

South Plains College  
 Department of Mathematics & Engineering  
 Math1314 – College Algebra  
 Course Syllabus – Spring 2018

**Math1314.012.172S: TR – 2:30pm-4:15pm, Math Building, M123**

**Instructor:** Jerod Clopton

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**Phone:** 806-716-2738

**Office Hours:**

Monday	Tuesday	Wednesday	Thursday	Friday
4:00 – 5:00	10:00 – 12:00	4:00 – 5:00	10:00 – 12:00	10:15 – 12:15
Or by appointment				

**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)

**Textbook:** The purchase or use of a textbook is not required for this class. This class is modeled from the text: *College Algebra*, 7<sup>th</sup> edition, by Blitzer. ISBN 9780134469300. A copy of this text is available in the SPC library and can be utilized for your reference.

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

**Supplies:** Notebook, lined loose-leaf paper, 3-ring binder (for keeping notes, assignments, and exams in an organized location), pencils, ruler, graph paper, stapler, scientific calculator (such as a TI-30). Note that graphing calculators or calculators algebraic solving capabilities or calculators on cell phone, tablet, smart watch, or any other device will NOT be allowed during tests or in-class assignments.

**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. Each account of being tardy will be considered as  $\frac{1}{2}$  of an absent account. 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:** Homework will be assigned for each section of material covered. Homework will be collected at the end of class on the day that it is due. Late homework will not be accepted. The problems from the homework will not be graded; instead the assignment will be assessed by participation. In order to receive full credit for an assignment it is required that show all work required to derive the answer(s) for each problem and clearly identify your answer(s). If no work is shown then no credit will be given. The homework problems will be reflected onto in-class labs, quizzes, and exams; therefore, it is essential that you participate in the homework assignment so that you are prepared for these other assessments. Time will be given at the beginning of class to address questions from the homework.

**Labs:** Except for exam days, you can expect that the last 30 minutes of class will be used as “lab time”. During this time you will either be given a lab assignment, which could include one or a combination of the following:

- A lab assignment in which you will work, either independently or cooperatively, on problems from that days lecture, that will be turned in with your homework and graded. If you are absent then you will receive a zero for that lab assignment.
- A quiz in which you will independently work on problems from previous assignments. This will be turned in with your homework and graded. If you are absent that you will receive a zero for that lab assignment.
- A lab assignment in which you work on homework problems. As long as you are present and participating, you will receive a 100 for that lab assignment.

**Exams:** There will be four unit exams and one comprehensive final exam for this class. The dates for exams are given in the course colander. **There will be no make up exams.** (If you are going to be absent on the day of an exam and you have, prior to the exam date, explained to me the reason of your absence, then, at my discretion, we can talk about making up the exam.) There is an opportunity to replace your lowest exam grade. If your final exam grade is greater than your lowest exam grade, then that lowest exam grade will be replaced by the grade from your final exam.

**Grading Policy:** 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%)

Homework and Quiz Average	20%
Exams (4 @ 15% each)	60%
Final Exam	20%

**Blackboard** is the online course management system that will be utilized for this course. The 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, and in rooms 206 and 208 in Building 2 at the Reese Campus.

**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 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.

**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 to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland (Student Health & Wellness Office) 806-716-2577, Reese Center (Building 8) & Lubbock Center 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

**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.

## College Algebra Course Schedule for Spring 2018\*

Week	Day	Topic	Assignment
1	Tue, Jan 16	Syllabus; Assessment	
	Thu, Jan 18	Prerequisites Evaluation	
2	Tue, Jan 23	[1.2] Linear & Rational Equations	Assignment 1
	Thu, Jan 25	[1.3] Linear Applications	Assignment 2
3	Tue, Jan 30	[1.4] Complex Numbers	Assignment 3
	Thu, Feb 1	[1.5] Quadratic Equations Part 1 of 2	Assignment 4
4	Tue, Feb 6	[1.5] Quadratic Equations Part 2 of 2	
	Thu, Feb 8	[1.6] Other Types of Equations	Assignment 5
5	Tue, Feb 13	[1.7] Linear & Absolute Value Inequalities	Assignment 6
	<b>Thu, Feb 15</b>	<b>Exam 1</b>	
6	Tue, Feb 20	[2.1 & 2.2] Functions and Their Graphs	Assignment 7
	Thu, Feb 22	[2.3 & 2.4] Linear Functions and Slope	Assignment 8
7	Tue, Feb 27	[2.8] Distance, Midpoint, & Circles; [2.6] Combinations of Functions	Assignment 9
	Thu, Mar 1	[2.6] Composite Functions, [2.7] Inverse Functions	Assignment 10
8	Tue, Mar 6	[3.1] Quadratic Functions, [3.3] Synthetic Division	Assignment 11
	Thu, Mar 8	<b>Exam 2</b>	
9	Tue, Mar 13	Spring Break	
	Thu, Mar 15	Spring Break	
10	<b>Tue, Mar 20</b>	[3.2] Polynomial Functions & Their Graphs; [3.4] Roots of Polynomials	Assignment 12
	Thu, Mar 22	[3.5] Rational Functions & Their Graphs	Assignment 13
11	Tue, Mar 27	[3.6] Polynomial & Rational Inequalities	Assignment 14
	Thu, Mar 29	[4.1] Exponential Functions, [4.2] Logarithmic Functions	Assignment 15
12	Tue, Apr 3	[4.3] Properties of Logarithms	Assignment 16
	Thu, Apr 5	[4.4] Exponential & Logarithmic Equations	Assignment 17
13	<b>Tue, Apr 10</b>	<b>Exam 3</b>	
	Thu, Apr 12	[5.1] 2x2 Systems; [5.2] 3x3 Systems	Assignment 19
14	Tue, Apr 17	[5.4] Nonlinear Systems; [5.5] Systems of Inequalities	Assignment 20
	Thu, Apr 19	[6.1] Matrix Solutions to Systems	Assignment 21
15	Tue, Apr 24	[6.5] Determinants & Cramer's Rule	Assignment 22
	<b>Thu, Apr 26</b>	<b>Exam 4</b>	
16	Tue, May 1	[8.5] The Binomial Theorem	Assignment 23
	Thu, May 3	Review for Final Exam	Assignment 24
	<b>Tue, May 8</b>	<b>Final Exam: 1:00 to 3:00</b>	

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

### Other important dates:

Feb, 5 – Last day 70% Refund

Feb, 12 – Last day 25% Refund

April 2, – Easter Holiday

April 26, – Last day to drop