South Plains College Common Course Syllabus: MATH 1314 Revised July 2023

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, Downtown Center, Plainview 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 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

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 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</u> remove the student from the class with an X, upon their discretion, to help the student from harming their GPA. If the student can not 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.

Student Code of Conduct Policy: Any successful learning experience requires mutual respect from the student and the instructor. Neither the instructor nor the student should be subject to others' rude, disruptive, intimidating, aggressive, or demeaning behavior. 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.

For information regarding official South Plains College statements about intellectual exchange, disabilities, non-discrimination, Title IX Pregnancy Accommodations, CARE Team, and

Campus Concealed Carry, please visit https://www.southplainscollege.edu/syllabusstatements/.

South Plains College policies, return to campus plan, and protocols regarding COVID-19 can be found here: <u>https://www.southplainscollege.edu/emergency/covid19-faq.php</u>.

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.

Instructor's Course Information

Course: MATH 1314 – College Algebra **Section:** 442 – Dual Credit ITV: meets MWF from 9:00-9:50am via Zoom **Term:** Fall 2023

Instructor: Jerod Clopton Office: Lubbock Downtown Center, B019 Telephone: (806) 716-2738 Email: jclopton@southplainscollege.edu

Virtual / Face-to-Face Office Hours:

- Monday: 10:00-11:30am, 4:15-5:15pm
- Tuesday: 2:00 3:30pm
- Wednesday: 10:00-11:30am
- Thursday: 2:00 3:30pm
- Fridays: 10:00-11:00am
- And by appointment, as needed. (The appointments can be scheduled in Blackboard.)
- Virtual office hours also may be scheduled in Blackboard.

Email Policy: All students at South Plains College are assigned a standardized SPC email. Log into portal.office.com to access to you SPC email account. The instructor will only acknowledge, respond, and receive emails to your assigned email address.

- My expected response time to received emails is as follows:
 - For emails sent on Monday-Thursday, I will attempt to respond within 24 hours.
 - o For emails sent on Friday-Sunday, I may not respond until the following Monday.
- I will not be checking / responding to messages sent through the Blackboard messaging system.

Textbook: A textbook is not required for this course; however, a recommended and freely available textbook for this course may be: College Algebra from OpenStax, Print ISBN 1938168380, Digital ISBN 1947172123, <u>www.openstax.org/details/college-algebra</u>

This textbook is also embedded in your Blackboard course for easier referencing. However, if you prefer a print copy as a reference tool, the ISBN is located at the web link above.

Supplies: Besides pencils (please show your work in pencil) and paper, you will need a scientific calculator and a small supply of graph paper. 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. Make certain you have access to a scanner or scanning app. Gradescope is the recommended app. Other apps such as CamScanner, Scannable, OneDrive, etc. are helpful in order to scan your assignments/quizzes and submit them through Blackboard.

Blackboard: Blackboard is the online course management system that will be utilized for this course. This course is supplemented online, so all access to course information and your instructor is through the Internet. This course syllabus, as well as all course materials can be accessed through Blackboard. Login at https://southplainscollege.blackboard.com/. The username and password should be the same as the MySPC and SPC email.

Username: first initial, last name, and last 4 digits of the Student ID Password: Original Campus Connect Pin No. (found on SPC acceptance letter)

Course Evaluation: Assignments and quizzes will count for 20% of the final grade, while exams count for 80% of the final grade. Expect 25 assignments, approximately 10 quizzes, and 5 scheduled exams throughout the course. 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%).

- Assignments/Quizzes = 20%
- Exam 1 = 15%
- Exam 2 = 15%
- Exam 3 = 15%
- Exam 4 = 15%
- Final Exam = 20%

Assignment Format and Policy: Assignments are given after each lesson and are collected according to the calendar below. Expect a quiz to accompany each assignment. For each question on each assignment:

- Write the question number.
- In solving the problem, show all necessary work.
- Clearly mark your answer.
- Check your answers in Blackboard to make certain you are practicing the exercises correctly.
- Write your name at the top of each page of your work.
- Submit the assignment in Gradescope as a single pdf file, preferably using the Gradescope app. (Pdf files can be generated easily using a scanner or many freely available phone apps, like CamScanner, Scannable, or OneDrive.)
- All homework assignments will be due by 9:50am on the Friday of the corresponding week (unless otherwise stated).

