### South Plains College Common Course Syllabus: MATH 0314 Fall 2022

Department: Mathematics, Engineering, and Computer Science

**Discipline:** Mathematics

Course Number: MATH 0314

Course Title: College Algebra Support Course

Available Formats: conventional/flex and internet

Campuses: Levelland, Reese, Plainview, Lubbock Center, TTU

**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.

**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.

Credit: 3 Lecture: 3 Lab: 1

#### This course partially satisfies a Core Curriculum Requirement: None

#### 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 <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.

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.

**Covid:** If you are experiencing any of the following symptoms, please do not attend class and either seek medical attention or test for COVID-19.

- Cough, shortness of breath, difficulty breathing
- Fever or chills
- Muscles or body aches
- Vomiting or diarrhea
- New loss of taste and smell

Please also notify DeEtte Edens, BSN, RN, Associate Director of Health & Wellness, at

<u>dedens@southplainscollege.edu</u> or 806-716-2376. Proof of a positive test is required. A home test is sufficient but students must submit a photo of the positive result. The date of test must be written on the test result and an ID included in the photo. If tested elsewhere (clinic, pharmacy, etc.), please submit a copy of the doctor's note or email notification. Results may be emailed to DeEtte Edens, BSN, RN at <u>dedens@southplainscollege.edu</u>.

A student is clear to return to class without further assessment from DeEtte Edens, BSN, RN if they have completed the 5-day isolation period, symptoms have improved, and they are without fever for 24 hours without the use of fever-reducing medication.

Students must communicate with DeEtte Edens, BSN, RN prior to their return date if still symptomatic at the end of the 5-day isolation.

**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 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 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, Lubbock Centers (Downtown Center)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 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 <u>dburleson@southplainscollege.edu</u> 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: <u>http://www.southplainscollege.edu/campuscarry.php</u> 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.

If students have already purchased textbooks and then find a better price later, the South Plains College bookstore will price match through the first week of the semester. The student must have a copy of the receipt and the book has to be in stock at the competition at the time of the price match.

The South Plains College bookstore will happily price match BN.com & books on Amazon noted as *ships from and sold by Amazon.com*. Online marketplaces such as *Other Sellers* on Amazon, Amazon's Warehouse Deals, *fulfilled by* Amazon, BN.com Marketplace, and peer-to-peer pricing are not eligible. They will price match the exact textbook, in the same edition and format, including all accompanying materials, like workbooks and CDs.

A textbook is only eligible for price match if it is in stock on a competitor's website at time of the price match request. Additional membership discounts and offers cannot be applied to the student's refund. Price matching is only available on in-store purchases. Digital books, access codes sold via publisher sites, rentals and special orders are not eligible. Only one price match per title per customer is allowed.

The instructor reserves the right to make any changes to the syllabus as needed. Written notification will be given if any changes are made.

TTU Covid Information: https://www.depts.ttu.edu/communications/emergency/coronavirus/

#### College Algebra Support Course Math 0314.C251 MWF 11:00 – 11:50 Math Room 12 Instructor Information – Fall 2022

| Instructor:<br>Email: | , ,       |             |                                    | Phone:806.716.4684Office:Lubbock Downtown Center B ( |               | 3 018 |
|-----------------------|-----------|-------------|------------------------------------|--|---------------|-------|
| Office Hours<br>Mone  |           | Tuesday*    | Wednesday*                         | Thursday*  | Friday*       |       |
| 10:00                 | ) – 11:00 | 9:00 - 9:30 | 10:00 – 11:00<br>*or by appointmer | 9:00 - 9:30<br>nt                                    | 10:00 - 11:00 |       |

## **Attendance Policy**

Attendance and engagement are the most critical activities for success in this course. The instructor maintains records of all student's attendance and submission of assignments throughout the semester. Students are expected to attend at least eighty percent (80%) of the total class meetings (no more than 6 absences) and submit at least eighty percent (80%) of the total class assignments (no more than 8 zeroes) to have the best chance of success. If a student fails to meet these minimum requirements, the instructor may remove the student from the class with an X. Arriving more than 10 minutes late or leaving for part of the class will be counted as an absence.

