

South Plains College
Common Course Syllabus: MATH 1314
Revised December 2022

Department: Mathematics, Engineering, and Computer Science

Discipline: Mathematics

Course Number: MATH 1314

Course Title: College Algebra

Available Formats: conventional, hybrid, internet, and ITV

Campuses: Levelland, Downtown Center, Plainview 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 TSIA1, minimum score of 950 on the TSIA2, a diagnostic score of 6 on the TSIA2, TSI-exempt status, a successful completion with a grade of 'C' or better in MATH 0320, or successful completion of NCBM-0114.

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.

South Plains College policies concerning diversity, disabilities, non-discrimination, Title IX Pregnancy Accommodations, and Campus Concealed Carry Statements can be found here: <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.



MATH1314 – College Algebra Section 609

Room: Lubbock Downtown Center, B011
M: 5:20 PM – 6:55 PM

Contact

Instructor: Mr. Vargas

Email: evargas@southplainscollege.edu

Phone: (806) 716-4673

Office Hours:

T/R: 11:00 AM – 2:00 PM (M101, Math Building)

F: 12:30 PM – 2:30 PM (B011 Downtown Center)

Supply List

- Pencils, erasers, paper.
- Non-graphing calculator.
- *College Algebra with Intermediate Algebra: A Blended Course*, Beecher, Penna Johnson and Bittinger.
ISBN-13: 9780134555263 [Textbook is NOT required]
 - MyLab Math Code purchased from Bookstore OR online – **Required; Course ID will not be given to you!**
- *College Algebra* by OpenStax - <https://openstax.org/details/books/college-algebra>

Grading

Grading Scale:	A: 90-100	Pass	Weights:	Homework	10%
	B: 80-89	Pass		Quiz	10%
	C: 70-79	Pass		Exams (3)	15% each
	D: 60-69	Depends		Final Exam	35%
	F: 0-59	Fail		Total	100%

Homework

Assigned through **MyMath Lab**. Homework enables students to receive feedback immediately as progress is made through each assignment.

- Physical homework is not required to turn in.
- Unlimited try attempts before the due date without penalty.
- Cannot be made up after the due date.

Quiz

Assigned through **MyMath Lab**. Quizzes cover topics from the Homework.

- 1-hour (60 min) time limit with only one attempt.
- Must be completed by the due date.
- Make-up quizzes are not given under any circumstances.

Exam

Assigned **in-class**. Exams cover material from Homework, Quizzes, and Lectures.

- Full class time
- Covers Conceptual and Application problems.
 - Conceptual: True/False and Fill in the Blank
 - Application: Show ALL work relating to simplifying, solving, and graphing.

Final Exam

Final Exam is scheduled **in-class** on **Monday, May 8th @ 5:30 PM – 7:30 PM**

- **Failure to attempt the Final Exam will result in a failing grade for the course regardless of current letter grade.**
- Replaces **one (1) missed Exam OR lowest Exam score.**
- **Final Exam is comprehensive.**

Extra Credit

Offered for Homework and Exams:

- Up to 10% Extra credit for completing all Review Homework Assignments on Pearson.
- Up to 10% Extra credit on each Examination as a Bonus question(s).
- Up to 10% Extra credit on the Final Examination as a Bonus question(s).
- Plus more throughout the semester!

Class Policies and Information



Attendance Policy

The student is expected to **submit at least eighty percent (80%)** of the class assignments to have the best chance of success. If the student fails to meet these minimum requirements, the instructor can remove the student from the class.



Pearson – MyMath Lab

Students are expected to purchase **Pearson's MyMath Lab** from the bookstore OR online through Pearson. It is a **required** course material item. **The textbook is not required.** A 14-day free trial period is offered if the student needs extra time to purchase the software. Students must have full access to the software by the second week of class. Instructions can be found [here](#).



Office Hours

Office hours will be held at the listed times. Please come prepared with questions and examples of the attempted problem(s)



South Plains College Email Policy

The instructor will respond to all emails **within 36 hours** during the week day. Emails sent after 5:00 PM on Fridays may not be answered until the following Monday morning.



Additional Support

Online demo videos and a free textbook is available!

- Videos are provided to the student via Blackboard located in each week's folder.
- A free, [online textbook](#), is available for online viewing or digital download.

SPC also offers **free tutoring!** This information is located [here](#).



Drop/Withdrawal

Students should submit a [Student Initiated Drop Form](#) online to drop from the course. If the student wishes to withdraw from this or more courses, the student needs to contact the Advising Office.

COVID Syllabus Statement

If you are experiencing any of the following symptoms, please do not attend class and either seek medical attention or test for COVID-19.

