South Plains College Common Course Syllabus: MATH 0314/1314 College Algebra with Support Spring 2024

Department: Mathematics, Engineering, and Computer ScienceDiscipline: MathematicsCourse Number: MATH 0314 and MATH 1314Section: C004Course Title: College Algebra with Support

Available Formats: conventional, hybrid, and internet. This section is a hybrid course with face-to-face meetings on Tuesdays and Thursdays and online course work on Mondays and Wednesdays each week.

Campuses: Levelland, Reese, Plainview, Lubbock Center. This section meets face-to-face on the Levelland campus on Tuesdays and Thursdays each week from 9:00-10:45am in room 124 of the Mathematics-Engineering Building. The course also has an online component for class on Mondays and Wednesdays each week.

Course Description: Math 0314 is to be taken concurrently with MATH 1314. Background topics which are necessary for a student to successfully complete MATH 1314 will be covered, with an emphasis on fractions, factoring polynomials, functions, exponents, and operating with radical and rational expressions. Math 1314 is an 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 340 on the TSIA1, minimum diagnostic score of 3 on the TSIA2, a successful completion with a grade of 'C' or better in MATH 0315, or a successful completion of NCBM-0105.

0314 Credit: 3 Lecture: 3 Lab: 1 **1314** Credit: 3

Instructor: Jennifer Bartlett Telephone: (806) 716-2664 Office: Levelland Campus, Math and Engineering building, office 113 Email: The instructor may be emailed through Blackboard or at <u>jkbartlett@southplainscollege.edu</u>.

Email Policy: All students at South Plains College are assigned a standardized SPC e-mail account. Although personal email addresses will continue to be collected, the assigned SPC e-mail account will be used as the official channel of communication for South Plains College. The Student Correspondence Policy can be found at www.southplainscollege.edu. To access the SPC student e-mail account, log in to portal.office.com. (Copied from SPC Student Guide) Since all students have an assigned SPC email, the instructor will only acknowledge, respond, and send emails to your assigned SPC email. This ensures all correspondence from the instructor is received by the intended recipient.

Virtual/Face-to-Face Office Hours:

- Mondays & Wednesdays: 10:35-11:35am
- Tuesdays & Thursdays: 12:15-2:15pm
- Fridays: 8:30-10:30am
- And by appointment, as needed. (The appointments can be scheduled in Blackboard.)
- Virtual office hours also may be scheduled in Blackboard.

Textbook: A textbook is not required for this course; however, a recommended textbook for this course may be: *College Algebra with Intermediate Algebra: A Blended Course*, Beecher, Penna, Johnson, and Bittinger, 2018, 1st Edition, Prentice Hall/Pearson Education

Supplies:

- Calculator: You are <u>required</u> to bring your calculator to every class meeting. You may use a scientific calculator on most homework, quizzes, and exams. A TI-30 is one type, but many others are also acceptable. Cell phones and similar devices may NOT be used as calculators and no sharing of calculators is allowed. If you have any questions about your calculator check with the instructor immediately.
- Paper, maybe a small amount of graph paper, pencils, and erasers
- Access to a reliable internet service, a way to print and scan documents, a device with the capability to participate in Zoom/Proctorio meetings with video and audio
- You may want 3-ring binder (about 2.5 or 3 inch) and dividers to keep track of all the course materials

1314 Credit: 3 Lecture: 3 Lab: 1

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 <u>all</u> course materials can be accessed through Blackboard. Login at <u>https://southplainscollege.blackboard.com/</u>. 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 Campus Connect Pin No. (found on SPC acceptance letter)

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

This course partially satisfies a Core Curriculum Requirement:

0314: None

1314: 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. Your final average in the course will determine the letter grade posted on your transcript. Grades will be updated on Blackboard during the semester. Math 0314 will be graded as Pass/Fail. If a grade of A, B, or C is earned in Math 1314, then a grade of Pass will be awarded in Math 0314. If a grade of D or F is earned in Math 1314, then a grade of Pass or Fail will be awarded for Math 0314 at the instructor's discretion. If you pass MATH 0314 but do not pass the MATH 1314 portion, you will be able to register for MATH 1314 in future semesters. Your grade is determined by the following scale: A (90-100%), B (80-89%), C (70-79%), D (60-69%), F (0-59%).

