MATH 0320 (3:3:1)

Intermediate Algebra

MATHEMATICS DEPARTMENT

Division of Arts & Sciences

South Plains College Levelland

Fall 2017

Dr. Kim Bouldin

Fall 2017 Math 0320.200: Intermediate Algebra MW 8:00 – 9:45am

Instructor: Dr. Kim Bouldin **Phone:** 716-2950 **Classroom:** LIB 337 **E-mail:** kbouldin@southplainscollege.edu **Office:** Levelland campus, S106

Office Hours:

Monday	Tuesday	Wednesday	Thursday	Friday
1:00 - 3:30		1:00 - 3:30		9:00 - 12:00
	Appointmen	ts are available for	other times.	

Course Description: This course is designed for the student who needs Math 1314 or 1324. This course will include the study of relations and functions, inequalities, algebraic expressions and equations (absolute value, polynomial, radical, rational), with a special emphasis on linear and quadratic expressions and equations. Time in a math lab is required. This course will not satisfy graduation requirements.

Text: <u>Elementary & Intermediate Algebra</u>, Third Edition, by Sullivan, Struve, and Mazzarella

Supplies: notebook paper (to be turned in without spiral edges), scientific or graphing calculator (cell phones, TI-89, TI-92, TI-Nspire calculators, or other electronic devices will not be allowed during testing), pencils, graph paper, straightedge

Prerequisite: a grade in the range 340 - 349 on the TSIA or a grade of C or better in Math 0315

Grading Policy:	Grades will be averaged according to the following percentages:		
	Lab Average	20%	
	Test Average	60%	
	Final Exam	20%	
Grading Scale:	A: 90 and above B: 80 – 89 C: 70 – 79 D: 60 – 69 F: 59 or below		

Tests: There will be 4 tests and a comprehensive final exam. There will be **NO MAKEUP TESTS!** Dates are listed for all tests, including the final exam, so **PLAN AHEAD!** **Homework:** Homework will be assigned for all of the sections covered in the course. It will not be collected or graded. However, the questions on the tests and labs will reflect homework problems and time will be given during each class to answer questions on the homework.

Lab: Excluding test days, approximately the last 30 minutes of class on Mondays and Wednesdays will be our lab time. The lowest three lab grades will be dropped. THERE ARE NO MAKEUP LABS! Here are the two different types of labs we will have:

- 1. Work on homework. As long as you participate, you will receive a 100 for these labs. If you are absent, you will receive a zero.
- 2. Work a few problems to be turned in for a grade. If you are absent, you will receive a zero.

Attendance: Attendance and effort are the most important activities for success in this course. Whenever you have 6 total absences, the instructor may withdraw you from the course with a grade of X or F. I do not distinguish between excused and unexcused absences. If you stop attending class, you should go through the procedure for dropping a course to obtain a grade of W or U. For more detail, see page 19 of the South Plains College General Catalog. Perfect attendance will result in 4 points added to your final grade. If you must miss, find out what the homework was and stay caught up!

Expectations:

- 1. Read the syllabus!
- 2. Attend class, arrive on time, do your homework, and be prepared to participate.
- 3. Keep all cell phones turned off and put away for the duration of the class.
- 4. Maintain a classroom environment that is conducive to learning. For more detail, see page 22 of the South Plains College General Catalog.
- 5. Be the best you can be!

Important Dates:	September 4	Labor Day
	October 13	Fall Break
	November 16	Last Day to Drop
	November 22-24	Thanksgiving Break
	December 11	Final Exam: 8:00 – 10:00 AM

Course Outcomes:

Successful completion of this course should reflect mastery of the following objectives. Chapter and section numbers are indicated in parentheses.

- 1. Define, represent, and perform operations on real and complex numbers. (9.9)
- 2. Recognize, understand, and analyze features of a linear equation and a function. (8.3, 8.4 including topics from 3.3, 3.4 and 3.5)
- 3. Recognize and use algebraic (field) properties, concepts, procedures (including factoring), and algorithms to combine, transform, and evaluate absolute value, polynomial, rational, and radical expressions.

