

MATH 1314 (3:3:1)

College Algebra

MATHEMATICS DEPARTMENT

Division of Arts & Sciences

South Plains College
Reese Center

Spring 2020

Traci Sanders

South Plains College
Common Course Syllabus: MATH 1314

Department: Mathematics, Engineering, and Computer Science

Discipline: Mathematics

Course Number: MATH 1314

Course Title: College Algebra

Available Formats: conventional, internet, and ITV

Campuses: Levelland, Reese, Plainview, Lubbock Center, and Dual Credit

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: Minimum score of 350 on the TSIA, TSI-exempt status, or a successful completion with a grade of 'C' or better in MATH 0320.

Credit: 3 **Lecture:** 3 **Lab:** 1

This course partially satisfies a Core Curriculum Requirement: Mathematics Foundational Component Area (020)

Core Curriculum Objectives addressed:

- **Communications skills**—to include effective written, oral and visual communication
- **Critical thinking skills**—to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- **Empirical and quantitative competency skills**—to manipulate and analyze numerical data or observable facts resulting in informed conclusions

Student Learning Outcomes: Upon completion of this course and receiving a passing grade, the student will be able to:

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.

Student Learning Outcomes Assessment: A pre- and post-test will be used to determine the extent of improvement that the students have gained during the semester.

Course Evaluation: There will be departmental final exam questions given by all instructors.

Attendance Policy: Attendance and effort are the most important activities for success in this course. Records of your attendance are maintained throughout the semester. Five (5) absences, **for any reason**, are allotted to the student for the semester. Tardies count as one-half (1/2) of an absence. Tardies will be applied for consistently being late to class, as deemed by the instructor and leaving class early. If this number is exceeded, the instructor has the right to drop you with a grade of F or an X, depending on their discretion.

Plagiarism violations include, but are not limited to, the following:

1. Turning in a paper that has been purchased, borrowed, or downloaded from another student, an online term paper site, or a mail order term paper mill;
2. Cutting and pasting together information from books, articles, other papers, or online sites without providing proper documentation;
3. Using direct quotations (three or more words) from a source without showing them to be direct quotations and citing them; or
4. Missing in-text citations.

Cheating violations include, but are not limited to, the following:

1. Obtaining an examination by stealing or collusion;
2. Discovering the content of an examination before it is given;
3. Using an unauthorized source of information (notes, textbook, text messaging, internet, apps) during an examination, quiz, or homework assignment;
4. Entering an office or building to obtain an unfair advantage;
5. Taking an examination for another;
6. Altering grade records;
7. Copying another's work during an examination or on a homework assignment;
8. Rewriting another student's work in Peer Editing so that the writing is no longer the original student's;
9. Taking pictures of a test, test answers, or someone else's paper.

Student Code of Conduct Policy: Any successful learning experience requires mutual respect on the part of the student and the instructor. Neither instructor nor student should be subject to others' behavior that is rude, disruptive, intimidating, aggressive, or demeaning. Student conduct that disrupts the learning process or is deemed disrespectful or threatening shall not be tolerated and may lead to disciplinary action and/or removal from class.

Diversity Statement: In this class, the teacher 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.

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 to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland (Student Health & Wellness Office) 806-716-2577, Reese Center (Building 8) 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

Nondiscrimination Policy: 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.

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 the Director of Health and Wellness at 806-716-2362 or [email cgilster@southplainscollege.edu](mailto:cgilster@southplainscollege.edu) for assistance.

Campus Concealed Carry: Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in South Plains College buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and South Plains College policy, license holders may not carry a concealed handgun in restricted locations. For a list of locations and Frequently Asked Questions, please refer to the Campus Carry page at: <http://www.southplainscollege.edu/campuscarry.php> Pursuant to PC 46.035, the open carrying of handguns is prohibited on all SPC campuses. Report violations to the College Police Department at 806-716-2396 or 9-1-1.

SPC Bookstore Price Match Guarantee Policy: If you find a lower price on a textbook, the South Plains College bookstore will match that price. The difference will be given to the student on a bookstore gift card! The gift card can be spent on anything in the store.

If students have already purchased textbooks and then find a better price later, the South Plains College bookstore will price match through the first week of the semester. The student must have a copy of the receipt and the book has to be in stock at the competition at the time of the price match.

