

Instructor: Sandra Chambers

Offices: Ferguson Hall 203

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Office Hours: MTW 1-3m via Zoom

Class Meeting Time and Place: MTWTRF 8-9:50AM Ferguson Hall 201

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. **REQUIRED:** Hawkes Online Software Access Code (online learning system plus Sisson e-book)

2. **OPTIONAL:** College Algebra Guided Notebook by C. Schroeder (Accompanying help for this specific course) **NOTES:**

- You must purchase Item 1 above (a Hawkes license) by class time no later than the 2nd class day. If you have not purchased your Hawkes access by the end of July 7th, you will be dropped from this class with an “F.”  
Hawkes Tech Support: M-F, 7:00 AM to 9:00 PM (Central Time), 843-571-2825, <http://support.hawkeslearning.com/supportcenter/>
- First time Math 1314 Students: Items 1 and 2 above can be purchased as a bundle
- Repeating Students: If you already have Hawkes access (remember it’s for life)
- All students: The optional guided notebook is available for purchase (ISBN 978- 1-941552-34-6); it is designed to help walk you through the material of the course (Items 1 above) and stay organized.
- Other Equipment Needed:

**1.REQUIRED:** Scientific calculator. 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).

**2.OPTIONAL:** Graph paper.

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: 20% Quizzes: 20% Exams: 60% (There will be 4 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 80% 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 MATH 0314. If class must be missed, email me before class and the student is expected to find out what was missed.

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 4 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. 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 (SRSU) is committed to equal access in compliance with Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the Student's responsibility to initiate a request. Please contact Ms. Rebecca Greathouse Wren, M.Ed., LPC-S, Director/Counselor, Accessibility Services Coordinator, Ferguson Hall (Suite 112) at 432.837.8203; mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas 79832. Students should then contact the instructor as soon as possible to initiate the recommended accommodations.