

Quantitative Reasoning Spring 2024 STEAM Bldg., Room 103 M/W: 2:00-3:20 pm

Instructor Information: Mrs. Allison

Email: tallison@com.edu

Include your course & section in the subject line when emailing. I usually do not review emails after 5pm. Office phone: 409-933-8369, 1-888-258-8859 extension 8369 Office: STEAM Bldg., Suite 325, room 12

Student Hours (Office Hours); Location: STEAM 325-12

- 1. 11:35 am-12:20 pm; Mon-Thurs.
- 2. 3:45-4:15 pm, Monday/Wednesday
- 3. 1:45-3:30 pm, Tuesday/Thursday

Required Textbook/Materials

1. <u>A Survey of Mathematics With Applications</u>, 11th edition, by Angel, Abbot, and Runde, Pearson Education

Textbook Purchasing Statement: E-Book is contained within MyLab Math in Brightspace - D2L.

2. Access to a desktop computer or laptop and internet service outside of class are required to do the online assignments. Computers and internet access are available on campus during specified times. Some devices like iPads/tablets, Chromebooks, and cellphones present problems with gaining access to online MyLab Math assignments. Due to this, do not use these devices when taking an online quiz. Note: MyLab Math generally does not like Safari. Download Chrome or Firefox if you have an Apple computer.

3. *MyLab Math (MLM)* contained within Brightspace is **required** for this class. Opting out of this required component means your homework and online quiz averages will be zeros.

4. A **TI-30XIIS calculator** is required for this course. *TI-30XA calculator is NOT appropriate for this course since it requires a different combination of keystrokes. Graphing calculators and unapproved calculators are not permitted when testing.*

5. A free PDF converter app or a printer that can scan documents is needed to submit some assignments/scratch work, etc.

6. Links to weekly handouts starting after the first week will be made available usually the afternoon of each Friday within Brightspace for the following week. Printout the handouts and bring these printouts for the week to class.

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:

MyLab Math (MLM) Online Assignments- Go to your Brightspace course.

You can **access D2L Brightspace at COM** at <u>http://com.brightspace.com</u>. You can also access D2L by going to COM's homepage at <u>http://www.com.edu</u>, scroll down to the bottom of the page, and click on the button for D2L Brightspace. Once you gain access within Brightspace, you are

required to successfully complete an online orientation within MLM before the online assignments will appear. MLM assignments include homework and several online quizzes, and the deadlines for each are provided within MLM. The online homework includes homework from each section and test reviews. To help you be better prepared for a testing environment, most study aids are not available for *MyLab Math* homework test reviews. If you opt out of *MyLab Math*, your recorded homework and online quiz grades will be zeros.

MLM Online Quizzes- Go to your Brightspace course and locate MyLab Math.

Online quizzes must be completed in <u>one sitting and are timed</u>. You cannot exit the quiz and come back to it as you can with homework. When you have answered all the questions, click submit quiz and the quiz will be graded online with your grade being posted to your gradebook of *MyLab Math*. To see your gradebook, click on the Gradebook button within *MyLab Math*, and you can see the scores for all assignments attempted as well as your current average. You can retake each online quiz once to improve your score if the deadline is met **AND** a score of at least 75 is obtained on the sections covered on the quiz. When an online quiz is retaken, the higher quiz grade is used in calculating your overall average. Reviewing a submitted online quiz is only available immediately after submitting. *Some devices like iPads/tablets, Chromebooks, and cellphones present problems with gaining access to online MyLab Math assignments. Due to this, do not use these devices when taking an online quiz.* Any email correspondence concerning any technical difficulties with your MLM quiz must be received before 5pm of the deadline, and this alone does not guarantee that the quiz will be reopened or made available. Plan ahead and start the quizzes early to assist with your success in the class.

MyLab Math (MLM) Homework – Go to your Brightspace course and locate MyLab Math.

There is an assigned homework for each section and each test review.

- 1. To help you be better prepared for a testing environment, most study aids are not available for *MyLab Math* homework test reviews.
- 2. Enter your answers then click the CHECK ANSWER button.
- 3. If needed, click the SIMILAR EXERCISE button to redo the exercise. Note: You should strive to score at least 80% before moving on to the next section.
- 4. If the submitted answer is correct, click on the SAVE button to send your results to the gradebook. Your grade will show up in the GRADEBOOK and will be automatically accessible by your instructor.
- 5. Click on the next question to continue.

