

South Plains College
Department of Mathematics & Engineering
Math 1314 – College Algebra
Course Syllabus – Fall 2019

Instructor: Gina Becker, BSE, M Ed

Email: gbecker@southplainscollege.edu

Scheduled Class Time: MWF 1:00-1:50

Phone: 806-716-4684

Office Hours:

Monday	Tuesday	Wednesday	Thursday	Friday
8:45 – 9:00	7:45 – 8:00	8:45 – 9:00	7:45 – 8:00	8:45 – 9:00
9:50 – 11:00	10:50 – 11:15	9:50 – 11:00	10:50 – 11:15	9:50 – 11:00
11:50 – 12:15		11:50 – 12:15		11:50 – 12:15
1:50 – 2:15		1:50 – 2:15		1:50 – 2:15

or by appointment

Textbook: Knewton Access Kit: You will be able to access the kit, when you log in to Blackboard using your SPC Student ID and password. You may also purchase the kit at the SPC Bookstore at Reese Center or online at www.knewton.com. There is no physical textbook for this course. The access kit online sells for approximately \$40. The SPC bookstore price is approximately \$58.

Supplies: Pencils, paper, straightedge, and graph paper. **Only a basic non-graphing calculator (such as a TI-30) will be allowed in class.** Graphing calculators and calculators on cell phones or other electronic devices will NOT be allowed during tests or in-class assignments.

General Education Core Objectives:

1. **Critical Thinking:** Students will develop habits of mind, allowing them to appreciate the processes by which scholars in various disciplines organize and evaluate data and use the methodologies of each discipline to understand the human experience.
2. **Communication Skills:** Students will communicate ideas, express feelings and support conclusions effectively in written, oral and visual formats.
3. **Empirical and quantitative Skills:** Students will develop quantitative and empirical skills to understand, analyze and explain natural, physical and social realms.

Course Description: MATH 1314. COLLEGE ALGEBRA. (3:3:1) A standard course in college algebra. Quadratic equations; ratio and proportion; variation, binomial theorem; progressions; inequalities; complex numbers; theory of equations; determinants and matrices; linear programming; mathematical induction; permutations and combinations. Pre-requisite: Two units of high school algebra or MATH 0320. (SPC Course Catalogue)

Student Learning Outcomes/Competencies:

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.

Course Requirements: To achieve success in this class, a student should attend all class meetings, take notes and participate in class, and complete all homework assignments and examinations, including the final examination.

Attendance Policy: Your attendance and active participation is vital to your success in this class. Attendance will be taken at the beginning of each class meeting. Should you arrive after attendance has been taken you

will be marked as tardy for that class. Two tardies will be considered as one absence. Leaving class early will be counted as a tardy. If you exceed 5 absences during the course of the semester, you may be dropped from this course with a grade of X or F.

Course Expectations: Attend class, be on time, do homework, and be prepared to participate. Turn off and put away all electronic devices when you enter the classroom and keep off for the duration of the class.

Assignments and Grading:

Homework assignments will be given daily. For best results, work each problem on lined notebook paper. Enter your answer. If you are unsure of the answer, select the More Instruction button. **Each assignment is due by 11:00 pm on the next class day.** Any incomplete assignment will receive partial credit. Each homework assignment is worth 0.2 points.

Quizzes will be given weekly on non-exam weeks and no makeup quizzes will be offered. Each quiz is worth 1 point. Missing a quiz will result in 0 points for that quiz.

Exams: Your course grade will include four exams. Each exam will be worth 15 points and the final comprehensive exam will be worth 20 points. Your final exam grade will take the place of your lowest exam grade, if it is a higher score and you have fewer than 3 zeroes.

Your final point value will determine your letter grade for this class and will be determined by the following scale:

A - 90-100

D - 60-69

B - 80-89

F - 0-59

C - 70-79

Tutoring: Students may obtain free tutoring through the Learning Center in Holden Hall.

Classroom Civility: Students are expected to be respectful of their fellow classmates and maintain a classroom environment that is conducive to learning. Turn off all cell phones and other electronic devices before entering the room. The instructor reserves the right to ask a student to leave if his/her cell phone is left on and disrupts the class. Refrain from using offensive language, tobacco or vape products, or otherwise being disruptive in class. Food and/or drinks are NOT allowed in the classroom.

Academic Honesty: Students are expected to uphold the ideas of academic honesty. Academic dishonesty includes, but is not limited to, cheating on tests, collaborating with another student during a test, copying another student's work, using materials not authorized, and plagiarism. Students who do not follow the academic honesty policy will receive a grade of zero for the assignment, and may be dropped from the course with an F, or face possible suspension from the college. *Math apps, smart phones, smart watches and graphing calculators are not allowed in this class.*

Equal Opportunity: South Plains College strives to accommodate the individual needs of all students in order to enhance their opportunities for success in the context of a comprehensive community college setting. It is the policy of South Plains College to offer all educational and employment opportunities without regard to race, color, national origin, religion, gender, disability or age.

