## South Plains College Common Course Syllabus: MATH 1314 Revised August 2020

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

**Discipline:** Mathematics

Course Number: MATH 1314

Course Title: College Algebra

Available Formats: conventional/flex, 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 0.320.

Credit: 3 Lecture: 3 Lab: 1

**Textbook:** College Algebra with Intermediate Algebra: A Blended Course, Beecher, Penna, Johnson, and Bittinger, 2018, 1st 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/Student Engagement Policy:** Attendance and effort are the most important activities for success in this course. The instructor maintains records of the student's engagement throughout the semester. The student will be allowed to miss twenty percent (20%) of class assignments for the semester, *for any reason*. Should this number be exceeded, the instructor has the right to drop the student with a grade of F or an X, depending on the instructor's 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.

**COVID Syllabus Statement:** Should be provided by the Vice-President of Student Services over email.

**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 <u>activate</u> 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 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.



Email: evargas@southplainscollege.edu

# Mathematics 1314 - College Algebra Section 613

Room: Lubbock Downtown Center, B030 T: 5:20 PM - 6:55 PM

Office: Math Building, M101, Levelland Campus

**M-R:** 10:50 AM –12:50 AM

Instructor: Mr. Evan Vargas

Phone: (806) 716-4673

## Materials

- Pencils, erasers, paper.
- Non-graphing calculator.
- College Algebra with Intermediate Algebra: A Blended Course, Beecher, Penna Johnson and Bittinger. ISBN-13: 9780134555263 [Textbook is NOT required]
  - MyLab Math Code purchased from Bookstore OR online Required; Course ID will not be given to you!
- College Algebra by OpenStax https://openstax.org/details/books/college-algebra

**Grading Scale:** 

A: 90-100 B: 80-89 C: 70-79 D: 60-69 F: 0-59

20% Weights: **Homework** 

Quiz 10% 10% each Exams (4) **Final Exam** 30% Total 100%

Assigned through MyMath Lab. Homework enables students to receive feedback immediately as progress is made through each assignment.

- Physical homework is not required to turn in.
- Unlimited try attempts before the due date without penalty.
- Cannot be made up after the due date.

Assigned through MyMath Lab. Quizzes cover topics from the Homework.

- 30-minute time limit with only one attempt.
- Must be completed by the due date.
- Make-up quizzes are not given under any circumstances.

Assigned through Blackboard. Exams cover material from Homework, Quizzes, and Lectures.

- Timeframe of 8:00 AM to 11:59 PM with a 3 hour (180 min.) enforced time limit.
- Covers Conceptual and Application problems.
  - Conceptual: True/False and Fill in the Blank
  - Application: Show ALL work relating to simplifying, solving, and graphing.
- Must submit all hand-written work to Gradescope.
- Exams will not be accepted after the due date.
- Final Exam is scheduled in-class on Tuesday, December 13th @ 5:30 PM 7:30 PM
  - o Failure to attempt the Final Exam will result in a failing grade for the course regardless of current letter grade.
  - Replaces one (1) missed Exam OR lowest Exam score.
  - Final Exam is comprehensive.

### Offered for Homework and Exams:

- Up to 10% Extra credit for completing all Review Homework Assignments on Pearson.
- Up to 10% Extra credit on each Examination as a Bonus question(s).
- Up to 10% Extra credit on the Final Examination as a Bonus question(s).
- Plus more throughout the semester!

### **Class Policies and Information**



### **Attendance Policy**

The student is expected to **submit at least eighty percent (80%)** of the class assignments to have the best chance of success. If the student fails to meet these minimum requirements, the instructor can remove the student from the class.



## Pearson - MyMath Lab

Students are expected to purchase **Pearson's MyMath Lab** from the bookstore OR online through Pearson. It is a **required** course material item. **The textbook is not required**. A 14-day free trial period is offered if the student needs extra time to purchase the software. Students must have full access to the software by the second week of class. Instructions can be found <a href="here">here</a>.









<u>CamScanner</u>









#### **Office Hours**

Office hours will be held at the listed times. Please come prepared with questions and examples of the attempted problem(s)



## **South Plains College Email Policy**

The instructor will respond to all emails within 36 hours during the week day. Emails sent after 5:00 PM on Fridays may not be answered until the following Monday morning.



