



Math 1332.001IN
Quantitative Reasoning
Spring 2023
Online Course

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

Student hours and location: MW 10:30 am – 11:00 am, 2:00 pm – 5:00 pm
TTh 9:00 am – 9:30 am

All student hours are in my office, STE 325-08 in the STEAM building.

Required Textbook: *A Survey of Mathematics With Applications*, 11th edition, by Angel, Abbot, and Runde, Pearson Education, 2017. Students new to online learning at COM can register for the Online Learner Workshop on Demand module. Learn how to access the training at <http://edtech.com.edu/olw/> Textbooks and/or courseware will be available through VitalSource digitally. 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 for this course.

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.

Course requirements:

Discussion Forums on MyLab Math: Discussion forums will be assigned four times throughout the course to give students the opportunity to exchange and clarify ideas. Students are asked to answer one or more questions as thoroughly as possible, and then to comment on at least two of their classmates' responses to the questions.

Homework Assignments on MyLab Math: 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 and on the list of assignments on MyLab Math. Twenty (20) percent will be deducted from the score of a homework assignment if it is finished after the time it is due. 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 MyLab Math. Although the homework is online at mymathlab.com, 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 notes for future reference, both as an 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. The student has a limit of five attempts to answer a question correctly on the homework assignments.

Quizzes on MyLab Math: Six quizzes, which relate to the student learning outcomes, will be done 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.

Chapter Exams on MyLab Math: There are four exams which cover the chapters in the text book. The exams are taken on MyLab Math and are to be finished by the due dates shown on the course outline in this syllabus and on the assignment list on MyLab Math. The student has two hours to take each exam. Like the quizzes, the exams must be taken in one sitting, and the student gets only one attempt to answer each question. 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.

Comprehensive Final Exam on MyLab Math: The comprehensive final exam is taken on MyLab Math and must be finished by the due date shown on the course outline in this syllabus and on the assignment list on MyLab Math. The student has two hours to complete the final exam. The final exam must be taken in one sitting, and the student gets only one attempt to answer each question. The final exam may not be retaken.

Determination of Course Grade:

Comprehensive Final Exam	20%
Average of Chapter Exams	60%
Discussion Forums	5%
Homework Average	7%
<u>Quiz Average</u>	<u>8%</u>
Final Average	100%

Grade I: Given unforeseen circumstances that result in the student's inability to successfully complete the course objectives, an I-Contract may be requested from the instructor assuming the following criteria have been met:

1. Have a passing overall average (70 or higher)
2. All work 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, and Extra-Credit Policy: There is a twenty (20) percent 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 related exam will be given a grade of zero at the time the exam is given.

There are no make-up exams unless:

- 1) the student notifies the instructor before the exam due date that they will miss the exam, and
- 2) the reason for the requested make-up exam is extraordinary.

Three points extra credit is given on exams if the student earns a score of 95 or better on the review. Extra-credit assignments may also be given throughout the course at the discretion of the instructor. It is never given at the end of the semester to bring up a poor grade. Do not even ask.

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

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. Be sure to include your name, the course in which you are enrolled, and state your question completely. I do not reply to text messages, so do not bother with them.

Table Mapping SLO's and Core Objectives

Student Learner Outcome	Maps to Core Objective	Assessed via this Assignment
1. Apply the language and notation of sets.	Communication Skills	Quiz 1
2. Determine the validity of an argument or statement and provide mathematical evidence.	Critical Thinking Skills	Quiz 2
3. Solve problems in math of finance.	Critical Thinking Skills	Quiz 6
4. Demonstrate fundamental probability and counting techniques and apply those techniques to solve problems.	Emperical and Quantitative Skills	Quiz 3
5. Interpret and analyze various representations of data.	Critical Thinking Skills	Quiz 4
6. Demonstrate the ability to choose and analyze mathematical models to solve problems from real-world settings, including personal finance, health literacy, and civic engagement.	Critical Thinking Skills	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 dishonest (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 be 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 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 lrichardson@com.edu.

