## MATH-0308-033IN: Foundations of Math Reasoning <br> Fall 2022 Semester <br> 8/22/2022-12/9/2022 <br> Internet, INT Internet Lecture

Instructor Information: Lakshmi Suresh, 1suresh@com.edu, 281-673-9569

Student hours and location: MW 11:00am - 2:00pm (by appointment) on Brightspace/D2L

Required Textbook/Materials: Minimally, you are required to purchase MyMathLab to access the e-text for the textbook and all course assignments. A hard copy of the textbook is recommended, but not required. The textbook for this course is: Prealgebra, 8th edition, by Elayn Martin-Gay, Pearson Education, 2018.

Course Description: This course prepares students for college-level courses in Quantitative Reasoning and Elementary Statistical Methods. Topics include numeracy and the real number system with emphasis on integers and rational numbers; rates, ratios, and proportions; percentages; solving linear equations; problem solving; measurement and geometry; and statistical concepts, notation, and reasoning. Prerequisite: TSIA2 Math Diagnostic 5. This course does not transfer.

## Course requirements:

Homework Assignments (My Math Lab)!
Quizzes (My Math Lab) Discussion
Forum Participation!
Four exams!
Comprehensive final exam
Required Technology: A calculator is needed for this course. A Texas Instruments TI30XIIS or TI 84 Plus is recommended. TI-89s or higher or TINspire graphing calculators are not permitted. Internet capability is required to gain access to course materials and online assignments via MyMathLab software.

Determination of Course Grade/Detailed Grading Formula:
The course grade will be determined in the following way:

| Comprehensive Final Exam | $15 \%$ |
| :--- | :---: |
| Regular Exams | $60 \%$ |
| MyMathLab Homework | $10 \%$ |
| MyMathLab Quizzes | $10 \%$ |
| Discussion Forum Participation. | $5 \%$ |
| Final Average | $100 \%$ |

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: 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.

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.

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.

Academic Dishonesty: Any incident of academic dishonesty will be dealt with in accordance with college policy and the Student Handbook. Academic dishonesty - such as cheating on exams is an extremely serious offense and will result in a grade of zero on that exam and the student will be referred to the Office of Student Conduct for the appropriate disciplinary action.

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, Chair of the Math Department, at 409-933-8329 or lrichardson@com.edu.
Course outline:

| Week | Section | Topic | Due Date |
| :---: | :---: | :---: | :---: |
| 1 |  | Orientation | 08/28 |
|  | 2.1 | Introduction to Integers |  |
|  | 2.2 | Adding Integers |  |
|  | 2.3 | Subtracting Integers |  |
|  | 2.4 | Multiplying and Dividing Integers |  |
| 2 | 2.5 | Order of Operations | 09/04 |
|  | 2.6 | Solving Equations: Review of the Addition and Multiplication Properties |  |
|  |  | Quiz 1: Chapter 2 |  |
|  | 8.1 | Pictographs, Bar Graphs, Histograms, Line Graphs, and Introduction to Statistics |  |
|  | 8.2 | Circle Graphs |  |
| 3 | 8.3 | The Rectangular Coordinate System and Paired Data | 09/11 |
|  | 8.4 | Graphing Linear Equations in Two Variables |  |
|  | 8.5 | Counting and Introduction to Probability |  |
|  |  | Discussion 1: Probability |  |
|  |  | Review for Test 1 |  |
| 4 |  | Test 1: Chapters 2 and 8 | 09/18 |
|  | 3.1 | Simplifying Algebraic Expressions |  |
|  | 3.2 | Solving Equations: Review of the Addition and Multiplication Properties |  |
|  | 3.3 | Solving Linear Equations in One Variable |  |
| 5 | 3.4 | Linear Equations in One Variable and Problem Solving | 09/25 |
|  |  | Quiz 2: Chapter 3 |  |
|  | 4.1 | Introduction to Fractions and Mixed Numbers |  |
|  | 4.2 | Factors and Simplest Form |  |
|  | 4.3 | Multiplying and Dividing Fractions |  |
|  | 4.4 | Adding and Subtracting Like Fractions, Least Common Denominator, and Equivalent Fractions |  |
| 6 | 4.5 | Adding and Subtracting Unlike Fractions | 2/10 |
|  | 4.7 | Operations on Mixed Numbers |  |
|  | 4.8 | Solving Equations Containing Fractions |  |
|  |  | Discussion 2: Algebraic Equations |  |
|  |  | Review for Test 2 |  |
| 7 |  | Test 2: Chapters 3 and 4 | 9/10 |
|  | 5.1 | Introduction to Decimals |  |
|  | 5.2 | Adding and Subtracting Decimals |  |
|  | 5.3 | Multiplying Decimals and Circumference of a Circle |  |
| 8 | 5.4 | Dividing Decimals | 16/10 |
|  | 5.5 | Fractions, Decimals, and Order of Operations |  |
|  | 5.6 | Solving Equations Containing Decimals |  |
|  | 5.7 | Decimal Applications: Mean, Median, and Mode |  |
|  |  | Quiz 3: Chapter 5 |  |
| 9 | 6.1 | Ratios and Rates | 23/10 |
|  | 6.2 | Proportions |  |
|  | 6.3 | Proportions and Problem Solving |  |
|  |  | Discussion 3: Proportions |  |
|  |  | Review for Test 3 |  |
| 10 |  | Test 3: Chapters 5 and 6 | 30/10 |
|  | 7.1 | Precents, Decimals, and Fractions |  |
|  | 7.2 | Solving Percent Problems with Equations |  |
|  | 7.3 | Solving Percent Problems with Proportions |  |
| 11 | 7.4 | Applications of Percent | 6/11 |
|  | 7.5 | Percent and Problem Solving: Sales Tax, Commission, and Discount |  |
|  | 7.6 | Percent and Problem Solving: Interest |  |
|  |  | Quiz 4: Chapter 7 |  |
| 12 | 9.2 | Perimeter | 13/11 |
|  | 9.3 | Area, Volume, and Surface Area |  |
|  | 9.4 | Linear Measurement (US \& Metric units of length) |  |
|  | 9.5 | Weight and Mass (US \& Metric units of weight and mass) |  |


| 13 | 9.6 | Capacity (US \& Metric units of volume) | $20 / 11$ |
| :--- | :--- | :--- | :---: |
|  | 9.7 | Temperature and Conversions Between the U.S. and Metric Systems |  |
|  |  | Discussion 4: Percent |  |
|  |  | Review for Test 4 | 27/11 |
| 14 | Test 4: Chapters 7 and 9 | $\mathbf{2}$ |  |


| 15 | Review for Final Exam |  |
| :--- | :--- | :--- | :---: |
|  | Comprehensive Final Exam | $04 / 12$ |

## 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 mvaldes1@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 collegeaffiliated 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 $1^{\text {st }} 8$-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 $2^{\text {nd }} 8$-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 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.

