South Plains College
Department of Mathematics & Engineering
Math 0314/1314 – College Algebra Support Course/College Algebra
Course Syllabus – Fall 2018

Instructor: Gina Becker, BSE, M Ed
Email: gbecker@southplainscollege.edu
Scheduled Class Time: MWF 8:00-8:50, TH 8:00 – 9:20; MWF 11:00-11:50, TH 11:00 – 12:20;
Phone: 806-716-4684
Office Hours:

Monday	Tuesday	Wednesday	Thursday	Friday
9:50 – 11:00	9:20 – 11:00	9:50 – 11:00	9:20 – 11:00	9:50 – 11:00
11:50-12:10	12:20-12:40	11:50-12:10	12:20-12:40	11:50-12:10
			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: The College Algebra Support Course (MATH 0314) is the study of the basic algebraic concepts necessary for success in MATH 1314, to include order of operations, graphing, polynomials, factoring, exponent rules, radical and rational expressions, and the solution of equations and inequalities. This course is not applicable toward any degree. Prerequisites: Math level 6, Reading level 7. Co-requisite: MATH 1314 (3:3:1)

In College Algebra (MATH 1314), the study and application of common algebraic functions, including polynomial, exponential, logarithmic, and rational problems are addressed. Matrices and systems of equations & inequalities are also addressed. A grade of C or better is required from MATH 0314, MATH0324, or MATH0320. (3:3:1)

Student Learning Outcomes/Competencies:

Math 0314

1. Upon successful completion of this course, the student will be able to:
2. Perform order of operations of real numbers.
3. Perform operations using integer and rational exponents.
4. Factor and perform operations with polynomials.
5. Simplify and perform operations with rational expressions.
6. Simplify and perform operations with radical expressions.
7. Solve linear equations and equalities of a single variable.
8. Solve quadratic equations by factoring and quadratic formula.
9. Solve systems of two linear equations in two variables.
10. Graph linear and quadratic functions.

Math 1314

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 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 0.5 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 seven unit exams. Each exam will be worth 8 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	

If you make a grade of A, B, or C then that is the grade you will be awarded for both halves of the course. However, if you COMPLETE THE COURSE and make a grade of D or F, then your grade for the Math 0314 course will be assessed at your professor's discretion. If you pass Math 0314 but not the Math 1314 portion of the course you will be able to register for Math 1314 in future semesters.

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	Tuesday	Wednesday	Thursday	Friday
1	**August 27** Syllabus	**August 28** R2 - Operations with Real Numbers	**August 29** R 2.5 - Operations with Fractions; Conversions to % and Decimals	**August 30** R 3 - Exponential Notation and Order of Operations R 4 – Introduction to Algebraic Expressions	**August 31** R 5 - Evaluating Algebraic Expressions
2	**September 3** **HOLIDAY**	**September 4** R 6 - Simplifying Algebraic Expressions R 7 – Properties of Exponents and Scientific Notation	**September 5** 1.1 - Solving Equations	**September 6** 1.2 - Formulas and Applications 1.3 - Applications and Problem Solving	**September 7** 1.4 – Sets, Inequalities, and Interval Notation
3	**September 10** 1.5 – Intersections, Unions, and Compound Inequalities	**September 11** 1.6 - Absolute-Value Equations and Inequalities	**September 12** **12th Class Day** Review	**September 13** **Exam 1**	**September 14** 2.1 - Graphs of Equations
4	**September 17** 2.2 - Functions and graphs	**September 18** 2.3 - Finding Domain and Range 2.4 - The Algebra of Functions	**September 19** 2.5 - Linear functions	**September 20** 2.6 - More on Linear Functions	**September 21** Review
5	**September 24** **Exam 2**	**September 25** 3.1 - Systems of Equations in Two Variables 3.2 - Solving by Substitution	**September 26** 3.3 - Solving by Elimination	**September 27** 3.4 - Solving Applied Problems	**September 28** 4.1 – Introduction to Polynomials and Polynomial Functions
6	**October 1** 4.2 - Multiplication of Polynomials 12.7 Binomial Theorem	**October 2** 4.3 – Introduction to Factoring 4.4 – Factoring Trinomials	**October 3** 4.5 – Factoring Trinomials	**October 4** 4.6 – Special Factoring	**October 5** 4.7 – Factoring:
7	**October 8** 4.8 - Applications of Polynomial Equations and Functions	**October 9** Review	**October 10** **Exam 3**	**October 11** 5.5 - Solving Rational Equations	**October 12** **SPC Fall Break**
8	**October 15** 5.6 – Applications	**October 16** 6.1 – Radical	**October 17** 6.3 – Simplifying	**October 18** 6.6 - Solving Radical	**October 19** Review

	and Proportions	Expressions and Functions 6.2 – Rational Numbers as Exponents	Radical Expressions	Equations 6.7 – Applications Involving Powers and Roots	
9	**October 22** **Exam 4**	**October 23** 7.1 – Symmetry 7.2 - Transformations	**October 24** 7.3 - The Complex Numbers	**October 25** 7.4 - Quadratic Equations	**October 26** 7.5 – Analyzing Graphs of Quadratic Functions
10	**October 29** 8.1 - Polynomial Functions	**October 30** 8.2 - Graphing Polynomial Functions 5.3 - Division of Polynomials	**October 31** 8.3 - Polynomial Division	**November 1** 8.4 – Theorems about Zeros of Polynomial Functions	**November 2** 8.5 - Rational Functions
11	**November 5** 8.6 - Polynomial Inequalities	**November 6** Review	**November 7** **Exam 5**	**November 8** 9.1 - The Composition of Functions	**November 9** 9.2 - Inverse Functions
12	**November 12** 9.3 - Exponential Functions and Graphs	**November 13** 9.4 - Logarithmic Functions and Graphs	**November 14** 9.5 - Properties of Logarithmic Functions	**November 15** 9.6 - Solving Exponential and Logarithmic Equations **Last Day to Withdraw**	**November 16** Review
13	**November 19** **Exam 6**	**November 20** 3.5 - Systems of Equations in Three Variables	**November 21** Thanksgiving	**November 22** Holiday --------	**November 23**
14	**November 26** 10.1 - Matrices	**November 27** 10.4 - Determinants and Cramer's Rule	**November 28** 3.7 - Systems of Inequalities 11.4 - Nonlinear Systems of Equations and Inequalities	**November 29** 11.1/11.2 Graphing Circles and Selected Topics	**November 30** Review
15	**December 3** **Exam 7**	**December 4** Selected Topics	**December 5** **TTU Last Class Day** Review		**December 7** **Final Exam 1:30 pm** (11:00) **December 8** **Final Exam 4:30 pm (8:00)**