

South Plains College  
Department of Mathematics and Engineering  
College Algebra with Support – MATH 0314.C001, MATH 1314.C001  
Fall 2019 Course Syllabus

**Instructors:**

Karol Albus

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**Office Hours:** As listed or by appointment.

Monday	Tuesday	Wednesday	Thursday	Friday
1:00-2:30	8:00-10:00	1:00-2:30	none	9:00-12:00

Kaylan K Thompson

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**Office Hours:** As listed or by appointment.

Monday	Tuesday	Wednesday	Thursday	Friday
9:00-10:00, 1:00-2:30		9:00-10:00, 1:00-2:30		TBA

**Textbook: (Optional)** Blitzer. College Algebra, 7th ed. Pearson. ISBN 10:0-13-446916-X. Older versions of the textbook are acceptable. Your homework will be in handout form, but additional problems, as well as additional explanations, will be in the book.

**Course Descriptions:**

**MATH 0314 College Algebra Support Course (3:3:1)** Background topics which are necessary for a student to successfully complete Math 1314 will be covered, with an emphasis on fractions, factoring polynomials, functions, exponents, and operating with radical and rational expressions.

**MATH 1314 College Algebra (3:3:1)** 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. Pre-requisite: Two units of high school algebra or MATH 0320.

**Supplies:** You will need a large 3-ring binder, dividers, notebook paper, graph paper, a 3-hole punch, and pencils with an eraser. You will be allowed to use a scientific calculator most of the time. Phone/tablet and graphing calculators will not be allowed. Do not expect instructors to loan you supplies.

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

**Attendance Policy:** Attendance and effort are crucial for success in this course. Record of your attendance will be maintained throughout the semester. Leaving class early and being tardy will be recorded as  $\frac{1}{2}$  of an absence. Sleeping in class will also be recorded as an absence. You may be dropped from this course with a grade of X or F if you are absent four consecutive days or if you accrue seven absences for any reason throughout the semester. Absences are not classified as 'excused' or 'unexcused'.

**Grading Policy:**

Homework/Quizzes/Lab Assignments/Binder Checks 10%  
8 Unit Exams 72%  
Final Exam 18%

### **Homework/Quizzes/Lab Assignments/Binder Checks:**

- Homework assignments will be assigned during each class session and may be collected the following class period. Work the problems early enough to seek help if needed. You should expect to spend as much time outside of class as you do in class practicing homework problems and studying. Absolutely no late homework assignments will be accepted. If you are absent, you must email your assignment to me before or on the day of class to earn credit for the assignment. Otherwise, a zero will be given.
- Quizzes will be given during almost all class periods to demonstrate that you have practiced the skills from the previous class/classes. Make-up quizzes will not be given and a zero will be given.
- Periodically, lab assignments will be given, completed, and turned in during a class period. If absent, a zero will be given.
- All students will keep a binder which will be used as a reference and study guide. Your binder should be brought to class every day! The binder will be checked twice randomly by the instructor during the semester. Neatness and organization of a 3-ring binder are important.

**Exams:** There will be 8 unit exams given and a comprehensive final. Dates for the exams are on the course calendar. If for any reason you are going to miss an exam, you must contact us PRIOR to class time. Make-up exams will be given at the discretion of the instructor. Once you begin an exam, you will not be able to leave the classroom until the exam is submitted for grading.

### **Grading Scale:**

**MATH 1314:** A 90-100      B 80-89      C 70-79      D 65-69      F below 65

If you make a grade of A, B, or C then that is the grade you will be awarded for both halves of the course. However, if you COMPLETE THE COURSE and make a grade of D or F, then your grade for the 0314 course will be assessed at your instructor's discretion. If you pass MATH 0314 but not the MATH 1314 portion of the course, you will be able to register for MATH 1314 in future semesters.

### **Student Learning Outcomes for MATH 0314**

Upon successful completion of this course, the student will be able to:

1. Perform order of operations of real numbers.
2. Perform operations using integer and rational exponents.
3. Factor and perform operations with polynomials.
4. Simplify and perform operations with rational expressions.
5. Simplify and perform operations with radical expressions.
6. Solve linear equations and equalities of a single variable.
7. Solve quadratic equations by factoring and quadratic formula.
8. Solve systems of two linear equations in two variables.
9. Graph linear and quadratic functions.

