Math 0308.033IN
Foundations of Mathematical Reasoning
Spring 2021
Online
Live Interactive sessions: 12:00 – 1:30pm, Monday & Wednesday

Instructor Information: Alan Bigos, abigos@com.edu, 409-933-8327 (voicemail only)

Student hours and location: Monday & Wednesday 1:30-4:15 pm
Tuesday & Thursday 11:30-12:30 pm
And By Appointment
(We can talk via email, phone, Teams, or Zoom.)

Required Textbook: You are required to purchase a regular access code for MyMathLab to access the eText 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, Eighth Edition, By Elayn Martin-Gay, Pearson Education.

Technology: A calculator may be used for part of this course. A Texas Instruments TI30XIIS is recommended. A graphing calculator may not be used in this course. You will need access to the internet to use MyMathLab. If you do not have your own internet access, you can get access on campus in the Innovations Computer Lab, TVB 1324, the Atrium in the Science Building, the Library, and the Math Lab, TVB 1306.

Course Description: This course prepares students for a college-level courses in either Statistical Reasoning or Contemporary Mathematics. Topics include: numeracy with an emphasis on estimation and fluency with large numbers; evaluating expressions and formulas; rates, ratios, and proportions; percentages; solving equations; linear models; data interpretations, including graphs and tables; verbal, algebraic and graphical representations of functions; exponential models.

Prerequisite: TSI Math 336 - 349 or ABE 5 or ABE 6. This course does not transfer.
Prerecorded lectures are available on the One Drive. After the initial interactive class session, you are expected to watch the prerecorded lectures prior to the time of the interactive class session covering that material. You can access these through the One Drive link in MyMathLab.

Invites to live interactive sessions will be sent by email. The purpose of the interactive sessions is to clarify and reinforce. Live sessions use Microsoft Teams. Recordings of live sessions are uploaded and can be accessed using Stream. Stream is part of Office365, available to all students from the link on the COM website.

All homework, quizzes, & tests (including the final) will be taken online using the MyMathLab software. Free access to MML is available for 2 weeks. After that, you need to have a regular MML access code. Regular access codes are available through the bookstore, Pearson Publishing, or other online retailers.

For best results, students should adopt the following study pattern for each new topic:

1. Read the section in the textbook (I know I am asking you to read a math textbook.)
2. Watch the prerecorded video lectures
3. Re-read the textbook (Yes, I am serious.)
4. Start the homework
5. If you get stuck, seek help (Contact, me, other students, tutors, and/or wait until the next live session.)
6. Finish any remaining homework
7. Review a week later to reinforce learning
8. Periodically review throughout the semester

(Skipping any of these steps may result in insufficient mastery of the material.)

Course requirements:
Homework Assignments (My Math Lab)
Quizzes (My Math Lab)
Four exams (My Math Lab)
Comprehensive final exam(My Math Lab)

Homework Assignments on MyMathLab:
There is a homework assignment for each unit covered. These are listed on the course outline of this syllabus. You should do the assignments as soon as possible after reading the appropriate section in the textbook, listening to the lecture, and if you find it helpful, watching the associated video(s) on MyMathLab.

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 lecture 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 instructor, the math lab, or from your peers.

For simplicity, homework assignments will be due weekly. You have unlimited tries to get every question right. You should begin the assignments as soon as possible. Try and do a little each day. Do not wait until the end of the week to have a marathon session. Although the homework is online, you should write out your work and put it in your notebook so you can study from it later. **If you do not have a regular My Math Lab access code by Week 3, you will be unable to earn any additional points!** This means you will not be able to pass!

You many continue to work on homework assignments after the deadline. Problems from regular homework assignments completed after the deadline will have their scores reduced by 10% for each day late. You will need to type in the password **"late"** to gain access to homework problems after the deadlines.

Quizzes on MyMathLab:
There are four timed quizzes, one for each even numbered chapter. They are to be done online at mymathlab.com. To take a quiz, you must first unlock it by completing at least 70% of the homework from the related sections. If your recorded score is below 70% due to late penalties, email me when you have completed 70% of the problems and I will manually unlock it. If you do not unlock a quiz before the deadline, it will be recorded as zero. You can take each quiz two times before the deadline. The higher score counts towards your final grade. If you do not have a regular My Math Lab access code by Week 3, You will be unable to take additional quizzes.
Quizzes do <u>not</u> appear in My MathLab until they are unlocked.

