MATH 1314 (3:3:1)

College Algebra

MATHEMATICS DEPARTMENT

Division of Arts & Sciences

South Plains College
Reese Center

Fall 2019

Traci Sanders

Fall 2019
College Algebra: Math 1314.207

Classroom: RC 219   **Time:** TR 11:00 – 12:45

Instructor	Traci Sanders
E-mail	tsanders@southplainscollege.edu
Phone	716-4616
Office	RC 223-C

Office Hours:

Monday	Tuesday	Wednesday	Thursday	Friday
10:15 – 11:45	10:15 – 11:00 12:45 – 1:15	10:15 – 12:15	10:15 – 11:00	8:30 – 11:00

Course Description: A standard course in College Algebra. This course will include in-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions and systems of equations using matrices.

Text: No textbook is required.

Supplies: notebook paper (to be turned in without spiral edges), scientific or graphing calculator (cell phones, smart watches, TI-89, TI-92, TI-Nspire calculators, or other electronic devices will not be allowed during testing), pencils, straightedge

Grading Policy: Grades will be averaged according to the following percentages:

Lab Average	15%
Test Average	65%
Final Exam	20%

Grading Scale:
- A: 90 and above
- B: 80 – 89
- C: 70 – 79
- D: 65 – 69
- F: 64 or below

Tests: There will be 4 tests and a comprehensive final exam. There will be **NO MAKEUP TESTS!** Dates are listed for all tests, including the final exam, so **PLAN AHEAD!** On test days, students will be required to leave backpacks, cell phones, smart watches, etc. at the front of the room.

Homework: Homework will be assigned for all of the sections covered in the course. Homework should be completed on notebook paper. Write down the problems, and show your work. For most weeks, the homework will be due on Tuesdays. Any change to the Tuesday deadlines will be announced in class. For each completed homework assignment, one point will be added to that test grade. Time will be given during class to answer questions on the homework.

Labs: Excluding test days, approximately the last 30 minutes of class will be our lab time. The lowest three lab grades will be dropped. **THERE ARE NO MAKEUP LABS!** Here are the two different types of labs we will have:
1. Work on homework. As long as you participate, you will receive a 100 for these labs. If you are absent, you will receive a zero.
2. Work a few problems to be turned in for a grade. If you are absent, you will receive a zero.

Attendance: Attendance and effort are the most important activities for success in this course. Whenever you have 4 consecutive or 6 total absences, the instructor may withdraw you from the courses with a grade of X or F. I do not distinguish between excused and unexcused absences. If you stop attending class, you should go through the procedure for dropping a course to obtain a grade of W. Perfect attendance will result in 4 points added to your final grade. Having only one absence will result in 2 points added to your final grade. If you must miss, find out what the homework assignment was and stay caught up!

Important Dates:

	September 2	Labor Day Holiday
	October 11	Fall Break
	November 11	Spring Registration Opens
	November 14	Last Day to Drop
	November 27 - 29	Thanksgiving Break
	December 10	Final Exam

Course Outcomes:
Upon successful completion of this course, students will:
1.   Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses.
2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and solve related equations.
3. Apply graphing techniques.
4. Evaluate all roots of higher degree polynomial and rational functions.
5. Recognize, solve and apply systems of linear equations using matrices.

Core Objectives:
Communication Skills
- Develop, interpret, and express ideas through written communication
- Develop, interpret, and express ideas through oral communication
- Develop, interpret, and express ideas through visual communication

Critical Thinking
- Generate and communicate ideas by combining, changing, and reapplying existing information
- Gather and assess information relevant to a question
- Analyze, evaluate, and synthesize information

Empirical and Quantitative Competency Skills
- Manipulate and analyze numerical data and arrive at an informed conclusion
- Manipulate and analyze observable facts and arrive at an informed conclusion

Academic Integrity: The attempt of any student to present as his or her own any work which he or she has not honestly performed is regarded by the faculty and administration as a serious offense and renders the offender liable to serious consequences, possibly suspension. For more detail, see p. 22 of the South Plains College General Catalog.