Please note that personal computer problems do not excuse the requirement to complete all coursework in a timely and satisfactory manner. If at any time you experience technical problems with your *MLM* account, please contact Pearson's Customer Technical Support immediately.

Other Homework Assignments:

Other homework assignments besides *MyLab Math* will be given during the semester. To receive credit for the questions, follow instructions and show incremental, organized, and legible work. In addition, use a pencil to show work, and methods used to solve must match the instructions stated in the problem. A few homework assignments besides *MyLab Math* must be scanned and converted to a single PDF file (using a PDF converter app on your smartphone or a printer at the college) and uploaded to Brightspace. The deadline for each assignment must be met and no retakes are provided. If the homework assignment is not submitted or is not submitted by the deadline, a grade of zero will be recorded for the assignment.

Other Quizzes:

Other quizzes besides *MyLab Math* may be given during the class period. The quizzes can be announced or unannounced and will consist of information contained in homework, textbook, and/or class lectures. To receive credit for the questions, follow instructions and show incremental, organized, and legible work. In addition, use a pencil to show work, and methods used to solve must match the instructions stated in the problem. In-class quizzes are during designated times of the class period and cannot be made up, but the grade from the chapter exam that coincides with the section(s) covered on the quiz will replace the quiz grade if the chapter exam grade is better. Arrive on time to class to ensure you have an opportunity to take the quiz.

Exams:

Four tests plus a comprehensive final will be given. To receive credit for problems, work provided on the tests/quizzes must justify answers using incremental steps. Use a pencil to show work, and tests and quizzes must be finished within the allotted time. Due to departmental policies, you are not allowed to complete tests in a testing facility beyond the allotted class time. There are no retakes on any of the exams.

Being able to use a computer and gain access to the internet is necessary to complete the required online assignments and to have access to test reviews.

Determination of Course Grade/Grading Formula

Homework Average	10%
Quiz Average	10%
Chapter Test Average	64%
Final Exam	16%

(Retaking the placement test does not affect your grades in this course. Your grade will be based on the information outlined above.)

Grading Scale

Grade A: Final average of 90 through 100

Grade B: Final average of 80 through 89

Grade C: Final average of 70 through 79

Grade D: Final average of 60 through 69

Grade F: Final average below 60

Your individual assignment grades and overall average will be located within your MLM Course Gradebook, NOT Brightspace's gradebook.

Late Work, Make-Up Policy, & Extra-Credit Policy

Homework- Start on your assignments early to have enough time to practice, study, learn the information, and meet deadlines. In some situations, depending on how close the *MyLab Math* homework deadline is to the exam, you can work past the deadline with a 20% penalty. The final deadline for working past the deadline for online homework is usually the day before the exam by 11:59 p.m. Only rework or do problems that were not completed successfully by the deadline, because the 20% penalty applies to any problem worked after the deadline. Work problems in the IMPROVE GRADE mode, not REVIEW mode. The REVIEW mode will not change your grade for the section. This is not a self-paced class, so deadlines are put into place to assist you with an appropriate pace to promote a productive learning environment.

Other Homework Assignments- The deadline for each homework assignment must be met and no retakes are provided. If the homework assignment is not submitted or is not submitted by the deadline, a grade of zero will be recorded for the homework assignment grade.

Quizzes- You cannot make up a quiz. Also, outside assignments may be given for a quiz grade. A specified deadline will be given, and you will not be allowed to submit late. If the quiz assignment is not submitted or is not submitted by the deadline, a grade of zero will be recorded for the quiz assignment grade.

Tests- As a general rule, there are no make-up exams. A make-up exam will only be allowed at the discretion of the instructor and only under extenuating circumstances and is limited to one make-up chapter exam. If it is necessary to miss an exam:

- 1. You are required to petition the instructor in writing using your COM email **<u>before</u>** the exam is given to be considered for a make-up exam.
- 2. At the time of this request, you must have at least a 75% homework average.