Tests on MyMathLab:
The course material is divided into four roughly equal groups for tests. Officially, each test covers only material from the assignments related to it, but many skills learned in previous sections may be built into the questions. Math is constantly building on previously learned skills. There is an associated homework review assignment for each test. **These should be completed <u>before</u> taking the related test.** Like quizzes, tests will be timed. Unlike quizzes, these will be unlocked automatically after the associated material has been covered. Students who score 100% on the related homework review assignment may request to have that test unlocked early.

The Final is a comprehensive test that can also be substituted for one low regular test score. If your lowest test score is higher than your score on the final, no substitution will take place. Substitutions will be recorded in the official gradebook, but not MML. Students that have completed Test 4 and the score 100% on the final review homework may request to have the final unlocked early.

Determination of Course Grade/Detailed Grading Formula:
Your overall average will be calculated using the weighted categories listed below:

MyMathLab Homework	**20%**
Quizzes	**5%**
Regular Tests	**60%**
Final Exam	**15%**

Your overall average will be used to determine your letter grade.

Grading Scale:
Grade A: Overall Average is [89.5, 100]
Grade B: Overall Average is [79.5, 89.5)
Grade C: Overall Average is [69.5, 79.5)
Grade D: Overall Average is [59.5, 69.5)
Grade F or FN: Overall Average is [0, 59.5)
Grade I: Given unforeseen circumstances that result in the inability to successfully complete the course objectives, an I-Contract can be requested from the instructor assuming you meet the following criteria:

1. Have a passing overall average (70 or higher)
2. All work completed except for The Final Exam.

Late Work, Make-Up, and Extra-Credit Policy:

Homework:
Problems from regular homework assignments completed after the deadline will have their scores reduced by 10% for each day late. You will need to type in the password **"late"** to gain access to homework problems after the deadlines.

Quizzes:
Other than for technical issues, quizzes will not be extended. If you experience a technical issue, notify me immediately. Do not wait until after the quiz is due.

Tests:
If you are unable to take a test on or before the scheduled day, you have an opportunity to make-up the test. The 2 days after a regular scheduled test day are available for makeup tests. There will only be 1 day to makeup the final. There are no retakes. Deadlines may or may not be extended due to technical issues. If you experience a technical issue, notify me immediately. Medical issues may be given consideration, provided advance notice is given.

Extra-Credit:
Students who complete a test on or before midnight of the scheduled test day, will have 2 points added to their gradebook score. This will not show up on MML.

Attendance Policy: Students are expected to participate in live interactive sessions whenever possible or at least watch the recorded sessions. 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. Since this is an online class, your official attendance is based on your MML usage.

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. (Faculty may add additional statement requiring monitoring and communication expectations via Blackboard or other LMS).

Student Learner Outcomes: Upon successful completion of this course, students will:

- Be able to demonstrate knowledge of basic concepts related to using appropriate symbolic notation and vocabulary to communicate, interpret, and explain mathematical concepts.
- Be able to demonstrate knowledge of basic concepts related to defining, representing, and performing operations on real numbers, applying numeric reasoning to investigate and describe quantitative relationships and solve real world problems in a variety of contexts.
- Be able to demonstrate knowledge of basic concepts related to algebraic reasoning to solve problems that require ratios, rates, percentages, and proportions in a variety of contexts using multiple representations.
- Be able to demonstrate knowledge of basic concepts related to applying algebraic reasoning to manipulate expressions and equations to solve real world problems.
- Be able to demonstrate knowledge of basic concepts related to using graphs, tables, and technology to analyze, interpret, and compare data sets.
- Be able to demonstrate knowledge of basic concepts related to constructing and using mathematical models in verbal, algebraic, graphical, and tabular form to solve problems from a variety of contexts and to make predictions and decisions.

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 dishonesty (including cheating, plagiarism, and collusion) will be dealt with in a manner that is consistent will College Policy and the Student Conduct. Any student found to have been 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 section on Standards of Student Conduct and Discipline and Penalties in the online 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 at lrichardson@com.edu.