The South Plains College bookstore will happily price match BN.com & books on Amazon noted as *ships from and sold by Amazon.com*. Online marketplaces such as *Other Sellers* on Amazon, Amazon's Warehouse Deals, *fulfilled by Amazon*, BN.com Marketplace, and peer-to-peer pricing are not eligible. They will price match the exact textbook, in the same edition and format, including all accompanying materials, like workbooks and CDs.

A textbook is only eligible for price match if it is in stock on a competitor's website at time of the price match request. Additional membership discounts and offers cannot be applied to the student's refund.

Price matching is only available on in-store purchases. Digital books, access codes sold via publisher sites, rentals and special orders are not eligible. Only one price match per title per customer is allowed.

Note: The instructor reserves the right to modify the course syllabus and policies, as well as notify students of any changes, at any point during the semester.

Spring 2020
College Algebra: Math 1314.206

Classroom	RC 220	Time	TR 11:00 – 12:45
Instructor	Traci Sanders	Phone	716-4616
E-mail	tsanders@southplainscollege.edu	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

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 labs or testing), pencils, straightedge

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

Lab Average	10%
Test Average	70%
Final Exam	20%

Grading Scale: A: 90 and above, B: 80 – 89, C: 70 – 79, D: 60 – 69, F: 59 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 at the beginning of class. Any change to the Tuesday deadlines will be announced in class. Late homework will not be accepted. 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: Whenever you have 5 total absences, you may be dropped from the course 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 3 points added to your final grade. Having only one absence will result in 1 point added to your final grade. If you must miss, find out what the homework assignment was and stay caught up!

Important Dates:	January 20	Martin Luther King Jr Day Holiday
	March 16 – 20	Spring Break
	April 13	Easter Holiday
	April 20	Registration Opens
	April 23	Last Day to Drop
	May 5	Final Exam

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

Week	Dates	Day	Topic	Lab	Assignment
1	Jan 14	Tues	Linear & Absolute Value Equations; Assessment Test		1.1
	Jan 16	Thurs	Linear Inequalities; Factoring Review		1.2
2	Jan 21	Tues	Complex Numbers & Simplifying Radical Expressions		1.3
	Jan 23	Thurs	Quadratic Equations: Factoring & Square Root Property		1.4
3	Jan 28	Tues	Quadratic Equations: Complete the Square & Quadratic Formula		1.5
	Jan 30	Thurs	Rational Equations & Radical Equations		1.6
4	Feb 4	Tues	Distance, Midpoint, & Circles		2.1
	Feb 6	Thurs	TEST 1 (1.1 – 1.6)		
5	Feb 11	Tues	Basics of Functions & Analyzing Graphs		2.2
	Feb 13	Thurs	Evaluating Functions & Symmetry		2.3
6	Feb 18	Tues	Increasing, Decreasing, & Piecewise Functions; Graphs & Transformations		2.4 2.5
	Feb 20	Thurs	Functions: Operations & Composition		2.6
7	Feb 25	Tues	Functions: Composition & Inverses		2.7
	Feb 27	Thurs	Linear Functions: Slope, Graph, Parallel, & Perpendicular		3.1
8	Mar 3	Tues	TEST 2 (2.1 – 2.7)		
	Mar 5	Thurs	Graph Quadratic Functions		3.2
9	Mar 10	Tues	Synthetic Division & Polynomial Equations		3.3
	Mar 12	Thurs	Graph Polynomial Functions		3.4
10	Mar 16 – 20 Spring Break				
11	Mar 24	Tues	Graph Rational Functions		3.5
	Mar 26	Thurs	Polynomial & Rational Inequalities		4.1
12	Mar 31	Tues	TEST 3 (3.1 – 3.5)		
	Apr 2	Thurs	Exponential & Log Functions: Basics & Graphs		4.2
13	Apr 7	Tues	Properties of Logs		4.3
	Apr 9	Thurs	Exponential & Log Equations		4.4
14	Apr 14	Tues	Solve Systems in Two Variables & Three Variables		5.1
	Apr 16	Thurs	TEST 4 (4.1 – 4.4)		
15	Apr 21	Tues	Nonlinear Systems		5.2
	Apr 23	Thurs	Solve Systems Using Matrices Last Day to Drop		5.3
16	Apr 28	Tues	Solve Systems Using Cramer's Rule		5.4
	Apr 30	Thurs	Review for Final Exam		
17	Final Exam - Tuesday, May 5, 10:15 – 12:15				