South Plains College – Mathematics Department
Intermediate Algebra – MATH 0320
Course Syllabus – Fall Semester 2018

Instructor: Tom Johnson	**Office Hours:** MTWR 8:00 – 8:20 AM
Office: SPC Plainview, PC101G	MTWR 10:20 – 11:40 PM
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Course Description: MATH 0320. INTERMEDIATE ALGEBRA. **(3:3:1)** Prerequisite: MATH 0315 or one year of high school algebra. This course is designed for the student who needs MATH 1314 or 1324. It includes a study of relations and functions, inequalities, algebraic expressions and equations (absolute value, polynomial, radical, rational), with a specific emphasis on linear and quadratic expressions and equations. Time in a math lab is required. This course will not satisfy graduation requirements. Semester Hours: 3 Lecture Hours: 3 Lab Hours: 1 Pre-requisite: MATH 0315 or one year of high school algebra. (from the current SPC catalog)

Textbook: The textbook needed for this course: (Online version through Pearson Education)
- Beecher, J.; Penna, J.; Johnson, B.; Bittinger, M. (2017). College Algebra with Intermediate Algebra, a Blended Course. Boston: Pearson. ISBN 0134555260.

Attendance: Attendance and effort are the most important activities for success in this course. Class attendance may be taken at any time during the class period, so please do not be late or leave early. You may be dropped from this course with a grade of X or F if you are absent four (4) consecutive classes or if you exceed six (6) absences throughout the semester.

Student Learning Outcomes/Competencies*:
Upon completion of this course and receiving a passing grade, the student will be able to:

1. Define, represent, and perform operations on real and complex numbers.
2. Recognize, understand, and analyze features of a function.
3. Recognize and use algebraic (field) properties, concepts, procedures (including factoring), and algorithms to combine, transform, and evaluate absolute value, polynomial, radical, and rational expressions.
4. Identify and solve absolute value, polynomial, radical, and rational equations.
5. Identify and solve absolute value and linear inequalities.
6. Model, interpret and justify mathematical ideas and concepts using multiple representations.
7. Connect and use multiple strands of mathematics in situations and problems, as well as in the study of other disciplines.

*Developed by the Texas Coordinating Board and the Faculty of South Plains College's Math and Engineering Department.

Course Objectives: Successful completion of this course should reflect mastery of the preceding competencies.

Core Objectives:
Communication Skills: Effective development, interpretation, and expression of ideas through written, oral, and visual communication.
Critical Thinking: Creative thinking, innovation, inquiry, analysis, evaluation, and synthesis of information.
Empirical and Quantitative Competency Skills: The manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

Assignments & Grading: Homework assignments will be made at each class meeting. Quizzes may be administered at any time. Keep all class materials (notes, handouts, homework, quizzes, and exams) organized in a notebook (3-ring binder). These materials are subject to be turned in for grading at any time. Please make certain all materials accompany you to each class meeting. Late assignments will be accepted with a 10%

penalty. Daily work (homework, quizzes) will count for 40% of the final grade, while all Tests count for 60% of the final grade. Expect four major Tests throughout the course and a cumulative final exam at the end of the course. Your final average in the course will determine the letter grade posted on your transcript. This grade is determined by the following scale:

        A (90-100%), B (80-89%), C (70-79%), D (60-69%), F (0-59%).

Supplies: You will need a scientific or graphing calculator, graph paper, and a 3-ring binder. Calculators on cell phones, TI-89, TI-92, or TI-Inspire calculators, or any other electronic devices will not be allowed during testing without permission from the instructor.

Supplementary Course Information: Blackboard is the online course management system that will be utilized for this course. This course syllabus, as well as any class handouts can be accessed through Blackboard. Login at http://spc.blackboard.com. The user name and password should be the same as the MySPC and SPC email.

