

South Plains College  
Department of Mathematics & Engineering  
Math1314 – College Algebra  
Course Syllabus – Spring 2016

**Math1314.001.161S**

**Scheduled Class Time:** MW – 8:00am-9:45am, Math Building, M121

**Math1314.005.161S**

**Scheduled Class Time:** MW – 11:00am-12:45pm, Math Building, AG105

**Math1314.010.161S**

**Scheduled Class Time:** TR – 8:00am-9:45am, Math Building, M123

**Instructor:** Jerod Clopton

**Office:** M102

**Email:** jclopton@southplainscollege.edu

**Phone:** 806-716-2738

**Office Hours:**

Monday	Tuesday	Wednesday	Thursday	Friday
9:45-10:30	9:45-10:30	9:45-10:30	9:45-10:30	9:00-12:00
4:00-4:45	2:30-3:00	4:00-4:45	2:30-3:00	
Or by appointment				

**Textbook:** Blitzer, Robert. *College Algebra*, 6<sup>th</sup> Edition. ISBN-13: 9780321782281.

(Note: the purchase or use of a textbook is not required for this class.)

**Supplies:** Notebook, lined loose-leaf paper, pencils, straight edge, graph paper. Only a basic non-graphing calculator (such as a TI-30) will be allowed in class. Calculators on cell phones, graphing calculators, and other electronic devices will NOT be allowed during tests or in-class assignments.

**Course Description:** MATH 1314. COLLEGE ALGEBRA. (3:3:1) Prerequisite: Two units of high school algebra or MATH 0320. A standard course in college algebra. Quadratic equations; ratio and proportion; variation, binomial theorem; progressions; inequalities; complex numbers; theory of equations; determinants and matrices; linear programming; mathematical induction; permutations and combinations. (copied from the current SPC catalog)

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

1. Solve and graph problems involving linear, quadratic, exponential, and logarithmic functions; (1.2, 1.3, 1.5, 1.6, 2.1, 2.2, 2.3, 2.4, 3.1, 4.1, 4.2, 4.3, 4.4)
2. Solve and graph linear, quadratic, and rational inequalities; (1.7, 3.6, 5.5)
3. Identify and simplify complex numbers; (1.4)
4. Apply midpoint, distance, and circle formulas; (2.8)
5. Analyze and graph polynomial functions; (3.2, 3.3, 3.4)

6. Analyze and graph rational functions; (3.5)
7. Create and solve systems of equations with algebraic techniques, with matrix techniques, and with determinants; (5.1, 5.2, 5.4, 6.1, 6.5)
8. Apply the Binomial Theorem to expand binomials of higher degree. (8.5)

**Course Requirements:** To maximize the potential to complete this course, a student should attend all class meetings, take notes and participate in class, complete all homework assignments and examinations including final examination.

**Attendance:** Your attendance and active participation is vital to your success in this class. Attendance will be taken at the beginning of each class meeting. Failure to be in attendance will result in you being marked as absent for that class meeting. Should you arrive after attendance has been taken or leave class early, you will be marked as being tardy for that class meeting. For every 3 accounts that you are marked as being tardy, you will receive 1 mark of being absent; i.e. 3 tardies = 1 absent. If you exceed 5 absences during the course of the semester you will be dropped from this course with a grade of X or F.

Be on time for class and turn off any cell phones or other electronic devices before class starts. Note: unless allowed under special circumstances, no laptops or tablets are shall be used during class.

**Homework and Quizzes:** Homework will be assigned for each section of material covered and will be collected on the due date at the end of class. Homework is assigned to reinforce the learning and mastery of concepts taught in class. **Late homework will not be accepted and a grade of zero will be assigned.** Quizzes may be given at any time. The average of all homework and quiz grades will account for 20% of your final grade.

**Exams:** There will be four unit exams and one comprehensive final exam for this class. The average of your exam grades will account for 60% of your final grade. **There will be no make up exams.** The final exam will account for 20% of your final grade. If your final exam grade is greater than your lowest exam grade, then that grade will be replaced by the grade from your final exam.

Calculation of Final Grade	
Homework Average	20%
Exam Average	60%
Final Exam	20%

Your final average will determine your letter grade for this class; determined by the following scale: A(90-100%), B(80-89%), C(70-79%), D(60-69%), F(0-59%)

**Bonus Points:** Students will have the option to correct **one** exam to improve that exam grade (final exam excluded) for up to 50% of the points missed. If the student chooses to correct an exam, the corrected exam must be turned in at the beginning of the following class meeting, with all work done on separate sheets of paper with the exam.

