

South Plains College
Common Course Syllabus: MATH 1314
Revised July 2023

Department: Mathematics, Engineering, and Computer Science

Discipline: Mathematics

Course Number: MATH 1314

Course Title: Texan Two-Step: a College Algebra Course

Available Formats: conventional, hybrid, internet, and ITV

Campuses: Levelland, Downtown Center, Plainview Center, and Dual Credit

Course Description: Background topics which are necessary for a student to successfully complete MATH 1314 will be covered, with an emphasis on fractions, factoring polynomials, functions, exponents, and operating with radical and rational expressions. Topics for MATH 1314 will include an 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: Successful completion with a grade of 'C' or better in Algebra 1. Must be TSI compliant in Math before December 16th, 2023 to enroll in the Spring semester. To be TSI compliant you must have a minimum score of 350 on the TSIA1, minimum score of 950 on the TSIA2, or a diagnostic score of 6 on the TSIA2.

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

Textbook: *College Algebra with Intermediate Algebra: A Blended Course*, Beecher, Penna, Johnson, and Bittinger, 2018, 1st Edition, Prentice Hall/Pearson Education

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 engagement are the most critical activities for success in this course. The instructor maintains records of the student's attendance and submission of assignments throughout the semester. The student is expected to attend at least eighty percent (80%) of the **total** class meetings **and** submit at least eighty percent (80%) of the **total** class assignments to have the best chance of success. If the student fails to meet these minimum requirements, the instructor may remove the student from the class with an X, upon their discretion, to help the student from harming their GPA. If the student can not receive an X, the instructor will assign an F.

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 from the student and the instructor. Neither the instructor nor the student should be subject to others' rude, disruptive, intimidating, aggressive, or demeaning behavior. 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.

For information regarding official South Plains College statements about intellectual exchange, disabilities, non-discrimination, Title IX Pregnancy Accommodations, CARE Team, and Campus Concealed Carry, please visit <https://www.southplainscollege.edu/syllabusstatements/>.

South Plains College policies, return to campus plan, and protocols regarding COVID-19 can be found here: <https://www.southplainscollege.edu/emergency/covid19-faq.php>.

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.

Instructor's Course Information
Math 1314 – Texan Two-Step
Spring 2024

Instructor Information

Instructor: Jerod Clopton
Office: Lubbock Downtown Center, B019
Telephone: (806) 716-2738
Email: jclopton@southplainscollege.edu

Virtual/Face-to-Face Office Hours:

- Monday: 3:00-5:00pm
- Tuesday: 9:00-11:00am
- Thursday: 9:00-11:00am
- Fridays: 10:00am-12:00pm
- And by appointment, as needed. (The appointments can be scheduled in Blackboard.)
- Virtual office hours also may be scheduled in Blackboard.

Blackboard: Blackboard is the online course management system that will be utilized for this course. This course is supplemented online, so all access to course information and your instructor is through the Internet. This course syllabus, as well as all course materials can be accessed through Blackboard. Login at <https://southplainscollege.blackboard.com/>. The username and password should be the same as the MySPC and SPC email.

Username: first initial, last name, and last 4 digits of the Student ID

Password: Original Campus Connect Pin No. (found on SPC acceptance letter)

Email Policy: All students at South Plains College are assigned a standardized SPC email. Log into portal.office.com to access to you SPC email account. The instructor will only acknowledge, respond, and receive emails to your assigned email address.

- My expected response time to received emails is as follows:
 - For emails sent on Monday-Thursday, I will attempt to respond within 24 hours.
 - For emails sent on Friday-Sunday, I may not respond until the following Monday.
- I will not be checking / responding to messages sent through the Blackboard messaging system.

Course Materials:

- Required: Notes and homework assignments from Texan Two-Step, (made available in Blackboard)
- A textbook is not required for this course. However you may use any college algebra textbook for reference.

