South Plains College Common Course Syllabus: MATH 0314 Revised August 2021

Department: Mathematics, Engineering, and Computer Science

Discipline: Mathematics

Course Number: MATH 0314

Course Title: College Algebra Support Course

Available Formats: conventional, hybrid, and internet

Campuses: Levelland, Reese, Plainview, Lubbock 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.

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

Textbook: College Algebra with Intermediate Algebra: A Blended Course, Beecher, Penna, Johnson, and Bittinger, 2018, 1st Edition, Prentice Hall/Pearson Education

Supplies: Please see the instructor's course information sheet for specific supplies.

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 can not 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 Syllabus Statement: It is the policy of South Plains College that as a condition of oncampus enrollment, all students are required to engage in safe behaviors to avoid the spread of COVID-19 in the SPC community. There will be no requirement for face coverings at any location on any South Plains College campus or classroom. Faculty, staff, or students may continue to wear a mask voluntarily, but there will be no requirements for face coverings in any circumstance. Students who believe they have been exposed or may be COVID-19 positive, must contact Health Services, DeEtte Edens, BSN, RN at (806) 716-2376 or <u>dedens@southplainscollege.edu</u>.

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 <u>activate</u> 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 <u>email rcanon@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: 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.

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.

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.

MATH 0314/1314 - College Algebra with Support SyllabusFall 2022

Instructor:	Jason Groves	Office:	AG107	
e-mail:	jgroves@southplainscollege.edu			
Phone:	806-716-2739			
Office Hours:	rs: Virtual Meetings only: Mon 7:30 pm, Tues/Thurs 8 pm - 9pm,			
	Physical (Levelland): Mon - Thurs 11 am - Noon			
	Physical (Downtown): Mon/Wed/Thurs	2:15 pm	- 3:15 pm, Fri 9 am - Noon	
	or by appointment			

Students are responsible for knowing the policies of SPC as an institution, and this information is available in the student handbook. Policies that are applied to all sections of this course per the Department of Math and Engineering are found in the common course policies preceding this document. Below are the course policies specific to this course section and this instructor.

Prerequisites: Appropriate score on TSI/TSIA2 exam or successful completion of NCBM0105.

Materials: The following materials are required for this course

- Writing: Pencil and paper are required for taking notes during videos, while reading the text, or during class meetings, as well as taking quizzes and exams. Generally, I recommend having a spiral notebook dedicated to notes and solving problems for this class, and a folder for receiving returned/graded work.
- **Textbook:** We will be using <u>College Algebra with Intermediate Algebra</u> by Beecher, Penna, Johnson, Bittinger in this class. You will find a digital copy of this on Blackboard if necessary.
- Calculators: You will need a calculator with e^x and ln keys will be required. These can be found on scientific calculators (inexpensively obtained from Wal-Mart or any other big-box store) or graphing calculators (NOTE: graphing calculators are nice, but they are not required for this course). Online options exist such as Wolfram Alpha (wolframalpha.com), Desmos (www.desmos.com Desmos also has smartphone apps) or GeoGebra (www.geogebra.org). Smartphone apps such as Panecal or ClassCalc are also available for low cost (or free). All are great for doing homework or studying.

Please note that computer software and mobile apps will not be allowed on exams.

- **Computer:** Access to a computer with stable internet connection will be required for viewing course materials as well as using other software (see "Calculators" above and "Blackboard" below). The use of Chromebooks or other computers running the Chrome Operating System (ChromeOS) is discouraged, as ChromeOS is not always compatable with the software we may be using during this course. If you do not have a computer you may find success using mobile devices in some cases, and there are also suitable computers via the computer labs found at every SPC campus.
- **Blackboard:** Blackboard (accessible via the SPC website) will be used as a central hub for the course. Students will find this syllabus, and all other course materials, as well as assignments, grading rubrics, etc. You should be checking Blackboard daily for announcements and updates, and to access the homework. Blackboard utilizes your SPC email, thus you should also be checking your SPC email regularly.

MyMathLab: We will be using MyMathLab for you to practice concepts and do many assignments. Instructions for registration/login are available on Blackboard. Make sure you have full access as soon as possible.

Assessment: Grading will be done according to the standard 10 percent scale (i.e. 100% - 90% is an A, etc.) with assignments weighted as follows:

Homework	10%
Quizzes	15%
Writing Assignments	15%
Tests	40%
Final Exam	20%

Class Attendance: You are responsible for being in class and prepared for the lesson each day. You may attend class remotely if necessary (i.e. due to COVID quarantine, or other illness or injury) provided that you have made previous arrangements with me. If you do not attend class, it is still your responsibility to keep up with the covered material any way you can. In the event of excessive absences, please see the math department common course policies.

Homework: We will be using MyMathLab for homework assignments. It is highly recommended that you spend some time doing homework as often as possible (I personally recommend a minimum of 5 days per week.) All homework assignments will have embedded lecture videos produced by Pearson that follow the text. Generally, homework has no fixed due date, in order to give you the maximum amount of time to practice, improve your homework average, and learn the material. But these homework exercises are relevant to written assignments, quizzes, and exams, which have fixed due dates. So it is important to get as much homework done as possible during the week it is assigned.

Written Assignments: I will be giving written assignments as a way for students to show that they know the math we are covering, but also to learn how to organize your work and communicate ideas effectively. Written assignments will be given at least every two weeks, and they will be due on the Friday of the week they are assigned.

Quizzes: Quizzes will be given weekly as a way to summarize material. The format (in-class or MyMathLab) may vary depending on the needs of the class. Quizzes given via MyMathLab will have two attempts allowed. You may review your first attempt before starting your second attempt. Quizzes may not be postponed nor made up later.

