College Algebra (MATH 1314-2A1) Online

INSTRUCTOR CONTACT INFORMATION

Instructor: Alfred de la Rosa, Jr.

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Office Phone: (409) 247-4757

Office Location: Building TA5, Room 103

Office Hours: Monday: By Appointment
Tuesday: By Appointment
Wednesday: By Appointment
Thursday: By Appointment
Friday: By Appointment

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
       Scientific calculator--no graphing calculators or calculators on cell phones, tablets, etc., are permitted.
2. 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 completing online coursework 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)
6-3-24	Course Policies and Introductions; Netiquette and MyMathLab Orientation Assignment; Online Contract; Practice Test	Course Policies and Introductions; Netiquette and MyMathLab Orientation Assignment; Online Contract; Practice Test **Wednesday, June 5, 2024**	Course Policies and Introductions; Netiquette and MyMathLab Orientation Assignment; Online Contract; Practice Test **Wednesday, June 5, 2024**
6-3-24	Section 1.1: Linear Equations Section 1.2: Quadratic Equations 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 1.6: Equations and Inequalities Involving Absolute Value Section 1.7: Problem Solving: Interest, Mixture, Uniform Motion, Constant Rate Job Applications	Section 1.1 Notes Section 1.2 Notes Section 1.3 Notes Section 1.4 Notes Section 1.5 Notes Section 1.6 Notes Section 1.7 Notes **Monday, June 10, 2024**	MyMathLab: Sections 1.1-1.7 **Monday, June 10, 2024**
6-10-24	Section 2.1: The Distance and Midpoint Formula Section 2.2: Graphs of Equations in Two Variables; Intercepts; Symmetry Section 2.3: Lines Section 2.4: Circles	Section 2.1 Notes Section 2.2 Notes Section 2.3 Notes Section 2.4 Notes **Monday, June 17, 2024**	MyMathLab: Sections 2.1-2.4 **Monday, June 17, 2024**
6-17-24	Section 3.1: Functions Section 3.2: The Graph of a Function Section 3.3: Properties of Functions Section 3.4: Library of Functions; Section 3.5: Graphing Techniques; Transformations	Section 3.1 Notes Section 3.2 Notes Section 3.3 Notes Section 3.4 Notes Section 3.5 Notes **Monday, June 24, 2024**	MyMathLab: Sections 3.1-3.5 **Monday, June 24, 2024**

6-24-24	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 Section 5.1: Polynomial Functions Section 5.2: Graphing Polynomial Functions; Models Section 5.5: Polynomial and Rational Inequalities Section 5.6: The Real Zeros of a Polynomial Function Section 5.7: Complex Zeros; Fundamental Theorem of Algebra	Sections 4.1-4.2 Notes Sections 4.3-4.4 Notes Sections 5.1-5.2 Notes Section 5.5 Notes Sections 5.6-5.7 Notes **Monday, July 1, 2024**	MyMathLab: Sections 4.1-4.4; 5.1-5.2, 5.5-5.7 **Monday, July 1, 2024**
7-1-24	Section 6.1: Composite Functions Section 6.2: One-to-One Functions; Inverse Functions Section 6.3: Exponential Functions Section 6.4: Logarithmic Functions Section 6.5: Properties of Logarithms Section 6.6: Logarithmic and Exponential Equations Chapter 6 Applications Section 8.2: Systems of Linear Equations; Matrices	Section 6.1 Notes Section 6.2 Notes Section 6.3 Notes Section 6.4 Notes Section 6.5 Notes Section 6.6 Notes Chapter 6 Applications Section 8.2 Notes **Monday, July 8, 2024**	MyMathLab: Sections 6.1-6.6; Chapter 6 Applications **Monday, July 8, 2024** Section 8.2 **Tuesday, July 9, 2024**

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 found 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 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."