

Sul Ross State University
Course Syllabus
MATH 1314-001/C01: College Algebra
Summer I 2019

Instructor: Dr. Angela Brown

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Office Hours: 10:00-12:00 M-R, others by appointment

Time and Place of Class Meetings: M-F 8:00-9:35 am ACR 204

Description of Course Content: Quadratic and higher order polynomial equations and inequalities solved algebraically, graphically and numerically; graphs and operations on relations and functions; real and complex zeros of polynomials and rational functions; exponential and logarithmic functions; systems of linear equations; matrices.

Course Prerequisites: Undergraduate level Math 0301 Minimum Grade of D or high enough score on one of the math placement exams.

Mathematics Student Learning Objectives: The graduating student should be able to

- Apply knowledge of basic mathematics principles.
- Identify and provide valid proofs or solutions for theorems or problems.
- Recognize and dispute invalid mathematical statements by using counter-examples.

EC-6 Core Teacher Competencies:

- CO 013 (Mathematics Instruction) The teacher understands how students learn mathematical skills and uses that knowledge to plan, organize and implement instruction and assess learning.
- CO 014 (Number Concepts and Operation) The teacher understands concepts related to numbers, operations and algorithms and the properties of numbers.
- CO 015 (Patterns and Algebra) The teacher understands concepts related to patterns, relations, functions and algebraic reasoning.
- CO 016 (Geometry and Measurement) The teacher understands concepts and principles of geometry and measurement.
- CO 017 (Probability and Statistics) The teacher understand concepts related to probability and statistics and their applications.
- CO 018 (Mathematical Processes) The teacher understands mathematical processes and knows how to reason mathematically, solve mathematical problems and make mathematical connections within and outside of mathematics.

Course Objectives:

- The student will be able to solve linear, quadratic, rational and radical equations and inequalities using various methods.
- The student will be able to graph functions by plotting points and performing transformations on certain parent functions.
- The student will be able to graph polynomial functions by finding roots using synthetic or long division and distinguish the end behavior of graphs.
- The student will be able to model growth and decay problems using exponential functions.
- The student will be able to solve systems of equations in two and three variables.

Required Textbooks: *College Algebra* 6th ed, Blitzer, ISBN 978-0321782281.

Other Equipment Needed: paper and pencils, graph paper recommended

Grading Scale: 90-100 A, 80-89 B, 70-79 C, 60-69 D, 59-Below F

Grading Policy: The grade weighting will be as follows:

Homework/In Class Assignments/Quizzes: 30%

Exams: 40%

Final Exam: 30%

Quizzes: You will have in class quizzes over material covered. These quizzes will be graded out of 100 points and are designed to only take 3-7 minutes. These could also contain questions concerning the material you are have read to prepare for class.

Homework: Homework will be assigned daily and will be posted on Blackboard. Due dates will be posted to Blackboard as well. Copying off other people or from other sources is cheating and will be prosecuted as such.

In Class Assignments: In class assignments will be given most days. You are expected to read the section before we cover it in class.

Exams: No make-up exams will be given. If an exam is missed with a valid excuse, the grade on the final can replace this exam. Any exams missed beyond one will be an automatic zero. Exams will be closed notes, closed book, and no calculator will be allowed unless otherwise stated by your instructor. Any restroom breaks need to be taken before an exam starts. You cannot leave the classroom in the middle of an exam under any circumstances until you have completed the exam. No cell phones should be on during exams or quizzes and your exam/quiz will be taken up if your phone rings or vibrates.

Attendance Policy: Students are expected to attend every class. If class must be missed, the student is expected to get the notes from a classmate, and to check with me or on Blackboard for announcements and updated assignments.

Students are expected to arrive to class on time. If a student is perpetually late, they will be asked to not attend class unless they can arrive on time. If tardiness becomes a problem for the class as a whole, people who arrive late will not be permitted to enter the class. If this stricter policy becomes necessary, there will be an announcement made in class.

It is policy of the university to drop a student with a grade of “F” if 9 hours or more of class are missed. For this course that would be 6 or more class sessions missed.

Cell Phone Policy: Cell phones are not allowed in class. They can not be used as calculators on any assignment. Any phone ringing during class will be taken up until the end of class. If a phone rings during a test or quiz, the student will forfeit their right to finish said test or quiz.

Americans With Disabilities Act: ADA (Americans with Disabilities Act) Sul Ross State University is committed to equal access in compliance with the Americans with Disabilities Act of 1973. It is the student’s responsibility to initiate a request for accessibility services. Students seeking accessibility services must contact Mary Schwartz-Grisham, M. Ed., LPC., in Counseling and Accessibility Services, Ferguson Hall, Room 112. The mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas. Telephone: 432-837-8691. E-mail: mschwartz@sulross.edu . **Important Dates:**

- May 29 1 First Day of Classes
- May 31 Last Day for Late Registration and Schedule Changes
- June 3 4th Class Day-Last Day to Drop a Course Without Creating an Academic Record
- June 20 Last Day to Withdrawal from University or Drop Classes with a Grade of “W” (by 4 pm)
- July 4 Fourth of July Holiday
- July 5 Final Exams

Tentative Schedule-Subject to Change									
Monday		Tuesday		Wednesday		Thursday		Friday	
				May 29	Intro, Graphs	May 30	Linear Equations, Complex Numbers	May 31	Quadratic Equations, Rational Equations
June 3	Other Equations, Linear Functions	June 4	Quadratic Functions Rational Functions	June 5	Transformations, Polynomial Functions	June 6	Exam 1	June 7	Algebra of Functions and Inverse Functions
June 10	Distance and Midpoint Formulas, Circles	June 11	Inequalities	June 12	Exponential Functions	June 13	Logarithmic Functions and Properties	June 14	Exponential and Log Equations
June 17	Exam 2	June 18	Exponential Growth and Decay	June 19	Systems of Equations of Two Variables	June 20	Systems of Equations of Three Variables	June 21	Systems of Inequalities
June 24	Matrices and Vectors	June 25	Matrices and Vectors	June 26	Exam 3	June 27	Conic Sections	June 28	Conic Sections
July 1	Conic Sections	July 2	Final Exam Review/ Catch Up	July 3	Holiday	July 4	Final Exam		