Course Supplies:

- Pencils, erasers, 8.5-inch x 11-inch notebook paper, graph paper, non-graphing calculator (such as the TI-30XIIS.)
 - Note that calculators on cellphones, computers, smart watches, or any other device are not allowed.
- Access to a computer with internet access and webcam
 - You will need to have Chrome or Edge web browser installed
- Access to cell phone with camera for scanning documents

- You will need an image to PDF app such as **CamScanner** or **OneDrive**.
 - You will be submitting all work into Gradescope¹. There is a **Gradescope** app that will allow you to submit your assignments and view your grades

Assignments and Grading

Grades

- The grade for this course will be derived from grades from the Fall 2023 semester and the Spring 2024 semester.
- Students will only receive a course grade from SPC for the Spring 2024 semester.
- Grades from unit exams and final exam from the Fall 2023 semester will carry over into the Spring 2024 semester.
- **Fall 2023**
 - Daily Grades
 - The teacher / facilitator of the course will be in charge of administering daily grades for the fall semester.
 - Daily grades for the fall semester will not be used for calculating course grade.
 - Unit Exams
 - 4 @ 5 points each = 20 points
 - Use Proctorio. Web cam and Chrome or Edge required.
 - These will be graded by the instructor for this course.
 - Final Exam
 - 1 @ 10 points = 10 points
 - Use Proctorio. Web cam and Chrome or Edge required.
 - These will be graded by the instructor for this course.
- **Spring 2024**
 - Weekly Grades
 - 10 @ 1 points each = 10 points
 - 4 @ 1.25 points each = 5 points **extra credit**
 - These will be graded by the instructor for this course.
 - Unit Exams
 - 4 @ 10 points each = 40 points
 - Use Proctorio. Web cam and Chrome or Edge required.
 - These will be graded by the instructor for this course.
 - Final Exam
 - 1 @ 20 points = 20 points
 - Use Proctorio. Web cam and Chrome or Edge required.
 - These will be graded by the instructor for this course.
- **Overview**
 - The grades from the Fall 2023 and Spring 2024 semesters will determine the letter grade for this course:

A (89.5 pts or above), B (79.5-89.4 pts), C (69.5-79.4 pts), D (59.5-69.4 pts), F (59.4 pts or below).

Fall 2023			Percentage
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¹ Gradescope grading software allows students to receive faster and more detailed feedback on their work, and allows instructors to see detailed assignment and question analytics. It is an easy way to take submissions digitally in order to preserve the original work and allow for quick and easy viewing from anywhere.

	Units Exam	20 points	20%
	Final Exam	10 points	10%
Spring 2024			
	Daily Grades	10 points	10%
	Unit Exams	40 points	40%
	Final Exam	20 points	20%
Total		100 points	100%

Work and Assessment Directions: All work must be done on notebook paper. Work must be done in a legible manner and your work must justify your answer. Work for assignments must be scanned and submitted as a single PDF file. Pages should be orientated vertically and should be in the correct numerical order.

You will use PROCTORIO when taking any exam or quiz. You will need to use CHROME or EDGE as your web browser and you will need to download the plug-in for Proctorio: <https://proctorio.com/get-started>. When taking an exam you will need to show your entire workspace.

- Turn on your audio and video
- Show your cell phone in your workspace
- Show your calculator in your workspace
- Write the problems on your notebook paper and show all work
- Do not save or print the assessment
- Keep Proctorio open and running while taking the assessment
- After you complete the assessment, you will need to put down your writing utensil and pick up you phone to scan you work
- You have 15 minutes to upload your work to Blackboard
- If there is anything questionable that happens in your assessment or if you do not follow instructions, you may receive a 0 for the assessment.

Note to Students: All supplemental material and your current grade are available all semester through Blackboard. The instructor will strive to return feedback by the next workday (M/T/W/R/F); however, they reserve the right to have one week to grade assignments and post grades from the due date.

Disclaimer: The instructor reserves the right to alter any class policies/dates as deemed necessary by the instructor and will announce any changes in class or in Blackboard.

Removal from Course: Should a student decide to withdraw from the course, the student must initiate that process by filling out the *Student Initiated Drop* form found at <http://www.southplainscollege.edu/admission-aid/apply/schedulechanges.php>.

Should a student miss 20% of class assignments or class meetings for the semester, the instructor has the right to drop the student from the course with a grade of F or an X. There is no reinstatement option once a student is dropped.