# **Class Design**

In this corequisite course, you will attend class Monday/Wednesday/Friday. You will receive an assignment each Monday/Wednesday and occasional Fridays. This assignment is designed to give you background information for the topics in the College Algebra course. Interaction in this course will benefit you as you learn the material in College Algebra. If you must miss class for any reason, the notes and videos may be found on Blackboard.

Homework assignments from Monday will be due on Wednesday. Wednesday assignments will be due on the following Monday. You will scan and save your homework as a pdf and then upload your completed homework into Gradescope on or before the due date. Each homework assignment is worth **0.3 points.** 

Quizzes will be given weekly and **no makeup quizzes will be offered.** To receive credit, all work for each problem must be shown. The quiz will be given at the end of class on Wednesday, covering the material from the previous week. Each quiz is worth **6 points**. Missing a quiz will result in 0 points for that quiz.

Final Exam: The final comprehensive exam taken in the Math 1314 course will be worth 20 points.

Grade

| P – 70 - 100 | Homework   | 8          |
|--------------|------------|------------|
| F – 0 - 69   | Quizzes    | 72         |
|              | Final Exam | 20         |
|              | Total      | 100 points |

If you make a C or higher (above 69.5) you will receive a grade of P. If you score 69.4 or below, you will receive a grade of F.

**Dismissal from TTAP Program:** If a student is dismissed from the TTAP program, the student may complete the course as an SPC student. Student must meet assignment completion criterion to remain in the class. Exceeding the number of allowed missing assignments may result in the student being dropped from the class with a grade of F or X.

### To maximize potential for successfully completing this course:

- Print notes provided on Blackboard and fill in examples during class.
- Attend class prepared to complete lecture notes and ask questions.
- Cell phones provide the opportunity for distraction. You should choose to refrain from checking during class.
- Complete homework assignment on the day it is assigned. If you have difficulty working a problem, come to office hours before class or contact the academic coach.
- Check Blackboard and your SPC email often for any updates.
- Be prepared for Quizzes and Exams. Makeups are not available.

### Supplies:

- A textbook is not required for this course. If you prefer to have a supplemental text for your own reference, use: College Algebra with Intermediate Algebra, A Blended Course by Beecher / Penna / Johnson / Bittinger, Pearson Education, 2017. ISBN 9780134556505.
- Homework and notes will be provided on Blackboard.
- Scientific Calculator (TI-30X2 is a good and inexpensive option.)
- pencils, notebook paper
- Computer or cell phone that you can use to check Blackboard and emails and to upload your homework to Gradescope.

## **Communication:**

Any questions or comments should be sent using SPC email. The instructor will do her best to respond to your email within 24 hours of receipt. Any email sent on a weekend may not be answered until Monday.

## Blackboard:

Blackboard is the online course management system that will be utilized for this course. This course syllabus, as well as any class handouts and assignments can be accessed through Blackboard. Login at <a href="http://southplainscollege.blackboard.com">http://southplainscollege.blackboard.com</a>. The user name and password should be the same as the MySPC and SPC email.

User name: first initial, last name, and last 4 digits of the Student ID

Password: Original CampusConnect Pin Number (found on SPC acceptance letter)

Questions regarding Blackboard support may be emailed to <u>blackboard@southplainscollege.edu</u> or by telephone 806-716-2180.

### **SPC Tutoring Options:**

**In Person:** Tutoring is FREE for all currently enrolled students. Make an appointment or drop-in for help at any SPC location or online! Visit the link below to learn more about how to book an appointment, view the tutoring schedule, get to know the tutors and view tutoring locations.

http://www.southplainscollege.edu/exploreprograms/artsandsciences/teacheredtutoring.php

**Tutor.com** You also have 180 FREE minutes of tutoring with tutor.com each week, and your hours reset every Monday morning. Log into Blackboard, click on the tutor.com link on the left-hand tool bar and grab a session with a tutor. You can access tutor.com tutors during the following times: Monday – Thursday: 8 pm-8 am Friday

6 pm – Monday morning 8am

Free tutoring is available through the college. Check Blackboard for additional information about tutoring.

### Withdrawal from course:

Fill out the Student Initiated Drop Form found at <u>https://www.southplainscollege.edu/admission-aid/apply/schedulechanges.php</u>. SPC might not permit an undergraduate student to drop a total of more than six courses (including any course a transfer student has dropped at another institution of higher education.)

