

MATH 1314 (3:3:1)

College Algebra

MATHEMATICS DEPARTMENT

Division of Arts & Sciences

*South Plains College*  
*Reese Center*

Fall 2017

Traci Sanders

**Fall 2017**  
**College Algebra: Math 1314.207**

**Instructor:** Traci Sanders  
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**Office:** RC 223-C  
**Classroom:** RC 220  
**Time:** TR 8:30 – 10:15

**Office Hours:**

<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
	10:15 – 11:00 12:45 – 2:30		10:15 – 11:00 12:45 – 2:30	9:00 – 12:00
Appointments are available for other times.				

**Course Description:** A standard course in college algebra. This course will include in-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions and systems of equations using matrices.

**Text:** No textbook is required.

**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 of 350 or above on the TSIA, exemption from taking a placement exam, or a grade of C or better in Math 0320

**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 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 4 consecutive or 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. For more detail, see p. 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!

<b>Important Dates:</b>	September 4	Labor Day Holiday
	October 13	Fall Break
	November 9	Registration Opens
	November 16	Last Day to Drop
	November 22 – 24	Thanksgiving Holiday
	December 12	Final Exam: 8:00 – 10:00

**Course Outcomes:**

Upon successful completion of this course, students will:

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.

**Core Objectives:**

## Communication Skills

- Develop, interpret, and express ideas through written communication
- Develop, interpret, and express ideas through oral communication
- Develop, interpret, and express ideas through visual communication

## Critical Thinking

- Generate and communicate ideas by combining, changing, and reapplying existing information
- Gather and assess information relevant to a question
- Analyze, evaluate, and synthesize information

## Empirical and Quantitative Competency Skills

- Manipulate and analyze numerical data and arrive at an informed conclusion
- Manipulate and analyze observable facts and arrive at an informed conclusion

**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 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](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.

	<b>Math 1314 Course Outline – Fall 2017</b> This schedule is tentative and subject to change. Changes will be announced in class.
<b>Week</b>	<b>Topics and Sections Covered</b>
<b>1</b> 8/29,31	Review Factoring Assessment Test 1.2 Linear Equations and Rational Equations
<b>2</b> 9/5,7	1.4 Complex Numbers 1.5 Quadratic Equations
<b>3</b> 9/12,14	1.6 Other Types of Equations 1.7 Linear Inequalities and Absolute Value Inequalities
<b>4</b> 9/19,21	1.7 Linear Inequalities and Absolute Value Inequalities <b>Test 1 – Thursday, September 21</b>
<b>5</b> 9/26,28	2.1 Basics of Functions and Their Graphs 2.3 Linear Functions and Slope
<b>6</b> 10/3,5	2.4 More on Slope 2.6 Combinations of Functions; Composite Functions 2.7 Inverse Functions
<b>7</b> 10/10,12	2.8 Distance and Midpoint Formulas; Circles 3.1 Quadratic Functions
<b>8</b> 10/17,19	3.2 Polynomial Functions and Their Graphs <b>Test 2 – Thursday, October 19</b>
<b>9</b> 10/24,26	3.3 Dividing Polynomials 3.4 Zeros of Polynomial Functions 3.5 Rational Functions and Their Graphs
<b>10</b> 10/31,11/2	3.5 Rational Functions and Their Graphs 3.6 Polynomial and Rational Inequalities 4.1 Exponential Functions
<b>11</b> 11/7,9	4.2 Logarithmic Functions 4.3 Properties of Logarithms <b>Test 3 – Thursday, November 9</b> <b>Registration Opens – Thursday, November 9</b>
<b>12</b> 11/14,16	4.4 Exponential and Logarithmic Equations 5.1 Systems of Linear Equations in Two Variables <b>Last Day to Drop – Thursday, November 16</b>
<b>13</b> 11/21,23	5.2 Systems of Linear Equations in Three Variables 5.4 Systems of Nonlinear Equations in Two Variables <b>Thanksgiving Holiday – November 22 – 24</b>
<b>14</b> 11/28,30	5.5 Systems of Inequalities 6.1 Matrix Solutions to Linear Systems
<b>15</b> 12/5,7	<b>Test 4 – Tuesday, December 5</b> Review for Final Exam
<b>16</b> 12/12	<b>FINAL EXAM – Tuesday, December 12, 8:00 – 10:00 am</b>