Resources:

- Students are encouraged to utilize the availability of the instructor for help during the instructors scheduled office hours.
- Tutoring is FREE for all currently enrolled students. Make an appointment or drop-in for help at any SPC location or online! Visit the link below to learn more about how to book an appointment, view the tutoring schedule, get to know the tutors, and view tutoring locations. <http://www.southplainscollege.edu/exploreprograms/artsandsciences/teacheredtutoring.php>
- Tutor.com is a free service to all currently enrolled SPC students. Stents have 180 minutes of tutoring each week through [Tutor.com](http://www.tutor.com).

Tips for Learning in a Flipped Classroom

This class is a flipped classroom and will operate differently than the face-to-face classroom that you have previously experienced. In a flipped classroom you will spend time outside of class watching and taking notes from lecture videos while during class you will work on your homework assignments. This flipped classroom setting will open more opportunities for me, the instructor, to work with you by addressing homework questions, facilitating class discussions, and having collaborative assignments. Here are some suggestions that will help you operate with in this flipped classroom environment and help you successfully complete this course.

Lecture Videos

- Watch the lecture videos in a quiet and distraction-free setting
- Silence your cellphone
- Close all other tabs and windows on your computer
- Disconnect from any social media while watching the lecture videos
- Have class notes or notebook and writing device for taking notes
- Use a set of headphones to watch to videos, in order to cancel all ambient noise

Note-Taking Tips

- Take careful notes from the videos
- Draw appropriate diagrams and charts in your notes
- Frequently pause the video to take notes
- “Rewind” the video when you don’t understand things
- When the instructor tells you to solve a problem or write something down, do it
- Write down questions in your notes from the lecture video when you don’t understand something

How to Prepare for Assessments

- Contact the instructor with your questions and ask the instructor for help and clarification
- Work with your classmates
- Offer to help your classmates with things you understand
- Ask for help from your classmates when they understand more than you
- Take any opportunity to review current and previous material
- Review graded assessments and seek to understand any errors made in your work

College Algebra (Texan Two-Step): Tentative Course Calendar

Fall Semester			
Week #	No Calculator Allowed or Non-Graphing Calculator Allowed (Recommended TI-30XIIS)	Topics	Notes and Assignment Number
		These are split up based off of three total class hours per week. This could be: I. Four 45-minute classes per week. II. Two 90-minute classes per week. <i>**Note: Students will need to study and work on assignments outside of scheduled class time.**</i>	
1	No Calculator	Course Intro and Expectations	
	No Calculator	Operations with Integers	1.1
	No Calculator	Intro to Fractions; Multiplying and Dividing Fractions	1.2
	No Calculator	Adding and Subtracting Fractions; Mixed Numbers	1.3
2	No Calculator	Exponents and Order of Operations	1.4
	No Calculator	Evaluating Absolute Value; Mixed Practice	1.5
	No Calculator	Evaluating Expressions	1.6
	No Calculator	Solving One-Step and Two Step Linear Equations (include single fraction)	1.7
3	No Calculator	Solving Multi-Step Linear Equations	1.8
	No Calculator	Solving Formulas; Solving Abs Value Equations	1.9
	No Calculator	Solving Linear Inequalities	1.10
	No Calculator	Solving Compound Inequalities	1.11
4	No Calculator	Solving Absolute Value Inequalities	1.12
	No Calculator	Unit 1 Review	U1 Review
	No Calculator	Unit 1 Review Continued	U1 Review
	No Calculator	Unit 1 Exam	U1 Exam
5	Non-Graphing Calculator	Rules of Exponents (all rules of exp)	2.1