        User name: first initial, last name, and last 4 digits of the Student ID
        Password: Original CampusConnect Pin No. (found on SPC acceptance letter)

Student Conduct: The Student "Code of Conduct" will be followed in this course. You are expected to be respectful to others in the classroom. Please SILENCE phones before entering class and assist in maintaining a classroom environment conducive to learning. Any student disrupting the learning environment will be asked to leave and may be dropped from the course.

Disability: Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request ADA Sec. 504 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. For more information, call or visit the Disability Services Office in the Student Health & Wellness Office, 806-716-2577.

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: 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.

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.

Week #	Day	Date		Lesson / Tentative Assignment
Week 1	M	8/27	Assignment 1	R.1 Set of Real Numbers R.2 Operations with Real Numbers
	W	8/29	Assignment 2	R.3 Exponential Notation & the Order of Operations R.4 Intro to Algebraic Expressions
Week 2	W	9/5	Assignment 3	R.5 Equivalent Algebraic Expressions R.6 Simplifying Algebraic Expressions
Week 3	M	9/10	Assignment 4	R.7 Properties of Exponents & Scientific Notation RVW
	W	9/12		Test #1
Week 4	M	9/17	Assignment 5	1.1 Solving Equations 1.2 Formulas & Applications 1.3 Applications & Problem Solving
	W	9/19	Assignment 6	1.4 Sets, inequalities, & Interval Notation 1.5 Intersections, Unions, & Compound Inequalities 1.6 Absolute-Value Equations & Inequalities
Week 5	M	9/24	Assignment 7	2.1 Graphs of Equations 2.2 Functions & Graphs
	W	9/26	Assignment 8	2.3 Finding Domain & Range 2.4 The Algebra of Functions
Week 6	M	10/1	Assignment 9	2.5 Linear Functions: Graphs & Slope 2.6 More on Graphing Linear Equations
	W	10/3	Assignment 10	2.7 Finding Equations of Lines RVW
Week 7	M	10/8		TEST #2
	W	10/10	Assignment 11	3.1 Systems of Equations in 2 Variables 3.2 Solving by Substitution 3.3 Solving by Elimination
Week 8	M	10/15	Assignment 12	3.4 Solving Applied Problems; 2 Equations 3.5 Systems of Equations in 3 Variables
	W	10/17	Assignment 13	3.6 Solving Applied Problems; 3 Variables 3.7 Systems of Inequalities
Week 9	M	10/22		TEST #3
	W	10/24	Assignment 14	4.1 Intro to Polynomials & Polynomial Functions 4.2 Multiplying Polynomials 4.3 Intro Factoring polynomials
Week 10	M	10/29	Assignment 15	4.4 & 4.5 Factoring Trinomials 4.6 Factoring Special Trinomials
	W	10/31	Assignment 16	5.1 Rational Expressions & Functions: *, /, & simplify 5.2 LCMs, LCDs, Addition, & Subtraction
Week 11	M	11/5	Assignment 17	5.3 Division of Polynomials 5.4 Complex Rational Expressions
	W	11/7	Assignment 18	5.5 Solving Rational Equations 5.6 Applications & Proportions
Week 12	M	11/12		TEST #4
	W	11/14	Assignment 19	6.1 Radical Expressions & Functions 6.2 Rational Numbers as Exponents
Week 13	M	11/19	Assignment 20	6.3 Simplifying Radical Equations 6.4 Addition, Subtraction, & More Multiplications
Week 14	M	11/26	Assignment 21	6.5 Division of Radical Expressions 6.6 Solving Radical Equations 6.7 Applications Involving Powers & Roots

Week 14 cont.	W	11/28	Assignment 22	7.1 Symmetry 7.2 Transformations 7.3 The Complex Numbers
Week 15	M	12/3	Assignment 23	7.4 Quadratic Equations, Functions, Zeros, & Models 7.5 Analyzing Quadratic Functions
	W	12/5		REVIEW
Week 16	M	12/10		Final Exam 10:15 AM to 12:15 PM