MATH 1314 (3:3:1)

College Algebra

MATHEMATICS DEPARTMENT

Division of Arts & Sciences

South Plains College
Reese Center

Spring 2017

Traci Sanders

Instructor: Traci Sanders   **E-mail:** tsanders@southplainscollege.edu
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Classroom: RC 265

Office Hours:

Monday	Tuesday	Wednesday	Thursday	Friday
10:00 – 12:00	1:00 – 2:00	10:00 – 12:00	1:00 – 1:30	9:30 – 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. Additional topics such as sequences, series, probability, and conics may be included.

Text: College Algebra, Sixth Edition, Blitzer

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 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. 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!

Important Dates:

March 13 – 17	Spring Break
April 17	Easter Holiday
April 19	Registration Opens
April 27	Last Day to Drop
May 8	Final Exam: 8:00 – 10:00 am

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.

Week	Topics and Sections Covered
	Math 1314 Course Outline – Spring 2017 This schedule is tentative and subject to change. Changes will be announced in class.
Week	**Topics and Sections Covered**
1 1/18,20	Review Factoring Assessment Test 1.2 Linear Equations and Rational Equations
2 1/23,25,27	1.2 Linear Equations and Rational Equations 1.4 Complex Numbers 1.5 Quadratic Equations
3 1/30, 2/1,3	1.5 Quadratic Equations 1.6 Other Types of Equations 1.7 Linear Inequalities and Absolute Value Inequalities
4 2/6,8,10	1.7 Linear Inequalities and Absolute Value Inequalities **Test 1 – Wednesday, February 8** 2.1 Basics of Functions and Their Graphs
5 2/13,15,17	2.3 Linear Functions and Slope 2.4 More on Slope 2.6 Combinations of Functions; Composite Functions
6 2/20,22,24	2.7 Inverse Functions 2.8 Distance and Midpoint Formulas; Circles
7 2/27, 3/1,3	3.1 Quadratic Functions 3.2 Polynomial Functions and Their Graphs
8 3/6,8,10	3.2 Polynomial Functions and Their Graphs **Test 2 – Wednesday, March 8** 3.3 Dividing Polynomials
9 3/13 – 17	**Spring Break**
10 3/20,22,24	3.4 Zeros of Polynomial Functions 3.5 Rational Functions and Their Graphs
11 3/27,29,31	3.6 Polynomial and Rational Inequalities 4.1 Exponential Functions 4.2 Logarithmic Functions
12 4/3,5,7	4.3 Properties of Logarithms **Test 3 – Wednesday, April 5** 4.4 Exponential and Logarithmic Equations
13 4/10,12,14	4.4 Exponential and Logarithmic Equations 5.1 Systems of Linear Equations in Two Variables 5.2 Systems of Linear Equations in Three Variables
14 4/17,19,21	**Easter Holiday – Monday, April 17** 5.4 Systems of Nonlinear Equations in Two Variables **Registration Opens – Wednesday, April 19**
15 4/24,26,28	5.5 Systems of Inequalities 6.1 Matrix Solutions to Linear Systems **Last Day to Drop – Thursday, April 27**
16 5/1,3,5	**Test 4 – Monday, May 1** Review for Final Exam
17 5/8	**FINAL EXAM – Monday, May 8, 8:00 – 10:00 am**