	Non-Graphing Calculator	More with Rules of Exponents	2.2
	Non-Graphing Calculator	Intro to Polynomials; Add, Subtract, Multiply Polynomials (including 2 variables)	2.3
	Non-Graphing Calculator	Intro to Factoring (GCF, Factor by Grouping)	2.4
6	Non-Graphing Calculator	Factoring Trinomials	2.5
	Non-Graphing Calculator	Factoring (Diff of Squares, Sum and Diff of Cubes)	2.6
	Non-Graphing Calculator	Factoring (Everything)	2.7
	Non-Graphing Calculator	Solving Polynomials with Factoring	2.8
7	Non-Graphing Calculator	Simplifying Rational Expressions; Multiplying and Dividing Rational Expressions	2.9
	Non-Graphing Calculator	Adding and Subtracting Rational Expressions	2.10
	Non-Graphing Calculator	More with Operations with Rational Expressions	2.11
	Non-Graphing Calculator	Complex Fractions	2.12
8	Non-Graphing Calculator	Solving Rational Equations	2.13
	Non-Graphing Calculator	Unit 2 Review	U2 Review
	Non-Graphing Calculator	Unit 2 Review Continued	U2 Review
	Non-Graphing Calculator	Unit 2 Exam	U2 Exam
9	Could Include both Calculator and Non-Calculator Parts	Radicals and Rational Exponents (numbers only)	3.1
	Could Include both Calculator and Non-Calculator Parts	Radicals and Rational Exponents (including variables)	3.2
	Non-Graphing Calculator	Adding and Subtracting Radicals	3.3
	Non-Graphing Calculator	Properties of Radicals and Multiplying Radicals	3.4
10	Non-Graphing Calculator	Dividing Radicals by Rationalizing Denominators	3.5
	Non-Graphing Calculator	Complex Numbers; Adding and Subtracting Complex Numbers	3.6
	Non-Graphing Calculator	Multiplying Complex Numbers (including higher powers with the imaginary base)	3.7

	Non-Graphing Calculator	Dividing/Rationalizing Complex Numbers	3.8
11	Non-Graphing Calculator	Solving Equations with Radicals and Rational Exponents	3.9
	Non-Graphing Calculator	Solving Equations with Multiple Radicals	3.10
	Could Include both Calculator and Non-Calculator Parts	Unit 3 Review	U3 Review
	Could Include both Calculator and Non-Calculator Parts	Unit 3 Review Continued	U3 Review
12	Could Include both Calculator and Non-Calculator Parts	Unit 3 Exam	U3 Exam
	Non-Graphing Calculator	Relations and Functions	4.1
	Non-Graphing Calculator	Finding Information from Graphs (increasing, decreasing, intercepts, even, odd etc)	4.2
	Non-Graphing Calculator	Functional Notation	4.3
13	Non-Graphing Calculator	Operations with Functions	4.4
	Non-Graphing Calculator	Inverse Functions	4.5
	Non-Graphing Calculator	Intro to Lines and Slope	4.6
	Non-Graphing Calculator	Graphing Linear Equations	4.7
14	Non-Graphing Calculator	Equations of Lines; Parallel and Perpendicular Lines	4.8
	Non-Graphing Calculator	Linear Inequalities in Two Variables	4.9
	Non-Graphing Calculator	Unit 4 Review	U4 Review
	Non-Graphing Calculator	Unit 4 Review Continued	U4 Review
15	Non-Graphing Calculator	Unit 4 Exam	U4 Exam
	Could Include both Calculator and Non-Calculator Parts	Fall Final Exam Review	Fall Final Review
	Could Include both Calculator and Non-Calculator Parts	Fall Final Exam Review	Fall Final Review

	Could Include both Calculator and Non-Calculator Parts	Fall Final Exam Review	Fall Final Review
16	Could Include both Calculator and Non-Calculator Parts	Fall Final Exam	Fall Final Exam

Spring Semester			
Week #	No Calculator Allowed or Non-Graphing Calculator Allowed (Recommended TI-30XIIS)	Topics These are split up based off of three total class hours per week. This could be: I. Four 45-minute classes per week. II. Two 90-minute classes per week. <i>**Note: Students will need to study and work on assignments outside of scheduled class time.**</i>	Assignment
1	Non-Graphing Calculator	Review of class policies and expectations.	
	Non-Graphing Calculator	Solving Quadratics by Factoring	5.1
	Non-Graphing Calculator	Solving Quadratics by the Square Root Method	5.2
	Non-Graphing Calculator	Solving Quadratics by Completing the Square	5.3
2	Non-Graphing Calculator	Solving Quadratics by the Quadratic Formula	5.4
	Non-Graphing Calculator	Mixed Solving for Quadratics	5.5
	Non-Graphing Calculator	Solving Quadratic-Like Equations	5.6
	Non-Graphing Calculator	Spring Cushion Day	
3	Non-Graphing Calculator	Graphing Quadratics in Vertex Form	5.7
	Non-Graphing Calculator	Graphing Quadratics in Standard Form (Completing the Square)	5.8
	Non-Graphing Calculator	Graphing Quadratics in Standard Form (Using the Formula)	5.9
	Non-Graphing Calculator	Spring Cushion Day	
4	Non-Graphing Calculator	Distance and Midpoint	5.10

