Instructor: Instructor
Office: Office
Phone: 409-880-XXXX
Office Hours: Days, Times
Other times are available by appointment?
Text: College Algebra (8th ed.) by Ron Larson, Required?
Prerequisites: 270 Math THEA or C or better in CRMA 0372 If THEA exempt: 500 MATH SAT or 19 Math ACT This course prepares for: MATH 1325, 1342, 1350, 3312

Catalog Description: Study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations. Prerequisites: 270 Math THEA or C or better in CRMA 0372 if THEA exempt or 500 Math SAT or 19 Math ACT or 500 MRS. Prepares for: MATH 1316, 1342, 1350, 3312. Offered: Fall, Spring, Summer. Please Note: This course does not prepare students to advance to the calculus sequence.

MATH 1314 Learning Outcomes: Upon successful completion of this course, students will:
1. Delineate understanding and knowledge of properties of functions, which include domain and range, operations, compositions, and inverses.
2. Delineate 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. Describe, solve and apply systems of linear equations.

Lectures/Discussions/Classwork/Homework Topics:
Exponents and Radicals
Polynomials and Special Products
Factoring Polynomials
Rational Expressions
Rectangular Coordinate System and Graphs
Graphs of Equations
Linear Equations in One Variable
Modeling with Linear Equations
Quadratic Equations and Applications
Complex Numbers
Other Types of Equations
Linear Inequalities in One Variable
Other Types of Inequalities
Linear Equations in Two Variable Functions
Analyzing Graphs of Functions
Operations on Functions
Quadratic Functions and Models
Exponential Functions
Logarithmic Functions
Properties of Logarithms
Exponential and Logarithmic Equations
Linear and Nonlinear Systems of Equations
Two Variable Linear Systems
Core Curriculum Outcomes: Upon completion of this course, the student will demonstrate his or her abilities to think critically, communicate quantitative information, and apply mathematical concepts:

1. **Critical Thinking:** Develop a logical, consistent plan to solve a problem, recognize consequences of the solution, and articulate a reason for choosing solution method.
2. **Communication Skills:** Use and present quantitative information in connection with an argument or problem solution and explicate it in an effective format.
3. **Empirical and Quantitative:** Construct and present a detailed problem statement with evidence of relevant contextual factors and possible approaches for solving the problem, then implement a solution and review the results.

Major Course Components: The course will consist of lectures, discussions, classwork, and homework. There will be four exams and a final exam. Required homework for each topic will be completed using WebAssign. The Core Curriculum Objectives will be directly assessed by an in-class writing assignment prior to the final exam.

Grading Policies: There is no specific attendance requirement, however, students are warned that excessive absences are not conducive to achievement. The final grade will be computed by total points earned on four exams (80%) and percentage of points earned on homework (20%). Late work will not be accepted. Makeup tests are allowed, but must be scheduled in advance. The final grade will be based on the following scale: 90% A, 80% B, 70% C, 60% D, below 60% F.

Drop Dates: Days, times, and explanation for each drop date

Final Exam: Day, date, time Include any exemption policy.

General Information:

Lamar University expressly prohibits intimidation and harassment of students, faculty, staff, or applicants. [http://dept.lamar.edu/studentaffairs/handbook.htm](http://dept.lamar.edu/studentaffairs/handbook.htm)

Lamar University expects all students to engage in academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in their academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. [http://dept.lamar.edu/studentaffairs/handbook.htm](http://dept.lamar.edu/studentaffairs/handbook.htm)

Any student with disabilities, who needs reasonable modifications to complete assignments successfully, is encouraged to meet with me as early in the term as possible to identify and plan specific accommodations. The student will be asked to provide an accommodation memorandum from the Office of Services for Students with Disabilities. Web: [http://dept.lamar.edu/sfswd/](http://dept.lamar.edu/sfswd/) Telephone: 409-880-8026 Location: Communication Building, Rm.105, P.O. Box 10087, Beaumont, TX 77710 Director: Callie Trahan

You will have an opportunity to evaluate all aspect of this course in a formal process to be completed online near the end of the term.

While I have made a sincere effort to ensure that this syllabus is correct, changes may be required. I will announce any substantive changes during a regularly scheduled class. If you find an error or omission, please advise me at once so that the other members of the class may be advised.
Student planning to seek certification to teach grades EC-4 or 4-8: Content standard skills covered in this course are: 1.6, 1.7, 1.13, 1.15, 1.18, 1.19, 1.23, 1.21, 2.2, 2.3, 2.4, 2.5, 2.6, 2.9, 2.10, 2.11, 2.12, 2.13, 2.14, 3.3, 3.5, 3.6, 3.7, 3.14, 5.7, 5.8, 5.9, 5.11, 5.12, 5.14, 5.15, 5.16, 5.17, 5.18