College Algebra (MATH 1314-2C1)

CREDIT

3 Semester Credit Hours (3 hours lecture, 0 Lab hours lab)

MODE OF INSTRUCTION
Online

PREREQUISITE/CO-REQUISITE:
TSI Complete for Math

COURSE DESCRIPTION
In-depth study and applications of polynomial, rational, radical, exponential, and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included.

COURSE OBJECTIVES
Upon completion of this course, the student will be able to:

1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses.
2. Recognize and apply polynomial, rational, radical, exponential, and logarithmic functions and solve related equations.
3. Apply graphing techniques.
4. Evaluate all roots of higher degree polynomial and rational functions.
5. Recognize, solve, and apply systems of linear equations using matrices.

CORE OBJECTIVES MEASURED

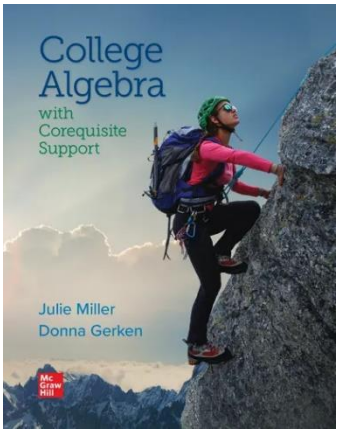
1. **Critical Thinking Skills**: To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
2. **Communication Skills**: To include effective development, interpretation and expression of ideas through written, oral, and visual communication.
3. **Empirical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

Approved: Initials/date

INSTRUCTOR CONTACT INFORMATION

Instructor:	Chris Sams
Email:	casams@lit.edu
Office Phone:	409-247-5186
Office Location:	TC Rm. 240
Office Hours:	M: 9:30am-11:00am MW: 1:30pm-2:30pm TR: 8:00am-9:20am; 10:50am-12:10pm; 1:40pm-2:30pm F: 8:00am-11:00am

REQUIRED TEXTBOOK AND MATERIALS



360 Days Access (Standard) $73.44

ISBN10: 1264198434 I ISBN13: 9781264198436

(Comes inclusive with ELE bundle for $15 per SCH or $45)

1. Paper, pencils, and a calculator, access to a computer with internet access.

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

Week Of:	*Sec*	*Topic*	*Homework due:*
1/20		Self introduction (Blackboard)	Due 2/22
	3.3	Complex Numbers	Due 2/22
1/26	4.3	Rational Equations	Due 2/22
	3.6	Solving Quadratic Equations	Due 2/22
2/2	4.5	Rational Exponents	Due 2/22
	4.7	Equations in Quadratic Form	Due 2/22
2/9	4.6	Radical Equations	Due 2/22
	5.3	Functions and Relations	Due 2/22
2/16	5.1	Rectangular Coordinate System	Due 2/22
		Module 1 Test	**Due 2/22**
2/23	5.4	Linear Equations in Two Variables	Due 4/5
	6.2	Symmetry and Piecewise Functions	Due 4/5
3/2	6.1	Transformations of Graphs	Due 4/5
	7.1	Quadratic Functions	Due 4/5
3/9		**Spring Break Campus Closed**	Due 4/5
3/16	6.4	Function Composition	Due 4/5
	7.3	Polynomial Division	Due 4/5
3/23	7.2	Polynomial Functions	Due 4/5
	7.4	Zeros of Polynomials	Due 4/5
3/30		**Module 2 Test**	**Due 4/5**
	8.2	Graphs of Rational Functions	Due 5/3
4/6	8.1	Rational Functions	Due 5/3
	9.2	Exponential Functions	Due 5/3
4/13	9.1	Inverse Functions	Due 5/3
	9.4	Properties of Logarithms	Due 5/3
4/20	9.5	Exponential Equations and Applications	Due 5/3
	9.6	Logarithmic Equations and Applications	Due 5/3
4/27	11.1	Systems of Linear Equations Using Matrices	Due 5/3
		Module 3 Test	Due 5/3
5/4		Final Review	
		Final/Core Assessment	**Due 5/10**

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- Test 60%
- Assignments 20%
- Core Assessment 20%

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