### **Additional Support**

Online demo videos and a free textbook is available!

- Videos are provided to the student via Blackboard located in each week's folder.
- A free, online textbook, is available for online viewing or digital download.

SPC also offers **free tutoring!** This information is located <u>here</u>.



### Drop/Withdrawal

Students should submit a <u>Student Initiated Drop Form</u> online to drop from the course. If the student wishes to withdraw from this or more courses, the student needs to contact the Advising Office.

#### **COVID Syllabus Statement**

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.edu or 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 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-day isolation period, symptoms have improved, and they are without fever for 24 hours 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.

# **Course Calendar**

Week 1	Aug. 30 <sup>th</sup>	Review Basic Algebra; Simplify Expressions; Solving Linear Equations and Inequalities Fundamentals of Graphing Functions; Graphing Lines and Linear Functions
Week 2	Sept. 6 <sup>th</sup>	Sept. 5 <sup>th</sup> – Labor Day Holiday – No Classes Sept. 6 <sup>th</sup> – Exam Pre-Test Assigned Graphing Parallel and Perpendicular Lines; Solving Absolute Value Equations and Inequalities Graphing Absolute Value Functions; System of Equations: Substitution and Elimination
Week 3	Sept. 13 <sup>th</sup>	Sept. 13 <sup>th</sup> – Grading Exam Pre-Test Graphing Systems of Equations; Graphing Linear Inequalities; Exam 1 Review Sept. 15 <sup>th</sup> : Examination 1, Homework Set 1, Quiz #1, & Quiz #2 Due @ 11:59 PM
Week 4	Sept. 20 <sup>th</sup>	Radical Algebra; Complex Number Algebra; Factoring Quadratics Solving Quadratic Equation5s using AC Method and Complete the Square
Week 5	Sept. 27 <sup>th</sup>	Graphing Quadratic Functions and Inequalities; Solving Radical Equations Graphing Radical Functions; Function Algebra and Composition
Week 6	Oct. 4 <sup>th</sup>	Circle Equations; Graphing Circles; Exam 2 Review Oct. 6th: Examination 2, Homework Set 2, Quiz #3, & Quiz #4 Due @ 11:59 PM
Week 7	Oct. 11 <sup>th</sup>	Polynomial Algebra; Solving Factored Polynomials Long and Synthetic Division of Polynomials; Rational Roots Theorem
Week 8	Oct. 18 <sup>th</sup>	Graphing Polynomial Functions; Rational Algebra; Solving Rational Equations; Graphing Rational Functions
Week 9	Oct. 25 <sup>th</sup>	Piecewise Functions; Exam 3 Review Oct. 27th: Examination 3, Homework Set 3, Quiz #5, & Quiz #6 Due @ 11:59 PM
Week 10	Nov. 1 <sup>st</sup>	Inverse Functions; Exponential & Logarithm Properties Solving Exponential and Logarithm Equations
Week 11	Nov. 8 <sup>th</sup>	Solving Uncommon Bases; Function Transformations Graphing Exponential and Logarithm Functions
Week 12	Nov. 15 <sup>th</sup>	Exponential & Logarithm Applications; Exam 4 Review Nov. 17th: Examination 4, Homework Set 4, Quiz #7, & Quiz #8 Due @ 11:59 PM
Week 13	Nov. 22 <sup>nd</sup>	Intro to Matrices; Solving Matrix Equations Solving with Gauss and Gauss-Jordan Elimination
Nov. 23 <sup>rd</sup> –25 <sup>th</sup>		Thanksgiving Break
Week 14	Nov. 29 <sup>th</sup>	Inverse Matrices; Solving with Inverse Matrices Determinants; Solving with Cramer's Rule Dec. 1st – Last Day to Drop Fall Semester Classes
Week 15	Dec. 6 <sup>th</sup>	Partial Fraction Decomposition  Final Examination Review – Jeopardy Game!  Dec. 8 <sup>th</sup> : Homework Set 5 & Quiz #9 Due @ 11:59 PM
Week 16		Final Examination: Tuesday, December 13 <sup>th</sup> @ 5:30 PM – 7:30 PM