Math 1332.001IN
Quantitative Reasoning
Spring 2024
Online Course

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

Student hours and location: MW 10:00 am – 11:00 am in ST325-08
MW   2:00 pm –   3:00 pm in Tutoring Center
MW   4:15 pm –   5:00 pm in ST325-08
TTh   8:30 am –   9:30 am in ST325-08
Math 1332.001IN will have Virtual Office Hours on Microsoft Teams on MW from 9:30 am – 10:30 am.

Required Textbook: A Survey of Mathematics With Applications, 11th edition, by Angel, Abbot, and Runde, Pearson Education, 2022. 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 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 assigned questions **on *MyLab Math***. Two due dates are given on the course outline. The first is the due date for the student's answers to the questions. The second is the due date for the student's responses to answers given by two of their fellow students. These due dates are firm.

Homework Assignments on *MyLab Math*: There is a homework assignment for each unit covered. These are listed on the course outline in the syllabus 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 reading the appropriate section in the text book, and watching the associated video(s) 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 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 professor, your peers, or the college tutoring center. The student has a limit of **3** 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 given 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 about using MyLab Math on page 2 of the Orientation Notes. The Orientation Notes can be found among the major tabs for this course on Brightspace D2L. Failing to follow the suggestions presented in that document can cause a quiz or an 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 that has been terminated.

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. Unlike the quizzes, 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%
Quiz Average	8%
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:
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 due.

Make-Up Exams: 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, 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.

Extra Credit: 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: As an online student, you are expected to log on to *MyLab Math* and complete the assigned work a <u>minimum of two times per week</u>. For most students, it will be necessary to participate in the activities on *MyLab Math* more frequently than twice per week to succeed. A student who fails to meet the <u>minimum</u> participation requirement should refer to the section in the syllabus entitled "F$_N$ Grading."

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.

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:

Week	Date	Assignments
1	1/15	HOLIDAY
	1/16	Orientation Homework Due 1/19
		Discussion Forum <u>Introduce Yourself</u> Due 1/19, 1/26
	1/17	2.1 Set Concepts Due 1/21
		2.2 Subsets Due 1/21
2	1/22	2.3 Venn Diagrams and Set Operations Due 1/26
		Discussion Forum <u>Sets and Subsets</u> Due 1/26, 2/2
	1/24	2.4 Venn Diagrams & Verification of Equality of Sets Due 1/28
		2.5 Application of Sets Due 1/28
		Quiz 1 (Section 2.5) Due 1/28
3	1/29	3.1 Statements and Logical Connectives Due 2/2
	1/31	3.2 Truth Tables Negation Conjunction & Disjunction Due 2/4
4	2/5	3.3 Truth Tables Conditional and Biconditional Due 2/9
	2/7	3.4 Equivalent Statements Due 2/11
		Quiz 2 (Section 3.2, 3.3, 3.4) Due 2/11
		Review for Exam 1 Due 2/12
5	2/12	**Exam 1 (2.1 – 3.4) Due 2/12**
		11.1 Empirical and Theoretical Probabilities Due 2/16
	2/14	11.2 Odds Due 2/18
6	2/19	**Discussion Forum <u>Probability and Odds</u> Due 2/23, 3/1**
		11.3 Expected Value Due 2/23
	2/21	11.4 Tree Diagrams Due 2/25
7	2/26	11.5 OR and AND Problems Due 3/1
	2/28	11.6 Conditional Probability Due 3/3
		Review for Exam 2 Due 3/4
8	3/4	**Exam 2 (11.1 – 11.6) Due 3/4**
	3/6	11.7 The Counting Principle and Permutations Due 3/8

********** SPRING BREAK **********

9	3/18	11.8 Combinations Due 3/22
	3/20	11.9 Solving Probability Problems Using Combinations Due 3/24
		Quiz 3 (Section 11.1, 11.5, 11.6, 11.7, 11.8, 11.9) Due 3/24

10	3/25	**Discussion Forum <u>Combinations & Permutations</u> Due 3/29, 4/5**
		11.10 Binomial Probability Formula Due 3/29
	3/27	12.2 Frequency Distributions and Statistical Graphs Due 3/31
		Quiz 4 (Section 12.2) Due 3/31

11	4/1	12.3 Measures of Central Tendency Due 4/5
	4/3	12.4 Measures of Dispersion Due 4/7
		Review for Exam 3 Due 4/8

12	4/8	**Exam 3 (11.7 – 12.4) Due 4/8**
	4/10	6.2, 6.3, 6.10 Formulas, Applications of Algebra, Functions Due 4/14
		10.1 Percent Due 4/14

13	4/15	10.2 Personal Loans and Simple Interest Due 4/19
	4/17	10.3 Compound Interest Due 4/21
		Quiz 5 (Section 10.1, 10.2, 10.3, 6.10) Due 4/21

*****   The last date to withdraw is Tuesday, 11/28/2023   *****

14	4/22	10.4 Installment Buying Due 4/26
	4/24	10.5 Buying a House with a Mortgage Due 4/28
		Quiz 6 (Section 10.2, 10.3, 10.4, 10.5) Due 4/28

| 15 | 4/29 | Review for Exam 4   Due 5/1 |
| | 5/1 | **Exam 4 (6.2, 6.3, 6.10, 10.1 – 10.5)   Due 5/1** |

| 16 | 5/6 | Review for Comprehensive Final Exam   Due 5/8 |
| | 5/8 | **Comprehensive Final Exam   Due 5/8** |

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_20232024_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 February 28. The last date to withdraw from the 16-week session is April 22. The last date to withdraw for the 2nd 8-week session is May 1. The last date to withdraw for spring mini session is May 29.

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.