

Math 1332.151H1 Contemporary Mathematics Fall 2024

T Th 11:00am - 12:20, LGC 219

Instructor

Dr. Jason Duvall jduvall3@com.edu

Student Office Hours and Location

M: 4:15 – 5:15 (Tutoring Center)

T: 8:15 – 9:15 (League City), 4:00 – 5:00 (STEM 325.18)

W: 4:15 – 5:15 (STEM 325.18)

Th: 8:15 – 9:15 (League City), 4:00 – 5:00 (STEM 325.18)

F: 11:00 – 12:30 (League City)

Required Textbook/Materials

The textbook for this course is A Survey of Mathematics with Applications 11th ed., by Angel, Abbot, and Runde, Pearson, 2017. Textbooks and/or courseware will be available through VitalSource digitally. The course materials will be available on the first day of class and you will be given the opportunity to opt-out of the e-book prior to the census day of the class. If you choose not to use the course materials, you will be reimbursed after census day of the class. The materials are not refundable after the census day. You will receive an email with more information about the use of the course materials closer to the start of the semester.

Course Description

Intended for non-STEM (Science, Technology, Engineering, and Mathematics) majors. 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. Prerequisites/co-requisites: Prerequisite: TSIA2 Math 950 or Diagnostic 6 or MATH 0306 or MATH 0308 with a grade of "C" or better or co-requisite of MATH 0306 or MATH 0308. Contact Counseling to determine which math course satisfies the requirements of your desired baccalaureate program.

Course Requirements

Online Homework

The homework assignments appear in My Math Lab, which is accessed through Brightspace. Although the homework is online, you should write out your work and put it in your notebook so you can study from it later. Remember, the point of doing homework is to prepare yourself for tests, so try and be as caught up as possible before test days. There will be 3 due dates each week. Assignments listed for Mondays must be completed by midnight Wednesday for full credit. Assignments listed for Fridays must be completed

by midnight Sunday for full credit. Online only assignments should be completed before the next class meeting, although the due dates will correspond to the next class meeting. For example: if an online assignment is listed after a Monday assignment, it should be completed before the class meets on Wednesday, but it will have the same deadline as if it was covered in class on Wednesday. Whether the topics are covered in-class or strictly online, you should try and complete the homework assignments on their scheduled days (not the due dates). The due dates already have a built-in extension, so do not ask for an additional one. You can continue to work on assignments after these deadlines for reduced credit. You have unlimited tries (up to the end of course deadline) to get every question right. **To access past due assignments, type in "late".**

• MyMathLab Quizzes

There are four timed quizzes which relate to the student learning outcomes. Quizzes appear in My Math Lab, which is accessed through Brightspace. You should complete the related homework assignments before attempting a quiz. Quizzes may be taken up to 2 times. Your first attempt must be taken by the stated deadline, or it will be recorded as a zero. To unlock a second attempt, you must score at least 80% on each of the related homework assignments. Second attempts can be taken up to the end of the course.

Tests

The in-class Tests are written exams, which require complete, well-reasoned solutions written in detail; this means you must show all steps and proper work, or you will not be given credit for an answer. During Testing situations, make sure that all unnecessary items are put away. No backpacks or books on the desks. Make sure the proctor has a clear line of sight. Spread out. When possible, one student per table. Tests 3 & 4 are online tests. Online tests are scheduled on Thursdays. They will remain open until Saturday midnight for makeup opportunities. These are timed.

• Final Exam

The Final Exam will be a comprehensive multiple-choice exam. You should still organize your thoughts and show (on scratch paper) all steps needed to work the problems correctly. Standard testing rules still apply.

• Class Participation

To maximize learning, students must be actively engaged in the classroom. Staring at the board doesn't cut it. You need to be listening to the discussion, taking notes, asking questions, and helping to maintain a learning atmosphere. Some specific behaviors that we are trying to avoid are "tuning out", not taking notes, and playing with your phone. When you are in class but not participating, you are communicating to the other students that they are wasting their time. That means that you are not only hurting yourself but others as well.

Cancelled Classes

Should class meetings be cancelled for unexpected circumstances, students should treat the planned assignments as online assignments.

• MyMathLab

- 1. Log into Brightspace
 - a. Click on the My Math Lab link for the appropriate class
 - b. Click on the 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.

Determination of Course Grade/Detailed Grading Formula

The following weighting system will be used to determine your overall average:

MyMathLab Homework
MyMathLab Quizzes
Regular Exams
Comprehensive Final Exam
10%
64%
16%

Your letter grade will be determined by your overall average using the following 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

Each class meeting is a unique experience involving interaction with other students and cannot be recreated. Inclass participation cannot be made up. You are still responsible for what was covered. If you are unable to attend class, you will need to talk with another student or meet with the instructor (in person or virtually) outside of class. Obviously, not everyone will be able to have perfect attendance, for whatever reason. Just be aware that if you are not in the classroom, additional effort will be needed to stay caught up. All work other than the final must be completed by the day before the scheduled Final. Students will be allowed to substitute 1 low test score with their Final Exam score. **There are no retakes.**

Homework Assignments: You may continue to work on homework assignments after the initial deadline. Problems from regular homework assignments completed after the deadline will have their score decreased by 20%. You will need to type in the password "late" to gain access to homework problems after the deadlines.

