South Plains College
Common Course Syllabus: MATH 0314 / MATH 1314
Fall 2022

Department: Mathematics, Engineering, and Computer Science
Discipline: Mathematics
Course Number: MATH 0314
Course Title: College Algebra Support Course
Course Number: MATH 1314
Course Title: College Algebra
Available Formats: conventional, hybrid, internet, and ITV
Campuses: Levelland, Reese, Plainview, Lubbock Center, and Dual Credit
0314 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.
1314 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 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 **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
0314 Student Learning Outcomes: Upon completion of this course and receiving a passing grade, the student will be able to:
1. Define, represent, and perform operations on real numbers.
2. Use order of operations and exponent rules to simplify an expression.
3. Add, subtract, multiply, and divide polynomials.
4. Recognize, understand, and analyze features of a linear equation and a function.
5. Recognize and use algebraic properties, concepts, procedures (including factoring), and algorithms to combine, transform, and evaluate absolute value, polynomial, rational, and radical expressions.
6. Identify and solve linear and absolute value equations.
7. Identify and solve linear inequalities.

1314 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.

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)*

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.

COVID Syllabus Statement: Consistent with the latest CDC recommendations, we have revised our guidance for students, faculty, and staff who have a known exposure or have tested positive. Anyone with a known exposure should wear a mask for 10 days and should seek a COVID-19 test on day five after exposure. If you test positive or develop symptoms, you should immediately self-isolate and seek a COVID-19 test. Please immediately notify your instructor, supervisor, and DeEtte Edens, Associate Director of Health and Wellness, any time you test positive for COVID-19. Anyone who tests positive is required to self-isolate for five days. Following the five-day isolation period, if you are asymptomatic or your symptoms are resolving, you may return to work or class but should wear a mask for five additional days. If you are still symptomatic, please contact DeEtte Edens at dedens@southplainscollege.edu or 806-716-2376 prior to your return date.

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 rcanon@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.
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.

Course Information Sheet – MATH 0314/1314-272 – Fall 2022

INSTRUCTOR: Ms. Jody Dean, B.S., M.S.

OFFICE: Rm #B019 Downtown Center **PHONE: (806) 716-4321**

E-MAIL: jdean@southplainscollege.edu

OFFICE HOURS: **Monday & Wednesday 11:00 – 12:00**

Tuesday & Thursday 1:00 – 2:30

Fridays by appointment

and almost any time by appointment

Physical Textbook (Optional): College Algebra with Intermediate Algebra, A Blended Course, Beecher, Penna, Johnson, Bittinger. (2017). 1st ed . Pearson. ISBN for Book Only:

97801345556055. ISBN for Bundle (book plus MyMathLab access code): 9780134556017

Supplies (Required):

- MyMathLab access code: You can start with the 14-day free trial, then you can buy an access code to finish the semester. Purchase online from the publisher (usually $25 cheaper) or from SPC Bookstore. MyMathLab includes access to electronic version of textbook. Registration and purchase instructions are posted on Blackboard.
- Calculator with a log function that is NOT your phone and NOT a TI-89 nor a TI-Nspire.

Technology Required:

Working, reliable internet access

Access to your SPC email.

Access to our Blackboard class. Login at http://southplainscollege.blackboard.com

MyMathLab website – login through Blackboard

Computer, laptop, or tablet for accessing and completing assignments.

Course Requirements: To maximize the potential to successfully complete this course, a student should spend 10-15 hours per week for the 15 weeks of our semester doing the following:

- login to Blackboard at least three days a week, use the MyMathLab link to login to MML to read the required textbook sections, watch the required lecture videos and take notes, thoroughly complete all homework assignments, and prepare well for examinations.
- Attend all class meetings and be prepared to ask your questions and take notes.
- Additionally, students are expected to check their SPC school email **daily** and respond to email communications promptly. **If you don't normally check your SPC email, make sure to set up your SPC account to forward mail to an account you do check.**

Contacting Your Instructor: I am available by phone or face-to-face visit in my office at the Downtown Center campus during my posted office hours; you can email me at any time.

Learning Materials/Activities: To be successful in this course, you will use the following materials and complete the given activities for each section of the textbook that we will cover.

