



COURSE SYLLABUS

Math 1314 (College Algebra, Dual Credit)
Spring 2024

Class Meetings: Monday-Friday ; 8:30 – 10:00

Room: C-13 (Eagle Pass High School)

Instructor: Marites Romero

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EPHS Phone Number: 830-773-2381

Office Hours: M-F 3:00 – 4:20 or by appointment

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 included. (Prerequisite: Two years of high school algebra and a passing score on TSIA2)

Textbook: Sisson, Paul. *Algebra and Trigonometry*, Hawkes Learning
ISBN: Software and eBook 978-1-64277-527-3

Course Objectives:

The student should be able to:

1. solve linear, quadratic, rational and radical equations and inequalities using various methods;
2. identify and work with functions and their graphs and perform transformations on certain parent functions;
3. find the zeros of polynomial functions using synthetic or long division and distinguish the end behavior of graphs;
4. recognize and manipulate exponential and logarithmic functions;
5. solve systems of linear equations in 2 or 3 variables.

Mathematics Program Learning Objectives:

The graduating student should be able to

- demonstrate content knowledge of basic mathematical principles
- manifest proficiency in logic, able to negate statements, provide counterexamples to false statements, and determine the validity of arguments
- communicate mathematical content clearly and with valid reasoning

Student Learning Outcomes:

Students will develop

- critical thinking skills to include creative thinking, innovation, inquiry, analysis, evaluation, and synthesis of information
- communication skills to include effective development, interpretation, and expression of ideas through written, oral, and visual communication

Marketable Skills-Mathematics BS:

- Students Demonstrate Logical and Analytical Skills.
- Students Demonstrate Problem-Solving Using Analytic and Algebraic Methods.
- Students Use Technology in Problem-Solving and Presentation.
- Students Use Communication and Pedagogical Skills.

EC-6 Teaching Competencies

- Competency 013 (Mathematics Instruction) The teacher understands how students learn mathematical skills and uses that knowledge to plan, organize, and implement instruction and assess learning.
- Competency 014 (Number Concepts and Operation) The teacher understands concepts related to numbers, operations and algorithms and the properties of numbers.
- Competency 015 (Patterns and Algebra) The teacher understands concepts related to patterns, relations, functions and algebraic reasoning.
- Competency 016 (Geometry and Measurement) The teacher understands concepts and principles of geometry and measurement.
- Competency 017 (Probability and Statistics) The teacher understands concepts related to probability and statistics and their applications.
- Competency 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 Assessment:

Course grade will be based on the following components.

Homework, Daily Assignments, Quizzes	30%
Project	10%
Exams	40%
Final Exam	20%

Grading Scale:

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

Class Policies

Regular attendance is expected of all students, come to class on time. Students are expected to log in to blackboard and Hawkes on a regular basis and they are also responsible for all materials and assignments missed because of absence or tardiness. Extended absence (due to illness or injury) should be reported immediately. **Students who have excessive absences will be reported to the Dual Credit coordinator and might be dropped from the class.**

Be attentive and engaged in class. Refrain from using the cell phones and other electronic devices during class. You will be required to turn in your cell phone during an exam.

Class participation is a very important part of the learning process in this course. Although it is not explicitly graded, you will be evaluated on the quality of your contributions and insights. I will use the assessment of your participation to manage borderline grades.

Cheating will not be tolerated, it includes (but is not limited to) turning in work that is not your own, using prohibited materials (electronic or written) during an exam, copying off another person's exam, allowing someone to copy off of your exam, or having someone take an exam for you. Any work submitted should be your own. If you are caught cheating on the exam, you will get a grade of 0 and no make-up test will be given for that exam. You are expected to conduct yourselves in accordance with the

Student Code of Conduct, which prohibits cheating, plagiarism, and other forms of academic dishonesty. Academic integrity is expected from all students.

Homework and classwork will consist of problems from the textbook, and may include other activities/problems as well. You are encouraged to work with study partners. Collaboration and checking answers on homework is allowed and encouraged. Copying homework is not tolerated. You still must work through the details of the problem after you have gotten help, write the final solutions yourself, and understand them fully. Sometimes, homework will be checked in class for completeness, not for accuracy. On occasion, homework will not be checked. Most classwork, however, will be graded for accuracy. Turning in work late will receive a penalty. No late work will be accepted 3 days after the due date. Exceptions can be made for exceptional reasons beyond your control or at my discretion if you let me know in advance.