 $(6.1,\, 6.2,\, 6.3,\, 6.4,\, 6.5,\, 7.1,\, 7.2,\, 7.3,\, 7.4,\, 7.5,\, 9.1,\, 9.2,\, 9.4,\, 9.5,\, 9.6)$

- 4. Identify and solve absolute value, polynomial, rational, and radical equations. (6.6, 7.7, 8.7, 9.8, 10.1, 10.2)
- 5. Identify and solve absolute value and linear inequalities. (8.6, 8.7)
- 6. Model, interpret, justify mathematical ideas and concepts using multiple representations. (6.7, 7.8, 8.2, 8.5, 9.8)
- Connect and use multiple strands of mathematical situations and problems, as well as in the study of other disciplines. (The word problems in Chapters 6, 7, 8, 9, and 10.)

Academic Integrity: The attempt of any student to present as his or her own any work which he or she has not honestly performed is regarded by the faculty and administration as a serious offense and renders the offender liable to serious consequences, possibly suspension. For more detail, see p. 21 of the South Plains College General Catalog.

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. For more information, call or visit the Disability Services Office at, Reese Center Building 8, 806-716-4675.

Campus Concealed Carry syllabus statement:

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.

	Math 0320.200 Course Outline – Fall 2017		
	This schedule is tentative and subject to change.		
Week	Topics and Sections Covered		
1	Assessment Test		
8/28,30	6.1 Greatest Common Factor and Factoring by Grouping		
0/20,50			
	6.2 Factoring Trinomials of the Form $x^2 + bx + c$		
	6.3 Factoring Trinomials of the Form $ax^2 + bx + c$, $a \neq 1$		
2	Labor Day – No Class – Monday, September 4		
9/4,6	6.4 Factoring Special Products		
	6.5 Summary of Factoring Techniques		
3	6.6 Solving Polynomial Equations by Factoring		
9/11,13	6.7 Modeling and Solving Problems with Quadratic Equations		
	7.1 Simplifying Rational Expressions		
4	Test 1 – Monday, September 18		
9/18,20	7.2 Multiplying and Dividing Rational Expressions		
	7.3 Adding and Subtracting Rational Expressions with a Common Denominator		
5	7.4 Finding the Least Common Denominator		
9/25,27	7.5 Adding and Subtracting Rational Expressions with Unlike Denominators		
	7.7 Rational Equations		
6	7.8 Models Involving Rational Equations		
10/2,4	3.3 Slope		
	3.4 Slope-Intercept Form of a Line		
7	Test 2 – Monday, October 9		
10/9,11	3.5 Point-Slope Form of a Line		
	Fall Break – No Class – Friday, October 13		
8	8.1 Graphs of Equations		
10/16,18	8.3 An Introduction to Functions		
	8.4 Functions and Their Graphs		
9	8.5 Linear Functions and Models		
10/23,25	8.7 Absolute Value Equations and Inequalities		
10	9.1 Square Roots		
10/30, 11/1	Test 3 – Wednesday, November 1		
	9.2 <i>n</i> th Roots and Rational Exponents		
11	9.4 Simplifying Radical Expressions Using Properties of Radicals		
11/6,8	9.5 Adding, Subtracting, and Multiplying Radical Expressions		
	Registration Opens – Thursday, November 9		
12	9.6 Rationalizing Radical Expressions		
11/13,15	9.8 Radical Equations and Their Applications		
	Last Day to Drop – Thursday, November 16		
13	9.9 The Complex Number System		
11/20,22	Thanksgiving Break – November 22 – 24		
14	10.1 Solving Quadratic Equations by Completing the Square		
11/27,29	Test 4 – Wednesday, November 29		
15	10.2 Solving Quadratic Equations by the Quadratic Formula		
12/4,6	Review for Final Exam		
16	FINAL EXAM – Monday, 8:00 – 10:00 AM		