### **Student Learning Outcomes for College Algebra (MATH 1314):**

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.

### **Student Responsibilities and Expectations:**

1. Come to class on time and prepared to learn. (Pencils, homework, notebook, calculator)
2. Read the syllabus.
3. Take notes, participate in class, and complete course assignments early enough to seek help if needed.
4. Food and drink are not allowed in class, with the exception of bottled water.
5. Cell phones and any other electronic devices must be silenced and put away before entering the classroom. Use of these devices during class will result in a zero for that day's quiz, homework, or exam.

**Resources:**

- Blackboard is the online course management system that will be used for this course. The course syllabus, handouts for notes, reviews, as well as any other class handouts can be accessed through Blackboard. Your grades will also be posted there. You will want to check Blackboard regularly.
- Free tutoring is available in M116 on the Levelland campus. Hours for the tutors will be posted by the door of M116 and I will also post them on Blackboard.
- We are available to help you! Feel free to come by during our office hours or email us at [kalbus@southplainscollege.edu](mailto:kalbus@southplainscollege.edu) or [kthompson@southplainscollege.edu](mailto:kthompson@southplainscollege.edu).

**Use of Student Email:** The College provides a free, official, email account to all students to ensure efficient and secure communications between you and the College. Students will be required to use their college-issued email address to communicate with their instructor and all other college personnel, so it is easy to distinguish a student's email from spam. The College expects that students will utilize their college email addresses to send and receive communications with college personnel and will read email on a frequent and consistent basis.

**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.

**Core Objectives:**

Communication Skills:

effective development, interpretation, and expression of ideas through written, oral, and visual communication.

- 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:

creative thinking, innovation, inquiry, analysis, evaluation, and synthesis of information.

- 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:

the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

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

**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) 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

**Religious Holy Days:** In accordance with Section 51.911, Texas Education Code, South Plains College will allow a student who is absent from class for the observance of a religious holy day to take an examination or complete an assignment scheduled for that day within seven (7) calendar days after the absence. Students are required to file a written notification of absence with each instructor within the first fifteen (15) days of the semester in which the absence will occur. Forms for this purpose are available in the Student Services Office along with instructions and procedures. "Religious holy days" means a holy day observed by a religion whose place of worship is exempt from property taxation under Section 11.20, Tax Code.

**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.

**Non-Discrimination Statement:** South Plains College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College, 1401 College Avenue, Box 5, Levelland, TX 79336. Phone number 806-716-2360.

**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.

**Sexual Misconduct Statement:** As a faculty member, I am deeply invested in the well-being of each student I teach. I am here to assist you with your work in this course. If you come to me with other non-course-related concerns, I will do my best to help.

It is important for you to know that all faculty members are mandated reporters of any incidents of sexual misconduct. That means that I cannot keep information about sexual misconduct confidential if you share that information with me. Crystal Gilster, the Director of Health & Wellness, can advise you confidentially as can any counselor in the Health & Wellness Center. They can also help you access other resources on campus and in the local community. You can reach Ms. Gilster at 806-716-2362 or email [cgilster@southplainscollege.edu](mailto:cgilster@southplainscollege.edu) or go by the Health and Wellness Center for assistance. You can schedule an appointment with a counselor by calling 806-716-2529.

**4.1.1.4 Title IX Pregnancy Accommodations Statement:** If you are pregnant, or have given birth within six months, Under Title IX you have a right to reasonable accommodations to help continue your education. To activate accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Director of Health and Wellness. Once approved, notification will be sent to the student and instructors. It is the student's responsibility to work with the instructor to arrange accommodations. Contact Crystal Gilster, Director of Health and Wellness at 806-716-2362 or email [cgilster@southplainscollege.edu](mailto:cgilster@southplainscollege.edu) for assistance.