Diversity Statement: In this class, the teachers will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

Non-Discrimination Statement: South Plains College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College, 1401 College Avenue, Box 5, Levelland, TX 79336. Phone number 806-716-2360.

Disability Statement: Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability. For more information, call or visit the Disability Services Office at, Reese Center Building 8, 806-716-4675.

Title IX Pregnancy Accommodations Statement: If you are pregnant, or have given birth within six months, Under Title IX you have a right to reasonable accommodations to help continue your education. To activate accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Director of Health and Wellness. Once approved, notification will be sent to the student and instructors. It is the student's responsibility to work with the instructor to arrange accommodations. Contact Crystal Gilster, Director of Health and Wellness at 806-716-2362 or email cgilster@southplainscollege.edu for assistance.

Campus Concealed Carry Statement: South Plains College permits the lawful carry of concealed handguns in accordance with Texas state law, and Texas Senate Bill 11. Individuals possessing a valid License to Carry permit, or the formerly issued Concealed Handgun License, may carry a concealed handgun at all campus locations except for the following: natatorium. For a complete list of campus carry exclusions zones by event, please visit http://www.southplainscollege.edu/campuscarry.php

Course Outline
This is a tentative schedule. Any changes will be announced in class and posted in Blackboard.

Week	Dates	Day	Topic	Lab	Assignment
1	Aug 27	Tues	Linear & Absolute Value Equations; Assessment Test		1.1
	Aug 29	Thurs	Linear Inequalities; Factoring Review		1.2
2	Sept 3	Tues	Complex Numbers & Simplifying Radical Expressions		1.3
	Sept 5	Thurs	Quadratic Equations: Factoring & Square Root Property		1.4
3	Sept 10	Tues	Quadratic Equations: Complete the Square & Quadratic Formula		1.5
	Sept 12	Thurs	Rational Equations & Radical Equations		1.6
4	Sept 17	Tues	Basics of Functions & Analyzing Graphs		2.1
	Sept 19	Thurs	TEST 1 (1.1 – 1.6)		
5	Sept 24	Tues	Evaluating Functions & Symmetry		2.2
	Sept 26	Thurs	Increasing, Decreasing, & Piecewise Functions		2.3
6	Oct 1	Tues	Graphs & Transformations		2.4
	Oct 3	Thurs	Functions: Operations & Composition		2.5
7	Oct 8	Tues	Functions: Composition & Inverses		2.6
	Oct 10	Thurs	Linear Functions: Slope, Graph, Parallel, & Perpendicular		3.1
8	Oct 15	Tues	TEST 2 (2.1 – 2.6)		
	Oct 17	Thurs	Graph Quadratic Functions		3.2
9	Oct 22	Tues	Synthetic Division & Polynomial Equations		3.3
	Oct 24	Thurs	Graph Polynomial Functions		3.4
10	Oct 29	Tues	Graph Rational Functions		3.5
	Oct 31	Thurs	Polynomial & Rational Inequalities		4.1
11	Nov 5	Tues	TEST 3 (3.1 – 3.5)		
	Nov 7	Thurs	Exponential & Log Functions: Basics & Graphs		4.2
12	Nov 12	Tues	Properties of Logs		4.3
	Nov 14	Thurs	Exponential & Log Equations		4.4
13	Nov 19	Tues	Solve Systems in Two Variables & Three Variables		5.1
	Nov 21	Thurs	TEST 4 (4.1 – 4.4)		
14	Nov 26	Tues	Solve Systems Using Matrices		5.2
	Nov 28	Thurs	**Thanksgiving Holiday**		
15	Dec 3	Mon	Solve Systems Using Cramer's Rule		5.3
	Dec 5	Thurs	Review for Final Exam		
16	*Final Exam - Tuesday, December 10, 10:15 – 12:15*				