3. Only extenuating circumstances of a serious nature that are documented will be considered. Realize not being prepared for the exam is not a legitimate reason for a make-up exam nor is scheduling work/appointments/vacations during the class period. All other missed tests will be assigned a zero, and the zero(s) will be used to calculate overall grade in course.

This course most likely will not have any extra credit, so practice, study adequately, learn the information, and meet deadlines for the assignments you do have.

Attendance Policy: Students at COM are expected to attend and participate in every session of all classes for which they are registered. Regular attendance is a critical component to being successful in courses. Students should consult with their instructors when it becomes necessary to miss a class. Students are required to attend all classes. College of the Mainland recognizes no excused absences other than those prescribed by law.

To aid in a successful semester for a face-to-face math class, attendance and being engaged by actively participating to gain knowledge through class discussions and taking detailed and organized notes is essential. Students are not considered to be actively engaged when missing any part of a class and/or when their attention is directed to other sources. Because of this, students will be counted absent when:

1. Arriving to class 15 minutes late or later,

2. Taking break(s) during the class period for a significant amount of time or taking multiple breaks,

3. Sleeping during the class period,

4. Leaving early (15 minutes or longer), and/or

5. Using cellphone(s) and/or earbuds/headsets during the class period since students are expected to have a productive workspace and be engaged with the class discussions to aid students in having an environment that is conducive to optimal learning. *You are also required to have a TI-30XIIS calculator, so using your cellphone to do calculations is not acceptable.*

You cannot make-up classes, and it is your responsibility to be punctual and regular at attending class. If you find that you are having trouble arriving on time, adjust your schedule accordingly. Also, please be advised that it is **your** responsibility to get caught up when a class is missed.

In addition to time spent doing homework, taking quizzes and exams, it will be necessary to study, using the course materials, at least 4 hours per week to be successful in the class.

If the 1332 homework assignments due on January 20th have not been attempted, an Early Alert referral will be submitted. You risk being dropped from the class if you have not completed assignments within 10 calendar days or have missed taking an exam without prior approval by instructor or extenuating circumstances. Review information contained under make-up policy.

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 will respond to your email as quickly as possible (usually within 24 hours). I usually do not review my work email after 5pm during weekdays. *I recommend downloading the Outlook app on your smartphone for easy access to COM email and to check your COM email at LEAST once per day.*

Student Learner Outcomes and General Education Core Objectives

This course will address the following core objectives:

- **Critical Thinking Skills**: to include creative thinking, innovation, inquiry, analysis, evaluation and synthesis of information;
- **Communication Skills**: to include effective development, interpretation and expression of ideas through written, oral and visual communication;
- Empirical and Quantitative Skills: to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

St	udent Learner Outcomes	Maps to Core Objective	Assessed via this Assignment
1.	Apply the language and notation of sets.	Critical Thinking Skills (CT)	Question on Test 1
2.	Determine the validity of an argument or statement and provide mathematical evidence.		
3.	Solve problems in mathematics of finance.	Communication Skills (CS)	Question on Test 4
4.	Demonstrate fundamental probability/counting techniques and apply those techniques to solve problems.		
5.	Interpret and analyze. various representations of data.	Empirical and Quantitative Skills (EQS)	Question on Test 3
6.	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.		

Table Mapping SLO's and Core Objectives

The Core Objective Skills will be assessed this semester.

Academic Dishonesty: College of the Mainland is committed to a high standard of academic integrity. All students are responsible for honesty and independent effort. Any student found to have been academically dishonest on an assignment, quiz or exam will receive a zero for that assignment without the option to retake and the zero(s) will be used in the overall calculations at the end of the semester. Also, using any electronic device other than an approved calculator on a quiz or test will be considered cheating.

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

Additional Policies

Unattended Minors/Children in Class

For their safety, unattended minors of students are not permitted on campus while students are in class. In consideration of fellow classmates and staff, please do not bring children to class.

Productive Workplace

Students are expected to bring all tools necessary for success to class every day. These tools include writing implements, notebook/note paper, weekly handouts, and an approved calculator. All other items (backpacks, purses, bags, laptops, etc.) must be placed between your feet. Before class starts, headsets/wireless earbuds and cellphones are to be placed in your backpack/bag, and laptops are to be turned off and not visible on your workspace/desk.

