## South Plains College Common Course Syllabus: MATH 1314 Spring 2021

**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

**Supplies:** Please see the instructor's course information sheet for specific supplies.

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 South Plains College for the Spring 2021 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 or lab 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. Students who believe they have been exposed or may be COVID-19 positive, must contact Health Services, DeEtte Edens, BSN, RN at (806) 716-2376 or dedens@southplainscollege.edu.

**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:** SPC 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 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 <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 email 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: <a href="http://www.southplainscollege.edu/campuscarry.php">http://www.southplainscollege.edu/campuscarry.php</a>

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 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

# Spring 2021 College Algebra: Math 1314.204

Classroom	RC 220	Time	MW 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
12:45 – 2:00	9:00 – 11:15	12:45 – 2:00	9:00 – 11:15	8:30 - 9:30
				(Virtual)

I will have virtual office hours using zoom on Fridays from 8:30 – 9:30 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:** You may email me at <a href="mailto:tsanders@southplainscollege.edu">tsanders@southplainscollege.edu</a> or email me through Blackboard. When you log into the course on 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 in 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.

**Class Time:** We will meet in RC 220 (upstairs in Building 2) on Mondays and Wednesdays. Since we are only allowed 50% capacity in the classroom this semester, half of the students in the class will come on Mondays, and the other half will come on Wednesdays.

Mondays - Last Names Beginning with A through L

Wednesdays – Last Names Beginning with M through Z

If the class size goes below 17, then all the students in the class can come on both Mondays and Wednesdays.

**Text:** No textbook is required.

**Required Materials:** computer access, printer, method of scanning – can be your cell phone, notebook paper, pencils, straightedge, scientific or graphing calculator (cell phones, smart watches, TI-89, 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 <a href="mailto:blackboard@southplainscollege.edu">blackboard@southplainscollege.edu</a>.

**Scanning Assignments:** Some of your work will have to be scanned as a pdf file to be uploaded to Blackboard. There are many free mobile apps available for scanning. Some of these are the Notes App (on iPhones), OneDrive (free to SPC students), Scannable, and CamScanner. You do not have to use one of these, but please 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. When you upload to Blackboard, you will click on Browse Local Files and then find the file where you saved 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. Keep your notes organized, and bring them to class with you. When you work on a quiz in the classroom, if you have the completed notes for those sections, you will get two bonus points per section on that quiz grade.

**Homework:** Homework assignments for each section are posted in Blackboard. Homework is located in the same folder as the videos and notes. Homework should be completed neatly 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. The homework will help you prepare for quizzes and tests! Homework will be turned in on test days. You may earn one bonus point per homework assignment to be added to your test grade. To get the bonus point for the assignment, it cannot be missing more than two problems, and the work must be shown as taught in the videos.

**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. On days that you are not in the classroom for the quiz, 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 Blackboard. Quizzes are due at 12:45 pm.

**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!** All the students in the class will come to campus on test days. We will split into two rooms so that everyone can test at the same time and still maintain social distancing. 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.

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

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

There will be a category in the Blackboard gradebook titled Course Average. This is the number you should look at throughout the semester to see your current average in the course. Do not use the Total category to calculate your average. Blackboard automatically creates the Total category, and I cannot delete it. You do not need to pay any attention to it.

## **Grading Scale:**

A: 90 and above, B: 80 - 89, C: 70 - 79, D: 60 - 69, F: 59 or below

# College Algebra Course Calendar Spring 2021

Excellent time management is critical to successful course completion! When you see a particular section on a day, that means that you should print the notes for that section, watch the videos to fill in the notes, and then do the homework on that section. Deadlines are highlighted in yellow and are non-negotiable. For days that you are in the classroom, you will work the quiz during class and turn it in before you leave. If you are not in the classroom, you will work the quiz at home, scan it as a pdf file, and upload it to Blackboard.

	Monday	Tuesday	Wednesday	Thursday	Friday
	Jan 18	Jan 19	Jan 20	Jan 21	Jan 22
1	Martin Luther King Holiday		Section 1.1  Day One Checklist		Factoring Review
	10m 2F	1nn 2C	1am 27	1nm 20	lan 20
2	Jan 25 Sections 1.2 & 1.3	Jan 26	Jan 27 Sections 1.3 & 1.4	Jan 28	Jan 29
	Quiz 1: Factoring		Quiz 2: 1.1,1.2		
	Feb 1	Feb 2	Feb 3	Feb 4	Feb 5
3	Section 1.5		Section 1.6		
	Quiz 3: 1.3,1.4		Quiz 4: 1.5		
	Feb 8	Feb 9	Feb 10	Feb 11	Feb 12
4	Review & Section 2.1		Test 1		
	Feb 15	Feb 16	Feb 17	Feb 18	Feb 19
5	Section 2.2		Section 2.3		
			Quiz 5: 2.1,2.2		
	Feb 22	Feb 23	Feb 24	Feb 25	Feb 26
6	Sections 2.4 & 2.5		Section 2.6		
			Quiz 6: 2.3,2.4		

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	Mar 1	Mar 2	Mar 3	Mar 4	Mar 5
	Section 2.7		Review &		
7	Quiz 7: 2.5,2.6		Section 3.1		
	Qui.2 / 1 210/210		Quiz 8: 2.7		
	Mar 8	Mar 9	Mar 10	Mar 11	Mar 12
8	Test 2		Section 3.2		
	Mar 15	Mar 16	Mar 17	Mar 18	Mar 19
	<b>Spring Break</b>	Spring Break	Spring Break	<b>Spring Break</b>	Spring Break
9					
	Mar 22	Mar 23	Mar 24	Mar 25	Mar 26
10	Section 3.3		Section 3.4		
	Quiz 9: 3.1,3.2				
	Mar 29	Mar 30	Mar 31	Apr 1	Apr 2
11	Section 3.5		Review &		
	<mark>Quiz 10:</mark>		Section 4.1		Easter Break
	3.3,3.4		Quiz 11: 3.5		
	Apr 5	Apr 6	Apr 7	Apr 8	Apr 9
12	Test 3		Section 4.2		
	Apr 12	Apr 13	Apr 14	Apr 15	Apr 16
	Section 4.3		Section 4.4		
13	Quiz 12: 4.1,4.2				
	Online Registration Opens				

					8
	Apr 19	Apr 20	Apr 21	Apr 22	Apr 23
14	Section 5.1		Review &		
	Quiz 13: 4.3,4.4		Section 5.2		
	Apr 26	Apr 27	Apr 28	Apr 29	Apr 30
4 =	Test 4		Section 5.3		
15			Quiz 14:	Last Day to Drop	
			<mark>5.1,5.2</mark>	Бтор	
	May 3	May 4	May 5	May 6	May 7
16	Section 5.4		Review		
	Quiz 15: 5.3				
17	May 10	May 11	May 12	May 13	
	Final Exam				
	<b>10:15 - 12:15</b>				

### **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