South Plains College
Common Course Syllabus: MATH 1314
Revised December 2019

Department: Mathematics, Engineering, and Computer Science

Discipline: Mathematics

Course Number: MATH 1314

Course Title: College Algebra

Available Formats: conventional, 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

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 Policy: Attendance and effort are the most important activities for success in this course. Records of your attendance are maintained throughout the semester. Five (5) absences, ***for any reason***, are allotted to the student for the semester. Tardies count as one-half (1/2) of an absence. Tardies will be applied for consistently being late to class, as deemed by the instructor and leaving class early. If this number is exceeded, the instructor has the right to drop you with a grade of F or an X, depending on their 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.

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 in its programs and activities. 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 activate 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: http://www.southplainscollege.edu/campuscarry.php
Pursuant to PC 46.035, the open carrying of handguns is prohibited on all South Plains College 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.

SOUTH PLAINS COLLEGE
MATHEMATICS, ENGINEERING & COMPUTER SCIENCE

Mathematics 1314 – College Algebra
Section 007: Tuesday/Thursday 11:00 AM – 12:45 PM
Room: Agriculture Building, Room 103, Levelland Campus

Instructor Information

Contact Information	**Instructor:** Evan Vargas
	Phone: (806) 716-4673
	Email: evargas@southplainscollege.edu
Office Hours	Agriculture Building, AG107, Levelland Campus
	Monday/Wednesday: 10:40 AM – 10:55 AM @ TA209, Levelland 12:55 PM – 2:25 PM @ AG107, Levelland
	Tuesday/Thursday: 10:40 AM – 10:55 AM @ TA209, Levelland 2:15 PM – 2:30 PM @ Building 2, 226, Reese
	Friday: 8:30 AM – 12:00 PM @ AG107, Levelland

Course Information

Textbook	*College Algebra by OpenStax* - https://openstax.org/details/books/college-algebra
Knewton Link	https://knerd.me/4j554n
Materials	Pencils, erasers, paper, and scientific calculator

Grading Policy

Grading Scale:	90-100	**A**	**Weights:**	Homework	10%
	80-89	**B**		Quiz	10%
	70-79	**C**		Exams (4)	15% each
	60-69	**D**		Final Exam	20%
	0-59	**F**		**Total**	**100%**

Online Homework
Homework is assigned online through Knewton. The homework enables students to receive feedback right away as they work through each assignment. Physical homework is not required to turn in. Each set of online homework assignments are due at the end of each week.

In-class Quizzes
Quizzes will be given randomly throughout the semester and will contain material pertaining to Homework Assignments and previous lecture material. No make-up quizzes will be allowed for any reason.

In-class Examinations
Exams will cover material from Homework, Quizzes, and Lectures as indicated by the course itinerary. Examinations will be a combination of open answer, fill in the box, and/or multiple choice. Students need only bring pencils, lead, erasers, and a calculator. No other material will be required unless stated in class. **The use of pens are not allowed.** If an exam is missed due to *any reason,* the Final Examination will replace **one (1)** exam score.

Cell phones, smart watches, tablets, computers, etc. **are not allowed** and students will be asked to remove their device(s) or leave the class. Students seen with and using unapproved devices will receive an automatic 0 for the exam and potentially be dropped from the course.

Final Examination
A **comprehensive** final exam will be given at the end of the semester. Failure to attempt the final exam will result in a failing grade for the course. The final exam will be given on **Tuesday May 5th, 2020 from 10:15 AM – 12:15 PM.** Conflicting test schedules must be worked out with instructors. All grades are rounded from the tenths place, e.g. 80.5 = 81 and 80.49 = 80, upon the submission of grades at the end of the semester. **ALL GRADES ARE FINAL**

Returning Grades
The instructor will attempt to return any graded assignment by the next class meeting or as soon as possible. Any discrepancies with a particular grade must be contested to the instructor within **two weeks.** If the student does not contest their grade they will forfeit the right for amendments.

Classroom Policies

Class Cancellation Policy
In the event of class being canceled by the school/instructor, the student will be responsible for the lecture material missed. The class will continue on the following class day. All information will be available to the student on Blackboard and/or sent via email.

South Plains College Email Policy
The instructor will only acknowledge, respond, and send emails to your assigned South Plains College email. This ensures the intended recipient receives all correspondence from the instructor. It is the students' responsibility to have their email set up and ready to use by the end of the first week of class.

Withdrawal Policy
To withdraw from this class, the student will need to go to the Admissions and Records office either on the Levelland campus or the Reese Center campus, and fill out a drop notification form. If the student does not initiate the drop on their behalf the instructor will do instead.

Course Itinerary.

Week 1	Jan. 14	Introductions – Review of Basic Algebra. Types of Numbers. Order of Operations Solving Linear Equations with Inequalities; Cartesian Coordinate System
	Jan. 16	Graphing Linear Functions and Perpendicular/Parallel Lines
Week 2	*Jan. 21*	Function Characteristics and Notation
	Jan. 23	System of Equations: 2 Variables & 3 Variables
Week 3	*Jan. 28*	Graphing Systems of Equations with 2 Variables and Inequalities
	Jan. 30	Solving and Graphing Absolute Value Equations with Inequalities and Functions
Week 4	**Feb. 4**	**Examination 1**
	Feb. 6	Complex Number Algebra and Simplifying; Factoring and Solving Quadratic Equations
Week 5	Feb. 11	Solving Quadratics using AC Method, Complete the Square, and Quadratic Formula
	Feb. 13	Graphing Quadratic Functions with Inequalities.
Week 6	Feb. 18	Simplifying, Solving, and Graphing Radicals
	Feb. 20	Function Algebra and Composition of Functions.
Week 7	Feb. 25	Inverse Functions; Expressing and Graphing Circles
	Feb. 27	**Examination 2**
Week 8	Mar. 3	Simplifying Polynomials, Properties, and Solving Factored Polynomials
	Mar. 5	Long and Synthetic Division of Polynomials
Week 9	*Mar. 10*	Graphing Polynomial Functions.
	Mar. 12	Simplifying and Solving Rational Expressions and Equations
Week 10	*Mar. 24*	Graphing Rational Functions
	Mar. 26	Piecewise Functions
Week 11	**Mar. 31**	**Examination 3**
	Apr. 2	Exponential Properties and Solving Exponential Equations
Week 12	Apr. 7	Logarithm to Exponential Relations; Logarithm Properties
	Apr. 9	Solving Exponential and Logarithm Equations. Function Transformations
Week 13	Apr. 14	Graphing Exponential and Logarithm Functions; Applications
	Apr. 15	Intro to Matrices. Solving with Gauss and Gauss-Jordan Elimination
Week 14	Apr. 21	Solving Matrix Equations using Inverse Matrices and Determinants
	Apr. 23	**Examination 4**
Week 15	Apr. 28	Partial Fraction Decomposition.
	Apr. 30	Final Exam Review
Week 16	**May 5**	**Final Exam: 10:15 AM – 12:15 PM**