

## Math 1332.101CL Quantitative Reasoning Fall 2022

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. Office phone: 409-933-8369, 1-888-258-8859 extension 8369

Office: STEAM Bldg., Suite 315, room 12

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

1. 11:45 am-12:15 pm; Mon-Thurs.

2. 3:35-4:35 pm, Monday/Wednesday

3. 1:45-3:30 pm, Tuesday/Thursday

#### **Required Textbook/Materials**

1. <u>A Survey of Mathematics With Applications</u>, 10<sup>th</sup> edition with integrated review, by Angel, Abbot, and Runde, Pearson Education, 2017

**Textbook Purchasing Statement:** E-Book contained within *MyLab Math* via VitalSource in Brightspace - D2L (**No Purchase Necessary**)

- **2.** Access to a desktop computer or laptop and internet service outside of class are required to gain access to the required 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.
- 3. MyLab Math (MLM) contained within Brightspace is required for this class.
- **4.** A graphing or scientific calculator is required for this course. An TI-Nspire, TI-89 or higher graphing calculator cannot be used in this course.
- **5.** A free PDF converter app or a printer that can scan documents is needed to submit some assignments/scratch work, etc.

**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 <a href="http://com.brightspace.com">http://com.brightspace.com</a>. You can also access D2L by going to COM's homepage at <a href="http://www.com.edu">http://www.com.edu</a>, 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 <a href="https://www.com.edu">MyLab Math</a> homework test reviews. If you opted out of <a href="https://www.com.edu">MyLab Math</a> 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 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.

#### 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 *MyLab Math* 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% |
| <b>Chapter Test Average</b> | 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 the 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 online chapter test review is due. *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 exam. If it is necessary to miss an exam, you are required to petition the instructor **before** the exam is given to be considered for a make-up exam. 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 during the class period. **All other missed tests will be assigned a zero, and the zero(s) will be used to calculate final grade in course**.

This course mostly 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 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 would suggest logging in each day to complete the necessary assignments on time. In addition to time spent in 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 some of the 1332 homework assignments have not been attempted before Friday, August 26 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 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.

#### **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.

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

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 graphing and/or scientific 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 <a href="mailto:lichardson@com.edu">lrichardson@com.edu</a>.

#### **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, and an approved calculator. Food and drinks, except for bottled water, are not allowed in classrooms. All other items (backpacks, purses, bags, laptops, etc.) must be placed between your feet. In addition, headsets/wireless earbuds and cell phones are to be placed in your backpack, etc. before class starts.

#### Classroom Conduct Policy

Arriving on time, staying the entire class period, eliminating distractions like cell phones, 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 **cannot** 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.

#### **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 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.

# Also, using any electronic device other than an approved graphing and/or scientific calculator on a quiz or test will be considered cheating.

#### **Tips for Success**

- 1. Believe that you can be successful!
- 2. Treat this class as if it were your full-time job.
- 3. Schedule your study time and be diligent with it.
- 4. Attend each and every class period being punctual and attentive in class.
- 5. Print and bring appropriate handouts to class.
- 6. Participate in class in a nondisruptive manner.
- 7. Read the section before coming to class.
- 8. Do all the homework (online and other problems) assigned and additional problems if needed.
- 9. Work on the homework problems the same day as the lecture.
- 10. See a tutor or instructor before the next class period for the problems that cannot be completed.
- 11. Review sections that have already been completed after the assigned homework has been finished.
- 12. Start on the online test review before we review in class. (Realize we may not always have class time devoted to a review.)
- 13. Complete the chapter test reviews, review the completed homework for that specific test, and work additional problems in a random order from the sections.
- 14. Read the questions carefully on the test.
- 15. Never leave a question blank.
- 16. Organize work neatly so steps can be easily followed.

