

College Algebra

Time: MW 11 – 12:15

Room: ACR 205

Instructor: Eric Funasaki

Offices: ACR 109C (MW 1 – 1:50, MW 3:30 – 5)

BAB 210 (MW 8 – 10:50, TRF 8 – 12, TRF 1 – 5)

Phone: 432-837-8109

e-mail: eric.funasaki@sulross.edu

Office hours:

MW 1 – 1:50, MW 3:30 – 5, or by appointment.

Textbook:

College Algebra, 3rd edition, by Paul Sisson.

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 added.

Course Objectives:

The student should be able to:

1. Identify and work with functions and their graphs;
2. Find the zeros of polynomial functions;
3. Recognize and manipulate exponential and logarithmic functions;
4. Solve systems of linear equations; and
5. Use matrices and vectors in simple problems.

Core Curriculum Student Learning Outcomes:

1. Critical Thinking. Students will develop critical thinking skills to include creative thinking, innovation, inquiry, and analysis, evaluation, and synthesis of information.
2. Communication. Students will develop communication skills to include effective development, interpretation and expression of ideas through written, oral, and visual communication.

Course Assessment:

Your grade will be based on the following components:

- 10% In-class problems and participation
- 24% Homework assignments and quizzes
- 48% Exams
- 18% Final Exam

The grading scale will be:

90 – 100 A 80 – 89 B 70 – 79 C 60 – 69 D 0 – 59 F

Course Schedule (tentative):

Week 1

- 8/24 M 1.1 Real Numbers, 1.8 Complex Numbers
- 8/26 W 1.8 Complex Numbers, 2.1 Linear Equations in One Variable

Week 2

- 8/31 M 2.3 Quadratic Equations in One Variable
- 9/2 W 2.3 Quadratic Equations in One Variable

Week 3

- 9/7 M Labor Day (no class)
- 9/9 W 2.3 Quadratic Equations in One Variable

Week 4

- 9/14 M 3.1 The Cartesian Coordinate System, 3.3 Linear Equations in Two Variables
- 9/16 W 3.4 Forms of Linear Equations

Week 5

- 9/21 M 4.1 Relations and Functions
- 9/23 W Review for Exam 1

Week 6

- 9/28 M Exam 1
- 9/30 W 4.2 Linear Functions, 4.3 Quadratic Functions

Week 7

- 10/5 M 6.1 Polynomial Equations and Polynomial Inequalities
- 10/7 W 6.1 Polynomial Equations and Polynomial Inequalities

Week 8

- 10/12 M 6.2 Polynomial Division and the Division Algorithm
- 10/14 W 6.3 Locating Real Zeros of Polynomials

Week 9

- 10/19 M 6.3 Locating Real Zeros of Polynomials
- 10/21 W Review for Exam 2

Week 10

10/26 M Exam 2

10/28 W 5.3 Combining Functions, 5.4 Inverses of Functions

Week 11

11/2 M 7.1 Exponential Functions and Their Graphs

11/4 W 7.1 Exponential Functions and Their Graphs

Week 12

11/9 M 7.3 Logarithmic Functions and Their Graphs

11/11 W 7.4 Logarithmic Properties and Models

Week 13

11/16 M 7.5 Exponential and Logarithmic Equations

11/18 W 7.5 Exponential and Logarithmic Equations

Week 14

11/23 M Review for Exam 3

11/25 W Thanksgiving (no class)

Week 15

11/30 M Exam 3

12/2 W Review for Final Exam

Week 16

12/8 T Final Exam (10:15 am – 12:15 pm)

Attendance Policy:

Role will be taken. You are responsible for all material covered in class as well as any assignments and announcements that are made. If you miss an assignment, exam, or quiz you will receive a grade of zero unless I have been notified in advance.

Sul Ross State University policy allows an instructor to drop a student with a grade of W or F when 9 hours of class are missed. For this course that is when you miss **6** classes.

Cheating:

Cheating will not be tolerated. Anyone caught cheating will receive a grade of zero on that assignment. This includes homework assignments where the student who copied another student's work and the student who allowed their work to be copied will both receive a grade of zero.

Cell Phones and Other Electronic Devices:

Your cell phone must be **off** while you are in class. You may not read or send text messages while class is in session. If there is an unusual situation where you simply must be able to read and send a message without delay, place your phone in vibrate mode and leave the room before reading and responding. No other electronic devices may be used during class without the permission on the instructor.

Use of Generative Artificial Intelligence (AI):

In this course, every element of class assignments must be fully prepared by the student. The use of generative AI tools for any part of your work will be treated as plagiarism. If you have questions, please contact me.

Student Responsibilities Statement:

All full-time and part-time students are responsible for familiarizing themselves with the Student Handbook and the Undergraduate and Graduate Catalog and for abiding by the University rules and regulations. Additionally, students are responsible for checking their Sul Ross email as an official form of communication from the university. Every student is expected to obey all federal, state, and local laws and is expected to familiarize themselves with the requirements of such laws.

ADA Statement:

Sul Ross State University (SRSU) is committed to equal access in compliance with the 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 each semester for each class. To help protect confidentiality, students seeking accessibility/accommodation(s) services must submit the Accommodation Request Form located on our website. Students are welcome to call the Office of Accessibility Services at 432-837-8203 or stop by Ferguson Hall Room 112 if they have any additional questions regarding the process. Our mailing address is PO Box C-122; Alpine, TX 79832.

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