

**South Plains College**  
**Common Course Syllabus: MATH 1314**  
**Revised December 2019**

**Department:** Mathematics, Engineering, and Computer Science

**Discipline:** Mathematics

**Course Number:** MATH 1314

**Course Title:** College Algebra

**Available Formats:** conventional, internet, and ITV

**Campuses:** Levelland, Reese, Plainview, Lubbock Center, and Dual Credit

**Course Description:** 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.

**Prerequisite:** Minimum score of 350 on the TSIA, TSI-exempt status, or a successful completion with a grade of 'C' or better in MATH 0320.

**Credit:** 3 **Lecture:** 3 **Lab:** 1

**Textbook:** *College Algebra with Intermediate Algebra: A Blended Course*, Beecher, Penna, Johnson, and Bittinger, 2018, 1<sup>st</sup> Edition, Prentice Hall/Pearson Education

**Supplies:** Please see the instructor's course information sheet for specific supplies.

**This course partially satisfies a Core Curriculum Requirement:** Mathematics Foundational Component Area (020)

**Core Curriculum Objectives addressed:**

- **Communications skills**—to include effective written, oral and visual communication
- **Critical thinking skills**—to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- **Empirical and quantitative competency skills**—to manipulate and analyze numerical data or observable facts resulting in informed conclusions

**Student Learning Outcomes:** Upon completion of this course and receiving a passing grade, the student will be able to:

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 Learning Outcomes Assessment:** A pre- and post-test questions will be used to determine the extent of improvement that the students have gained during the semester

**Course Evaluation:** There will be departmental final exam questions given by all instructors.

**Attendance Policy:** Attendance and effort are the most important activities for success in this course. Records of your attendance are maintained throughout the semester. Five (5) absences, **for any reason**, are allotted to the student for the semester. Tardies count as one-half (1/2) of an absence. Tardies will be applied for consistently being late to class, as deemed by the instructor and leaving class early. If this number is exceeded, the instructor has the right to drop you with a grade of F or an X, depending on their discretion.

Plagiarism violations include, but are not limited to, the following:

1. Turning in a paper that has been purchased, borrowed, or downloaded from another student, an online term paper site, or a mail order term paper mill;
2. Cutting and pasting together information from books, articles, other papers, or online sites without providing proper documentation;
3. Using direct quotations (three or more words) from a source without showing them to be direct quotations and citing them; or
4. Missing in-text citations.

Cheating violations include, but are not limited to, the following:

1. Obtaining an examination by stealing or collusion;
2. Discovering the content of an examination before it is given;
3. Using an unauthorized source of information (notes, textbook, text messaging, internet, apps) during an examination, quiz, or homework assignment;
4. Entering an office or building to obtain an unfair advantage;
5. Taking an examination for another;
6. Altering grade records;
7. Copying another's work during an examination or on a homework assignment;
8. Rewriting another student's work in Peer Editing so that the writing is no longer the original student's;
9. Taking pictures of a test, test answers, or someone else's paper.

**Student Code of Conduct Policy:** Any successful learning experience requires mutual respect on the part of the student and the instructor. Neither instructor nor student should be subject to others' behavior that is rude, disruptive, intimidating, aggressive, or demeaning. Student conduct that disrupts the learning process or is deemed disrespectful or threatening shall not be tolerated and may lead to disciplinary action and/or removal from class.

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

**Nondiscrimination Policy:** 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.

**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 the Director of Health and Wellness at 806-716-2362 or [email cgilster@southplainscollege.edu](mailto:cgilster@southplainscollege.edu) for assistance.

**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 and Frequently Asked Questions, please refer to the Campus Carry page at: <http://www.southplainscollege.edu/campuscarry.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.

**SPC Bookstore Price Match Guarantee Policy:** If you find a lower price on a textbook, the South Plains College bookstore will match that price. The difference will be given to the student on a bookstore gift certificate! The gift certificate can be spent on anything in the store.

If students have already purchased textbooks and then find a better price later, the South Plains College bookstore will price match through the first week of the semester. The student must have a copy of the receipt and the book has to be in stock at the competition at the time of the price match.

The South Plains College bookstore will happily price match BN.com & books on Amazon noted as *ships from and sold by Amazon.com*. Online marketplaces such as *Other Sellers* on Amazon, Amazon's Warehouse Deals, *fulfilled by Amazon*, BN.com Marketplace, and peer-to-peer pricing are not eligible. They will price match the exact textbook, in the same edition and format, including all accompanying materials, like workbooks and CDs.