Make certain to complete and submit assignments on time (or early). Early submissions are welcomed! Late assignments will be accepted with a 15% deduction up to the time of the unit exam. Assignments may not be submitted after the unit exam.

Quiz Format and Policy: Expect a face-to-face quiz to be administered on specified days in the calendar below. No late quizzes will be accepted, as quizzes are to be taken during the class time. Quizzes will be scanned and submitted into Gradescope by the end of that day's class meeting.

Exam Format and Policy: Face-to-face examinations will be given on specified days in the calendar below. Exams are to be taken during the class time. No make-up exams will be given. The comprehensive final exam will be given on Wednesday, Dec 13 from 8:00–10:00am.

To maximize your potential for successfully completing this course:

- Login to Blackboard daily.
- Watch the lecture videos and take notes on them.
- Thoroughly complete and submit the assignments on time.
- Practice the exercises repeatedly until you have full mastery of them.

Attendance / Engagement Statement: Attendance and engagement are potentially the most critical activities for success in this course.

Before arriving for the class meeting, make certain you have:

- worked through the notes and videos for that day's lessons;
- completed some of the assigned exercises.

Upon arriving at the class meeting, we will:

- answer questions over exercises;
- work through lab exercises;
- submit assignments and quizzes.

SPC Tutors

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, 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 tools option from the left-hand menu bar. Click on the Tutor.com link and you will automatically be logged in for free tutoring. You may access tutor.com tutors during the following times:

Monday – Thursday: 8pm-8am 6pm Friday – 8am Monday morning

For questions regarding tutoring, please email tutoring@southplainscollege.edu or call 806-716-2538.

Plagiarism and Cheating Statement: It is the aim of the faculty of South Plains College to foster a spirit of complete honesty and a high standard of integrity. The attempt of any student to present as his or her own any work which he or she has not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offender liable to serious consequences, possibly suspension. (SPC General Catalog)

Plagiarism and cheating are not tolerated in this course. Under the policies of South Plains College, punishment for cheating may include no credit (failing) on the assignment, quiz, exam, or the course.



Tips for Learning in a Flipped Classroom

This class is a flipped classroom and will operate differently than the face-to-face classroom that you have previously experienced. In a flipped classroom you will spend time outside of class watching and taking notes from lecture videos while during class you will work on your homework assignments. This flipped classroom setting will open more opportunities for me, the instructor, to work with you by addressing homework questions, facilitating class discussions, and having collaborative assignments. Here are some suggestions that will help you operate with in this flipped classroom environment and help you successfully complete this course.

Lecture Videos

- Watch the lecture videos in a quiet and distraction-free setting
- Silence your cellphone
- Close all other tabs and windows on your computer
- Disconnect from any social media while watching the lecture videos
- Have class notes or notebook and writing device for taking notes
- Use a set of headphones to watch to videos, in order to cancel all ambient noise

Note-Taking Tips

- Take careful notes from the videos
- Draw appropriate diagrams and charts in your notes
- Frequently pause the video to take notes
- "Rewind" the video when you don't understand things
- When the instructor tells you to solve a problem or write something down, do it
- Write down questions in your notes from the lecture video when you don't understand something

How to Prepare for Assessments

- Contact the instructor with your questions and ask the instructor for help and clarification
- Work with your classmates
- Offer to help your classmates with things you understand
- Ask for help from your classmates when they understand more than you
- Take any opportunity to review current and previous material
- Review graded assessments and seek to understand any errors made in your work

Tentative Course Calendar: College Algebra (ITV)