# 17. Check work.

18. 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       | MyLab Math Orientation – 90% required to gain     |                |          |
| Aug. 22, 24  | access to homework.                               |                |          |
|              | 2.1 Set Concepts                                  | Aug. 22        | Aug. 27  |
|              | 2.2 Subsets                                       | Aug. 24        | Aug. 27  |
| Week 2       | Scavenger Hunt Homework Assignment-               |                | Sept. 2  |
| Aug. 29, 31  | (Required to be upload in Brightspace)            |                |          |
|              | 2.3 Venn Diagrams and Set Operations              | Aug. 29        | Sept. 3  |
|              | 2.4 Venn Diagrams with Three Sets and             | Aug. 29        | Sept. 3  |
|              | Verification of Equality of Sets                  |                |          |
|              | 2.5 Application of Sets                           | Aug. 31        | Sept. 3  |
|              | Quiz 1 (Section 2.5)                              | 8/31-9/3       |          |
| Week 3       | ***Holiday***                                     |                |          |
| Sept. 5, 7   | 3.1 Statements and Logical Connectives            | Sept. 7        | Sept. 10 |
|              | 3.2 Truth Tables for Negation, Conjunction and    | Sept. 7        | Sept. 10 |
|              | Disjunction                                       |                |          |
| Week 4       | 3.3 Truth Tables for Conditional and              | Sept. 12       | Sept. 17 |
| Sept. 12, 14 | Biconditional                                     |                |          |
|              | 3.4 Equivalent Statements                         | Sept. 12       | Sept. 17 |
|              | Quiz 2 (Sections 3.2 – 3.4)                       | 9/14-9/17      |          |
|              | Review for Exam 1                                 | Sept. 14       | Sept. 17 |
| Week 5       | Exam 1 (Sections 2.1 – 3.4)                       | Sept. 19       |          |
| Sept. 19, 21 | 11.1 Empirical and Theoretical Probability        | Sept. 21       | Sept. 24 |
|              | 11.2 Odds   | Sept. 21       | Sept. 24 |
| Week 6       | 11.3 Expected Value                               | Sept. 26       | Oct. 1   |
| Sept. 26, 28 | 11.4 Tree Diagrams                                | Sept. 26       | Oct. 1   |
|              | 11.4 Tree Diagrams                                | Sept. 28       | Oct. 1   |
|              | 11.5 OR & AND Problems                            | Sept. 28       | Oct. 8   |
| Week 7       | 11.5 OR & AND Problems                            | Oct. 3         | Oct. 8   |
| Oct. 3, 5    | 11.6 Conditional Probability                      | Oct. 3         | Oct. 8   |
|              | Review for Exam 2                                 | Oct. 5         | Oct. 8   |
| Week 8       | Exam 2 (Sections 11.1 – 11.6)                     | <b>Oct.</b> 10 |          |
| Oct. 10, 12  | 11.7 The Counting Principle and Permutations      | Oct. 12        | Oct. 15  |
| Week 9       | 11.8 Combinations                                 | Oct. 17        | Oct. 22  |
| Oct. 17, 19  | 11.9 Solving Probability by Using Combinations    | Oct. 19        | Oct. 22  |
|              | 12.2 Frequency Distributions & Statistical Graphs | Oct. 19        | Oct. 29  |
|              | Quiz 3 (Sections 11.1, 11.5 – 11.9)               | 10/19-10/22    |          |
| Week 10      | 12.2 Frequency Distributions & Statistical Graphs | Oct. 24        | Oct. 29  |
| Oct. 24, 26  | 12.3 Measures of Central Tendency                 | Oct. 24        | Oct. 29  |
|              | Quiz 4 (Section 12.2)                             | 10/26-10/29    |          |
|              | 12.4 Measures of Dispersion                       | Oct. 26        | Oct. 29  |

| Week 11         | Review for Exam 3                                 | Oct. 31        | Nov. 1  |
|-----------------|---|----------------|---------|
| Oct. 31, Nov. 2 | Exam 3 (Sections 11.7 – 11.9, 12.2 – 12.4)        | Nov. 2         |         |
| Week 12         | 6.2, 6.3, 6.10 Formulas, Applications of Algebra, | Nov. 7         | Nov. 12 |
| Nov. 7, 9       | Functions and Their Graphs                        |                |         |
|                 | 6.10 Functions and Their Graphs                   | Nov. 9         | Nov. 12 |
|                 | 10.1 Percent                                      | Nov. 9         | Nov. 12 |
| Week 13         | 10.2 Personal Loans and Simple Interest           | Nov. 14        | Nov. 19 |
| Nov. 14, 16     | 10.3 Compound Interest                            | Nov. 14        | Nov. 19 |
|                 | 10.3 Compound Interest                            | Nov. 16        | Nov. 19 |
|                 | 10.4 Installment Buying                           | Nov. 16        | Nov. 19 |
|                 | Quiz 5 (Sections 10.1 – 10.3, 6.10)               | 11/16-11/19    |         |
| Week 14         | 10.5 Buying a House with a Mortgage               | Nov. 21        | Nov. 26 |
| Nov. 21, 23     | Quiz 6 (Sections 10.2 – 10.5)                     | 11/23-11/28    |         |
|                 | Review for Exam 4                                 | Nov. 23        | Nov. 29 |
| Week 15         | Review for Exam 4                                 | Nov. 28        | Nov. 29 |
| Nov. 28, 30     | Exam 4 (Sections 6.2, 6.3, 6.10, 10.1-10.5)       | <i>Nov. 30</i> |         |
| Week 16         | Review for Final Exam                             | Nov. 30        | Dec. 3  |
| Dec. 5, 7       | Final Exam (Comprehensive)                        | Dec. 7         |         |

**PLEASE NOTE:** The syllabus is subject to change at the discretion of the instructor. W-Day – November 18, 2022 Census Day – September 7, 2022

#### **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://build.com.edu/uploads/sitecontent/files/student-services/Student\_Handbook\_2019-2020v5.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. https://build.com.edu/uploads/sitecontent/files/student-services/Student\_Handbook\_2019-2020v5.pdf

**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 Michelle Brezina at 409-933-8124 or <a href="mailto:mvaldes1@com.edu">mvaldes1@com.edu</a>. 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 1<sup>st</sup> 8-week session is October 5. The last date to withdraw from the 16-week session is November 18. The last date to withdraw for the 2<sup>nd</sup> 8-week session is December 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 <a href="https://www.com.edu/community-resource-center/">https://www.com.edu/community-resource-center/</a>. 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 <a href="maintenance-deanoft-de