A textbook is only eligible for price match if it is in stock on a competitor's website at time of the price match request. Additional membership discounts and offers cannot be applied to the student's refund.

Price matching is only available on in-store purchases. Digital books, access codes sold via publisher sites, rentals and special orders are not eligible. Only one price match per title per customer is allowed.

Note: The instructor reserves the right to modify the course syllabus and policies, as well as notify students of any changes, at any point during the semester.

## COURSE SPECIFIC INFORMATION FOR MATH1314.203 AND 208

**Instructor:** Phyllis Cormier

**Email:** [pcormier@southplainscollege.edu](mailto:pcormier@southplainscollege.edu)

**Office:** Reese Center, Building 2 Rm 223B Phone: (806)716-2797

### Office Hours:

Monday	Tuesday	Wednesday	Thursday	Friday
5:00 pm – 5:30 pm	11:00pm – 1:00 pm	12:30 pm – 3:00pm	2:30 pm – 4:00 pm	9:00 am – 10:30am

Appointments may also be made at times other than those listed above.

**Textbook:** The textbook is not required but you may choose to purchase it for reference. The textbook referenced in this course will be the following:

- Beecher, J., Penna, J., Johnson, B., and Bittinger, M., (2017). *College Algebra with Intermediate Algebra: A Blended Course*, 1<sup>st</sup> ed. Boston: Pearson. ISBN 978-0-13-455526-3.

You may also consider referencing

- Blitzer, R. (2017). *College Algebra*, 7<sup>th</sup> ed. New Jersey: Pearson Prentice Hall. ISBN 978-0-134-46916-4. OR
- Blitzer, R. (2013). *College Algebra*, 6<sup>th</sup> ed. New Jersey: Pearson Prentice Hall. ISBN 978-0-321-78228-1.

### Assignments & Grading:

**Homework:** Assignments will be made at each class meeting and will be due a week from the date assigned. I will grade homework 60% for completion and 40% for accuracy. I will predetermine which 4-10 problems I will grade to determine how well you understood the assignment. **Work must be shown on separate paper to receive credit.** The answers to homework problems are on Blackboard so your job is to show me that you understand why that is the answer. Late assignments will be accepted for a completion grade only (maximum 60 pts). You may turn in your homework anytime during the day that it is due for full credit.

**Lab work & Quizzes:** Most class periods you will have either lab work or a quiz. The labs are 2 – 5 problems over that day's lesson to determine how well you understood the lecture and to prepare you to complete your homework on your own. You may use your notes and ask questions for the lab work. Quizzes may be administered at any time and will cover problems that you have completed for homework. Lab work and quizzes are worth 20 points each. You will get one Lab grade for each of the four full units. This grade is determined by adding the 5 lab or quiz grades together for a possible 100 points. Lab work and quizzes cannot be made up.

**Notes:** Class notes with space to fill in examples and details will be provided on Blackboard. These may be used to make note taking in class easier and more complete.

**Notebook:** Keep all class materials (notes, handouts, homework, quizzes, lab work and exams) organized in a notebook (3-ring binder). These materials will be graded during exam times. You will need 5 tabs in your binder: one for each unit.

**Exams:** You may use a scientific or graphing calculator on the exams but calculators on cell phones will not be permitted. You will not be allowed to leave the room during test times. **Make-up exams will not be allowed.** If you miss one exam, the grade from the final exam will be substituted for the grade on the missed exam.

Determining Grades:

Daily work (homework, quizzes, lab work, notebook)	20%
Exam 1	15%
Exam 2	15%
Exam 3	15%
Exam 4	15%
Final Exam	20%

Your final average in the course will determine the letter grade posted on your transcript. This grade is determined by the following scale: A (90-100%), B (80-89%), C (70-79%), D (60-69%), F (0-59%).

**Supplies:** You will need a basic scientific calculator (such as a TI-30X), graph paper, and a 3-ring binder with at least 5 dividers. Calculators on cell phones, TI-89, TI-92, or TI-Inspire calculators, or any other electronic devices will not be allowed during testing without permission from the instructor.

**Supplementary Course Information & Tutoring:** Blackboard is the online course management system that will be utilized for this course. This course syllabus, 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 Texan Connect and SPC email.

Free tutoring is available at the Reese Center in Building 2. Check Blackboard often for the latest tutoring schedule and course supplements (handouts, additional notes, sample problems for practice, etc.).