- Daily Work (Assignments, Quizzes, Labs, etc.) = 10%
- Unit Exams (8 total) = 70%
- Final Exam = 20%

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

- Work on your own paper, not the assignment sheet that is given.
- Write the question number.
- In solving the problem, show <u>all</u> 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 also be generated easily using a scanner or many freely available phone apps, like CamScanner, Scannable, or OneDrive.)

Make certain to complete and submit assignments on time (or early). Early submissions are welcomed! Late assignments will not be accepted.

Quiz Format and Policy: Expect a face-to-face quiz to be administered at most every class session. No late quizzes will be accepted, as quizzes are to be taken during the class time.

Exam Format and Policy: There will be eight-unit exams in this course. Exams must be taken at the days and times listed on the tentative course schedule. All exams must be taken in pencil. Students may not leave the examination room for any reason without turning in their exam for grading.

Final Exam: The comprehensive final will be given on <u>Tuesday, May 7th</u> from <u>8:00 to 10:00am</u>. No make-up final will be given.

Make-up Exams: No make-up, or late, homework assignments will be given. No make-up quizzes and exams are given without <u>prior notification AND proper documentation</u>. If are absent from a quiz or exam, you must give prior notification and proper documentation of your absence. Students who do not take exams at the normal time, early or late, forfeit the right to attempt any extra credit on that quiz or exam.

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 (or early)
- practice the exercises <u>repeatedly</u> until you have full mastery of them
- ask questions when you have them

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 meetings and submit 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 may 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.

SPC Tutors (before 8pm)

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 (after 8pm and weekends)

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 <u>tutoring@southplainscollege.edu</u> or call 806-716-2538.

Academic Integrity (Plagiarism and Cheating Policy): "Complete honesty is required of the student in the presentation of any and all phases of course work. This idea applies to quizzes of whatever length as well to final examinations, to daily reports, and to term papers." (SPC General Catalog)

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.

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.

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.

COVID Response: South Plains College policies, return to campus plan, and protocols regarding COVID-19 can be found here: <u>COVID Response (southplainscollege.edu)</u>.

Diversity, disabilities, non-discrimination, Title IX Pregnancy Accommodations, Campus Concealed Carry: South Plains College policies concerning diversity, disabilities, non-discrimination, Title IX Pregnancy Accommodations, and Campus Concealed Carry Statements can be found here: <u>Syllabus Statements (southplainscollege.edu)</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.