Classroom Conduct Policy

Arriving on time, staying the entire class period, eliminating distractions like cellphones, using appropriate language (no cursing), respecting your classmates and the instructor, and cleaning up after yourself are all expectations for students in the classroom. Please abide by these expectations so that the class setting is enjoyable for all students. Regarding cell phones, they should be turned off or set on airplane mode and in your backpack/purse (not on your desk). It is extremely disruptive to the learning environment, so you will be asked to leave if it is a continuous problem. Infractions may result in an automatic withdrawal from the class. Cell phones <u>cannot</u> be used during tests or quizzes and refer to testing policies for additional information. Please notify me before class if you have an emergency that requires you to answer your phone during class. Take an emergency phone call outside of the classroom.

Recording of Class

Students may not record all or part of class and/or all or part of a livestream without advanced written consent of the instructor. If you have or think you may have a disability such that you need to record class-related activities, please contact the Student Disability Services. If you have an accommodation to record class-related activities, those recordings may not be shared with any other student, whether in this course or not, or with any other person or on any other platform. If any instructor's recordings are provided by the instructor, students may use instructor's recordings for their own studying and notetaking. Instructor's recordings are not authorized to be shared with anyone without the prior written approval of the instructor. Failure to comply with requirements regarding recordings may result in a disciplinary referral and/or disciplinary action.

Testing Policy

Prohibited devices include, but are not limited to:

- Cell phones; smart phones; smart watches
- Audio players/recorders, tablets, laptops, notebooks, or any other personal computing devices
- Separate timers
- Cameras or any other photographic equipment
- Any devices, including digital watches, that can be used to record, transmit, receive, or play back audio, photographic, text, or video content.

If your device makes a sound or is in your possession when the device goes off, you may be dismissed, and your score may be recorded as a zero. <u>If you leave the classroom at any time</u> <u>during an exam, the exam must be submitted for grading.</u> If you are not feeling well, let me know in advance of distributing the exam and the exam will be given one page at a time. Therefore, it is strongly advised that students take care of all personal business prior to entering the classroom to take an exam.

<u>Also, using any electronic device other than an approved calculator on a quiz or test will be</u> <u>considered cheating</u>.

Tips for Success

1. Believe that you can be successful!

2. Treat this class as if it were your full-time job.

3. Schedule regular study time, daily if possible, and be diligent with it.

4. Attend each and every class period being punctual and attentive in class. Take detailed, organized notes.

5. Participate in class in a nondisruptive manner.

6. Use your notes to complete the homework assignments and work the problems on notebook paper. Be diligent at understanding the process/steps used to solve the problems since the exams require you to justify your work in a logical, systemic manner.

7. Do all the homework assigned and additional problems if needed.

8. Work on the homework problems the same day as the lecture.

9. See a tutor or instructor before the next class period for the problems that cannot be completed.

10. Review sections that have already been completed after the assigned homework has been finished.

11. Complete the test review before class.

12. Complete the chapter test reviews, review the completed homework for that specific test, and work additional problems in a random order from the sections.

13. Read the questions carefully on the test.

14. Never leave a question blank.

15. Organize work neatly so steps can be easily followed.

16. Check work.

17. Avoid procrastinating and complete assignments quickly as unforeseen problems may arise.

Honor yourself...BE THE BEST YOU CAN BE

Tentative schedule

Week & Date	Sections Covered		Due
Week 1	<i>MyLab Math Orientation – 90% required to gain</i>		
Jan. 15, 17	access to homework.		
	Holiday	Jan. 15	