Course outline:

This is a tentative schedule. As the semester progresses, adjustments may be needed.

Week	Starting	Sections Covered	Due Date
1	1/18	Holiday	
		Introduction	
		2.1 Introduction to Integers	1-24
		2.2 Adding Integers	1-25
		2.3 Subtracting Integers	1-26
		2.4 Multuplying and Dividing Integers	1-27
		2.5 Order of Operations	1-28
2	1/25	2.6 Solving Equations: Review of the Addition and Multiplication Properties	1-29
		Chapter 2 Quiz	1-31
		3.1 Simplifying Algebraic Expressions	1-29
		3.2 Solving Equations: Review of the Addition and Multiplication Properties	1-29
		3.3 Solving Linear Equations in One Variable	1-30
		3.4 Linear Equations in One Variable and Problem Solving	1-30
		Review for TEST 1 (Chapters 2 & 3)	1-31
3	2/1	**TEST 1**	2-1
		4.1 Introduction to Fractions and Mixed Numbers	2-4
		4.2 Factors and Simplest Form	2-4
		4.3 Multiplying and Dividing Fractions	2-5
		4.4 Adding and Subtracting Like Fractions	2-6
		4.5 Adding and Subtracting Unlike Fractions	2-7
4	2/8	4.7 Operations on Mixed Numbers	2-11
		4.8 Solving Equations Containing Fractions	2-11
		Chapter 4 Quiz	2-13
		5.1 Introduction to Decimals	2-12
		5.2 Adding and Subtracting Decimals	2-14
		5.3 Multiplying Decimals and Circumference of a Circle	2-14
5	2/15	5.4 Dividing Decimals	2-18
		5.5 Fractions, Decimals, and Order of Operations	2-19
		5.6 Solving Equations Containing Decimals	2-20
		5.7 Decimal Applications: Mean, Median, and Mode	2-20
		Review for TEST 2 (Chapters 4 & 5)	2-21

6	2/22	**TEST 2**	2-22
		6.1 Ratios and Rates	2-25
		6.2 Proportions	2-26
		6.3 Proportions and Problem Solving	2-27
		Chapter 6 Quiz	2-28
		7.1 Percents, Decimals, and Fractions	2-27
		7.2 Solving Percent Problems with Equations	3-1
7	3/1	7.3 Solving Percent Problems with Proportions	3-4
		7.4 Applications of Percent	3-4
		7.5 Percent and Problem Solving: Sales Tax, Commission, and Discount	3-5
		7.6 Percent and Problem Solving: Interest	3-5
		Review for Test 3 (Chapters 6 & 7)	3-6
		TEST 3	3-7
	3/8	**SPRING BREAK**	
8	3/15	8.1 Pictographs, Bar Graphs, Histograms, Line Graphs, and Introduction to Statistics	3-18
		8.2 Circle Graphs	3-19
9	3/22	8.3 The Rectangular Coordinate System and Paired Data	3-25
		8.4 Graphing Linear Equations in Two Variables	3-26
10	3/29	8.5 Counting and Introduction to Probability	4-1
		Chapter 8 Quiz	4-4
11	4/5	9.2 Perimeter	4-8
		9.3 Area, Volume, and Surface Area	4-10
12	4/12	9.4 Linear Measurement (US & Metric units of length)	4-15
		9.5 Weight and Mass (US & Metric units of weight and mean)	4-17
13	4/19	9.6 Capacity (US & Metric units of volume)	4-22
		9.7 Temperature and Conversions Between the US and Metric systems	4-24

14	4/26	Review for TEST 4 (Chapters 8 & 9)	4-28
		TEST 4	4-29
15	5/3	Review for FINAL EXAM	5-5
		FINAL EXAM	5-6

Accessing MyMathLab:

1. Log into My Math Lab:
    a. Go to www.pearsonmylabandmastering.com
    b. Click the Login button and enter your Login Name and Password
    c. Click on the appropriate class: **bigos65759**
    d. Click on HOMEWORK button and then the homework assignment you wish to do.

2. Use the "Show Me How" aids when needed and complete the homework assignment.
3. Enter your answers then click the CHECK ANSWER button.

