South Plains College
Dual Credit Course Syllabus
College Algebra (MATH 1314)
Fall 2023

Instructor: Danae Burton

Room: 105

Campus: Levelland High School

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Classroom Rules:

1. Work hard
2. Be kind
3. NO food or drinks allowed in the classroom other than water in a clear water bottle.
4. NO cell phones out while I am teaching the lesson. You may listen to music while working independently.

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 (Intermediate Algebra), or successful completion of NCBM 0114.

Textbook: To reduce cost for the student, this course will utilize a free online textbook for student reference. The textbook we will use is titled *College Algebra* from OpenStax, Print ISBN 1938168380, Digital ISBN 1947172123, www.openstax.org/details/college-algebra . The textbook will only be used for reference. All necessary material will be provided by the instructor.

Supplies: Each student will need:

- One spiral notebook for daily notetaking (college rule or wide rule, whichever you prefer)

- Pen or pencil to take notes with

- One folder to keep graded assignments and tests in

- One four function calculator OR TI30

Google Classroom: Each student will be given access to the Google Classroom for this section where the instructor will upload lecture notes and any other helpful resources throughout the year. Because students will be enrolled in this class at SPC in the Fall semester, students will have access to Blackboard, but we will not use Blackboard for this class. Google Classroom will be used for the entire year.

Technology: According to South Plains College Math Department's rules, graphing calculators will not be allowed in this class. However, if the student would like to use a four-function calculator or

scientific calculator, those will be allowed in class and on exams. The instructor will check all calculators before exams.

Homework: Homework will be assigned after each section covered in class and will be due three class days after the day it is assigned. Late work will be deducted 10 points for each day it is late up to three days. After three days, late work will not be accepted.

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 conclusion

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.

LHS Grades:

- Assignments = 45%

- Bellringers = 10%

- Exams = 45%

SPC Grades: A (90-100%), B (80-89%), C (70-79%), D (60-69%), F (0-59%).

- Assignments = 15%

- Daily bellringers = 5%

- Exam 1 = 15%

- Exam 2 = 15%

- Exam 3 = 15%

- Exam 4 = 15%

- Final Exam (comprehensive) = 20%.

Tentative Course Schedule:

Week	Topics
1: Aug 16-18	Introduction to class Review topics
2: Aug 21-25	Basic Functions and Their Graphs Increasing, Decreasing, and Piecewise Functions Finding Domain and Range
3: Aug 28-Sep 1	Transformations of Functions Combinations and Composite Functions
4: Sep 4-8	**(No school Monday)** Inverse Functions Distance and Midpoint; Circles
5: Sep 11-15	Review for Exam 1 **Exam 1** Quadratic Equations
6: Sep 18-22	**(No school Monday - student holiday)** Graphing Quadratic Functions Polynomials and Their Graphs
7: Sep 25-29	Dividing Polynomials Zeros of Polynomials Rational Functions and Graphs
8: Oct 2-6	Solving Other Types of Equations Polynomial and Rational Inequalities Review for Exam 2
9: Oct 9-13	**Exam 2** Exponential Functions Logarithmic Functions **(No school Friday - Fall break)**
10: Oct 16-19	**(No school Monday - Fall break)** Properties of Logarithms Exponential and Logarithmic Equations
11: Oct 23-27	Modeling Exponential Growth and Decay Review for Exam 3 **Exam 3**
12: Oct 30-Nov 3	Partial Fractions Review of Systems of Equations Matrices and Matrix Operations
13: Nov 6-10	**(No school Monday - student holiday)**

	Matrix Multiplication Solving Systems with Gaussian Elimination
14: Nov 13-17	Solving Systems with Inverses Solving Systems with Cramer's Rule
15: Nov 20-24	No school - Thanksgiving break
16: Nov 27 - Dec 1	Review for Exam 4 **Exam 4**
17: Dec 4-8	Review for Final Exam
18: Dec 11-15	**Final Grades due Dec 15 by 10:00 am**

*Note that this syllabus is subject to change. Any changes made by the instructor will be reflected in the syllabus uploaded in Google Classroom.

Intellectual Exchange Statement

In South Plains College courses, the instructor will establish and support an environment that values and nurtures individual and group difference 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 intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

Disabilities 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, Lubbock Centers (located at the Lubbock Downtown Center) 806-716-4675, or Plainview Center (Main Office) 806-716-4302.

Non-Discrimination Statement

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 Health and Wellness Center. 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 Health and Wellness Center at 806-716-2529 or email dburleson@southplainscollege.edu for assistance.

CARE (Campus Assessment, Response, and Evaluation) Team

South Plains College is committed to ensuring the safety, health, and well-being of its students and community. To support its campus community SPC has a CARE Team. This is a dedicated group of campus professionals responsible for assessing and responding to students who could benefit from academic, emotional, or psychological support, as well as those presenting risk to the health or safety of the community. If you see someone experiencing challenges, appearing distressed, posing a threat to their safety or someone else's safety, or causing a significant disruption to the SPC community, please submit a CARE Team referral. You may also submit a referral for yourself if you would like additional support. NOTE: In cases where a person's behavior poses an imminent threat to you or another, contact 911.

Campus Concealed Carry Statement

Texas 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.