College Algebra with Support Course - Fall 2024 Math 0314 1314 –C604

| Instructor Information: | Jacqueline Fowler | B022 (LBK Downtown Center - Basement) |
|-------------------------|-------------------|---------------------------------------|
| | 806-716-4640 | jfowler@southplainscollege.edu |

Office Hours: Mon/Wed: 8:00 – 9:30, 10:45 – 11:00, 12:45 – 1:00, 2:45 – 4:00 Fri: 8:00 – 9:30

Required Materials: pencils, erasers, printed notes from Blackboard. You may use a scientific calculator, but graphing calculators and cell phones are not allowed at any time.

Blackboard: Blackboard is an online course management system that SPC uses for course information. All course materials can be accessed through Blackboard. For questions regarding Blackboard support call 806-716-2180 or email <u>blackboard@southplainscollege.edu</u>.

Communication: All emails need to be sent through your SPC email account to my SPC email account. Do **not** use your personal email. I will try to respond to all emails within 24 hours, but sometimes it may take longer. You **must** include your name and class on every email. Be professional in your messages. Do **not** use all caps or text language.

Dropping the class: You may submit a drop form online (<u>online drop form</u>) or visit the Student Services Office. **If someone other than you logs into your Blackboard account, you** <u>WILL</u> be dropped from this class immediately and receive an X.

| Grading Policy: | Final Grade Determination: |
|------------------|----------------------------|
| Labs/Quizzes20% | A: 90-100 |
| Participation20% | B: 80-89 |
| Exam 120% | C: 70 – 79 |
| Exam 220% | D: 60-69 |
| Exam 320% | F: 0-59 |

Tutoring: You have access to free tutoring through SPC. Under Course Information in Blackboard, click on the tutoring link for information. If you visit with a tutor, please share with them the work shown in your notes, so they can help you with the correct steps.

Quizzes/Labs: There will be several quizzes and labs randomly given during class throughout the semester. For quizzes, you will not be allowed to use anything other than a calculator. For labs, you are allowed to use your notes, homework, and a calculator. If you are absent on a day that a quiz or lab is given, you will not be allowed to take it at a later time, and you will receive a zero.

Participation: Participation will include completed homework and Math Skills Assignments. Homework will be checked weekly during class. If you are absent on a day that homework is checked, you will not be allowed to turn it in at a later time, and you will receive a zero. Math Skills Assignments will be completed in Blackboard. If you do not complete the assignment before the deadline, you will not be allowed to take it at a later time, and you will receive a zero.

Exams: There will be three exams given this semester.

• You may use a calculator and a notecard (size will be different on every exam – see Blackboard for information), but notes, homework, graphing calculator, and cell phones are prohibited.

• These exams will be timed and must be completed during class time. When time expires, all questions not completed will be counted wrong, and you will not be allowed to finish the exam. If you are absent on the day an exam is given, you will receive a zero for the exam and you will not be allowed to take the exam at a later time. **There are no make-up exams.**

Common Course Syllabus – Math Department Policies

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

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

Campuses: Levelland, Plainview Center, Lubbock Downtown Center.

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 TSIA, or 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 Lecture: 3 Lab: 1

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.

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 assignment s 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 cannot receive an X, the instructor will assign an F.

South Plains College Policies

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.

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

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>.

***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.

Tentative Course Calendar

Any changes will be announced in class and posted in Blackboard.

| Week | Dates | Topics | | |
|------|--------|---|--|--|
| 1 | Aug 26 | Introduction, Tips for success in math courses | | |
| | | Integers and Exponents | | |
| | Aug 28 | Polynomials and Combining Functions | | |
| 2 | Sep 2 | Labor Day Holiday | | |
| | Sep 4 | Time Management | | |
| | | Linear Equations without Fractions | | |
| 3 | Sep 9 | Overcoming Math Anxiety | | |
| | | Linear Equations with Fractions | | |
| | Sep 11 | Factoring | | |
| | Sep 16 | Preparing for a Math Test and Math Test-Taking Strategies | | |
| 4 | | Summary of Factoring and Solving Equations by Factoring | | |
| | Sep 18 | Rational Expressions | | |
| - | Sep 23 | Rational Equations | | |
| 5 | Sep 25 | Exam 1 | | |
| 6 | Com 20 | Using Available Resources | | |
| | Sep 30 | Roots and Complex Numbers and Simplifying Radical Expressions | | |
| | Oct 2 | Radical Equations | | |
| 7 | Oct 7 | After Math Test Behavior | | |
| | | Quadratic Equations | | |
| | Oct 9 | Polynomial Equations | | |
| 8 | Oct 14 | How to Read and Use Class Materials | | |
| | | Systems of Equations – 2 variables and Cramer's Rule | | |
| | Oct 16 | Systems of Equations - Matrices | | |
| | Oct 21 | Note-taking for Math | | |
| 9 | | Exponential Equations | | |
| | Oct 23 | Properties of Logs | | |
| 10 | Oct 28 | Log Equations | | |
| 10 | Oct 30 | Exam 2 | | |
| 11 | Nov 4 | Composition of Functions | | |
| 11 | Nov 6 | Evaluating Exponential Functions | | |
| | Nov 11 | Piecewise Functions, Inverse Functions | | |
| 12 | Nov 13 | Inequalities – Linear, Polynomial, and Rational | | |
| | | Graphing Linear Equations | | |
| 13 | Nov 18 | Preparing for a Math Final Exam | | |
| | | Graphing Quadratic Functions | | |
| | Nov 20 | Graphing Polynomial Functions | | |
| 14 | Nov 25 | Graphing Rational Functions | | |
| | Nov 27 | Thanksgiving Holiday | | |
| 15 | Dec 2 | Graphing Exponential and Log Functions | | |
| | | Symmetry, Increasing, Decreasing, Constant, and Transformations | | |
| | Dec 4 | Exam 3 | | |
| 16 | Dec 9 | Final Exam | | |