### South Plains College

Common Course Syllabus: MATH 1314

#### **Revised August 2021**

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

**Discipline:** Mathematics

**Course Number: MATH 1314** 

Course Title: College Algebra

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

Campuses: Levelland, Reese, Plainview, Lubbock Center, TTU 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 TSIA1, minimum score of 950 on the TSIA2, a diagnostic score of 6 on the TSIA2, TSI-exempt status, a successful completion with a grade of 'C' or better in MATH 0320, or successful completion of NCBM-0114.

Credit: 3 Lecture: 3 Lab: 1

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

Core Curriculum Objectives addressed:

- · Communications skills—to include ettective 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:** Students must take a written end-of-semester assessment (final exam) covering the information from this course.

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

**Attendance/Student Engagement Policy:** Attendance and engagement are the most critical activities for success in this course. The instructor maintains records of the student's attendance and submission of assignments throughout the semester. The student is expected to attend at least eighty percent (80%) of the **total** class meetings **and** submit at least eighty percent (80%) of the **total** class assignments to have the best chance of success. If the student fails to meet these minimum requirements, the instructor <u>may\_remove</u> the student from the class with an X, upon their discretion, to help the student from harming their GPA. If the student cannot receive an X, the instructor will assign an F.

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.

**Covid:** If you are experiencing any of the following symptoms, please do not attend class and either seek medical attention or test for COVID-19.

- Cough, shortness of breath, difficulty breathing
- Fever or chills
- Muscles or body aches
- Vomiting or diarrhea
- New loss of taste and smell

Please also notify DeEtte Edens, BSN, RN, Associate Director of Health & Wellness, at dedens@southplainscollege.eduor 806-716-2376. Proof of a positive test is required. A home test is sufficient, but students must submit a photo of the positive result. The date of the test must be written on the test result and an ID included in the photo. If tested elsewhere (clinic, pharmacy, etc.), please submit a copy of the doctor's note or email notification. Results may be emailed to DeEtte Edens, BSN, RN at dedens@southplainscollege.edu.

A student is clear to return to class without further assessment from DeEtte Edens, BSN, RN if they have completed the 5-dayisolation period, symptoms have improved, and they are without fever for 24hours without the use of fever-reducing medication.

Students must communicate with DeEtte Edens, BSN, RN prior to their return date if still symptomatic at the end of the 5-day isolation.

**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 Ottice 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 Ottice. For more information, call or visit the Disability Services Ottice at Levelland (Student Health & Wellness Ottice) 806-716-2577, Lubbock Centers (Downtown Center)806-716-4675, or Plainview Center (Main Ottice) 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 Health and Wellness Center. 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 Health and Wellness Center at 806-716-2529 or email <a href="mailto:reanon@southplainscollege.edu">reanon@southplainscollege.edu</a> 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: <a href="http://www.southplainscollege.edu/campuscarry.php">http://www.southplainscollege.edu/campuscarry.php</a> 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 the time of the price match request. Additional membership discounts and otters 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.

# College Algebra

# Syllabus

#### **Gina Becker**

gbecker@southplainscollege.edu
Downtown Center B018
806.716.4684

Monday	Tuesday	Wednesday	Thursday	Friday
8:00 - 9:30	8:00 - 9:30	8:00 - 9:30	8:00 - 9:30	8:30 - 9:30
10:45 - 11:00	10:45 - 11:00	10:45 - 11:00	10:45 - 11:00	
		5:15 - 5:30		

### **ATTENDANCE**

- Your presence in class provides the best opportunity for you to pass.
- Course attendance will be taken each class. Per South Plains College Math Department policy, you may be administratively dropped from the course if your number of missed submissions goes over 20% of all submissions.
- Using your phone or leaving class for extended breaks disrupts your learning process.
- No make up Quizzes or Exams due to absence will be offered.

## CLASS STRUCTURE

 This class meets in person 2 times each week. If you miss class for any reason, the notes and recorded lectures may be found on Blackboard.

## **GRADING**

Homework	Quizzes	Exams			
Assigned each day. Due the next class day. Assignments will be uploaded to Gradescope.	Weekly, on non-exam weeks. Will cover the material from the previous week.	Given at the end of each unit.  The review counts as a homework grade.			
30 homework assignments	8 quizzes	4 unit exams			
Late assignments are not accepted.	You must be present to take the quiz. No makeups ottered.	You must be present to take the exam. No makeups ottered.			
Each homework is worth 0.3 points.	Each quiz is worth 4 points.	Each exam is worth 10 points.			
points.		The Final Exam will be worth 20 points			
8 points	32 points	Exams 40 points			
o pointo		Final Exam - 20 points			
		100 points			
		total			
Grades assigned by point total:					
A: 90 - 100 B: 80-90	C: 70 - 80 D: 60 - 70	F: Below 60			

### Pass this Class

Be present in class, both physically and mentally.

Print notes from Blackboard and bring to class. Use a 3-ring binder to keep them organized.

If you prefer to write notes on paper, use a spiral.

Complete homework on the day it is assigned. Then you will be able to ask questions, if needed.