- Cough, shortness of breath, difficulty breathing
- Vomiting or diarrhea
- Fever or chills
- New loss of taste and smell
- Muscles or body aches



Please also notify DeEtte Edens, BSN, RN, Associate Director of Health & Wellness, at dedens@southplainscollege.edu or 806-716-2376. Proof of a positive test is required. A home test is sufficient but students must submit a photo of the positive result. The date of test must be written on the test result and an ID included in the photo. If tested elsewhere (clinic, pharmacy, etc.), please submit a copy of the doctor's note or email notification. Results may be emailed to DeEtte Edens, BSN, RN at dedens@southplainscollege.edu.

A student is clear to return to class without further assessment from DeEtte Edens, BSN, RN if they have completed the 5-day isolation period, symptoms have improved, and they are without fever for 24 hours without the use of fever-reducing medication. Students must communicate with DeEtte Edens, BSN, RN prior to their return date if still symptomatic at the end of the 5-day isolation.

Course Calendar

Week 1	Jan 16th	No Class! Please refer to the online videos	
		<ul style="list-style-type: none"> ◦ Simplifying Expressions ◦ Solving Linear Equations and Inequalities 	<ul style="list-style-type: none"> ◦ Fundamentals of Graphing Functions ◦ Graphing Lines and Linear Functions
Week 2	Jan 23rd	<ul style="list-style-type: none"> ◦ Graphing Parallel and Perpendicular Lines ◦ Solving Absolute Value Equations and Inequalities 	<ul style="list-style-type: none"> ◦ Graphing Absolute Value Functions ◦ System of Equations: Substitution and Elimination
Week 3	Jan 30th	<ul style="list-style-type: none"> ◦ Graphing Systems of Equations ◦ Graphing Linear Inequalities 	<ul style="list-style-type: none"> ◦ Radical Algebra ◦ Complex Number Algebra
Week 4	Feb 6th	<ul style="list-style-type: none"> ◦ Factoring Quadratics ◦ Solving Quadratic Equations 	<ul style="list-style-type: none"> ◦ Graphing Quadratic Functions and Inequalities
Week 5	Feb 13th	EXAM #1 Quiz #1, #2 & #3; Homework 1.1-1.13, 2.1-2.8 Due @ Feb 17th 11:59 PM	
Week 6	Feb 20th	<ul style="list-style-type: none"> ◦ Solving Radical Equations ◦ Graphing Radical Functions 	<ul style="list-style-type: none"> ◦ Function Algebra and Composition ◦ Circle Equations
Week 7	Feb 27th	<ul style="list-style-type: none"> ◦ Graphing Circles ◦ Polynomial Algebra 	<ul style="list-style-type: none"> ◦ Solving Factored Polynomials ◦ Long and Synthetic Division of Polynomials
Week 8	Mar 6th	<ul style="list-style-type: none"> ◦ Rational Roots Theorem ◦ Graphing Polynomial Functions 	<ul style="list-style-type: none"> ◦ Rational Algebra ◦ Solving Rational Equations
Mar 13th –17th		Spring Break	
Week 9	Mar 20th	<ul style="list-style-type: none"> ◦ Graphing Rational Functions ◦ Piecewise Functions 	<ul style="list-style-type: none"> ◦ Inverse Functions
Week 10	Mar 27th	EXAM #2 Quiz #4, #5, & #6; Homework 2.9-2.13, 3.1-3.13, 4.1 Due @ Mar 31st 11:59 PM	
Week 11	Apr 3rd	<ul style="list-style-type: none"> ◦ Exponential & Logarithm Properties ◦ Solving Exponential and Logarithm Equations 	<ul style="list-style-type: none"> ◦ Function Transformations ◦ Graphing Exponential and Log Functions
Week 12	Apr 10th	<ul style="list-style-type: none"> ◦ Exponential & Logarithm Applications ◦ Intro to Matrices 	<ul style="list-style-type: none"> ◦ Solving Basic Matrix Equations ◦ Solving with Gauss-Jordan Elimination
Week 13	Apr 17th	<ul style="list-style-type: none"> ◦ Inverse Matrices ◦ Solving with Inverse Matrices 	<ul style="list-style-type: none"> ◦ Determinants ◦ Solving with Cramer's Rule
Week 14	Apr 24th	EXAM #3 Apr 27th LAST DAY TO DROP Quiz #7, #8, #9; Homework 4.2-4.10, 5.1-5.4 Due @ Apr 28th 11:59 PM	
Week 15	May 1st	◦ Partial Fraction Decomposition	
		Homework 5.5 Due @ May 5th 11:59 PM	
Week 16		FINAL EXAM: May 8th @ 5:30 PM – 7:30 PM	