South Plains College -- Dual Credit

College Algebra – MATH 1314   **Course Syllabus – FALL 2022**

Instructor: Larry Cribbs   **Office**: Room 109

Email: lcribbs@muleshoeisd.net   **Office Hours**: Literally anytime.

Course Description: College Algebra (MATH 1314) is the study and application of common algebraic functions, including polynomial, exponential, logarithmic, and rational problems are addressed. Matrices and systems of equations & inequalities are also addressed. A grade of C (or better) is required from MATH 0314, MATH 0324, or MATH 0320. (3:3:1).

Attendance: Attendance and effort are the most important activities for success in this course. Class attendance is taken everyday, so please do not be late or leave early. You may be dropped from this course with a grade of X or F if you are absent five (5) consecutive classes or if you exceed six (6) absences throughout the semester.

Student Learning Outcomes/Competencies*:

Upon completion of MATH 1314 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.

6. Solve inequalities.

Course Objectives: Successful completion of this course should reflect mastery of the preceding competencies.

Assignments & Grading: You will have a High School Grade and a College grade for this class. Homework assignments will be made at each class meeting and posted on Blackboard. Homework is due when you walk into the following lecture class.

College Grading percentages:

Assignments/Quizzes: 40%   Unit Test: 40%   **Final Exam: 20%**

Your final average in the course will determine the letter grade posted on your transcript. This grade is determined by the following scale:

For MATH 1314 – A (90-100%), B (80-89%), C (70-79%), D (60-69%), F (0-59%).

Supplies: You will need a scientific calculator, chromebook, scanning device, paper, and pencil.

NOTE: You are NOT allowed to work on other classes until ALL homework for this class is complete and turned in.

Attendance Policy: Attendance and effort are the most important activities for success in this course. Records of your attendance are maintained throughout the semester. Five (5) absences, for any reason, are allotted to the student for the semester. If this number is exceeded, the instructor has the right to drop you with a grade of F or an X, depending on their 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.

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 activate 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.

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 1314 Topics

Book: *College Algebra with Intermediate Algebra: A Blended Course* 1e, Beecher, Penna, Johnson, and Bittinger

Section 1.2: Solving Rational Equations (ACGM Spring 2019 Objective #2)

Section 1.6: Solving Radical Equations (ACGM Spring 2019 Objective #2)

Section 2.1: Functions and Graphs (ACGM Spring 2019 Objective #1)

Section 2.2: Finding Domain and Range (ACGM Spring 2019 Objective #1)

Section 2.2: Increasing, Decreasing, and Piecewise Functions (ACGM Spring 2019 Objective #1)

Section 2.2: Symmetry (ACGM Spring 2019 Objective and #3)

Section 2.3-2.4: The Algebra of Functions (ACGM Spring 2019 Objective #1)

Section 2.5: Transformations (ACGM Spring 2019 Objective #3)

Section 2.6: The Composition of Functions (ACGM Spring 2019 Objective #1)

Section 2.7: Inverse Functions (ACGM Spring 2019 Objective #1)

Unit 1 Test

Section 1.4: Complex Numbers (ACGM Spring 2019 Objectives #2 and #3)

Section 1.5: Quadratic Equations, Functions, Zeros, and Models (ACGM Spring 2019 Objectives #2 and #3)

Section 3.1: Analyzing Graphs of Quadratic Functions (ACGM Spring 2019 Objectives #2 and #3)

Section 3.2: Polynomial Functions and Models (ACGM Spring 2019 Objectives #2 and #4)

Section 3.2: Graphing Polynomial Functions (ACGM Spring 2019 Objective #3)

Section 3.3: Polynomial Division; The Remainder Theorem and the Factor Theorem (ACGM Spring 2019 Objectives #2 and #4)

Section 3.4: Theorems about Zeros of Polynomial Functions (ACGM Spring 2019 Objectives #2 and #4)

Section 3.5: Rational Functions (ACGM Spring 2019 Objectives #2 and #3)

Section 3.6: Polynomial Inequalities and Rational Inequalities (ACGM Spring 2019 Objectives #2)

Unit 2 Test

Section 4.1: Exponential Functions and Graphs (ACGM Spring 2019 Objectives #2 and #3)

Section 4.2: Logarithmic Functions and Graphs (ACGM Spring 2019 Objectives #2 and #3)

Section 4.3: Properties of Logarithmic Functions (ACGM Spring 2019 Objective #2)

Section 4.4: Solving Exponential Equations and Logarithmic Equations (ACGM Spring 2019 Objective #2)

Section 4.5: Applications and Models: Growth and Decay; Compound Interest (ACGM Spring 2019 Objective #2)

Section 6.1-6.2: Matrices and Systems of Equations (ACGM Spring 2019 Objective #5)

Section 6.5: Determinants and Cramer's Rule (ACGM Spring 2019 Objective #5)

Unit 3 Test

Cumulative Final Exam