



MATH1314-601 – College Algebra

Room: B009, Lubbock Downtown Center

MTWR: 6:00 PM – 7:55 PM

Contact

Instructor: Mr. Vargas

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Phone: (806) 716-4673

Description

In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Emphasis in simplifying expressions, solving equations and graphing functions.

Supplies

1. Pencils, erasers, and paper. Multi-colored Pens/Pencils are recommended.
2. Personal Desktop or Laptop.
3. Scientific Non-graphing calculator.
4. *College Algebra* by OpenStax - <https://openstax.org/details/books/college-algebra>

Grading

A: 90-100 **Pass – Excellent Performance.**
B: 80-89 **Pass – Good Performance.**
C: 70-79 **Pass – Satisfactory Performance.**
D: 60-69 **Depends – Less than Satisfactory.**
F: 0-59 **Fail – Unsatisfactory Performance.**

Weights

Daily Assignments	10%
Attendance	10%
Exams (4)	20% each
Total	100%

Assignments

Daily assignments are assigned through Blackboard. Five questions are assigned and will be graded based on attempts and completion. Answers will be available on the following day. Students are encouraged to show all handwritten work in a step-by-step procedure with answers highlighted, circled, or boxed in. Assignments are due on the following day of class, half credit will be given after the due date, zero credit after each Exam.

Attendance

Attendance will be counted each day of class and be a part of the overall grade. Please ensure you are in class within 30 minutes to be counted present. The grade will be determined by the number of days present divided by the total number of class days (20).

Examinations

Four Exams are given in class that cover topics stated from the Calendar. Students are required to handwrite and complete all problems by showing step-by-step calculations that lead to the algebraic or graphical solution(s).

1. Closed book and notes. Full class time available. – **Unprogrammable scientific calculators only!**
2. **Extra Credit** is offered on every exam by solving an additional problem! (up to 10%)
3. Any exam missed must be discussed with the instructor along with all important documentation as soon as possible. Remake or retake exams will not be given.

Class Policies and Information

Disclaimer: The instructor reserves the right to alter any class policies/dates as deemed necessary by the instructor. If there are any changes, they will be announced over Blackboard and via your SPC email.



South Plains College Email Policy

The instructor will respond to all emails **within 24 hours** during the weekday. 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.

Wellness Statement

If you are experiencing any of the following symptoms, please do not attend class and either seek medical attention or get tested 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 806-716-2376 or dedens@southplainscollege.edu

MATH1314.601 Calendar		
Week/Day	Lesson	
Week 1	M: June 3	<ul style="list-style-type: none"> Simplifying Linear Expressions Solving Linear Equations and Inequalities
	T: June 4	<ul style="list-style-type: none"> Graphing Linear Functions and Inequalities
	W: June 5	<ul style="list-style-type: none"> Simplifying Radical and Complex Number Expressions
	R: June 6	<ul style="list-style-type: none"> Solving Quadratic Equations
Week 2	M: June 10	<ul style="list-style-type: none"> Graphing Quadratic Functions and Inequalities Solving Radical Equations
	T: June 11	Exam #1 – Linear, Quadratic, and Radical Topics
	W: June 12	<ul style="list-style-type: none"> Simplifying Polynomial Expressions Solving Polynomial Equations
	R: June 13	<ul style="list-style-type: none"> Graphing Polynomial Functions Simplifying Rational Expressions
Week 3	M: June 17	<ul style="list-style-type: none"> Solving Rational Equations Graphing Rational Functions
	T: June 18	<ul style="list-style-type: none"> Solving Polynomial and Rational Inequalities Simplifying Function Algebra and Composition
	W: June 19	Exam #2 – Polynomial, Rational, and Function Algebra/Composition Topics
	R: June 20	<ul style="list-style-type: none"> Inverse Functions Simplifying Exponential and Logarithm Expressions
Week 4	M: June 24	<ul style="list-style-type: none"> Solving Exponential and Logarithm Equations
	T: June 25	<ul style="list-style-type: none"> Graphing Exponential and Logarithm Functions
	W: June 26	<ul style="list-style-type: none"> Logarithm and Exponential Applications Graphing Piecewise Functions
	R: June 27	Exam #3 – Exponential, Logarithm, and Piecewise Function Topics
Week 5	M: July 1	<ul style="list-style-type: none"> Solving 2 and 3 Variable Systems of Equations Simplifying Matrices
	T: July 2	<ul style="list-style-type: none"> Determinants and Inverses of Matrices Solving Matrix Equations using Cramer's Rule and Inverse Matrices
	W: July 3	<ul style="list-style-type: none"> Row Operations Solving Matrix Equations using Gauss-Jordan Elimination
	R: July 4	No Class – 4th of July Holiday
	F: July 5	Exam #4 – Systems of Equations and Matrix Topics

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.