## Supplementary Course Information & Tutoring:

**Blackboard** is the online course management system that will be utilized for this course. This course syllabus, homework assignments, as well as any class handouts can be accessed through Blackboard. Login at <http://southplainscollege.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 Campus Connect Pin No. (found on SPC acceptance letter)

Check Blackboard often for the latest tutoring schedule and course supplements (handouts, online practice quizzes, additional notes, sample problems for practice, etc.).

**Free Math Videos:** Visit SPC's website, [www.southplainscollege.edu](http://www.southplainscollege.edu). At the top right of the home page, click on Blackboard. Blackboard will ask for a user name and password. Use the following for both: mvideos. What will you find here? You will find videos (ordered by topic) from SPC professors and handouts (PDF) that accompany most videos. This is a great resource to use if you missed class, did not fully understand the lesson, or just simply forgot the lesson.

**Tutoring:** Students can obtain free tutoring in room M116 in the math building at the South Plains College campus in Levelland or room 262 in Building 2 at the Reese Campus or in room \_\_\_\_ at the ATC.

**The Instructor:** Students are encouraged to come see me, the instructor, during my office hours for assistance for homework or further understanding of material.

**The Internet:** The topics, along with the examples and solutions of problems that are covered in this class are freely available to you through the Internet. There are numerous webpages, PDFs, and videos that will relate to every thing that is covered in this class. Various web links will be posted in Blackboard throughout the semester for you to reference. I encourage that you search for other references and utilize these to gain a more solid understanding of the martial.

**Classroom Civility:** Students are expected to be respectful of their fellow classmates and maintain a classroom environment that is conducive to learning. Turn off all cell phones and other electronic devices before entering the room. The instructor reserves the right to ask a student to leave if his/her cell phone is left on and disrupts the class. Refrain from using offensive language, reading newspapers, chewing tobacco products, or otherwise being disruptive in class. Food and/or drinks are NOT allowed in the classroom.

**Academic Honesty:** Students are expected to uphold the ideas of academic honesty. Academic dishonesty includes, but is not limited to, cheating on tests, collaborating with another student during a test, copying another student's work, using materials not authorized, and plagiarism. **Use of a graphing calculator, cell phone, or other electronic device during any in-class assignment or exam will result in a grade of zero.** Students who do not follow the academic honesty policy will receive a grade of zero for the assignment, and may be dropped from the course with an F, or face possible suspension from the college.

**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.

**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 to the Disability Services Office. For more information, call or visit the Disability Services Office through the Guidance and Counseling Centers at Reese Center (Building 8) 716-4606, or Levelland (Student Services Building) 716-2577.

**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.

## College Algebra Tentative Course Schedule \*

Fall 2016: MW classes

Week	Date	Lesson
1	Mon, Aug 29	Introduction
		Review for College Algebra
	Wed, Aug 31	Assessment Exam
2	<b>Mon, Sep 5</b>	<b>Labor Day</b>
	Wed, Sep 7	Assignment 1: [1.2] Linear & Rational Equations
3	Mon, Sep 12	Assignment 2: [1.3] Linear Applications
	Wed, Sep 14	Assignment 3: [1.4] Complex Numbers; [1.5] Quadratic Equations Part 1 of 2
4	Mon, Sep 19	Assignment 4: [1.5] Quadratic Equations Part 2 of 2
	Wed, Sep 21	Assignment 5: [1.6] Other Types of Equations
5	Mon, Sep 26	Assignment 6: [1.7] Linear & Absolute Value Inequalities
	Wed, Sep 28	Exam 1 (15%)
6	Mon, Oct 3	Assignment 7: [2.1 & 2.2] Functions and Their Graphs
	Wed, Oct 5	Assignment 8: [2.3 & 2.4] Linear Functions and Slope
7	Mon, Oct 10	Assignment 9: [2.8] Distance, Midpoint, & Circles; [2.6] Combinations of Functions
	Wed, Oct 12	Assignment 10: [2.6] Composite Functions, [2.7] Inverse Functions
8	Mon, Oct 17	Assignment 11: [3.1] Quadratic Functions, [3.3] Synthetic Division
	Wed, Oct 19	Exam 2 (15%)
9	Mon, Oct 24	Assignment 12: [3.2] Polynomial Functions & Their Graphs; [3.4] Roots of Polynomials
	Wed, Oct 26	Assignment 13: [3.5] Rational Functions & Their Graphs
10	Mon, Oct 31	Assignment 14: [3.6] Polynomial & Rational Inequalities
	Wed, Nov 2	Assignment 15: [4.1] Exponential Functions, [4.2] Logarithmic Functions
11	Mon, Nov 7	Assignment 16: [4.3] Properties of Logarithms
	Wed, Nov 9	Assignment 17: [4.4] Exponential & Logarithmic Equations
12	Mon, Nov 14	Exam 3 (15%)
	Wed, Nov 16	Assignment 19: [5.1] 2x2 Systems; [5.2] 3x3 Systems
13	Mon, Nov 21	Assignment 20: [5.4] Nonlinear Systems; [5.5] Systems of Inequalities
	<b>Wed, Nov 23</b>	<b>Thanksgiving</b>
14	Mon, Nov 28	Assignment 21: [6.1] Matrix Solutions to Systems
	Wed, Nov 30	Assignment 22: [6.5] Determinants & Cramer's Rule
15	Mon, Dec 5	Exam 4 (15%)
	Wed, Dec 7	Assignment 23: [8.5] The Binomial Theorem
		Assignment 24: Review for comprehensive final exam
16	Mon, Dec 12	<b>Section 1314.001</b>
		<b>Final Exam: 8:00am - 10:00am</b>
		<b>Section 1314.005</b>
		<b>Final Exam: 10:15am - 12:15pm</b>