Course Outline:

<u>Week</u>	<u>Date</u>	<u>Assignments</u>
1	1/16	HOLIDAY
	1/17	Orientation Homework Due 1/20 Discussion Forum <u>Introduce Yourself</u> Due 1/20
	1/18	2.1 Set Concepts Due 1/20 2.2 Subsets Due 1/22 2.3 Venn Diagrams and Set Operations Due 1/22
2	1/23	Discussion Forum <u>Sets and Subsets</u> Due 1/27 2.4 Venn Diagrams with Three Sets and Verification of Equality of Sets Due 1/27
	1/25	2.5 Application of Sets Due 1/29 Quiz 1 (Section 2.5, SLO 1) Due 1/29
3	1/30	3.1 Statements and Logical Connectives Due 2/3
	2/1	3.2 Truth Tables for Negation, Conjunction, and Disjunction Due 2/5
4	2/6	3.3 Truth Tables for the Conditional and Biconditional Due 2/10
	2/8	3.4 Equivalent Statements Due 2/12 Quiz 2 (Section 3.2, 3.3, 3.4, SLO 2) Due 2/12 Review for Exam 1 Due 2/12
5	2/13	Exam 1 (2.1 – 3.4) Due 2/13 11.1 Empirical and Theoretical Probabilities Due 2/17
	2/15	11.2 Odds Due 2/19

- 6 2/20 **Discussion Forum Probability and Odds Due 2/24**
 2/22 11.3 Expected Value Due 2/24
 2/22 11.4 Tree Diagrams Due 2/26
- 7 2/27 11.5 OR and AND Problems Due 3/3
 3/1 11.6 Conditional Probability Due 3/5
 Review for Exam 2 Due 3/5
- 8 3/6 **Exam 2 (11.1 – 11.6) Due 3/6**
 11.7 The Counting Principle and Permutations Due 3/10
- ***** SPRING BREAK *****
- 9 3/20 11.8 Combinations Due 3/24
 3/22 11.9 Solving Probability Problems Using Combinations
 Due 3/26
 Quiz 3 (Section 11.1, 11.5, 11.6, 11.7, 11.8, 11.9, SLO 4)
 Due 3/26
- 10 3/27 **Discussion Forum Combinations & Permutations Due 3/31**
 11.10 Binomial Probability Formula Due 3/31
 3/29 12.2 Frequency Distributions and Statistical Graphs Due 4/2
 Quiz 4 (Section 12.2, SLO 5) Due 4/2
- 11 4/3 12.3 Measures of Central Tendency Due 4/6
 4/5 12.4 Measures of Dispersion Due 4/6
 Review for Exam 3 Due 4/6
 4/7 HOLIDAY
- 12 4/10 **Exam 3 (11.7 – 12.4) Due 4/10**
 6.2, 6.3, 6.10 Formulas, Applications of Algebra, Functions
 Due 4/14
 4/12 10.1 Percent Due 4/16
- 13 4/17 10.2 Personal Loans and Simple Interest Due 4/21
 4/19 10.3 Compound Interest Due 4/23
 Quiz 5 (Section 10.1, 10.2, 10.3, 6.10, SLO 6) Due 4/23

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| 14 | 4/24
4/26 | 10.4 Installment Buying Due 4/28
10.5 Buying a House with a Mortgage Due 4/30
Quiz 6 (Section 10.2, 10.3, 10.4, 10.5, SLO 3) Due 4/30
Review for Exam 4 Due 4/30 |
| 15 | 5/1 | Exam 4 (6.2, 6.3, 6.10, 10.1 – 10.5) Due 5/1
Review for Comprehensive Final Exam Due 5/7 |
| 16 | 5/8 | Comprehensive Final Exam Due 5/8 |

***** The last date to withdraw is Monday, 4/24/2023 *****

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 [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 8-week session is March 1. The last date to withdraw from the 16-week session is April 24. The last date to withdraw for the 2nd 8-week session is May 3.

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 <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.