**College Algebra Tentative Course Outline**  
 MATH 1314.208 (TR 5:20 p.m. – 6:55 p.m., RC227)  
 Spring 2020

Week	Day	Date	Lesson / Tentative Assignment	Due Date
1	Tues	January 14	<i>Assignment 1:</i> [1.1,1.2,5.5] Linear & Rational Equations	Tues 1/21
	Thurs	January 16	<i>Assignment 2:</i> [1.3] Linear Models and Applications	Thurs 1/23
2	Mon	January 20	<i>Martin Luther King Holiday</i>	
	Tues	January 21	<i>Assignment 3:</i> [7.3] Complex Numbers; [7.4] Quadratic Equations Part 1 of 2, [7.5] Quadratic Functions	Tues 1/28
	Thurs	January 23	<i>Assignment 4:</i> [7.4] Quadratic Equations Part 2 of 2	Tues 2/4
3	Tues	January 28	<i>Assignment 5:</i> [6.6] Other Types of Equations, [1.6] Linear & Absolute Value Inequalities Part 1 of 2	Tues 2/4
	Thurs	January 30	<i>Assignment 6:</i> [1.6] Linear & Absolute Value Inequalities Part 2 of 2	Tues 2/4
4	Tues	February 4	<b>Exam 1 (15%)</b>	
	Thurs	February 6	<i>Assignment 7:</i> [2.2, 2.3, 2.4] Functions and Their Graphs, [6.8] Increasing, Decreasing & Piecewise Functions, [7.1] Symmetry	Thurs 2/13
5	Tues	February 11	<i>Assignment 8:</i> [2.5,2.6, 2.7] Linear Functions	Tues 2/18
	Thurs	February 13	<i>Assignment 9:</i> [11.1&11.2] Distance, Midpoint, & Circles; [2.4] Combinations of Functions	Tues 2/25
6	Tues	February 18	<i>Assignment 10:</i> [9.1] Composite Functions, [9.2] Inverse Functions	Tues 2/25
	Thurs	February 20	<i>Assignment 11:</i> [11.1] Quadratic Functions & [5.3] Synthetic Division	Tues 2/25
7	Tues	February 25	<b>Exam 2 (15%)</b>	
	Thurs	February 27	<i>Assignment 12:</i> [8.6] Polynomial & Rational Inequalities	Thurs 3/5
8	Tues	March 3	<i>Assignment 13:</i> [8.1-8.4] Polynomial Functions & Their Graphs & Roots of Polynomials	Tues 3/10
	Thurs	March 5	<i>Assignment 14:</i> [8.5] Rational Functions & Their Graphs, [7.2] Transformations of Functions	Thurs 3/12
9	Tues	March 10	<i>Assignment 15:</i> [9.3] Exponential Functions, [9.4] Logarithmic Functions, [9.7] Models: Exponential Growth and Decay	Tues 3/24
	Thurs	March 12	<i>Assignment 16:</i> [9.5] Properties of Logarithms	Tues 3/24
	Mon – Fri	March 16-20	<i>Spring Break</i>	
10	Tues	March 24	<i>Assignment 17:</i> [9.6] Exponential & Logarithmic Equations	Tues 3/31
	Thurs	March 26	<i>Assignment 18:</i> [Review of Chapters 8 and 9]	Tues 3/31
11	Tues	March 31	<b>Exam 3 (15%)</b>	
	Thurs	April 2	<i>Assignment 19:</i> [12.7] The Binomial Theorem	Thurs 4/9
12	Tues	April 7	<i>Assignment 20:</i> [3.1-3.3 & 3.5] 2x2 Systems & 3x3 Systems	Tues 4/14
	Thurs	April 9	<i>Assignment 21:</i> [10.1] Matrix Solutions to Systems	Tues 4/21
13	Tues	April 14	<i>Assignment 22:</i> [10.4] Determinants & Cramer's Rule	Tues 4/21
	Thurs	April 16	<i>Assignment 23:</i> [10.2 & 10.3] Matrix Operations & Inverses	Tues 4/21
14	Mon	April 20	<i>Online registration opens for Spring Interim, Summer and Fall 2020 at 8:00 a.m.</i>	
14	Tues	April 21	<b>Exam 4 (15%)</b>	
	Thurs	April 23	<i>Assignment 24:</i> [11.4] Nonlinear Systems; Systems of Inequalities . <i>Last day to drop Spring semester courses</i>	Tues 5/5
15	Tues	April 28	<i>Assignment 25:</i> [Appendix] Partial Fractions	Tues 5/5
	Thurs	April 30	<i>Assignment 26:</i> Review for comprehensive final exam	Tues 5/5
16	Tues	May 5	<b>Final Exam (20%) (5:30 pm – 7:30 pm)</b>	