### Tentative Course Schedule

<b>Date</b>	<b>Topic</b>	<b>Notes, Assignment</b>
Aug 26	Course Introduction/ Integers, Fraction Multiplication & Division	Notes P1, Assignment P1
Aug 27	Fraction Addition & Subtraction, Order of Operations	Notes P2, Assignment P2
Aug 28	Solving Linear and Absolute Value Equations	Notes 1, Assignment 1
Aug 29	Solving Linear and Absolute Value Inequalities	Notes 2, Assignment 2
Sept 2	<i>Labor Day Holiday – no class</i>	
Sept 3	Polynomials: Exponent Rules	Notes 3, Assignment 3
Sept 4	Polynomials: Add, Subtract & Multiply Factoring: GCF, Trinomials with a Coefficient of 1	Notes 4, Assignment 4
Sept 5	Factoring: Trinomials, Grouping & Special Products	Notes 5, Assignment 5
Sept 9	Summary of Factoring/ Solving by Factoring	Notes 6, Assignment 6
Sept 10	Review 1	Review 1
Sept 11	<b>Exam 1</b>	
Sept 12	Multiply and Divide Rational Expressions	Notes 7, Assignment 7
Sept 16	Add and Subtract Rational Expressions	Notes 8, Assignment 8
Sept 17	Add and Subtract Rational Expressions	Assignment 8B
Sept 18	Multiply, Divide, Add & Subtract Rational Expressions	Notes 9, Assignment 9
Sept 19	Solving Rational Equations	Notes 10, Assignment 10
Sept 23	Review 2	Review 2
Sept 24	<b>Exam 2</b>	
Sept 25	Simplifying Radicals/Rational Exponents	Notes 11, Assignment 11
Sept 26	Add, Subtract & Multiply Radicals	Notes 12, Assignment 12
Sept 30	Rationalizing Radical Expressions & The Complex Number System Part 1	Notes 13, Assignment 13
Oct 1	The Complex Number System Part 2 & Solving Radical Equations Part 1	Notes 14, Assignment 14
Oct 2	Solving Radical Equations Part 2	Notes 15, Assignment 15
Oct 3	Review 3	Review 3
Oct 7	<b>Exam 3</b>	
Oct 8	Functions Day 1	Notes 16, Assignment 16
Oct 9	Functions Day 2	Notes 17, Assignment 17
Oct 10	Function Operations, Compositions & Inverses	Notes 18, Assignment 18
Oct 11	<i>No office hours – fall break</i>	
Oct 14	Linear Functions: Slope & Graphing	Notes 19, Assignment 19
Oct 15	Linear Functions: Equations, Parallel & Perpendicular Lines	Notes 20, Assignment 20
Oct 16	Review 4	Review 4

Oct 17	<b>Exam 4</b>	
Oct 21	Solving Quadratics by Factoring and the Square Root Property	Notes 21, Assignment 21
Oct 22	Solving Quadratics by Completing the Square and the Quadratic Formula	Notes 22, Assignment 22
Oct 23	Graphing Quadratics	Notes 23, Assignment 23
Oct 24	Distance, Midpoint & Circles	Notes 24, Assignment 24
Oct 28	Review 5	Review 5
Oct 29	<b>Exam 5</b>	
Oct 30	Long Division & Synthetic Division	Notes 25, Assignment 25
Oct 31	Roots of Polynomials	Notes 26, Assignment 26
Nov 4	Graphing Polynomials	Notes 27, Assignment 27
Nov 5	Rational Functions	Notes 28, Assignment 28
Nov 6	Polynomial and Rational Inequalities	Notes 29, Assignment 29
Nov 7	Review 6	Review 6
Nov 11	<b>Exam 6</b>	
Nov 12	Exponential & Logarithmic Functions (no calculator)	Notes 30, Assignment 30
Nov 13	Properties of Logarithms & Compound Interest	Notes 31, Assignment 31
Nov 14	Solving Exponential Equations <i>Last Day to Drop Fall Semester Courses</i>	Notes 32, Assignment 32
Nov 18	Solving Logarithmic Equations	Notes 33, Assignment 33
Nov 19	Review 7	Review 7
Nov 20	<b>Exam 7</b>	
Nov 21	2x2 Systems, 3x3 Systems	Notes 34, Assignment 34
Nov 25	Non-Linear Systems	Notes 35, Assignment 35
Nov 26	Systems of Inequalities	Notes 36, Assignment 36
Nov 27-29	<i>Thanksgiving Holiday – no class</i>	
Dec 2	Matrix Methods	Notes 37, Assignment 37
Dec 3	Review 8	Review 8
Dec 4	<b>Exam 8</b>	
Dec 5	Review for Comprehensive Final	Review for Comprehensive Final
Dec 9-12	<b>Final Exam</b>	TBA