

Sul Ross State University
Course Syllabus
MATH 1314-C01: College Algebra
Fall 2019

Instructor: Mr. Richard Mrozinski

Offices: RAS 113 (MWF), ACR 107C (TR)

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Office Hours: MW 1-2 RAS 113; TR 10:45-11:30 and 1:45-2:30 ACR 107C; F 10-12 RAS 113; or by appointment

Class Meeting Time and Place: TR 9:30-10:45 am in ACR 204

Course Description: In-depth study and applications of polynomial, rational, radical, and exponential and logarithmic functions and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included.

Course Prerequisites: Undergraduate level Math 0300 Minimum Grade of C 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 and Software:

1. *College Algebra, A Concise Approach* by P. Sisson (Math 1314 textbook)
2. *College Algebra + Integrated Review Guided Notebook* version 2 by Hawkes Learning (Math 0314 workbook)
3. Hawkes online software access code (single code for Math 0314; After you enroll in Hawkes' Math 0314 online course, Hawkes will then automatically enroll you in the Math 1314 online course)

These items MUST be purchased together as a bundle at the Sul Ross bookstore (ISBN 978-1-6427715-5-8). They should not be purchased anywhere else separately, because you will spend more!

Other Equipment Needed: Graph paper (helpful but optional). Scientific calculator (**required**). A scientific calculator is one that has buttons with denotations such as \sqrt{y} , y^x , a^b , log, ln, e^x . Appropriate scientific calculators cost around 7-35 dollars each. GRAPHING CALCULATORS ARE NOT ALLOWED (for example the TI-83, TI-84, TI-89 or TI-92).

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

Grading Policy: The grade weighting will be as follows:

Homework: 30%

Exams: 70% (There will be 3 equally-weighted exams, including the final exam.)

Homework: Homework will be assigned each class period in Hawkes. Possible scores are 0, 25, 50, 75, and 100. A zero is given if the mastery level of 80% is not reached in Hawkes Certify mode. If the mastery level is achieved, and the homework is completed on time, a score of 100 is earned. If the mastery level is achieved, but the homework is 0-1 days late, a score of 75 is earned; for 1-2 days late the score will be 50; for 2-3 days late the score will be 25; for 3 or more days late the score will be zero regardless of mastery achieved.

Exams: No make-up exams will be given without a valid excuse communicated to the instructor before the exam starts. Exams will be closed notes, closed book, and a NON-GRAPHING scientific calculator will be allowed. Any restroom breaks need to be taken before an exam starts. No cell phones should be on during exams.

Participation: I expect a high level of engagement to enhance everyone's learning. This includes interacting with the instructor and other students, asking questions during class, completing outside of class assignments and readings, and being prepared to participate in class discussions

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/Hawkes 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 8 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 or exam. 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 that test or quiz.

Academic Integrity: On all work submitted for credit by students at the university, the following pledge is implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” Unauthorized aid includes copying, sharing, or obtaining information from an unauthorized source, attempting to take credit for the intellectual work of another person, falsifying information, and giving or receiving information about a test, quiz, or assignment to other students. Any student involved in academic dishonesty will receive no credit (0) for work done and/or may be penalized in accordance with published University Rules.

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, M. Ed., L.P.C., in Counseling and Accessibility Services, Ferguson Hall, Room 112. The mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas 79832. Telephone: 432-837-8203 8691. E-mail: mschwartz@sulross.edu.

Tentative Schedule-Subject to Change

Tuesday	Topic(s)	Thursday	Topic(s)
8/27	Course Intro	8/29	1.1
9/03	1.2	9/05	1.3
9/10	1.4	9/12	1.4, 1.5
9/17	1.5, 1.6	9/19	2.1
9/24	2.2	9/26	2.3
10/01	Exam I (1.1-2.2)	10/03	2.4, 2.5
10/08	2.5, 2.6	10/10	3.1, 3.2
10/15	3.2, 3.3	10/17	4.1
10/22	4.1, 4.2	10/24	4.5, 4.6
10/29	4.6, 5.1	10/31	5.1, 5.2
11/05	Exam II (2.3-4.6)	11/07	5.2, 5.3
11/12	5.3, 5.4	11/14	7.1, 7.2
11/19	7.2, 7.3	11/21	7.4
11/26	Catch Up Day	11/28	Thanksgiving Holiday
12/03	7.5	12/05	Dead Day

NOTE: Final Exam for Math 1314 C01 will be held on Mon Dec 09 from 8:00-10:00 am.