4. If needed, click the SIMILAR EXERCISE button to redo the exercise. Note: You should score at least 80% before moving on to the next section.

5. 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.

6. Click on the next question to continue.

If your score does not save properly, send me an email indicating the specific question and section number with a picture of your written work attached.

Success Tips for Students:
Learning is the process of installing accurate information into your long-term memory. An essential component of this process is reinforcement over time. You must give your brain multiple opportunities to transfer skills and concepts from your short-term memory to your long-term memory. If it is not in your long-term memory, then you haven't really learned it. Here are some ideas on how to help you be successful.

Make use of office hours
Make use of tutors
Take good notes
Actually read your notes
Edit your notes
Form study groups
Don't procrastinate
Don't cram
Review something every week

The time commitment per week that is necessary to successfully complete the course will vary with the expected or desired outcome by the student, the pre-existing skills and knowledge possessed by the student, the ability of the student to acquire and assimilate the course content, and the time required by the student to complete the assignments. A long-standing estimate is to multiply the number of contact hours for a course by 2 or 3. For this is a 4 contact hour course. In addition to the time in class, you should plan on having 8 to 12 hours available for homework and studying. If you doubt these estimates, consider visiting the websites listed below.

Estimate Study Hours by Blinn College:
http://www.blinn.edu/twe/vet_tech/OnlineInfoSessionFinal/How%20to%20estimate%20study%20hours%20in%20college.pdf

How Many Hours a Day Do You Have to Study for College Classes? by M.T. Wroblewski:
http://oureverydaylife.com/many-hours-day-study-college-classes-4165.html

How Much Time Should I Spend Studying in College? by Kelci Lynn Lucier:
http://collegelife.about.com/od/academiclife/f/How-Much-Time-Should-I-Spend-Studying-In-College.htm

Manage Your Time by HowtoStudy.com: http://www.howtostudy.com/manage-your-time/

TEST ANXIETY LINKS

https://www.brown.edu/campus-life/support/counseling-and-psychological-services/index.php?q=managing-test-anxiety

http://www.hagerstowncc.edu/sites/default/files/documents/11-test-anxiety-tips.pdf

https://www.ets.org/s/praxis/pdf/reducing_test_anxiety.pdf

http://student-tutor.com/blog/how-to-overcome-test-anxiety/

https://www.mnsu.edu/counseling/students/tanxiety.html

https://www.usu.edu/asc/test_anxiety/stress/smtech.cfm

https://www.elearners.com/education-resources/online-learning/sure-fire-strategies-for-overcoming-test-anxiety/

https://www.youtube.com/watch?v=fHfHSq7PVDU

https://www.youtube.com/watch?v=kwdHu0dS_BA

https://www.youtube.com/watch?v=FyBdA61GmJ0

https://www.youtube.com/watch?v=Fcq8cRqihEg

https://www.youtube.com/watch?v=NK1e5nIqISs

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 Holly Bankston at 409-933-8520 or hbankston@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center.

Counseling Statement: Any student needing counseling services is requested to please contact Holly Bankston in the student success center at 409-933-8520 or hbankston@com.edu. Counseling services are available on campus in the student center for free and students can also email counseling@com.edu to set up their appointment. Appointments are strongly encouraged; however, some concerns may be addressed on a walk-in basis.

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 is March 3rd for the 1st 8-week session, April 26 for the 16-week session, and May 5th.

F_N Grading: The F_N grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The F_N 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 F_N grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an F_N grade.

If your overall average is below 60%, you may receive an F_N grade. Determining factors include: time spent on MML, last log in to MML, homework average, and overall average.

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.

COVID-19 Statement: All students, faculty, and staff are expected to familiarize themselves with materials and information contained on the College of the Mainland's Coronavirus Information site at www.com.edu/coronavirus. Students are required to watch a training video, complete the self-screening, and acknowledge the safety guidance at: www.com.edu/selfscreen. In addition, students, faculty, and staff must perform a self-screening prior to each campus visit. Finally, students, faculty, or staff who have had symptoms of COVID-19, received a positive test for COVID-19, or have had close contact with an individual infected with COVID-19 must complete the self-report tool.