Math 0314/1314.C004 Tentative Calendar Spring 2024 MW: Online TR: Face-to-Face in Math 124					
Week	Date	Торіс	Homework Due (9:00am)		
Week 1	Jan 15 – M	No School: MLK Holiday			
	Jan 16 – T	Course Introduction P1: Integers, Fraction Multiplication & Division			
	Jan 17 – W	P2: Fraction Addition & Subtraction, Order of Operations	P1		
	Jan 18 – R	Lesson 1: Solving Linear and Absolute Value Equations	P2		
Week 2	Jan 22 – M	Lesson 2: Solving Linear and Absolute Value Inequalities	Assignment 1		
	Jan 23 – T	Lesson 3: Polynomials: Exponent Rules	Assignment 2		
	Jan 24 – W	Lesson 4: Polynomials: Add, Subtract & Multiply	Assignment 3		
		Factoring: GCF, Trinomials with a Coefficient of 1			
	Jan 25 – R	Lesson 5: Factoring: Trinomials, Grouping & Special Products	Assignment 4		
Week 3	Jan 29 – M	Lesson 6: Summary of Factoring/ Solving by Factoring	Assignment 5		
	Jan 30 – T	Review for Unit 1 Exam	Assignment 6		
	Jan 31 – W	Review for Unit 1 Exam			
	Feb 1 – R	Unit 1 Exam			
	Feb 5 – M	Lesson 7: Multiply and Divide Rational Expressions			
k 4	Feb 6 – T	Lesson 8: Add and Subtract Rational Expressions	Assignment 7		
Week 4	Feb 7 – W	Lesson 9: Multiply, Divide, Add & Subtract Rational Expressions	Assignment 8, Unit 1 Exam Reflections		
	Feb 8 – R	Lesson 10: Solving Rational Equations	Assignment 9		
	Feb 12 – M	Review for Unit 2 Exam	Assignment 10		
Week 5	Feb 13 – T	Unit 2 Exam			
	Feb 14 – W	Lesson 11: Simplifying Radicals/Rational Exponents			
	Feb 15 – R	Lesson 12: Add, Subtract & Multiply Radicals	Assignment 11		
Week 6	Feb 19 – M	Lesson 13: Rationalizing Radical Expressions & The Complex Number System Part 1	Assignment 12, Unit 2 Exam Reflections		
	Feb 20 – T	Lesson 14: The Complex Number System Part 2 & Solving Radical Equations Part 1	Assignment 13		
	Feb 21 – W	Lesson 15: Solving Radical Equations Part 2	Assignment 14		
	Feb 22 – R	Review for Unit 3 Exam	Assignment 15		
Week 7	Feb 26 – M	Lesson 16: Functions Day 1			
	Feb 27 – T	Unit 3 Exam			
Wei	Feb 28 – W	Lesson 17: Functions Day 2	Assignment 16		
	Feb 29 – R	Lesson 18: Function Operations, Compositions & Inverses	Assignment 17		
	March 4 – M	Lesson 19: Linear Functions: Slope & Graphing	Assignment 18		
Week 8	March 5 – T	Lesson 20: Linear Functions: Equations, Parallel & Perpendicular Lines	Assignment 19		
	March 6 – W	Review for Unit 4 Exam	Assignment 20		
	March 7 – R	Unit 4 Exam			

	March 11-15	No School: Spring Break	
Week 9	March 18 – M	Lesson 21: Solving Quadratics by Factoring and the Square	
	March 19 – T	Root Property Lesson 22: Solving Quadratics by Completing the Square and the Quadratic Formula	Assignment 21
	March 20 – W	Lesson 23: Graphing Quadratics	Assignment 22
	March 21 – R	Lesson 24: Distance, Midpoint & Circles	Assignment 23
Week 10	March 25 – M	Review for Unit 5 Exam	Assignment 24
	March 26 – T	Unit 5 Exam	
	March 27 – W	Lesson 25: Long Division & Synthetic Division	
	March 28 – R	Lesson 26: Roots of Polynomials	Assignment 25
	March 29 – F	No School: Easter Holiday	
Week 11	April 1 – M	Lesson 27: Graphing Polynomials	Assignment 26
	April 2 – T	Lesson 28: Rational Functions	Assignment 27
	April 3 – W	Lesson 29: Polynomial and Rational Inequalities	Assignment 28
	April 4 – R	Review for Unit 6 Exam	Assignment 29
	April 8 – M	Review for Unit 6 Exam	
k 12	April 9 – T	Unit 6 Exam	
Week 12	April 10 – W	Lesson 30: Exponential & Logarithmic Functions	
	April 11 – R	Lesson 31: Properties of Logarithms & Compound Interest	Assignment 30
	April 15 – M	Lesson 32: Solving Exponential Equations	Assignment 31
Week 13	April 16 – T	Lesson 33: Solving Logarithmic Equations	Assignment 32
Wee	April 17 – W	Review for Unit 7 Exam	Assignment 33
	April 18 – R	Unit 7 Exam	
Week 14	April 22 – M	Lesson 34: 2x2 Systems, 3x3 Systems	
	April 23 – T	Lesson 35: Non-Linear Systems	Assignment 34
	April 24 – W	Lesson 36: Systems of Inequalities	Assignment 35
r.	April 25 – R	Last Day to Drop a Course Lesson 37: Matrix Methods	Assignment 36
	April 29 – M	Review for Unit 8 Exam	Assignment 37
Week 15	April 30 – T	Unit 8 Exam	
Wee	May 1 – W	Review for Final Exam	
	May 2 – R	Review for Final Exam	
Week 16	May 7 - T	Final Exam 8:00-10:00	