Ask questions! When you send an email, send a picture of your work.

You may use your homework on your quiz. Write the title for the assignment on the page.

To receive full credit on practice problems and exams, you must show all work that leads to your answers. The work must be legible, make sense and be easy to follow. All work and answers should be handwritten.

The best way to study for a math exam is to practice working problems over and over again.

### Supplies

- A textbook is not required for this course. If you prefer to have a supplemental text for your own reference, use: <u>College Algebra with Intermediate Algebra, A Blended Course</u> by Beecher / Penna / Johnson / Bittinger, Pearson Education, 2017. ISBN 9780134556505.
- Homework and notes will be provided on Blackboard.
- pencils, 3 ring binder and notebook paper or 300-page spiral, 3" x 5" notecards
- Computer or cell phone that you can use to check Blackboard and emails and to upload your homework to Gradescope.
- Scientific Calculator (TI-30XIIS is a good and inexpensive option.)



#### Other information

- **<u>Communication:</u>** Any questions or comments should be sent using SPC email. I will do my best to respond to your email within 24 hours of receipt. Any email sent on a weekend may not be answered until Monday.
- **Blackboard:** This course syllabus, as well as any class handouts and assignments may be accessed through Blackboard. Login at <a href="http://southplainscollege.blackboard.com">http://southplainscollege.blackboard.com</a>. 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 CampusConnect Pin Number (found on SPC acceptance letter)

Questions regarding Blackboard support may be emailed to blackboard@southplainscollege.edu or by telephone 806-716-2180.

- **SPC** Tutoring Options: **In Person:** Tutoring is FREE for all currently enrolled students. Make an appointment or drop-in for help at any SPC location or online! Visit the link below to learn more about how to book an appointment, view the tutoring schedule, get to know the tutors and view tutoring locations.
  - http://www.southplainscollege.edu/exploreprograms/artsandsciences/teacheredtutoring.php
- Tutor.com You also have 180 FREE minutes of tutoring with tutor.com each week, and your hours reset every Monday morning. Log into Blackboard, click on the tutor.com link on the left-hand tool bar and grab a session with a tutor. You can accesstutor.com tutors during the following times: Monday Thursday: 8pm-8 am Friday 6 pm –Monday morning 8am Free tutoring is available through the college. Check Blackboard for additional information about tutoring.
- Withdrawal from course: Fill out the Student Initiated Drop Form found at <a href="https://www.southplainscollege.edu/admission-aid/apply/schedulechanges.php">https://www.southplainscollege.edu/admission-aid/apply/schedulechanges.php</a>. SPC might not permit an undergraduate student to drop a total of more than six courses (including any course a transfer student has dropped at another institution of higher education.)

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.

#### **Tentative Schedule**

Week	Tuesday	Thursday
1	January 16 1.1 Course Introduction	January 18 1.2 Review Real Numbers, Order of Operations, Exponents
2	January 23 1.3 Operations on Polynomials; Linear Equations	January 25 1.4 Solve Linear Inequalities; Absolute Value Equations and Inequalities Quiz 1
3	January 30 1.5 Summary of Factoring 1.6 Roots and Complex Numbers	<b>February 1</b> 1.7 Radical Expressions and Solve Radical Equations 1.8 Review Quiz 2
4	February 6 2.1 Basics of Functions, Analyzing Graphs; Evaluating Functions	February 8 Exam 1
5	<b>February 13</b> 2.2 Functions: Symmetry, Parent Graphs and Transformations	<b>February 15</b> 2.3 Functions: Increasing and Decreasing, Piecewise; Combinations Quiz 3
6	<b>February 20</b> 2.4 Functions: Domain; Compositions; Inverse	February 22 2.5 Linear Functions: Slope, Graphing; Parallel and Perpendicular Lines Quiz 4
7	<b>February 27</b> 2.6 Solve Quadratic Equations	February 29 2.7 Graph Quadratic Functions 2.8 Review Quiz 5
8	March 5 3.1 Synthetic Division; Solve Polynomial Equations	March 7 Exam 2
	Spring Brea	ık March 13-17
9	March 19 3.2 Graphing Polynomial Functions	March 21 3.3 Solve Rational Equations Quiz 6
10	March 26 3.4 Graphing Rational Functions	March 28 3.5 Solve Rational and Quadratic Inequalities 3.6 Review Quiz 7
11	<b>April 2</b> 4.1 Properties of Exponential Functions and Exponential Functions Graphs	April 4 Exam 3
12	April 9 4.2 Properties of Logarithmic Functions and Logarithmic Functions Graphs	April 11 4.3 Solve Exponential and Logarithmic Equations Quiz 8
13	April 16 4.4 Review	April 18 Exam 4
14	April 23 5.1 Solving Systems of Linear Equations	April 25 - Last Day to Withdraw 5.2 Systems of Linear Equations in Three Variables; Matrices, Gaussian Elimination and GJE Quiz 9
15	<b>April 30</b> 5.3 Determinants and Solving Systems with Cramer's Rule	May 2 Final Exam Review
16	May 7 Final Exam Math 1314.611 10:15 – 12:15	