## South Plains College Common Course Syllabus: MATH 1314 Revised January 2021

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

**Discipline:** Mathematics

Course Number: MATH 1314

Course Title: College Algebra

Available Formats: conventional, internet, and ITV

Campuses: Levelland, Reese, Plainview, Lubbock Center, and Dual Credit

**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 350 on the TSIA, TSI-exempt status, or a successful completion with a grade of 'C' or better in MATH 0320.

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: 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 Policy: Attendance and effort are the most important activities for success in this course. Records of your attendance are maintained throughout the semester. Five (5) absences, *for any reason*, are allotted to the student for the semester. Tardies count as one-half (1/2) of an absence. Tardies will be applied for consistently being late to class, as deemed by the instructor and leaving class early. If this number is exceeded, the instructor has the right to drop you with a grade of F or an X, depending on their discretion.

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 for the Spring 2021 semester 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. Such behaviors specifically include the requirement that all students properly wear CDC-compliant face coverings while in SPC buildings including in classrooms, labs, hallways, and restrooms. Failure to comply with this policy may result in dismissal from the current class session. If the student refuses to leave the classroom or lab after being dismissed, the student may be referred to the Dean of Students on the Levelland campus or the Dean/Director of external centers for Student Code of Conduct Violation. 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 dedens@southplainscollege.edu. 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. 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.

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 email cgilster@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: <a href="http://www.southplainscollege.edu/campuscarry.php">http://www.southplainscollege.edu/campuscarry.php</a> 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.

### College Algebra – Spring 2021 MATH 1314.006 M/W 2:30-4:15 MATH 1314.007 T/R 7:50-9:20 MATH 1314.010 T/R 1:00-2:45

**Instructor:** Karol Albus:

Office M110 Email: kalbus@southplainscollege.edu (preferred method of contact) Phone: (806)-716-2543

**Office hours:** As listed or by appointment.

Monday	Tuesday	Wednesday	Thursday	Friday
9:30-10:00, 1:00-	9:30-12:30	9:30-10:00 (Zoom)	No office hours	9:00-12:00
2:30	(Zoom)	1:00-2:30		(Levelland Office
(Levelland Office	2::45-3:45 (Levelland	(Levelland Office		M110)
M110)	Office M110)	M110)		1/22, 1/29, 2/5, 2/19,
				2/26, 3/26, 4/23

**Disclaimer:** The instructor reserves the right to alter any class policies/dates as deemed necessary by the instructor, and will announce any changes in class.

**Use of Student Email:** The College provides a free, official email account to all students to ensure efficient and secure communications between you and the College. Students will be required to use their college-issued email address to communicate with their instructors and all other college personnel, so it is easy to distinguish a student's email from spam. The College expects that students will utilize their college email addresses to send and receive communications with college personnel and will read email on a frequent and consistent basis.

### **Course Supplies:**

- NOTE: There is NO book required for this course. All materials are available on Blackboard.
- Required: Reliable Internet Access
- Required: Ability to print documents
- Required: Scientific Calculator. Suggested TI-30XIIS. They are inexpensive and user friendly.
- Graphing calculators are **not allowed**.
- Required: Large 3-ring binder, dividers, notebook paper, graph paper (available to print from blackboard), hole punch, pencils, and erasers.
- Printed Notes: No book is required, but notes will be posted on Blackboard and you will be expected to print them and complete them in class. They will also be a requirement in the binder check.
- **Optional:** The adopted textbook would only be used for a reference. We will not use it for coursework.

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#### Homework/Quizzes/ Binder Checks:

- Homework will be assigned at each class. Work the problems early enough to seek help if needed.
- Notes/Homework are due as one pdf that you will submit via Blackboard before the beginning of the next class. Late homework will not be accepted. Absence = 0.
- Quizzes will be given most days. Make-up quizzes will not be given. Absence = 0.
- At the end of the semester the lowest 2 grades (homework/quiz/binder) will be dropped.
- All students will keep a binder which will be used as a reference and study guide.
- The binder will be graded by the instructor during the semester.

#### Exams:

- 4 Unit Exams
- Final Exam is comprehensive and departmental. There are no exemptions for the final.
- If you are going to miss an exam contact your instructor immediately (preferably prior to the exam). Make up exams are very rare and only provided under extreme, documented circumstances.
- Once you begin an exam, you will not be able to leave the classroom until the exam is submitted for grading.

