

Math 0314 1314 - College Algebra with Support Course
Section C603
Spring 2025
Jacqueline Fowler

# I. Common Course Syllabus – Math Department Policies

**Department:** Mathematics, Engineering, and Computer Science

Course Number: MATH 0314

**Course Title:** College Algebra Support Course

**Discipline:** Mathematics **Course Number:** MATH 1314 **Course Title:** College Algebra

**Available Formats:** conventional/flex and internet

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 TSIA1, minimum diagnostic score of 3 on the TSIA2, successful completion with a grade of 'C' or better in MATH 0315, or 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 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 cannot receive an X, the instructor will assign an F.

# **II. 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. <u>Using an unauthorized source of information (notes, textbook, text messaging, internet, apps)</u> 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: <a href="https://www.southplainscollege.edu/syllabusstatements/">https://www.southplainscollege.edu/syllabusstatements/</a>.

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

\*\*\*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.

## **III. Section Policies**

**Instructor Information:** B022 (LBK Downtown Center - Basement) Jacqueline Fowler

> 806-716-4640 jfowler@southplainscollege.edu

Office Hours: Monday Wednesday Friday

> 12:15 - 1:00 12:15 - 1:008:00 - 9:30

2:45 - 5:152:45 - 5:15

### **Required Materials:**

Pencils and erasers

• Printed notes from Bb

• 3-ring binder

Scientific calculator (TI-30XIIS)

### **Prohibited Materials:**

\*\*\*Graphing Calculators

Blackboard: Blackboard (Bb) is an online course management system that SPC uses for course information. For technical support, call 806-716-2180 or email <a href="mailto:blackboard@southplainscollege.edu">blackboard@southplainscollege.edu</a>.

**Communication:** All emails need to be sent through your SPC email account to my SPC email account. Do not email me through Bb. I will try to respond to all emails within 24 hours, but sometimes it may take longer. Emails sent to me after 9:30 am on Friday may not receive a response until Monday morning.

You must include your name and class on every email.

Do not use your personal email. (I will only respond to SPC email addresses.)

Be professional in your messages. (Do not use all caps or text language.)

Dropping the class: If you wish to drop this class, you will need to submit a drop form online (online drop form) or you may visit the Student Services Office. If someone other than you logs into Blackboard or attends a zoom meeting in your place, you will be dropped from this class immediately.

**Grading Formula:** The final letter grade for this course will be based on the following:

• A: 90 – 100

 $Average = \frac{Exam\ 1 + Exam\ 2 + Exam\ 3 + Exam\ 4 + EC\ points}{}$ ● B: 80 – 89

• C: 70 – 79

• D: 60 – 69

• F: 0 – 59

Lectures / Notes: This is a hybrid course and how you receive instruction in this class will look different from the way you have received instruction from classes in the past. During the two days we meet in class, you will fill in notes during the lecture. On the other two days of the week when we do not meet, you will need to fill in notes from lecture videos and work on homework. The final responsibility for learning lies with the student. The following suggestions will help you be successful.

- o Take careful notes from the video.
- o Frequently pause the video to take notes.
- o "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.
- o Bring your questions to class and ask the instructor for help and clarification.

**Showing Work:** To receive full credit on exams, you must show all work that leads to your answers. The work must be legible, make sense and be easy to follow. All work and answers should be handwritten. **No cell phones are to be used to get answers on any coursework at any time.** 

**Homework:** Homework is for practice only and will not be counted for a grade. Homework will prepare you for exams, so it is very beneficial to complete all questions.

**Extra Credit:** Quizzes over math study skills are located in Blackboard. If you miss completing a quiz in Bb before the deadline, you will receive a zero. Use the following formula to determine extra credit points earned. EC points = Average of all quizzes x 10%

**Exams:** Four exams will be given during class. If you miss an exam, you will have 7 days to take it, but it must be taken during my office hours. You will need to contact me asap to schedule it. If you wait too long to schedule, and I am not available, you will receive a zero.

**Math Project:** During the scheduled final exam time, you will complete a math project. Information will be given one week prior to the project.

**Academic Dishonesty:** Academic dishonesty will not be tolerated. Please see the list of things that constitute plagiarism and cheating in the general syllabus. If you violate anything on those lists, you will receive a zero on the assignment and could be subject to other actions outlined in the South Plains College Student Code of Conduct. Please note that these actions could include failing the course and being expelled from the college.