	2.1 Set Concepts	Jan. 17	Jan. 20
Week 2	Scavenger Hunt Homework Assignment-		Jan. 26
Jan. 22, 24	(Required to be upload in Brightspace)		
	2.2 Subsets	Jan. 22	Jan. 27
	2.3 Venn Diagrams and Set Operations	Jan. 22	Jan. 27
	2.4 Venn Diagrams with Three Sets and	Jan. 24	Jan. 27
	Verification of Equality of Sets		
Week 3	2.5 Application of Sets	Jan. 29	Feb. 3
Jan. 29, 31	Quiz 1 (Section 2.5)	1/29-2/1	
	3.1 Statements and Logical Connectives	Jan. 31	Feb. 3
	3.2 Truth Tables for Negation, Conjunction and	Jan. 31	Feb. 3
	Disjunction		
Week 4	3.3 Truth Tables for Conditional and Biconditional	Feb. 5	Feb. 10
Feb. 5, 7	3.4 Equivalent Statements	Feb. 5	Feb. 10
	<i>Quiz 2 (Sections 3.2 – 3.4)</i>	2/5-2/8	
	Review for Exam 1	Feb. 7	Feb. 11
Week 5	<u>Exam 1 (Sections 2.1 – 3.4) - Feb. 12</u>		
Feb. 12, 14	11.1 Empirical and Theoretical Probability	Feb. 14	Feb. 17
	11.2 Odds	Feb. 14	Feb. 17
Week 6	11.3 Expected Value	Feb. 19	Feb. 24
Feb. 19, 21	11.4 Tree Diagrams	Feb. 19	Feb. 24
	11.4 Tree Diagrams	Feb. 21	Feb. 24
	11.5 OR & AND Problems	Feb. 21	Mar. 2
Week 7	11.5 OR & AND Problems	Feb. 26	Mar. 2
Feb. 26, 28	11.6 Conditional Probability	Feb. 26	Mar. 2
	Review for Exam 2	Feb. 28	Mar. 3
Week 8	<u>Exam 2 (Sections 11.1 – 11.6)- Mar. 4</u>		
Mar. 4, 6	11.7 The Counting Principle and Permutations	Mar. 6	Mar. 9
Week 9	11.8 Combinations	Mar. 18	Mar. 23
Mar. 18, 20	11.9 Solving Probability by Using Combinations	Mar. 18	Mar. 23
	12.2 Frequency Distributions & Statistical Graphs	Mar. 20	Mar. 30
	Quiz 3 (Sections 11.7 – 11.9)	3/18-3/21	
Week 10	12.2 Frequency Distributions & Statistical Graphs	Mar. 25	Mar. 30
Mar. 25, 27	12.3 Measures of Central Tendency	Mar. 25	Mar. 30
	Quiz 4 (Section 12.2)	3/25-3/28	
	12.4 Measures of Dispersion	Mar. 27	Mar. 30
Week 11	Review for Exam 3	Apr. 1	April 2
Apr. 1, 3	Exam 3 (Sections 11.7-11.9, 12.2-12.4) – Apr. 3		
Week 12	6.2, 6.3, 6.10 Formulas, Applications of Algebra,	Apr. 8	Apr. 13
Apr. 8, 10	Functions and Their Graphs		
	6.10 Functions and Their Graphs	Apr. 10	Apr. 13
W/ 1.10	10.1 Percent	Apr. 10	Apr. 13
Week 13	10.2 Personal Loans and Simple Interest	Apr. 15	Apr. 20
Apr. 15, 17	10.3 Compound Interest	Apr. 15	Apr. 20
	10.4 L + 11 + D	Apr. 17	Apr. 20
	10.4 Installment Buying	Apr. 1′/	Apr. 20
	Quiz 5 (Sections 10.1 – 10.3, 6.10)	4/15-4/89	

Week 14	10.5 Buying a House with a Mortgage	Apr. 22	Apr. 27
Apr. 22, 24	Quiz 6 (Sections 10.2 – 10.5)	4/22-4/25	
	Review for Exam 4	Apr. 24	Apr. 28
Week 15	Exam 4 (Sections 6.2, 6.3, 6.10, 10.1-10.5–Apr.		
Apr. 29, May 1	<mark>29</mark>		
	Review for Final Exam	May 1	May 5
Week 16	Final Exam (Comprehensive)	May 6	
May 6, 8			

PLEASE NOTE: The syllabus is subject to change at the discretion of the instructor. W-Day – April 22, 2024 Census Day – January 31, 2024

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 <u>https://www.com.edu/student-services/docs/Student_Handbook_2023-2024_v2.pdf</u>. *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 <u>klachney@com.edu</u>. 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 <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>.