Seek help if you do not understand a concept or problem. Math is a subject in which each new concept builds on previous concepts. Therefore, it is very important that you understand every concept, or you will be unable to understand later concepts. Do not fall behind.

If you need extra help, I can be available outside of class during school hours if you give me enough advance notice.

Lesson Schedule (Dates are subject to change.)

Date	Lesson Name	Exams
Jan 9-12	Real Numbers, Algebraic Expression, Exponents, Radicals	
Jan 15-18	Polynomials, Factoring, Rational Expression, Complex Numbers	Chapter 1 Exam
Jan 22-26	Linear Equation & Inequality, Quadratic & Polynomial Eqtns in 1 variable,	
Jan 29-Feb 2	Rational & Radical Equations	Chapter 2 Exam
Feb 5-9	Coordinate System, Circles, Linear Eqtn in 2 variables	
Feb 12-16	Slope, Forms of Linear Eqtn, Linear Inequalities in 2 variables	Chapter 3 Exam
Feb 19-23	Linear, Quadratic, and Other Common Functions	
Feb 26-Mar 1	Variation, Mathematical Models	Chapter 4 Exam
Mar 4-8	Transformations and Properties of Functions	
Mar 18-22	Combining Functions, Inverses of Functions	Chapter 5 Exam
Mar 25-28	Polynomial Functions, Polynomial Inequalities	
Apr 2-5	Polynomial Division, Zeros of Polynomial Func, Fundamental Thm of Algebra	
Apr 9-12	Rational Function, Rational Inequalities	Chapter 6 Exam
Apr 15-19	Exponential Func, Graphs, and Models	
Apr 22-26	Logarithmic Func & Graphs, Log Properties & Models,	
Apr 29- May 3	Expo & Log Eqtns	Chapter 7 Exam

May 6-10	Systems of Linear Equations; Basic Matrix Operations	Final Exam (Comprehensive)
May 13-17	Inverses of Matrices, Systems of Linear Inequalities, Systems of Nonlinear Equations	
May 20-24	Systems of Nonlinear Inequalities	Chapter 12 Exam

The teacher reserves the right to make changes as necessary to this syllabus. If changes are made during the term of the course, the teacher will immediately notify students of such changes.

Technical Support

The Support Desk is where you can direct your more technical questions. For example, the Support Desk can help you if you are having issues submitting a document, getting videos to play, or using BlackBoard. The support desk is open 24 hours a day/7 days a week for your convenience. You can reach the support desk 24 hours a day/7 days a week by calling 888.837.6055 or via email blackboardsupport@sulross.edu

You also have access to Hawkes Tech Support: online 24/7 at [Hawkeslearning.com](https://support.hawkeslearning.com/supportcenter/) <https://support.hawkeslearning.com/supportcenter/> This link is provided in Google Classroom.

Americans With Disabilities Act

SRSU Accessibility Services. 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. Students seeking accessibility/accommodations services must contact Mrs. Mary Schwartze Grisham, LPC, SRSU's Accessibility Services Director or Ronnie Harris, LPC, Counselor, at 432-837-8203 or email mschwartz@sulross.edu or ronnie.harris@sulross.edu. RGC students can also contact Alejandra Valdez, at 830-758-5006 or email alejandra.valdez@sulross.edu. Our office is located on the first floor of Ferguson Hall, room 112, and our mailing address is P.O. Box C122, Sul Ross State University, Alpine. Texas, 79832.

Academic Integrity

Students in this class are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. Students should submit work that is their own and avoid the temptation to engage in behaviors that violate academic integrity, such as turning in work as original that was used in whole or part for another course and/or professor; turning in another person's work as one's own; copying from professional works or internet sites without citation; collaborating on a course assignment, examination, or quiz when collaboration is forbidden. Students should also avoid using open AI sources **unless permission is expressly given** for an assignment or course. Violations of academic integrity can result in failing assignments, failing a class, and/or more serious university consequences. These behaviors also erode the value of college degrees and higher education overall.