Exams: Midterm exams are given during this course, exclusively during the in-class portions of the course. Questions will be similar to assigned problems from homework, quizzes, class discussions (lecture/lab), and writing assignments. During exams cell phones, smart-watches, laptops, and other such objects should be turned *off* and put away. There is no tolerance for violations. *Makeup exams are not given*.

Final Exam: The final exam is comprehensive, and a required part of the course. Failure to attend/attempt the final exam results in an automatic F. If, however, the final exam grade is better than the course average (which includes the final exam, as stated above), then the final exam grade will serve as the grade for the entire course. The Final Exam will take place Monday, December 12, at 8:00 am

Extra Credit: Extra credit is offered to students who have shown adequate participation in the course. This opportunity will apply to the grade for the support course first, and then to the college-level course if the support course grade is already passing. See document *Extra Credit* Assignments for details.

			Торіс	Sections
Wook 1	Monday	8/29/2022	Arithmetic Review	R.1 - R.3
	Tuesday	8/30/2022	Basic Algebra Review	R.4 - R.6
Week 1	Wednesday	8/31/2022	Review: Exponent Rules	R.7
	Thursday	9/1/2022	Equations and Formulas	1.1, 1.2
	Monday	9/5/2022	Labor Day (Holiday)	
	Tuesday	9/6/2022	Applications and Problem Solving	1.3
Week 2	Wednesday	9/7/2022	Inequalities	1.4, 1.5
	, Thursday	9/8/2022	Absolute Value	1.6
	Monday	9/12/2022	AMA	
	, Tuesdav	9/13/2022	Exam*	Ch. R. 1
Week 3	Wednesday	9/14/2022	Graphs of Equations	2.1
	Thursday	9/15/2022	Functions and Graphs	2.2
	Monday	9/19/2022	Algebra and Functions	2.3. 2.4
	Tuesday	9/20/2022	Linear Functions	2.5. 2.6
Week 4	Wednesday	9/21/2022	Creating Linear Functions, Applications	2.7
	Thursday	9/22/2022	Systems of Linear Equations	31-33
	Monday	9/26/2022	Applications of Linear Systems	3.1 3.3
	Tuesday	9/27/2022	Systems of Linear Equations (3-variables)	3536
Week 5	Wednesday	9/28/2022		5.5, 5.6
	Thursday	9/20/2022	Evam*	Ch 2 3
	Monday	10/3/2022	Introduction to Polynomials	A 1 A 2
	Tuesday	10/3/2022	Eactoring Poview	4.1, 4.2
Week 6	Wednesday	10/4/2022	Factoring Review cont	4.5 - 4.0
	Thursday	10/5/2022	Applications of Polynomials	1 0
	Monday	10/0/2022	Applications of Polynomials	4.0 F 1
	Tuesday	10/10/2022	Rational Expressions, part 1 (Wultiplication, Division, Simplifying)	5.1
Week 7	Tuesday	10/11/2022	Rational Expressions, part 2 (LCD, Addition, Subtraction)	5.2
	wednesday	10/12/2022	Dividing Polynomials	5.3
	Inursday	10/13/2022	Compound Rational Expressions	5.4
	Nonday	10/17/2022	Rational Equations	5.5, 5.0
Week 8	Tuesday	10/18/2022		
	wednesday	10/19/2022		Cn. 4, 5
	Thursday	10/20/2022	Radical Expressions and Functions	6.1, 6.2
	Monday	10/24/2022	Radicals and Rational Exponents	6.3, 6.4
Week 9	Tuesday	10/25/2022	Dividing Radicals	6.5
	Wednesday	10/26/2022	Solving Radical Equations	6.6
	Thursday	10/27/2022	Applications of Powers	6.7
	Monday	10/31/2022	Function Behavor, Piecewise Functions	6.8
Week 10	Tuesday	11/1/2022	Symmetry and Transformations of Functions	7.1, 7.2
	Wednesday	11/2/2022	Quadratic Equations	7.4
	Thursday	11/3/2022	Graphs of Quadratic Functions	7.5
	Monday	11/7/2022	AMA	
Week 11	Tuesday	11/8/2022	Exam	Ch. 6, 7
	Wednesday	11/9/2022	Polynomial Functions and Graphs	8.1, 8.2
	Thursday	11/10/2022	Factor and Remainder Theorems	8.3
Week 12	Monday	11/14/2022	Zeros of Polynomial Functions	8.4
	Tuesday	11/15/2022	Rational Functions	8.5
	Wednesday	11/16/2022	Polynomial and Rational Inequalities	8.6
	Thursday	11/17/2022	Function Composition	9.1, 9.2
Week 13	Monday	11/21/2022	Exponential and Logarithmic Functions	9.3, 9.4
	Tuesday	11/22/2022	Properties of Logarithms	9.5
	Thanksgiving	Break	11/23/2022 - 11/25/2022	
	Monday	11/28/2022	Solving Exponential and Logarithmic Equations	9.6
Week 14	Tuesday	11/29/2022	Applications of Exponential Functions	9.7
WCCK 14	Wednesday	11/30/2022	Matrices and Linear Systems	10.1
	Thursday	12/1/2022	Determinants and Cramer's Rule	10.4
	Monday	12/5/2022	AMA	
W/006 15	Tuesday	12/6/2022	Exam	Ch. 8, 9, 10
Week 15	Wednesday	12/7/2022	AMA	
	Thursday	12/8/2022	AMA	
Week 16	Monday	12/12/2022	Final Exam @ 8 am	