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 0320.

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 <u>email cgilster@southplainscollege.edu</u> 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

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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.



Mathematics 1314 – College Algebra Section 011: Tuesday/Thursday 11:00 AM – 12:45 PM Room: Math Building, Room 126, Levelland Campus

Instructor: Mr. Evan Vargas	Office	Hours
Email: evargas@southplainscollege.edu	W:	2:00 PM – 5:00 PM
Office: Math Building, M101, Levelland Campus	T/R:	9:30 AM - 10:30 AM
Phone: (806) 716-4673	F:	9:00 AM – 12:00 PM

Course Information

Textbooks	College Algebra with Intermediate Algebra: A Blended Course, Beecher, Penna Johnson and Bittinger. ISBN-13: 9780134555263 (Textbook is NOT required)				
	College Algebra by OpenStax - https://openstax.org/details/books/college-algebra				
My Math Lab	My Math	Lab Code from the	e Bookstore OR	purchase online	- Required
Materials	Pencils, e	erasers, paper, and	d <i>basic</i> calculate	or	
Grading Policy					
Grading Scale:	90-100 80-89	A B	Weights:	Homework	10% 10%

-	80-89	В	_	Quiz	10%
	70-79	С		Exams (4)	15% each
	60-69	D		Final Exam	20%
	0-59	F		Total	100%

Online Homework is assigned online through My Math Lab. The homework enables students to receive feedback immediately as progress is made through each assignment.

- Physical homework is not required to turn in.
- Students may attempt the Homework as many times as needed before the due date without penalty.
- Homework cannot be made up after the due date.

Quiz Quizzes are assigned in class and contain material pertaining to Homework Assignments and Lectures.

Quizzes are timed 30 minutes.

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• Make-up quizzes will not be given under any circumstances.

Exams Exams are scheduled in-class. Each exam will cover material from Homework, Quizzes, and Lectures.

- You will have the entire class period to complete each Exam.
- Exams will contain a combination of open answer, fill in the blank, and True/False.
- Refer to the Calendar for each Exam date.
 - The Final Exam is comprehensive. Tuesday, December 14th, 10:15 AM 12:15 PM
 - Failure to attempt the Final Exam will result in a failing grade for the course.
 - The Final Exam will replace one (1) missed Exam or your lowest scored Exam.

Class Policies

Attendance 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 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 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.

Pearson – My Math Lab

Students are expected to purchase Pearson's My Math Lab either from the Levelland/Reese bookstore OR online on the Pearson website. It is a **required** course material item, without obtaining access to the online software the student will be dropped from the course. Additionally, there is a way to obtain a free-trial access code until the student can obtain the necessary funds. Be aware that once the trial has expired and the student does not purchase access then the student still may be dropped from the course. Instructions can be found <u>here</u>.

Additional Support

Supplemental material for this class is available in online instructional videos and an open educational resource (OER) textbook.

- Online instructional 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 here.

Office Hours

Office hours will be held at the listed times or virtually. Virtual office hours will be held using Zoom. Please email if the listed office hours do not work for you.

South Plains College Email Policy

The instructor will only acknowledge, respond, and send emails to the student assigned South Plains College email. This ensures the intended recipient receives all correspondence from the instructor. It is the students' responsibility to have their email set up and ready to use by the end of the first week of class.

Drop/Withdrawal

Students should submit a Student Initiated Drop Form online to drop from the course. An instructor signature is not required. If the student wishes to withdraw from this or more courses, the student needs to contact the Advising Office.

COVID Syllabus Statement

It is the policy of South Plains College that as a condition of on-campus enrollment, all students are required to engage in safe behaviors to avoid the spread of COVID-19 in the SPC community. There will be no requirement for face coverings at any location on any South Plains College campus or classroom. Faculty, staff, or students may continue to wear a mask voluntarily, but there will be no requirements for face coverings in any circumstance.

If you are experiencing any of the following symptoms please do not attend class and either seek medical attention or get tested 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

Course Calendar

Aug. 21	Review of Basic Algebra	
Week 1	Sont 02	Solving Linear Equations and Linear Inequalities
Sept. 02 Week 2 Sept. 07	0ept. 02	Functions and Graphs. Domain and Range
	Function Transformations	
	Sept. 07	Graphing Systems of Equations with 2 Variables and Inequalities
Se	Sept. 09	Graphing Linear Functions and Perpendicular/Parallel Lines
Sept. 14		System of Equations: 2 Variables & 3 Variables
WEER J	Sept. 16	Solving and Graphing Absolute Value Equations with Inequalities; Exam 1 Review
	Sent 21	September 21 st : Examination 1
Week 4	Sopt 22	Complex Number Algebra and Simplifying
	3ept. 23	Factoring and Solving Quadratic Equations
Week 5	Sept. 28	Solving Quadratics using AC Method, Complete the Square, and Quadratic Formula
Sept. 30		Graphing Quadratic Functions with Inequalities
Wook 6	Oct. 05	Simplifying, Solving, and Graphing Radicals
WEER U	Oct. 07	Expressing and Graphing Circles
Wook 7	Oct. 12	Function Algebra and Composition of Functions; Exam 2 Review
Week /	Oct. 14	October 14 th : Examination 2
	Oct 19	Simplifying Polynomials, Properties, and Solving Factored Polynomials
Week 8	Oct 21	Long and Synthetic Division of Polynomials
	001. 21	Graphing Polynomial Functions
Oct. 26	Oct. 26	Simplifying and Solving Rational Expressions and Equations
Week 5	Oct. 28	Graphing Rational Functions
	Nov 02	Piecewise Functions
Week 10	Nov 04	Inverse Functions; Exam 3 Review
		November 4 th : Examination 3
Week 11	Nov. 09	Exponential Properties and Solving Exponential Equations
Nov. 11	Nov. 11	Logarithm to Exponential Relations; Logarithm Properties
	Nov 16	Solving Exponential and Logarithm Equations using Log Properties
Week 12	Nov 18	Graphing Exponential and Logarithm Functions
		Exponential and Logarithm Applications
Week 13	Week 13 Nov. 23	Intro to Matrices. Solving with Gauss and Gauss-Jordan Elimination
Nov. 25		November 25 th : Thanksgiving Break – No Class
Wook 11	Nov. 29	Solving Matrix Equations using Inverse Matrices and Determinants; Exam 4 Review
Dec. 02		December 2 nd : Examination 4
Week 15	Dec. 07	Partial Fraction Decomposition
	Dec. 09	Final Examination Review
Week 16	Dec. 14	Final Examination: 10:15 AM – 12:15 PM