- Textbook reading – Read the section in your textbook, whether you use a physical book or the eText inside MyMathLab. As you read, you should write notes on any new vocabulary words (usually in boldface type), formulas, theorems, and calculator commands. The reading may be your first introduction to the concepts.
- Homework assignment – Homework assignments for each section will be posted in MyMathLab under the Assignments button and will contain questions that may be multiple choice or fill-in-the-blank, but are primarily open-ended questions for problems that you work out. The questions generally give you 3 chances to get the question right before marking the problem wrong. You will then have access to a Similar Question button that will give you a new question and 3 more chances to get the question right. You have unlimited attempts on homework questions, so if you are persistent, do your work on time, and learn from your mistakes, you can earn 100% on all homework assignments. Also, every homework question has a Question Help button in the top right corner that will walk you through the solution, show you a similar example, link to the textbook section, sometimes links to a video example, or gives you a button to Ask My Instructor which sends me an email with your question. The purpose of homework is to practice, practice, practice! This is where you actually are learning the concepts, not just watching someone else work problems. If you have to use the Question Help to work a problem, be sure to use the Similar Question button to work it again (and again!) until you can do the problems on your own.

Course Evaluation:

Exams:

- 3 Exams. (see the schedule below for test days and times).
- The Final Exam is comprehensive.
- Exams will be conducted in person. ***You must be in the room to take an exam***, not online.
- There are no exemptions for the final.
- If you are going to miss an exam, contact your instructor immediately. Make up exams are very rare and only provided under extreme, documented circumstances. I do allow you to take the exam early under some circumstances. Just talk to me.
- If your grade on your final exam is higher than one of the unit tests, I will replace that unit test grade with your final exam grade.

GRADING: Your grade will be calculated as follows. A test average (TA) will be found by averaging all the exam grades with the final exam counting twice. Then, the test average will be averaged with your online quiz grade to give your overall average. That is:

(Exam1+Exam2+Exam3+2*Final Exam)/5 = TA

[(TA*.60) + (HW*.40)]/2 = Overall Average.

There are **NO MAKE-UP** exams, quizzes or classroom exercises. Final grades will be assigned on the following scale: **A** 90%-100%; **B** 80%-89%; **C** 70%-79%; **D** 60%-69%; **F** below 60%

A grade of C (70) or better is required to advance to the next course. Although your grade in this course will not be used in calculating your GPA, your grade is used to determine academic status for financial aid. *This course and its grade will be recorded on your official transcript.*

Something to note, my standard policy is **NO NAME = NO GRADE**. Similarly, **HALF THE NAME = HALF THE GRADE.** There are no exceptions to this rule.

Daily Health Screening: It is critical that you honestly self-screen and STAY HOME if you are experiencing any of the following: fever, cough, chills, muscle pain, shortness of breath or difficulty breathing, new loss of taste or smell, or a sore throat. CONTACT ME if you are having any health issues that interfere with coming to class, taking your exams, or completing other assignments on time.

Cellphones: To limit disruptions to the class and distractions to yourself, please put your cellphone on silent mode or airplane mode. If you feel a call is an emergency that you must answer, please take the phone out in the hall before answering to minimize the disruption to the class. If you feel you must leave class, please do so as quietly as possible.

Course Calendar 0314/1314-C601

Fall 2022

Date	Content
Week 1	**Syllabus, Review of Basic Algebra (Part 1)**
8/30	• Syllabus Overview
8/31	• R.2 Operations with Real Numbers
9/1	• R.3 Exponential Notation and Order of Operations • R.4 Introduction to Algebraic Expressions • R.5 Equivalent Algebraic Expressions
9/2	
Week 2	**Review of Basic Algebra (Part 2) & Solving Linear Equations and Inequalities (Part 1)**
9/6	• **Labor Day Holiday – No Classes!**
9/7	• R.6 Simplifying Algebraic Expressions • R.7 Properties of Exponents and Scientific Notation
9/8	• 1.1 Solving Equations • 1.2 Formulas and Applications • 1.3 Applications and Problem Solving
9/9	• 1.4 Sets, Inequalities, and Interval Notation • 1.5 Intersections, Unions, and Compound Inequalities
Week 3	**Solving Linear Equations and Inequalities (Part 2), Exam 1, and Graphs, Functions, and Applications (Part 1)**
9/12	• 1.6 Absolute-Value Equations and Inequalities
9/14	• 2.1 Graphs of Equations • 2.2 Functions and Graphs
9/15	