## **Grading Formula:**

Enrollment in this course does not guarantee advancement to the next course level. The final responsibility for learning lies with the student. The final letter grade for this course will be based on the following:

4 Tests 15% each	60%
Homework/Quizzes/Binder	20%
Final Exam	20%

**Final Grade Determination:** A 90-100 B 80-89 C 70-79 D 60-69 F 59 or below

## **Classroom Etiquette:**

Preparation for class (including printing notes and completing homework) is to be done before (not during) the lecture.

- NO tobacco use of any form is allowed in the classroom.
- Discussion of course material among students is encouraged during class when it will not interfere with other students learning or concentrating.
- All electronic communication devices are to be silenced and put away during class.

#### Resources:

- Blackboard! The course syllabus, notes, lecture videos, homework keys, quiz keys, and reviews will be available on Blackboard.
- Free tutoring is available in M116 on the Levelland campus.
- I am available to help you! Feel free to come by during my office hours or email me at kalbus@southplainscollege.edu.

Withdrawal Policy: As required by Texas Education Code Section 51.907, all new students who enroll in a Texas public institution of higher education for the first time beginning with the 2007 fall semester and thereafter, are limited to six course drops throughout their entire undergraduate career. All course drops, including those initiated by students or faculty and any course a transfer student has dropped at another institution, automatically count toward the limit. After six grades of W are received, students must receive grades of A, B, C, D, or F in all courses. There are other exemptions from the six-drop limit and students should consult with a Counselor/Educational Planner before they drop courses to determine these exemptions. Students receiving financial aid must get in touch with the Financial Aid Office before withdrawing from a course. It is the student's responsibility to drop. Excessive absences (5 total) will result in an administrative withdrawal with a Grade of X or F. If you plan to withdraw, please consult with the instructor immediately.

Note: The last day to drop with a grade of W is Thursday, April 29, 2021.