\* The tentative calendar is subject to change. Any changes to the tentative calendar will be announced in class.

## College Algebra Tentative Course Schedule \*

Fall 2016: TR classes

Week	Date	Lesson
1	Tue, Aug 30	Introduction
		Review for College Algebra
	Thu, Sep 1	Assessment Exam
2	Tue, Sep 6	Assignment 1: [1.2] Linear & Rational Equations
	Thu, Sep 8	Assignment 2: [1.3] Linear Applications
3	Tue, Sep 13	Assignment 3: [1.4] Complex Numbers; [1.5] Quadratic Equations Part 1 of 2
	Thu, Sep 15	Assignment 4: [1.5] Quadratic Equations Part 2 of 2
4	Tue, Sep 20	Assignment 5: [1.6] Other Types of Equations
	Thu, Sep 22	Assignment 6: [1.7] Linear & Absolute Value Inequalities
5	Tue, Sep 27	Exam 1 (15%)
	Thu, Sep 29	Assignment 7: [2.1 & 2.2] Functions and Their Graphs
6	Tue, Oct 4	Assignment 8: [2.3 & 2.4] Linear Functions and Slope
	Thu, Oct 6	Assignment 9: [2.8] Distance, Midpoint, & Circles; [2.6] Combinations of Functions
7	Tue, Oct 11	Assignment 10: [2.6] Composite Functions, [2.7] Inverse Functions
	Thu, Oct 13	Assignment 11: [3.1] Quadratic Functions, [3.3] Synthetic Division
8	Tue, Oct 18	Exam 2 (15%)
	Thu, Oct 20	Assignment 12: [3.2] Polynomial Functions & Their Graphs; [3.4] Roots of Polynomials
9	Tue, Oct 25	Assignment 13: [3.5] Rational Functions & Their Graphs
	Thu, Oct 27	Assignment 14: [3.6] Polynomial & Rational Inequalities
10	Tue, Nov 1	Assignment 15: [4.1] Exponential Functions, [4.2] Logarithmic Functions
	Thu, Nov 3	Assignment 16: [4.3] Properties of Logarithms
11	Tue, Nov 8	Assignment 17: [4.4] Exponential & Logarithmic Equations
	Thu, Nov 10	Exam 3 (15%)
12	Tue, Nov 15	Assignment 19: [5.1] 2x2 Systems; [5.2] 3x3 Systems
	Thu, Nov 17	Assignment 20: [5.4] Nonlinear Systems; [5.5] Systems of Inequalities
13	Tue, Nov 22	Assignment 21: [6.1] Matrix Solutions to Systems
	<b>Thu, Nov 24</b>	<b>Thanksgiving</b>
14	Tue, Nov 29	Assignment 22: [6.5] Determinants & Cramer's Rule
	Thu, Dec 1	Exam 4 (15%)
15	Tue, Dec 6	Assignment 23: [8.5] The Binomial Theorem
	Thu, Dec 8	Assignment 24: Review for comprehensive final exam
16	<b>Tue, Dec 13</b>	<b>Section 1314.010</b> <b>Final Exam: 8:00am - 10:00am</b>

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