# **Tentative Course Schedule**

| Week | Monday  | Wednesday  | Friday   |
|------|---|--|--|
| 1    |   |  | August 26<br>Course Introduction<br>S1 Integers and Exponents                  |
| 2    | August 29<br>S2 Combining Like Terms, The<br>Distributive Property, and<br>Operations on Fractions                  | August 31<br>S3 Solving Linear Equations and<br>Graphing Linear Equations<br>Quiz 1  | September 2<br>S4 Slope  |
| 3    | September 5<br>HOLIDAY  | September 7<br>12th Class Day<br>S5 Solving Systems of Linear<br>Equations<br>Quiz 2   | September 9<br>S6.1 Solving Systems of Linear<br>Equations in Three Variables; |
| 4    | September 12<br>S6.2 Matrices, Gaussian<br>Elimination and GJE  | September 14<br>S7 Determinants and Cramer's<br>Rule<br>Quiz 3   | September 16<br>Topic: Matrices, Gaussian<br>Elimination, Cramer's Rule        |
| 5    | September 19<br>S9 Solving One-Step Linear<br>Inequalities and Interval<br>Notation;<br>Absolute Value Inequalities | September 21<br>S10.1 Basics of Functions<br>Review for Exam 1<br>Quiz 4   | September 23<br>Topic: Inequalities and Basics of<br>Functions                 |
| 6    | September 26<br>S10.2 Evaluating Functions;<br>Symmetry   | September 28<br>S11 Functions: Transformations<br>Quiz 5   | September 30<br>Topic: Functions: Evaluating,<br>Symmetry and Transformations  |
| 7    | October 3<br>S12 Introduction to Complex<br>Numbers; Square Roots and<br>Radical Equations                          | October 5<br>S13 The GCF and Factoring by<br>Grouping; Factoring Trinomials<br>with a Leading Coefficient Other<br>than 1; Factoring Trinomials<br>with a Leading Coefficient of 1;<br>Factoring Special Products;<br>Quiz 6 | October 7<br>Topic: Complex Numbers and<br>Factoring                           |
| 8    | October 10<br>S14 Factoring; Solving Quadratic<br>Equations; Complete the Square<br>and Quadratic Formula           | October 12<br>S15 Parabolas and Their<br>Properties; Graphing Quadratic<br>Equations<br>Quiz 7   | October 14<br>Fall Break – No Class  |
| 9    | October 17<br>S17 Synthetic Division, Rational<br>Zeros   | October 19<br>S18 Polynomial Functions<br>Exam 2 Review<br>Quiz 8  | October 21<br>Topic: Graphing Quadratic and<br>Polynomial Functions            |
| 10   | October 24<br>S19 Domain of Rational<br>Expressions and Simplifying<br>Rational Expressions;                        | October 26<br>S20.1 Rational Functions<br>Quiz 9   | October 28<br>Topic: Graphing Rational<br>Functions                            |
| 11   | October 31<br>S20.2 Rational Functions  | November 2<br>S21 Polynomial and Rational<br>Inequalities<br>Quiz 10   | November 4<br>Topic: Solving Polynomial and<br>Rational Inequalities           |
| 12   | November 7<br>S22 Functions: Domain;<br>Combinations; Composite<br>Functions  | November 9<br>S23 Radical Equations<br>Quiz 11   | November 11<br>Topic: Exponential and<br>Logarithmic Equations                 |
| 13   | November 14<br>S25 Functions: Inverse;<br>Piecewise Functions   | November 16<br>S26 Factoring Review, Exponent<br>Review; Logarithm Properties<br>Exam Review   | November 18<br>Topic: Inverse and Piecewise<br>Functions; Introduction to      |

|    |   | Quiz 12  | Exponential and Logarithmic<br>Functions                |
|----|---|--|---|
| 14 | November 21<br>S26.2 Introduction to Exponential<br>and Logarithmic Functions | November 23<br>Thanksgiving Break                              | November 25   |
| 15 | November 28<br>S27 Solving Exponential<br>Equations                           | November 30<br>S28 Solving Logarithmic<br>Equations<br>Quiz 13 | December 2<br>Review<br>December 1 Last Day to Withdraw |
| 16 | December 5<br>Review  | December 7<br>No Class   | December 8<br>Final Exam 10:30am – 12:30pm              |