Tests: If you are unable to make an in-person scheduled exam, you may be allowed to make up the exam outside of class provided you notify the instructor prior to the exam and have a legitimate reason for the absence, and it can be completed within a reasonable timeframe. All makeup exams must be taken in the Testing Center by appointment.

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.

You cannot make-up classes, and it is your responsibility to be punctual and regularly attend class. It is in your best interest to attend all classes, be punctual, and not leave early. It is extremely difficult to succeed in this course without having good attendance.

To receive credit for attendance you must be in the classroom for the majority of the designated time and sign the attendance sheet for the appropriate time slot. Being in the tutoring or testing area does not count as being in class. Remember, it is your responsibility to sign in. You are still responsible for all the material covered whether you are in class or not.

If you arrive late, please quickly and quietly take your seat and get set up so that you can begin participating in class.

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. Class announcements which do not include personal information may be shared via Brightspace/My Math Lab. You might get an immediate reply, but some responses may take up to 2 business days. <u>Do not</u> send messages using Teams as I do not check it on a regular basis.

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 Leslie Richardson at 409-933-8329 or lrichardson@com.edu.

Student Learning Objectives

Stu	udent Learner Outcomes	SLOs Assessment	Maps to Core Objective	Core Objective Assessment, when assessed
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	Quiz 4	Communication Skills (CS)	Question on Test 4

of finance.				
4.	Demonstrate fundamental probability/counting techniques and apply those techniques to solve problems.	Quiz 4		
5.	Interpret and analyze various representations of data.	Quiz 3	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.	Quiz 4		

<u>Course Outline</u>
This is a tentative schedule and may be subject to change.

2	8-26	2.1 Set Concepts	8-29
		2.2 Subsets (start)	
	8-28	2.2 Subsets (finish)	9-1
		2.3 Venn Diagrams and Set Operations	9-1
		2.4 Venn Diagrams with Three Sets and	9-1
		Verification of Equality of Sets	9-1
		2.5 Application of Sets	9-1
3	9-2	LABOR DAY	
		3.1 Statements and Logical Connectives	9-8
	9-4	3.2 Truth Tables for Negation, Conjunction, and Disjunction	9-8
		3.3 Truth Tables for the Conditional and Biconditional	9-8
		3.4 Equivalent Statements	9-8
		Quiz 1 (2.5, 3.3, 3.4)	9-8
		11.1 Empirical and Theoretical Probabilities	9-8
		Test 1 Review	9-8
4	9-9	TEST 1 (CH. 2&3)	
		11.2 Odds	9-15

	9-11	11.5 OR and AND Problems	9-15
		11.4 Tree Diagrams Quiz 2 (11.1, 11.2, 11.4, 11.5) 11.6 Conditional Probability	9-15 9-15 9-15
5	9-16	11.7 The Counting Principle and Permutations 11.8 Combinations (start)	9-19
		Test 2 Review	9-17
	9-18	Test 2 (11.1 – 11.6)	
		12.2 Frequency Distributions and Statistical Graphs	9-22
		Quiz 3 (12.2)	9-22
		12.3 Measures of Central Tendency	9-22
6	9-23	11.8 Combinations (finish)	9-26
	,	11.9 Solving Probability Problems	9-26
		12.4 Measures of Dispersion	9-26
		6.2 Formulas	9-29
		6.3 Applications of Algebra	9-29
		6.10 Functions and Their Graphs	9-29
		10.1 Percent	9-29
	9-25	Test 3 Review	9-25
		Test 3 (11.7 – 12.4)	9-26
		10.2 Personal Loans and Simple Interest	9-29
		10.3 Compound Interest	9-29
7	9-30	10.4 Installment Buying 10.5 Buying a House with a Mortgage (start)	10-3
		Quiz 4 (10.2-10.4)	10-6
	10-2	10.5 Buying a House with a Mortgage (finish)	10-6
	10-2	Test 4 Review	10-2
		Test 4 (6.2 – 10.5)	10-3
8	10-7	Final Review	10-8
	10-9	FINAL EXAM	

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-

<u>services/docs/Student_Handbook_2024-2025_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, Student Accessibility Services Coordinator

Phone: 409-933-8919

Email: AccessibilityServices@com.edu

Location: COM Doyle Family Administration Building, 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 October 2. The last date to withdraw from the 16-week session is November 15. The last date to withdraw for the 2nd 8-week session is November 26.

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 <a href="maintain-dean-feature

Nondiscrimination Statement

The College District prohibits discrimination, including harassment, against any individual on the basis of race, color, religion, national origin, age, veteran status, disability, sex, sexual orientation, gender (including gender identity and gender expression), or any other basis prohibited by law. Retaliation against anyone involved in the complaint process is a violation of College District policy.