Fall 2023

Date		Торіс	Assignment Due Dates
Week 1	Mon, Aug 28	Course Introduction	
		Asgmt 1: Linear Equations	Fri, Sep 1 by 9:50am
	Wed, Aug 30	Asgmt 2: Rational Equations	Fri, Sep 1 by 9:50am
	Fri, Sep 1	QUIZ 1	Fri, Sep 1 by 9:50am
Week 2	Mon, Sep 4	Labor Day	
	Wed, Sep 6	Asgmt 3: Linear Applications	Fri, Sep 8 by 9:50am
	Fri, Sep 8	QUIZ 2	Fri, Sep 8 by 9:50am
Week 3	Mon, Sep 11	Asgmt 4: Complex Numbers	Fri, Sep 15 by 9:50am
	Wed, Sep 13	Asgmt 5: Quadratic Equations	Fri, Sep 15 by 9:50am
	Fri, Sep 15	QUIZ 3	Fri, Sep 15 by 9:50am
Week 4	Mon, Sep 18	Asgmt 6: Other Types of Equations	Fri, Sep 22 by 9:50am
	Wed, Sep 20	Asgmt 7: Linear and Absolute Value	
		Inequalities	Fri, Sep 22 by 9:50am
	Fri, Sep 22	Exam 1	Fri, Sep 22 by 9:50am
Week 5	Mon, Sep 25	Asgmt 8: Functions and Their Graphs	Fri, Sep 29 by 9:50am
	Wed, Sep 27	Asgmt 9: Linear Functions and Slope	Fri, Sep 29 by 9:50am
	Fri, Sep 29	QUIZ 4	Fri, Sep 29 by 9:50am
Week 6	Mon, Oct 2	Asgmt 10: Distance, Midpoint, and Circles	Fri, Oct 6 by 9:50am
	Wed, Oct 4	Asgmt 11: Combination and Composition of	
		Functions	Fri, Oct 6 by 9:50am
	Fri, Oct 6	QUIZ 5	Fri, Oct 6 by 9:50am
Week 7	Mon, Oct 9	Asgmt 12: Inverse Functions	Wed, Oct 11 by 9:50am
	Wed, Oct 11	Exam 2	Wed, Oct 11 by 9:50am
	Fri, Oct 13	Fall Break	
Week 8	Mon, Oct 16	Asgmt 13: Quadratic Functions and Synthetic	
		Division	Fri, Oct 20 by 9:50am
	Wed, Oct 18	Asgmt 14: Roots of Polynomials	Fri, Oct 20 by 9:50am
	Fri, Oct 20	QUIZ 6	Fri, Oct 20 by 9:50am

Week 9	Mon, Oct 23	Asgmt 15: Polynomial Functions and Their	
		Graphs	Fri, Oct 27 by 9:50am
	Wed, Oct 25	Asgmt 16: Rational Functions and Their	
		Graphs	Fri, Oct 27 by 9:50am
	Fri, Oct 27	QUIZ 7	Fri, Oct 27 by 9:50am
Week 10	Mon, Oct 30	Asgmt 17: Polynomial and Rational	
		Inequalities	Wed, Nov 1 by 9:50am
	Wed, Nov 1	QUIZ 8	Wed, Nov 1 by 9:50am
	Fri, Nov 3	Exam 3	Fri, Nov 3 by 9:50am
Week 11	Mon, Nov 6	Asgmt 18: Exponential and Logarithmic	
		Functions	Fri, Nov 10 by 9:50am
	Wed, Nov 8	Asgmt 19: Properties of Logarithms	Fri, Nov 10 by 9:50am
	Fri, Nov 10	QUIZ 9	Fri, Nov 10 by 9:50am
Week 12	Mon, Nov 13	Asgmt 20: Exponential Equations	Fri, Nov 17 by 9:50am
	Wed, Nov 15	Asgmt 21: Logarithmic Equations	Fri, Nov 17 by 9:50am
	Fri, Nov 17	Exam 4	Fri, Nov 17 by 9:50am
Week 13	Mon, Nov 20	Asgmt 22: 2x2 and 3x3 Systems of Equations	Fri, Dec 1 by 9:50am
	Wed, Nov 22	Thanksgiving Break	
	Fri, Nov 24	Thanksgiving Break	
Week 14	Mon, Nov 27	Asgmt 23: Matrix Solutions to Systems	Fri, Dec 1 by 9:50am
	Wed, Nov 29	Asgmt 25: Nonlinear Systems and Systems of	
		Inequalities	Fri, Dec 1 by 9:50am
	Fri, Dec 1	QUIZ 10	Fri, Dec 1 by 9:50am
Week 15	Mon, Dec 4	Asgmt 26: Determinant's and Cramer's Rule	Wed, Dec 6 by 9:50am
	Wed, Dec 6	Review for Final Exam	
	Fri, Dec 8	Review for Final Exam	
Week 16	Wed, Dec 13	Final Exam from 8:00-10:00am	Wed, Dec 13 by
			10:00am