# Tentative Course Calendar MATH 1314.006 M/W 2:30-4:15

Wed Jan 27 Assignment 1.2: Linear Applications  Mon Feb 1 Assignment 1.3: Complex Numbers; Quadratic Equations Wed Feb 3 Assignment 1.4: Quadratic Equations Part 2, Radical Equations  Mon Feb 8 Assignment 1.5: Other Types of Equations; Linear and Absignment 1 Review  Wed Feb 10 Unit 1 Review  5 Mon Feb 15 Unit 1 Exam (15%), Binder Check Wed Feb 17 Assignment 2.1: Function Notation and Graphs  Mon Feb 22 Assignment 2.2: Linear Functions and Slope		
2 Mon Jan 25 Skills Assessment, Assignment 1.1: Linear & Rational Eq Wed Jan 27 Assignment 1.2: Linear Applications  3 Mon Feb 1 Assignment 1.3: Complex Numbers; Quadratic Equations Wed Feb 3 Assignment 1.4: Quadratic Equations Part 2, Radical Equations 4 Mon Feb 8 Assignment 1.5: Other Types of Equations; Linear and Absignment 1.5: Other Types of Equations; Linear and Absignment 1.5: Mon Feb 10 Unit 1 Review  5 Mon Feb 15 Unit 1 Exam (15%), Binder Check Wed Feb 17 Assignment 2.1: Function Notation and Graphs 6 Mon Feb 22 Assignment 2.2: Linear Functions and Slope	No class – Martin Luther King Holiday	
Wed Jan 27 Assignment 1.2: Linear Applications  Mon Feb 1 Assignment 1.3: Complex Numbers; Quadratic Equations  Wed Feb 3 Assignment 1.4: Quadratic Equations Part 2, Radical Equations  Mon Feb 8 Assignment 1.5: Other Types of Equations; Linear and Absignment 1.5: Other Types of Equations; Linear	Introduction Preskills Review	
3 Mon Feb 1 Assignment 1.3: Complex Numbers; Quadratic Equations Wed Feb 3 Assignment 1.4: Quadratic Equations Part 2, Radical Equations Assignment 1.5: Other Types of Equations; Linear and Absignment 1.5: Other Types of Equations; Linear and A	Skills Assessment, Assignment 1.1: Linear & Rational Equations	
Wed Feb 3 Assignment 1.4: Quadratic Equations Part 2, Radical Equation		
4 Mon Feb 8 Assignment 1.5: Other Types of Equations; Linear and Ab Inequalities  Wed Feb 10 Unit 1 Review  5 Mon Feb 15 Unit 1 Exam (15%), Binder Check  Wed Feb 17 Assignment 2.1: Function Notation and Graphs  6 Mon Feb 22 Assignment 2.2: Linear Functions and Slope	Assignment 1.3: Complex Numbers; Quadratic Equations Part 1	
4 Mon Feb 8 Inequalities Wed Feb 10 Unit 1 Review 5 Mon Feb 15 Unit 1 Exam (15%), Binder Check Wed Feb 17 Assignment 2.1: Function Notation and Graphs 6 Mon Feb 22 Assignment 2.2: Linear Functions and Slope	ations	
Inequalities  Wed Feb 10 Unit 1 Review  5 Mon Feb 15 Unit 1 Exam (15%), Binder Check  Wed Feb 17 Assignment 2.1: Function Notation and Graphs  6 Mon Feb 22 Assignment 2.2: Linear Functions and Slope	solute Value	
5 Mon Feb 15 Unit 1 Exam (15%), Binder Check Wed Feb 17 Assignment 2.1: Function Notation and Graphs 6 Mon Feb 22 Assignment 2.2: Linear Functions and Slope		
Wed Feb 17 Assignment 2.1: Function Notation and Graphs 6 Mon Feb 22 Assignment 2.2: Linear Functions and Slope	Unit 1 Review	
6 Mon Feb 22 Assignment 2.2: Linear Functions and Slope	Unit 1 Exam (15%), Binder Check	
8		
Wed Feb 24 Assignment 2.3: Distance, Midpoint, & Circles,		
Combinations of Functions, Composite Functions		
7 Mon Mar 1 Assignment 2.4: Inverse Functions, Quadratic Functions		
Wed Mar 3 Assignment 2.5: Long Division, Synthetic Division		
8 Mon Mar 8 Unit 2 Review		
Wed Mar 10 Unit 2 Exam (15%)		
Mar 15-19 Spring Break		
9 Mon Mar 22 Assignment 3.1: Polynomial Functions & Their Graphs, Roots of Polynomials		
Wed Mar 24 Assignment 3.2: Rational Functions & Their Graphs		
10 Mon Mar 29 Assignment 3.3: Polynomial & Rational Inequalities		
Wed Mar 31 Assignment 3.4: Exponential Functions; Logarithmic Fun	nctions	
11 Mon Apr 5 Assignment 3.5: Properties of Logarithms		
Wed Apr 7 Assignment 3.6: Exponential & Logarithmic Equations		
12 Mon Apr 12 Unit 3 Review		
Apr 12 Online Registration opens for Summer and Fall classes		
Wed Apr 14 Unit 3 Exam (15%)		
13 Mon Apr 19 Assignment 4.1: 2x2 Systems; 3x3 Systems		
Wed Apr 21 Assignment 4.2: Nonlinear Systems; Graphing Inequalities	es & Systems of	
Wed Apr 21 Inequalities, Graphing Nonlinear Systems of Inequalities		
14 Mon Apr 26 Assignment 4.3: Solving Systems of Equations by Gauss	Jordan	
Elimination		
Wed Apr 28 Assignment 4.4: Solving Systems of Equations by Determ	inants &	
Wed Apr 28 Cramer's Rule		
Thurs Apr 29 Last day to drop a course		
15 Mon May 3 Unit 4 Review		
Wed May 5 Unit 4 Exam (15%)		
16 Mon May 10 MATH 1314.006 Final Exam (20%) 1:00-3:00		
Fri May 14 Graduation		

# Tentative Course Calendar MATH 1314.007 T/R 7:50-9:20 MATH 1314.010 T/R 1:00-2:45

Week	Day	Date	Lesson / Tentative Assignment	
1	Tues	Jan 19	Introduction Preskills Review	
	Thurs	Jan 21	Skills Assessment, Assignment 1.1: Linear & Rational Equations	
2	Tues	Jan 26	Assignment 1.2: Linear Applications	
	Thurs	Jan 28	Assignment 1.3: Complex Numbers; Quadratic Equations Part 1	
3	Tues	Feb 2	Assignment 1.4: Quadratic Equations Part 2, