

MATH1332 Contemporary Mathematics

3 Semester Credit Hours

CONTACT INFO

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Office Hours:



**LAMAR INSTITUTE
OF TECHNOLOGY**

REQUIRED TEXTBOOK AND MATERIALS



ALEKS Math In Our World. Physical textbook not required. Online **subscription to ALEKS is required** and comes with eBook. This is included in the ELE bundle, or you may purchase subscriptions directly from ALEKS.

If opted out Aleks subscriptions vary, 6-month \$99.95

Materials:

Paper, pencils, calculator of your choice, access to a computer with internet access.

A basic six-function calculator (+, -, ÷, ×, ±, √, %).

MODE OF INSTRUCTION

Asynchronous online

PREREQUISITE/CO-REQUISITE:

Students who score 936 – 949 with diagnostic less than 6

Must enroll in TMTH 0232 in same 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 should be embedded throughout the course. Additional topics may be covered.

COURSE OBJECTIVES

Upon successful completion of this course, students will:

1. Apply the language and notation of sets.
2. Determine the validity of an argument or statement and provide mathematical evidence.
3. Solve financial problems.
4. Demonstrate fundamental probability/counting techniques and apply those techniques to solve problems.
5. Interpret and analyze various representations of data.
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.

CORE OBJECTIVES MEASURED

Approved: **Initials/date**

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

ATTENDANCE POLICY

Attendance is required, online students should login and work on assignments 2-3 times per week, minimum.

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified date as listed in the College Calendar on the [Student Success](#) web page. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

COURSE CALENDAR (Dates and assignments subject to change with or without notice)

Week of	Section	Title	Assignment
		Introduction/Course overview	Online through ALEKS
	2.1	Introduction to Set Theory	
	2.2	Subsets and Set Operations	
	2.3	Using Venn Diagrams to Study Set Operations	
	2.4	Using Sets to Solve Problems	
	2.5	Infinite Sets	
	3.1	Statements and Quantifiers	
	3.2	Truth Tables	
	3.3	Types of Statements	
	3.4	Logic Arguments	
		Test I Chapters 2 & 3	
	7.1	Percents	
	7.3	Simple Interest	
	7.4	Compound Interest	
	7.5	Installment Buying	
	7.6	Student Loans and Home Buying	
		Test II Chapter 7	
	10.1	Probability and Counting Techniques	
	10.2	Basic Concepts of Probability	
	10.3	The Fundamental Counting Principle and Permutation	
	10.4	Combinations	
	10.5	Tree, Diagrams, Tables, and Sample Space	
	10.6	Odds and Expectation	
	10.7	The Addition Rules for Probability	

	10.8	The Multiplication Rules and Conditional Probability	
		Test III Chapter 10	
	11.1	Gathering and Organizing Data	
	11.2	Picturing Data	
	11.3	Measures of Average	
		Final exam Chapter 2, 3, 7, 10 & 11	

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- Test 60%
- Assignments 20%
- Final Exam 20%
 - o Core Assessment (20% of Final Exam)

GRADE SCALE

- 90-100 A
- 80-89 B
- 70-79 C
- 60-69 D
- 0-59 F

TECHNICAL REQUIREMENTS

For the latest technical requirements, including hardware, compatible browsers, operating systems, etc., review the Minimum Computer and Equipment Requirements on the [LIT Online Experience](#) page. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*.

The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

ARTIFICIAL INTELLIGENCE STATEMENT

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses.

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

ADDITIONAL COURSE POLICIES/INFORMATION