## South Plains College Common Course Syllabus: MATH 1314 Fall 2020

**Department:** Mathematics, Engineering, and Computer Science

**Discipline:** Mathematics

Course Number: MATH 1314

Course Title: College Algebra

Available Formats: conventional/flex, 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 questions 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/Student Engagement Policy:** Attendance and effort are the most important activities for success in this course. The instructor maintains records of the student's engagement throughout the semester. The student will be allowed to miss twenty percent (20%) of class assignments for the semester, *for any reason*. Should this number be exceeded, the instructor has the right to drop the student with a grade of F or an X, depending on the instructor's 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.

**COVID Statement:** It is the policy of SPC for the Fall 2020 semester that as a condition of on-campus enrollment, all students are required to engage in safe behaviors to avoid the spread of COVID-19 in the SPC community. Such behaviors specifically include the requirement that all students properly wear CDC-compliant face coverings while in SPC buildings including in classrooms, labs, hallways, and restrooms. Failure to comply with this policy may result in dismissal from the current class session. If the student refuses to leave the classroom after being dismissed, the student may be referred to the Dean of Students on the Levelland campus or the Dean/Director of external centers for Student Code of Conduct Violation.

**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. The following person has been designated to handle inquiries

regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College, 1401 College Ave, Box 5, Levelland, TX 79336. Phone 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 <u>activate</u> 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 <u>email cgilster@southplainscollege.edu</u> 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 911.

**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 certificate! The gift certificate 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

## Fall 2020 College Algebra: Math 1314.151

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

### Office Hours:

Monday	Tuesday	Wednesday	Thursday	Friday
10:15 – 11:00	9:00 - 11:00	10:15 – 11:00	9:00 - 11:00	8:00 - 9:00
12:45 - 1:30		12:45 – 1:30		(Virtual)

I will have virtual office hours using zoom on Fridays from 8:00 – 9:00 am. Here is the link to join me: https://southplainscollege.zoom.us/j/98520051275.

If you would like to schedule a zoom meeting for a different time, just send me an email.

**Communication:** All questions or comments should be sent using Blackboard email. When you log into the course in Blackboard, there is a link to Blackboard email in the main menu on the left side. I will do my best to respond to your email within 24 hours. When I post an announcement on Blackboard, the announcement will also be sent to your SPC email address. Please check your SPC email and your Blackboard email daily!

**Tutoring:** Free tutoring will be available. The links to SPC Tutoring and Tutor.com are located in the main menu when you log into this course on Blackboard.

**Text:** No textbook is required.

**Required Materials:** computer access, printer, webcam, method of scanning, notebook paper, pencils, straightedge, scientific or graphing calculator (cell phones, smart watches, TI-89, TI-92, TI-Nspire calculators, or other electronic devices will not be allowed during quizzes or tests)

Blackboard: https://southplainscollege.blackboard.com

Blackboard is an online course management system. For technical support, call 806-716-2180 or email blackboard@southplainscollege.edu.

**Gradescope:** Gradescope is an online grading tool that I will use to grade your quizzes and tests. Your work will have to be scanned as a pdf file to be uploaded to Gradescope. If you have an iPhone, you can use the Notes App to scan. All SPC students have free access to OneDrive, which is another app that you can use for scanning. There are many free mobile apps for scanning, such as Scannable and CamScanner. Determine which app you want to use for scanning and then practice scanning multiple pages as one pdf file. The app will allow you to name the file and save it.

**Attendance:** Your attendance is monitored through completion of assignments. If you miss 5 assignments, the instructor may withdraw you from the course with a grade of X. If you wish to drop this class, you should submit a **Student Initiated Drop Form** online.

Students will not be required to obtain an instructor signature to drop, however, students should communicate with instructors or advisors prior to dropping a course when they are able. There will be no charge for drops this semester.

