

MATH 0320 (3:3:1)

Intermediate Algebra

MATHEMATICS DEPARTMENT

Division of Arts & Sciences

*South Plains College*  
*Reese Center*

Fall 2016

Traci Sanders

**Fall 2016**  
**Math 0320.200: Intermediate Algebra**  
**MW 8:30 – 9:50, F 8:30 – 9:20**

**Instructor:** Traci Sanders  
**Phone:** 716-4616  
**Classroom:** RC 265

**E-mail:** tsanders@southplainscollege.edu  
**Office:** Reese Center 268-C

**Office Hours:**

Monday	Tuesday	Wednesday	Thursday	Friday
9:50 – 11:00 12:30 – 1:00	8:30 – 9:00 1:00 – 2:00	9:50 – 11:00 12:30 – 1:00	8:30 – 9:00 1:00 – 2:00	9:20 – 11:00
Appointments 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:** Elementary & Intermediate Algebra, Third Edition, by Sullivan, Struve, and Mazarella

**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 343 – 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 assignment 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 5	Labor Day
October 14	Fall Break
November 10	Registration Opens
November 17	Last Day to Drop
November 23 – 25	Thanksgiving Break
December 14	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)
7. 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.

	<b>Math 0320.200 Course Outline – Fall 2016</b> This schedule is tentative and subject to change.
Week	Topics and Sections Covered
<b>1</b> 8/29,31, 9/2	Assessment Test 6.1 Greatest Common Factor and Factoring by Grouping 6.2 Factoring Trinomials of the Form $x^2 + bx + c$ 6.3 Factoring Trinomials of the Form $ax^2 + bx + c, a \neq 1$
<b>2</b> 9/5,7,9	<b>Labor Day – No Class – Monday, September 5</b> 6.4 Factoring Special Products 6.5 Summary of Factoring Techniques
<b>3</b> 9/12,14,16	6.6 Solving Polynomial Equations by Factoring 6.7 Modeling and Solving Problems with Quadratic Equations 7.1 Simplifying Rational Expressions
<b>4</b> 9/19,21,23	<b>Test 1 – Monday, September 19</b> 7.2 Multiplying and Dividing Rational Expressions 7.3 Adding and Subtracting Rational Expressions with a Common Denominator
<b>5</b> 9/26,28,30	7.4 Finding the Least Common Denominator 7.5 Adding and Subtracting Rational Expressions with Unlike Denominators 7.7 Rational Equations
<b>6</b> 10/3,5,7	7.8 Models Involving Rational Equations 3.3 Slope 3.4 Slope-Intercept Form of a Line
<b>7</b> 10/10,12,14	<b>Test 2 – Monday, October 10</b> 3.5 Point-Slope Form of a Line <b>Fall Break – No Class – Friday, October 14</b>
<b>8</b> 10/17,19,21	8.1 Graphs of Equations 8.3 An Introduction to Functions 8.4 Functions and Their Graphs
<b>9</b> 10/24,26,28	8.5 Linear Functions and Models 8.7 Absolute Value Equations and Inequalities
<b>10</b> 10/31, 11/2,4	9.1 Square Roots <b>Test 3 – Wednesday, November 2</b> 9.2 $n$ th Roots and Rational Exponents
<b>11</b> 11/7,9,11	9.4 Simplifying Radical Expressions Using Properties of Radicals 9.5 Adding, Subtracting, and Multiplying Radical Expressions <b>Registration Opens – Thursday, November 10</b>
<b>12</b> 11/14,16,18	9.6 Rationalizing Radical Expressions 9.8 Radical Equations and Their Applications <b>Last Day to Drop – Thursday, November 17</b>
<b>13</b> 11/21,23,25	9.9 The Complex Number System <b>Thanksgiving Break – November 23 – 25</b>
<b>14</b> 11/28,30, 12/2	10.1 Solving Quadratic Equations by Completing the Square <b>Test 4 – Wednesday, November 30</b>
<b>15</b> 12/5,7,9	10.2 Solving Quadratic Equations by the Quadratic Formula Review for Final Exam
<b>16</b> 12/14	<b>FINAL EXAM – Wednesday, 8:00 – 10:00 AM</b>