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

Instructor: Gina Becker, BSE, M Ed
Email: gbecker@southplainscollege.edu
Class Times: Math 1314.011 MW 8:30 – 10:15; Math 1314.013 MW11:00 – 12:45;
Math 1314.014 MW 1:00 - 2:45; Math 1314.018 TTH 1:00 - 2:45
Phone: 806-716-4684
Office Hours:

Monday*	Tuesday*	Wednesday*	Thursday*	Friday*
10:15 – 11:00	10:45 – 11:00	10:15 – 11:00	10:45 – 11:00	8:30 – 11:30
4:15 – 5:20	12:45 – 1:00	4:15 - 5:20	12:45 – 1:00	
	2:45 – 3:00		2:45 – 3:00	*or by appointment

Textbook: College Algebra with Intermediate Algebra, A Blended Course by Beecher / Penna / Johnson / Bittinger, Pearson Education, 2017. ISBN 9780134556505.

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. Leaving class for extended periods of time during class or leaving class early will result in a tardy. Two tardies will be considered as one absence. If you exceed 4 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 and Quizzes: Homework assignments will be given daily. Work the problems on lined notebook paper. Write the problem, show all work and clearly identify your answer. **Late homework will not be accepted and no points will be given.** Each homework assignment is worth 1 point. 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 unit exams. Each exam will be worth 15 points. You will be able to correct one exam. Corrections will add 50% of their point value to your grade. 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
B - 80-89
C - 70-79
D - 60-69
F - 0-59

Tutoring: Students may obtain free tutoring in Building 2 at the Reese Center. Tutoring schedules will be posted on campus. Please remember to sign in when you seek the help of a tutor.

Non-Discrimination: 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.

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.

Diversity: 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.

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.*

Title IX Pregnancy Accommodations: 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 Crystal Gilster, 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, 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.

Tentative Course Schedule

Week	Monday		Wednesday	
1	**January 14**	**Introduction** 1.1 - Solving Equations	**January 16**	1.2 - Formulas and Applications 1.3 - Applications and Problem Solving
2	**January 21**	**MLK Holiday**	**January 23**	1.6 - Absolute-Value Equations and Inequalities
3	**January 28**	2.1 - Graphs of Equations 2.2 - Functions and graphs	**January 30**	2.3 - Finding Domain and Range 2.4 - The Algebra of Functions
4	**February 4**	2.5 - Linear functions 2.6 - More on Linear Functions	**February 6**	3.1 - Systems of Equations in Two Variables 3.2 - Solving by Substitution 3.3 - Solving by Elimination
5	**February 11**	**Exam 1**	**February 13**	3.4 - Solving Applied Problems 4.8 - Applications of Polynomial Equations and Functions
6	**February 18**	5.5 - Solving Rational Equations 6.6 - Solving Radical Equations	**February 20**	6.8 – Increasing, Decreasing, and Piecewise Functions 7.1 - Symmetry
7	**February 25**	7.2 – Transformations 7.3 - The Complex Numbers	**February 27**	7.4 - Quadratic Equations 7.5 – Analyzing Graphs of Quadratic Functions
8	**March 4**	8.1 - Polynomial Functions 8.2 - Graphing Polynomial Functions	**March 6**	**Exam 2**
	March 11	Spring Break	**March 13**	Spring Break
9	**March 18**	8.3 - Polynomial Division	**March 20**	8.5 - Rational Functions 8.6 - Polynomial Inequalities
10	**March 25**	9.1 - The Composition of Functions 9.2 - Inverse Functions	**March 27**	9.3 - Exponential Functions and Graphs 9.4 - Logarithmic Functions and Graphs
11	**April 1**	**Exam 3**	**April 3**	9.5 - Properties of Logarithmic Functions
12	**April 8**	9.6 - Solving Exponential and Logarithmic Equations 9.7 - Applications and Models: Growth and Decay; Compound Interest	**April 10**	3.5- Systems of Equations in Three Variables 3.7 - Systems of Inequalities
13	**April 15**	10.1 – Matrices 10.4 - Determinants and Cramer's Rule	**April 17**	**Exam 4**
14	**April 22**	Easter Holiday	**April 24**	11.1/11.2 Graphing Circles
15	**April 29**	11.4 - Nonlinear Systems of Equations and Inequalities	**May 1**	**Review**
16	**May 6** **Final Exam**	Sect.011 – 8:00 – 10:00 Sect.013 – 10:15 – 12:15	**May 8**	Sect.014 – 10:15 – 12:15

Tentative Course Schedule

Week	Tuesday		Thursday	
1	**January 15**	**Introduction** 1.1 - Solving Equations	**January 17**	1.2 - Formulas and Applications 1.3 - Applications and Problem Solving
2	**January 22**	1.6 - Absolute-Value Equations and Inequalities	**January 24**	2.1 - Graphs of Equations 2.2 - Functions and graphs
3	**January 29**	2.3 - Finding Domain and Range 2.4 - The Algebra of Functions	**January 31**	2.5 - Linear functions 2.6 - More on Linear Functions
4	**February 5**	3.1 - Systems of Equations in Two Variables 3.2 - Solving by Substitution	**February 7**	**Exam 1**
5	**February 12**	3.3 - Solving by Elimination 3.4 - Solving Applied Problems	**February 14**	4.8 - Applications of Polynomial Equations and Functions 5.5 - Solving Rational Equations
6	**February 19**	6.6 - Solving Radical Equations 6.8 – Increasing, Decreasing, and Piecewise Functions	**February 21**	7.1 – Symmetry 7.2 – Transformations
7	**February 26**	7.3 - The Complex Numbers	**February 28**	7.4 - Quadratic Equations 7.5 – Analyzing Graphs of Quadratic Functions
8	**March 5**	8.1 - Polynomial Functions 8.2 - Graphing Polynomial Functions	**March 7**	**Exam 2**
	March 12	Spring Break	**March 14**	Spring Break
9	**March 19**	8.3 - Polynomial Division	**March 21**	8.5 - Rational Functions 8.6 - Polynomial Inequalities
10	**March 26**	9.1 - The Composition of Functions 9.2 - Inverse Functions	**March 28**	9.3 - Exponential Functions and Graphs 9.4 - Logarithmic Functions and Graphs
11	**April 2**	**Exam 3**	**April 4**	9.5 - Properties of Logarithmic Functions
12	**April 9**	9.6 - Solving Exponential and Logarithmic Equations 9.7 - Applications and Models: Growth and Decay; Compound Interest	**April 11**	3.5- Systems of Equations in Three Variables 3.7 - Systems of Inequalities
13	**April 16**	10.1 – Matrices	**April 18**	**Exam 4**
14	**April 23**	10.4 - Determinants and Cramer's Rule	**April 25**	11.1/11.2 Graphing Circles
15	**April 30**	11.4 - Nonlinear Systems of Equations and Inequalities	**May 2**	**Review**
16			**May 9** **Final Exam**	Sect.018 – 10:15 – 12:15