% of your final grade.
- **Quizzes:** Six 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 15% of your grade.
- **Final Exam:** The comprehensive final exam will be given at the end of the course. The final exam will count as 15% of your grade and will replace your lowest exam grade if it is higher.
- **Discussions:** Participation in four discussion forums is required to give students opportunities to exchange and clarify ideas. Cumulatively, these will count as 5% of your grade.

Required Technology: A calculator is required for this course, and a graphing calculator, like the TI-84+, is recommended. Internet capability is also required to gain access to course materials and online assignments via MyLab Math software.

Determination of Course Grade/Detailed Grading Formula:

Grading Formula:

$$\text{Final Average} = .60(\text{Exam Average}) + .15(\text{Final Exam}) + .01(\text{Videos}) \\ + .09(\text{Homework}) + .10(\text{Quizzes}) + .05(\text{Discussions})$$

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: Your final exam grade will replace your lowest test grade. If you neglect to take a test by its due date, this grade will be the one replaced unless you have prior instructor approval to makeup this test at an alternate time. The late penalty for past due assignments is 20% of your grade. Occasionally, extra credit points will be offered to the entire class; however, individually, extra credit assignments will not be available.

Attendance Policy: Students at COM are expected to participate every week for which they are registered. Per COM policy, students are required to log on to their course at least twice per week, but it may be necessary to log on more times each week to complete the assignments required of this course. 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.

I have established a *Virtual Office* within the course that can be used to ask questions about the course and to clarify assignments. I will try to answer any questions posted within the *Virtual Office* within the same day. Please use email for concerns of a personal nature. I will respond to your email as quickly as possible (usually within 12 hours).

Table Mapping SLO's and Core Objectives

Student Learner Outcomes	SLO assessed via this assignment	SLO maps to Core Objective	Core Objective assessed via this assignment
Apply the language and notation of sets.	Quiz 1	Critical Thinking Skills (CT)	Question on Test 1
Determine the validity of an argument or statement and provide mathematical evidence.	Quiz 2		
Solve problems in mathematics of finance.	Quiz 6	Communication Skills (CS)	Question on Test 4
Demonstrate fundamental probability/counting techniques and apply those techniques to solve problems.	Quiz 3		
Interpret and analyze various representations of data.	Quiz 4	Empirical and Quantitative Skills (EQS)	Question on Test 3
Demonstrate the ability to choose and analyze mathematical models to solve problems from real-world settings, including, but not limited to, personal finance, health literacy, and civic engagement.	Quiz 5		

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 Conduct. Any student found to have been academically dishonest on an assignment, quiz, or exam may 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 Math and Computer Science Department Chair, Prof. Richardson, at (409) 933-8329 or at richardson@com.edu.

Course outline:

Week	Sections	Due Date
1	2.1 Set Concepts	July 16
	2.2 Subsets	
	2.3 Venn Diagrams and Set Operations	
	2.4 Venn Diagrams with Three Sets and Verification of Equality of Sets	
	2.5 Application of Sets	
	Quiz 1 Due (Section 2.5)	
	3.1 Statements and Logical Connectives	
	3.2 Truth Tables for Negation, Conjunction, and Disjunction	
	3.3 Truth Tables for Conditional and Biconditional	
	3.4 Equivalent Statements	
	Quiz 2 Due (Sections 3.2 - 3.4)	
	Discussion 1 (D2L)	
	Review for Exam 1	
2	Exam 1 (Sections 2.1 - 3.5)	July 19
	11.1 Empirical and Theoretical Probability	
	11.2 Odds	
	11.4 Tree Diagrams	
	11.5 OR and AND Problems	
	11.6 Conditional Probability	
	Discussion 2 (D2L)	
Review for Exam 2		
July 17-23	11.3 Probability Addition Rule	July 23
	11.4 Tree Diagrams	
	11.5 OR and AND Problems	
	11.6 Conditional Probability	
	Discussion 2 (D2L)	
	Review for Exam 2	
	Review for Exam 2	
3	Exam 2 (Sections 11.1 - 11.6)	July 26
	11.7 The Counting Principle and Permutations	
	11.8 Combinations	
	11.9 Solving Probability by Using Combinations	
	Quiz 3 Due (Sections 11.1, 11.5 - 11.9)	
	11.10 Binomial Probability Formula	
	12.2 Frequency Distributions and Statistical Graphs	
	12.3 Measures of Central Tendency	
	12.4 Measures of Dispersion	
	Quiz 4 Due (Section 12.2)	
	Discussion 3 (D2L)	
Review for Exam 3		
July 24-30	12.1 Probability Distributions	July 30
	12.2 Frequency Distributions and Statistical Graphs	
	12.3 Measures of Central Tendency	
	12.4 Measures of Dispersion	
	Quiz 4 Due (Section 12.2)	

Week	Sections	Due Date
4 July 31- Aug. 6	Exam 3 (Sections 12.2 - 12.5)	Aug. 2
	10.1 Percent	
	6.10 Functions and Their Graphs	Aug. 6
	10.2 Personal Loans and Simple Interest	
	10.3 Compound Interest	
	Quiz 5 Due (Sections 10.1 - 10.3, 6.10)	
	10.4 Installment Buying	
	10.5 Buying a House with a Mortgage	
	Quiz 6 Due (Sections 10.2 - 10.5)	
	Discussion 4 (D2L)	
Review for Exam 4		
5 Aug. 7- 11	Exam 4 (Sections 6.2, 6.3, 6.10, and 10.1 – 10.5)	Aug. 9
	Review for Final Exam	Aug. 11
	Final Exam (Comprehensive)	

****W-Day: August 4, 2023****

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 [Student Handbook 2022-2023 v4.pdf \(com.edu\)](#). *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 June 30. The last date to withdraw from the 10-week session is July 31. The last date to withdraw for the 2nd 5-week session is August 4.

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.