College Algebra (Math 1314-9W1)

INSTRUCTOR CONTACT INFORMATION

Instructor:	Larry D. Gregory, Jr.
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Email: Idgregory@lit.edu

Office Phone: 409-549-0228

Office Location: Online Office

Office Hours: Meet via Blackboard Collaborate

CREDIT

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

MODE OF INSTRUCTION

Online

PREREQUISITE/CO-REQUISITE:

A score of 950 or above on the TSI-Assessment placement test or a "C" or better in TMTH 0375 and • Complete the Online Orientation and answer yes to 7+ questions on the Online Learner Self-Assessment: http://www.lit.edu/depts/DistanceEd/OnlineOrientation/OOStep2.aspx

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. This course is time-bound and structured.

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.



REQUIRED TEXTBOOK AND MATERIALS

- 1. MyMathLab Standalone Access Code
- a. May be purchased online at www.mymathlab.com

b. May be purchased at a local bookstore: ISBN 9780136483151---- 18 Weeks ISBN 9780135189849----24 Months

2. A basic scientific calculator: please check with your individual instructor as to the specific type of calculator required.

ATTENDANCE POLICY

Attendance is not mandatory in an online course. However, you should log into blackboard and try your best to get one lesson per day. This is an 8-week course, so there will be several assignments per week.

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the <u>Academic Calendar</u>. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

STUDENT EXPECTED TIME REQUIREMENT

For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. For a 3-credit-hour class, students should prepare to allocate approximately six to nine hours per week outside of class in a 16-week session OR approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class.

COURSE CALENDAR

For course calendar, please see the table at the back of the syllabus. This will also be posted in Blackboard for your convenience.

COURSE EVALUATION

Final grades will be calculated according to the following criteria: Online Exams 60% (Chapter tests will be taken on MyMathLab)

Course Assignments (including Core Assignment (20%)) 40%

GRADE SCALE

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

LIT does not use +/- grading scales

ACADEMIC DISHONESTY

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty.

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.

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at https://lit.edu/online-learning/online-learning-minimum-computer-requirements. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources. You will want to have a printer to print the notes and practice problems out.

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 <u>special Populations@lit.edu</u>. You may also visit the online resource at <u>Special Populations -</u> 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 <u>www.lit.edu</u>. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

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

My goal for this course is to provide quality instruction as if you were attending a face to face class. All of the videos are of me teaching the material, and I will not ask questions on quizzes or tests that do not reflect what I have taught. It is essential for you to work through the example and practice problems. I have posted keys for all of the practice problems for every lesson. It is important that you check your email and Blackboard every single day for the next eight weeks. I PREFER THAT IF YOU HAVE A QUESTION OR EMERGENCY TO CALL ME OR TEXT ME AT THE NUMBER GIVEN ON THE SYLLABUS. It is not a problem for me to respond, and if I don't respond in a timely manner, please continue to reach out. I understand that there are emergencies, illness, and life events. However, I cannot help you without communication. COMMUNICATION IS KEY. All of your work that will be graded will be in My Math Lab. This is quizzes and tests. Quizzes are short and sweet, and usually not more than ten questions. You have unlimited attempts. Tests you have two attempts to get the grade that you want. All tests are timed. I encourage for you to stay ahead in this course.

Course Schedule College Algebra (all assignments in My Math Lab)			
Review Module	Assignment	Due Date	
Interval Notation		9/8/2024	
Evaluating Expressions	Review Quiz #1	9/8/2024	
Domain		9/8/2024	
Polynomial Operations	Review Quiz #2	9/8/2024	
Factoring Expressions	Review Quiz #3	9/8/2024	
Long Division and Synthetic Division	Review Quiz #4	9/8/2024	
Rational Expressions	Review Quiz #5	9/8/2024	
Radical Expressions and Rational Exponents	Review Quiz #6	9/8/2024	
Test #1	in My Math Lab	9/8/2024	
Module #1 (Chapter 1)	Assignment	Due Date	
Solving Linear Equations	1.1 Quiz	9/22/2024	
Complex Numbers	1.2 Quiz	9/22/2024	
Solving Quadratics	1.3 Quiz	9/22/2024	
Solving Radical equations and Solving Equations with Rational Exponents	1.4 Quiz	9/22/2024	
Solving Inequalities	1.5 Quiz	9/22/2024	
Solving Absolute Value Equations and Inequalities	1.6 Quiz	9/22/2024	
Test #2	in My Math Lab	9/22/2024	
Module #2 (Chapter 2)	Assignment	Due Date	
Distance and Midpoint Formulas	2.1 Quiz	10/6/2024	
Graphs of Equations in Two Variables, Intercepts, and Symmetry	2.2 Quiz	10/6/2024	
Equations of Lines	2.3 Quiz	10/6/2024	
Equations of Circles	2.4 Quiz	10/6/2024	
Test #3	in My Math Lab	10/6/2024	

Module #3 (Chapter 3)	Assignment	Due Date
Functions	3.1 Quiz	10/20/2024
Graphs of Functions	3.2 Quiz	10/20/2024
Properties of Functions	3.3 Quiz	10/20/2024
Piecewise Functions	3.4 Quiz	10/20/2024
Graphing Techniques and Transformations of Functions	3.5 Quiz	10/20/2024
Test #4	in My Math Lab	10/20/2024
Module #4 (Chapter 4)	Assignment	Due Date
Linear Functions and Models	4.1 Quiz	11/3/2024
Quadratic Functions and Models	4.3 Quiz	11/3/2024
Systems of Equations	8.1 Quiz	11/3/2024
Test #5	in My Math Lab	11/3/2024
Module #5 (Chapter 5)	Assignment	Due Date
Polynomial Functions	5.1 Quiz	11/17/2024
Properties of Rational Functions	5.3 Quiz	11/17/2024
Complex Zeros and the Fundamental Theorem of Algebra	5.7 Quiz	11/17/2024
Core Assignment	in My Math Lab	11/17/2024
Test #6	in My Math Lab	11/17/2024
Module #6 (Chapter 6)	Assignment	Due Date
Inverses of Functions	6.2 Quiz	12/5/2024
Basics of Exponential Functions	6.3 Quiz	12/5/2024
Properties of Logarithms	6.4 Quiz	12/5/2024
Solving Equations involving Logarithms and Exponentials	6.5 Quiz	12/5/2024
	6.7 and 6.8	
Applications of Logarithmic and Exponential Functions	Quiz	12/5/2024
Test #7	in My Math Lab	12/5/2024