#### **Resources:**

- Blackboard! All course information is found in Blackboard.
- Me! Feel free to email me at <u>ifowler@southplainscollege.edu</u>. If you email about a specific math question, please attach a picture of the question and the work that you have tried.
- Free tutoring is available via SPC. The link is in Blackboard. If you visit with a tutor, please share with them the work given in class.

## **Succeeding in a Math Class:**

- Be mentally present! Pay attention and ask questions in class.
- Plan ahead. Do notes and practice problems early enough before the due date that you will have time to ask questions or seek help if you need it.
- Get help as soon as you feel yourself falling behind! Don't wait!
- All notes and practice problems for the course are posted on Blackboard. If you want to get ahead, that is encouraged. Time management is crucial.
- The best way to study for a math exam is to practice working problems over and over.
- Everyone learns and studies differently. I encourage you to seek out and find what works best for you.

Math 0	314-1314-C603	Course Outline
144		Changes will be announced in class and posted in Blackboard.
Week	Dates	Topics Study Skills Diagnostic Inventory
		Study Skills - Diagnostic Inventory Notes 1.1 - Integers
1	Jan 13 - 17	Notes 1.2 - Fractions
		Notes 1.3 - Order of Operations
		MLK Day - no class
2	Jan 20 - 24	Study Skills - Tips for Success in Math Courses
2	Jan 20 - 24	Notes 1.4 - Polynomial Exponent Rules
		Notes 2.1 - Polynomials and Functions
		Study Skills - How to Read and Use Class Material
3	Jan 27 - 31	Notes 2.2 - Linear Equations without Fractions
		Notes 2.3 - Linear Equations with Fractions
		Notes 2.4 - Linear Inequalities
		Study Skills - Preparing for a Math Test
4	Feb 3 - 7	Notes 3.1 - Factoring - GCF, Grouping, and Trinomials
		Notes 3.2 - Factoring - Trinomials and Special Products  Notes 3.3/3.4 - Summary of Factoring and Rational Expressions
		Study Skills - Note-taking for Math
		Notes 3.5 - Rational Equations and Inequalities
5	Feb 10 - 14	Exam 1 - Units 2 and 3
		Notes 4.1 - Roots and Complex Numbers
	Feb 17 - 21	Study Skills - Math Test-Taking Strategies
6		Notes 4.2 - Simplifying Radical Expressions
		Notes 4.3 - Rational Exponents and Radical Equations
		Notes 4.4 - Quadratic Equations - Factoring and Quadratic Formula
7	Feb 24 - 28	Study Skills - After Math Test Behavior
		Notes 4.5 - Quadratic Equations - Square Root Property and Completing the Square
		Notes 4.6 - Solving Polynomial Equations and Inequalities
		Notes 5.1 - Basics of Functions
		Study Skills - Time Management  Notes 5.2 - Evaluating Functions; Piecewise Functions
8	Mar 3 - 7	Notes 5.3 - Domain of a Function; Composition of Functions
		Notes 5.4 - Inverse Functions
		Study Skills - Overcoming Anxiety
	May 10 14	Exam 2 - Units 4 and 5
9	Mar 10 - 14	Notes 6.1 - Analyzing Graphs
		Notes 6.2 - Symmetry; Odd and Even Functions; Increasing, Decreasing, and Constant Functions
10	Mar 17 - 21	Spring Break
		Study Skills - Using Available Resources
11	Mar 24 - 28	Notes 6.3 - Transformations of Functions
_		Notes 7.1 - Slope; Graphing Linear Equations; inverse functions
		Notes 7.2 - Graphing Quadratic Functions
12	Mar 21 - Apr /	Study Skills - Improving Memory  Notes 7.2 Graphing Polynomial Functions
12	Mar 31 - Apr 4	Notes 7.3 - Graphing Polynomial Functions  Notes 7.4 - Graphing Rational Functions
		Study Skills - Preparing for a Math Final Exam
13	Apr 7 - 11	Exam 3 - Units 6 and 7
		Notes 8.1 - Evaluating Exponential Functions
		Notes 8.2 - Evaluating Log Expressions
14	Apr 14 - 18	Notes 8.3 - Solving Exponential Equations
		Notes 8.4 - Solving Log Equations
		Notes 9.1 - Systems of Equations in Two Variables
15	Apr 21 - 25	Notes 9.2 - System of Equations in Three Variables using Addition Method
		Notes 9.3 - Systems of Equations in Three Variables using Matrices
16	Apr 28 - May 1	Notes 9.4 - Systems of Equations in Three Variables using Cramer's Rule
17		Exam 4 - Units 8 and 9
17	May 5 - 9	Final Project Monday, May 5 1:00 pm