Date	Content
9/16	

Week 4	**Graphs, Functions, and Applications (Part 2) & Review for Exam 1**
9/20	• 2.3 Finding Domain and Range • 2.4 The Algebra of Functions
9/21	• 2.5 Linear Functions: Graphs and Slope • 2.6 More on Graphing Linear Equations • 2.7 Finding Equations of Lines; Applications • **Exam 1, Wednesday, September 28**
Week 5	**Systems of Equations, and Polynomials and Polynomial Functions (Part 1)**
9/29	• 3.1 Systems of Equations in Two Variables • 3.2 Solving by Substitution • 3.3 Solving by Elimination • 3.4 Solving Applied Problems: Two Equations
9/30	• 4.1 Introduction to Polynomials and Polynomial Functions • 4.2 Multiplication of Polynomials
Week 6	**Polynomials and Polynomial Functions (Part 2)**
10/4	• 4.3 Introduction to Factoring • 4.4 Factoring Trinomials: $x^2 + bx + c$
10/5	• 4.5 Factoring Trinomials: $ax^2 + bx + c$, $a \neq 1$ • 4.6 Special Factoring
10/6	• 4.7 Factoring: A General Strategy • 4.8 Applications of Polynomial Equations and Functions
10/7	
Week 7	**Rational Expressions, Equations, and Functions**
10/11	• Review for Exam 2 • 5.5 Solving Rational Equations
10/12	• 5.6 Applications and Proportions • **Exam 2 Wednesday, October 26**

10/26	
Week 8 10/18 10/19	**Radical Expressions, Equations, and Functions** • 6.1 Radical Expressions and Functions • 6.2 Rational Numbers as Exponents • 6.3 Simplifying Radical Expressions • 6.6 Solving Radical Equations • 6.7 Applications Involving Powers and Roots
	Quadratic Functions & Equations • 6.8 Increasing, Decreasing, and Piecewise Functions; Applications • 7.1 Symmetry • 7.2 Transformations • 7.3 The Complex Numbers • 7.4 Quadratic Equations, Functions, Zeros, and Models • 7.5 Analyzing Graphs of Quadratic Functions **Exam 3 Monday, November 21**
11/28 11/29 11/30 12/1	**Polynomial Functions and Rational Functions (Part 1)** • 8.1 Polynomial Functions and Models • 8.2 Graphing Polynomial Functions • 5.3 Division of Polynomials • 8.3 Polynomial Division; The Remainder Theorem and the Factor Theorem • 8.4 Theorems About Zeros of Polynomial Functions
Week 11 12/5	**Polynomial Functions and Rational Functions (Part 2) & Exam 5** • 8.5 Rational Functions • 8.6 Polynomial Inequalities and Rational Inequalities
	Exponential Functions and Logarithmic Functions (Part 1) • 9.1 The Composition of Functions

	• 9.2 Inverse Functions • 9.3 Exponential Functions and Graphs • 9.4 Logarithmic Functions and Graphs
	Exponential Functions and Logarithmic Functions (Part 2) • 9.5 Properties of Logarithmic Functions • 9.6 Solving Exponential Equations and Logarithmic Equations
Week 14 11/29 11/30 12/1 12/2	**Exponential Functions and Logarithmic Functions (Part 2), Exam 6, & Systems of Equations** • 9.7 Applications and Models: Growth and Decay; Compound Interest • Review for Exam 3 • **Exam 6** • 3.5 Systems of Equations in Three Variables
Week 15 12/6 12/7 12/8 12/9	**Matrices & Review for Final Exam** • 10.1 Matrices and Systems of Equations • 10.4 Determinants and Cramer's Rule • Review for Final Exam • Review for Final Exam
Week 16 12/14	**Cumulative Final Exam** • **Final Exam Monday, December 12** • ***8:00 AM – 10:00 AM***

* Assignments and deadlines are subject to change at instructor's discretion, and all changes will be announced in class and posted in MyMathLab.