Diversity and Learning Environment: 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.

ADA Accommodation: Students with disabilities, including but not limited to physical, psychiatric or learning disabilities, who wish to request accommodations in this class should notify the Special 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 Special Services Coordinator. For more information, call or visit the Special Services Office in Reese Center Building 8, 806-716-4675 or call or visit the Disability Services Office in the Student Health & Wellness Office, 806-716-2577.

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, please refer to the SPC policy at: (http://www.southplainscollege.edu/human_resources/policy_procedure/hhc.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.

Sexual Misconduct: As a faculty member, I am deeply invested in the well-being of each student I teach. I am here to assist you with your work in this course. If you come to me with other non-course-related concerns, I will do my best to help. It is important for you to know that all faculty members are mandated reporters of any incidents of sexual misconduct. That means that I cannot keep information about sexual misconduct confidential if you share that information with me. Dr. Lynne Cleavinger, the Director of Health & Wellness, can advise you confidentially as can any counselor in the Health & Wellness Center. They can also help you access other resources on campus and in the local community. You can reach Dr. Cleavinger at 716-2563 or lcleavinger@southplainscollege.edu or go by the Health and Wellness Center. You can schedule an appointment with a counselor by calling 716-2529.

Tentative Course Schedule

Week	Monday	Wednesday	Friday
1	August 26 Syllabus Intro to Knewton Test	August 28 1.1 Solve Linear Equations in One Variable	August 30 1.2 Distance, Rate, and Time and Literal Equations 1.3 Word Problems with Linear Equations
2	September 2 HOLIDAY	September 4 1.4 Absolute Value Equations and Inequalities	September 6 2.1 Relations and Functions 2.2 Domain and Range of Functions
3	September 9 2.3 Combinations of Functions 2.4 Cartesian Coordinates and Distances	September 11 12th Class Day 2.5 Identify Slopes and Intercepts 2.6 Find Linear Equations	September 13 2.7 Interpretations of Linear Functions
4	September 16 3.1 Solve Quadratic equations by Factoring	September 18 Exam 1	September 20 3.2 Complete the square 3.3 Quadratic Formula
5	September 23 4.1 Solving Systems of Linear Equations	September 25 4.2 Solve Rational Equations	September 27 4.3 Basics of Complex Numbers 4.4 Operations on Complex Numbers
6	September 30 4.5 Solve Radical Equations	October 2 4.6 Piecewise Functions 4.7 Graphical Properties of Functions	October 4 4.8 Transformations of Functions
7	October 7 5.1 Characteristics of Parabolas 5.2 Graphs of Quadratic Functions	October 9 Exam 2	October 11 5.3 Graphs of Circles
8	October 14 6.1 End Behavior of Polynomial Functions 6.2 Local Behavior of Polynomial Functions	October 16 6.3 Write and Graph Polynomial Functions 6.4 Long Division of Polynomials	October 18 6.5 Synthetic Division and Remainder Theorem 6.6 Asymptotic Behavior of Rational Functions
9	October 21 6.7 Graphs and Applications of Rational Functions 6.8 Rational and Quadratic Inequalities	October 23 7.1 Combinations of Functions 7.2 Evaluate Composite Functions 7.3 Properties of Composite Functions	October 25 7.4 Inverse Function Values 7.5 Find Inverse Functions
10	October 28 8.1 Evaluate and Write Exponential Functions 8.2 Applications of Exponential Functions and Base e	October 30 Exam 3	November 1 8.3 Exponential Function Graphs 8.4 Relate Logarithms and Exponents
11	November 4 8.5 Evaluate Logarithmic Expressions 8.6 Logarithmic Function Graphs	November 6 8.7 Basic Properties of Logarithms 8.8 Rewrite Logarithmic Expressions Using Properties	November 8 8.9 Solve Exponential Equations 8.10 Solve Logarithmic Equations
12	November 11 8.11 Applications of Exponential and Logarithmic Functions	November 13 November 14 Last Day to Withdraw 9.1 Systems of Linear Equations in Three Variables	November 15 9.2 Systems of Two Nonlinear Equations
13	November 18 9.3 Linear Inequalities in Two Variables 9.4 Graphing Nonlinear Inequalities and Systems of Inequalities	November 20 10.1 Introduction to Matrices 10.2 Matrix Multiplication	November 22 Exam 4
14	November 25 10.3 Matrices and Gaussian Elimination	November 27 Thanksgiving	November 29
15	December 2 10.4 Solving Systems with Cramer's Rule	December 4 TTU Last Class Day Review	