College Algebra (MATH 1314-2B1) Online

INSTRUCTOR CONTACT INFORMATION

Instructor:	Alfred de la Rosa, Jr.
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Office Phone:	(409) 247-4757
Office Location:	Building TA5, Room 102

Office Hours: Monday: 9:00 am-12:00 pm, 2:00 pm-3:00 pm
Tuesday: 9:00 am-9:30 am, 1:00 pm-3:00 pm
Wednesday: 9:00 am-12:00 pm, 2:00 pm-3:00 pm
Thursday: 9:00 am-9:30 am, 1:00 pm-3:00 pm
Friday: 9:00 am-11:00 am

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.

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

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.

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-week access) or
       ISBN 9780135189849 (24-month access)
2. Scientific calculator--no graphing calculators or calculators on cell phones, tablets, etc., are permitted.
3. Graph paper and a ruler.

ATTENDANCE POLICY

Since this course is taught online, it takes a lot of discipline and self-starting qualities to complete and pass it. Therefore, it is necessary to keep up with assignments by working on them daily, if needed, in order to meet deadlines and not fall behind. It is also very important for students to check for email and announcements from their instructor. Students should check for these daily so that they are up-to-date on information about the course regarding assignments, exams, etc.

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 Academic Calendar. 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

DATE	TOPIC	READINGS (Due on this Date)	ASSIGNMENTS (Due on this Date)
1-17-23	Course Policies and Introductions; MyMathLab Orientation and Registration; Online Contract; Practice Test	Course Policies and Introductions; MyMathLab Orientation and Registration; Online Contract; Practice Test Sunday, January 22, 2023	Course Introductions; MyMathLab Orientation and Registration; Online Contract; Practice Test Sunday, January 22, 2023
1-23-23	Section 1.1: Linear Equations Section 1.2: Quadratic Equations	Section 1.1 Notes Section 1.2 Notes Monday, January 23, 2023	MyMathLab: Sections 1.1 and 1.2 Sunday, January 29, 2023
1-30-23	Section 1.3: Complex Numbers; Quadratic Equations in the Complex Number System Section 1.4: Radical Equations; Equations Quadratic in Form; Factorable Equations Section 1.5: Solving Inequalities	Section 1.3 Notes Section 1.4 Notes Section 1.5 Notes Monday, January 30, 2023	MyMathLab: Sections 1.3, 1.4, and 1.5 Monday, February 5, 2023
2-6-23	Section 1.6: Equations and Inequalities Involving Absolute Value Section 1.7: Problem Solving: Interest, Mixture, Uniform Motion, Constant Rate Job Applications	Section 1.6 Notes Section 1.7 Notes Monday, February 6, 2023.	MyMathLab: Sections 1.6 and 1.7 Chapter 1 Test Sunday, February 12, 2023
2-13-23	Section 2.1: The Distance and Midpoint Formula Section 2.2: Graphs of Equations in Two Variables; Intercepts; Symmetry Section 2.3: Lines	Section 2.1 Notes Section 2.2 Notes Section 2.3 Notes Monday, February 13, 2023	MyMathLab: Sections 2.1, 2.2, and 2.3 Sunday, February 19, 2023
2-20-23	Section 2.4: Circles	Section 2.4 Notes Monday, February 20, 2023	MyMathLab: Section 2.4 Chapter 2 Test Sunday, February 26, 2023
2-27-23	Section 3.1: Functions Section 3.2: The Graph of a Function Section 3.3: Properties of Functions	Section 3.1 Notes Section 3.2 Notes Section 3.3 Notes Monday, February 27, 2023	MyMathLab: Sections 3.1, 3.2, and 3.3 Sunday, March 5, 2023
3-6-23	Section 3.4: Library of Functions;	Section 3.4 Notes Section 3.5 Notes Monday, March 6, 2023	MyMathLab: Sections 3.4 and 3.5 Chapter 3 Test

	Section 3.5: Graphing Techniques; Transformations		Sunday, March 12, 2023
3-20-23	Section 4.1: Linear Functions and Their Properties Section 4.2: Linear Models: Building Linear Functions from Data Section 4.3: Quadratic Functions and Their Properties Section 4.4: Building Quadratic Models from Verbal Descriptions and from Data	Sections 4.1-4.2 Notes Sections 4.3-4.4 Notes Monday, March 20, 2023	MyMathLab: Sections 4.1-4.2 and 4.3-4.4 Chapter 4 Test Sunday, March 26, 2023
3-27-23	Section 5.1: Polynomial Functions Section 5.2: Graphing Polynomial Functions; Models Section 5.5: Polynomial and Rational Inequalities	Sections 5.1-5.2 Notes Section 5.5 Notes Monday, March 27, 2023	MyMathLab: Sections 5.1-5.2 and 5.5 Sunday, April 2, 2023
4-3-23	Section 5.6: The Real Zeros of a Polynomial Function Section 5.7: Complex Zeros; Fundamental Theorem of Algebra	Sections 5.6-5.7 Notes Monday, April 3, 2023	MyMathLab: Sections 5.6-5.7 Chapter 5 Test Sunday, April 9, 2023
4-10-23	Section 6.1: Composite Functions Section 6.2: One-to-One Functions; Inverse Functions	Section 6.1 Notes Section 6.2 Notes Monday, April 10, 2023	MyMathLab: Sections 6.1 and 6.2 Sunday, April 16, 2023
4-17-23	Section 6.3: Exponential Functions Section 6.4: Logarithmic Functions	Section 6.3 Notes Section 6.4 Notes Monday, April 17, 2023	MyMathLab: Sections 6.3 and 6.4 Sunday, April 23, 2023
4-24-23	Section 6.5: Properties of Logarithms Section 6.6: Logarithmic and Exponential Equations	Section 6.5 Notes Section 6.6 Notes Monday, April 24, 2023	MyMathLab: Sections 6.4 and 6.5 Sunday, April 30, 2023
5-1-23	Chapter 6 Applications Section 8.2: Systems of Linear Equations; Matrices	Chapter 6 Applications Section 8.2 Notes Monday, May 1, 2023	MyMathLab: Chapter 6 Applications, Chapter 6 Test, and Section 8.2 Sunday, May 7, 2023

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- Course Assignments 40%
- Chapter Tests 60%

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.

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.

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.

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
1. The student must purchase all of the required course materials.
2. The student will be expected to have access to the internet and a computer.
3. A webcam and microphone are required for submitting online tests. This means that each student will be recorded while taking his or her exams. Any student violating testing policies during an exam will receive a grade of 0 on the exam.
4. A final grade of Incomplete will only be given if a student is passing the course and is missing only one major assignment. Such an arrangement must be made with the instructor. An incomplete assignment must be finished during the next long semester or a grade of "I" will become an "F."