	Non-Graphing Calculator	Circles	5.11
	Non-Graphing Calculator	Unit 5 Review	U5 Review
	Non-Graphing Calculator	Unit 5 Review Continued	U5 Review
5	Non-Graphing Calculator	Unit 5 Exam	U5 Exam
	Non-Graphing Calculator	Long Division of Polynomials	6.1
	Non-Graphing Calculator	Synthetic Division of Polynomials	6.2
	Non-Graphing Calculator	Roots of Polynomials	6.3
6	Non-Graphing Calculator	Finding Roots with the Rational Zero Theorem Part I	6.4
	Non-Graphing Calculator	Finding Roots with the Rational Zero Theorem Part II	6.5
	Non-Graphing Calculator	Spring Cushion Day	
	Non-Graphing Calculator	Graphing Polynomials in Factored Form	6.6
7	Non-Graphing Calculator	Graphing Polynomials in Standard Form Part I	6.7
	Non-Graphing Calculator	Graphing Polynomials in Standard Form Part II	6.8
	Non-Graphing Calculator	Spring Cushion Day	
	Non-Graphing Calculator	Graphing Rational Functions Part I	6.9
8	Non-Graphing Calculator	Graphing Rational Functions Part II	6.10
	Non-Graphing Calculator	Solving Polynomial Inequalities	6.11
	Non-Graphing Calculator	Solving Rational Inequalities	6.12
	Non-Graphing Calculator	Unit 6 Review	U6 Review
9	Non-Graphing Calculator	Unit 6 Review Continued	U6 Review
	Non-Graphing Calculator	Spring Cushion Day	
	Non-Graphing Calculator	Unit 6 Exam	U6 Exam
	Could Include both Calculator and Non-Calculator Parts	Exponential Equations and Functions	7.1

10	Could Include both Calculator and Non-Calculator Parts	Logarithmic Functions	7.2
	Could Include both Calculator and Non-Calculator Parts	Properties of Logs	7.3
	Could Include both Calculator and Non-Calculator Parts	Solving Exponential Equations	7.4
	Could Include both Calculator and Non-Calculator Parts	Spring Cushion Day	
11	Could Include both Calculator and Non-Calculator Parts	Solving Logarithmic Equations	7.5
	Could Include both Calculator and Non-Calculator Parts	More Practice with Solving Logs and Exponentials	7.6
	Non-Graphing Calculator	Applications of Exponential Equations	7.7
	Could Include both Calculator and Non-Calculator Parts	Unit 7 Review	U7 Review
12	Could Include both Calculator and Non-Calculator Parts	Unit 7 Review Continued	U7 Review
	Could Include both Calculator and Non-Calculator Parts	Unit 7 Exam	U7 Exam
	Non-Graphing Calculator	Solving Systems of Linear Equations in Two Variables (Graphing and Substitution)	8.1
	Non-Graphing Calculator	Solving Systems of Linear Equations in Two Variables (Addition/Elimination)	8.2
13	Non-Graphing Calculator	Solving Systems of Linear Equations in Three Variables (Addition)	8.3
	Non-Graphing Calculator	Gauss-Jordan Elimination	8.4
	Non-Graphing Calculator	Gauss-Jordan Elimination	8.5
	Non-Graphing Calculator	Spring Cushion Day	
14	Non-Graphing Calculator	Cramer's Rule (diagonals)	8.6
	Non-Graphing Calculator	Nonlinear Systems of Equations	8.7
	Non-Graphing Calculator	Systems of Inequalities (Linear and Nonlinear)	8.8

	Non-Graphing Calculator	Unit 8 Review	U8 Review
15	Could Include both Calculator and Non-Calculator Parts	Unit 8 Exam	U8 Exam
	Could Include both Calculator and Non-Calculator Parts	Final Exam Review	Final Review
	Could Include both Calculator and Non-Calculator Parts	Final Exam Review	Final Review
	Could Include both Calculator and Non-Calculator Parts	Final Exam Review	Final Review
16	Could Include both Calculator and Non-Calculator Parts	Final Exam	Final Exam

Note: This schedule is tentative and may be altered as deemed necessary by the instructor.