**Lesson Videos and Notes:** There are videos and notes posted in Blackboard for each section. To find the videos and notes, click on the unit in the main menu and then the section. Print the notes. Watch the videos to fill in the notes and learn the material. On homework, quizzes, and tests, your work needs to follow the work in the videos. If your work does not follow the work in the videos, you will not receive credit.

**Homework:** There is a homework assignment posted in Blackboard for each section. Homework is located in the same folder as the videos and notes. Homework should be completed on notebook paper with work shown. The answers are given so that you can check your answers and make sure you are working the problems correctly. Homework is for practice only and will not count as a grade. However, I would like you to turn in the first homework assignment over factoring. This will give you a chance to practice scanning as a pdf file and uploading to Gradescope. It will also give you the opportunity to earn 5 bonus points to be added to your first quiz.

**Quizzes:** There will be 15 quizzes. The deadlines for the quizzes are given in the course calendar. The lowest quiz grade will be dropped. The quizzes are located in Blackboard under each Unit. You will be allowed to use notes and homework on the quizzes. You will not be allowed any electronic devices other than a calculator. You will print the quiz and work the problems on the print-out. All pages of the quiz will need to be scanned as **one pdf file** and uploaded to Gradescope.

**Tests:** There will be 4 tests and a comprehensive final exam. There will be **NO MAKEUP TESTS!** Dates for all tests are given in the course calendar, so **PLAN AHEAD!** Tests will open one day prior to the deadline. You will be allowed one 8.5" by 11" sheet of notes (front only) on the tests. You will not be allowed any electronic devices other than a calculator. The tests will be found in Blackboard and proctored using an online proctoring program called Proctorio.

**Proctorio:** Proctorio is a program that we will use to record you as you take your tests. You must use Chrome to take your tests, and you will need to download the Proctorio Chrome Extension. The instructions for downloading and using Proctorio will be posted in Blackboard.

## **Guidelines for using Proctorio:**

- You must show your workspace. Your workspace is your desk area, not just your face. To learn how to show your workspace, there is a file located in Blackboard.
- You must put your cell phone on the corner of your desk in the camera view and you are not allowed to use it during the test.
- You are not allowed to have another person in the camera view.
- You must show your ID right side up. It cannot be sideways or the computer will tag it.
- You must have good light so you are easily seen in the video.
- You are not allowed to move out of the camera view at any time during your test.
- Once you are finished with the test, BEFORE you hit submit, grab your cell phone and take pictures of your work using a mobile scanning app. Once you take the pictures, you are NOT allowed to write anything else on your paper.
- If any one of these guidelines are not followed, you will receive a zero on your test.

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

Quiz 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

# College Algebra Course Calendar Fall 2020

This calendar is designed to help you stay on track and manage your time. Weekend days are not included on the calendar but should be used to catch up if you fall behind or work ahead if you wish. Deadlines are highlighted in yellow and are non-negotiable. Excellent time management is critical to successful course completion!

	Monday	Tuesday	Wednesday	Thursday	Friday
	Aug 24	Aug 25	Aug 26	Aug 27	Aug 28
1	Factoring Review Day One Checklist	Factoring Review Factoring HW Due (5 bonus points on Quiz 1)	Section 1.1	Section 1.1	Section 1.2
	Aug 31	Sept 1	Sept 2	Sept 3	Sept 4
2	Section 1.2	Section 1.3	Section 1.3	Section 1.4	Section 1.4
	Quiz 1: 1.1,1.2 Due				Quiz 2: 1.3,1.4 Due
	Sept 7	Sept 8	Sept 9	Sept 10	Sept 11
3	Labor Day Holiday	Section 1.5	Section 1.5	Section 1.6	Section 1.6
					Quiz 3: 1.5,1.6 Due
	Sept 14	Sept 15	Sept 16	Sept 17	Sept 18
4	Review	Review	Test 1 Due	Section 2.1	Section 2.1
	Proctorio Practice Due for Those Testing Online		Due		
	Sept 21	Sept 22	Sept 23	Sept 24	Sept 25
5	Section 2.2	Section 2.2	Section 2.3	Section 2.3	Section 2.4
		Quiz 4: 2.1,2.2 Due			
	Sept 28	Sept 29	Sept 30	Oct 1	Oct 2
6	Section 2.4	Section 2.5	Section 2.5	Section 2.6	Section 2.6
	Quiz 5: 2.3,2.4 Due				Quiz 6: 2.5,2.6 Due

	Oct 5	Oct 6	Oct 7	Oct 8	Oct 9
	Section 2.7	Section 2.7	Review	Review	Test 2
7		Quiz 7: 2.7 Due			Due
	0+12	0+12	0-1-14	0-1-15	0-1-16
	Oct 12	Oct 13	Oct 14	Oct 15	Oct 16
8	Section 3.1	Section 3.1	Section 3.2	Section 3.2	Fall Break
				Quiz 8: 3.1,3.2 Due	
	Oct 19	Oct 20	Oct 21	Oct 22	Oct 23
9	Section 3.3	Section 3.3	Section 3.4	Section 3.4	Section 3.5
				Quiz 9: 3.3,3.4	
				Due	
	Oct 26	Oct 27	Oct 28	Oct 29	Oct 30
10	Section 3.5	Review	Review	Test 3 Due	Section 4.1
	Quiz 10: 3.5 Due			Due	
	Nov 2	Nov 3	Nov 4	Nov 5	Nov 6
11	Section 4.1	Section 4.2	Section 4.2	Section 4.3	Section 4.3
			Quiz 11: 4.1,4.2 Due		Online Registration Opens
	Nov 9	Nov 10	Nov 11	Nov 12	Nov 13
12	Section 4.4	Section 4.4	Section 4.5	Section 4.5	Review
12		Quiz 12: 4.3,4.4 Due		Quiz 13: 4.5 Due	
	Nov 16	Nov 17	Nov 18	Nov 19	Nov 20
13	Review	Test 4	Section 5.1	Section 5.1	Section 5.2
		Due		Last Day to Drop	

	Nov 23	Nov 24	Nov 25	Nov 26	Nov 27
14	Section 5.2	Section 5.3	Thanksgiving Holiday	Thanksgiving Holiday	Thanksgiving Holiday
	Quiz 14: 5.1,5.2 Due				
	Nov 30	Dec 1	Dec 2	Dec 3	Dec 4
15	Section 5.3	Section 5.4	Section 5.4	Review	Review
			Quiz 15: 5.3,5.4 Due		
	Dec 7	Dec 8	Dec 9	Dec 10	
16	<mark>Final Exam</mark> Due				

### Section Titles

- 1.1 Linear & Absolute Value Equations
- 1.2 Linear Inequalities
- 1.3 Complex Numbers & Simplifying Radical Expressions
- 1.4 Quadratic Equations: Factoring & Square Root Property
- 1.5 Quadratic Formula: Complete the Square & Square Root Property
- 1.6 Rational Equations & Radical Equations
- 2.1 Distance, Midpoint, & Circles
- 2.2 Basics of Functions & Analyzing Graphs
- 2.3 Evaluating Functions & Symmetry
- 2.4 Increasing, Decreasing, & Piecewise Functions
- 2.5 Graphs & Transformations
- 2.6 Functions: Operations & Composition
- 2.7 Functions: Composition & Inverses
- 3.1 Linear Functions: Slope, Graph, Parallel, & Perpendicular
- 3.2 Graph Quadratic Functions
- 3.3 Synthetic Division & Polynomial Equations
- 3.4 Graph Polynomial Functions
- 3.5 Graph Rational Functions
- 4.1 Polynomial & Rational Inequalities
- 4.2 Exponential & Log Functions: Basics & Graphs
- 4.3 Properties of Logs
- 4.4 Exponential & Log Equations
- 5.1 Solve Systems in Two Variables & Three Variables
- 5.2 Nonlinear Systems
- 5.3 Solve Systems Using Matrices
- 5.4 Solve Systems Using Cramer's Rule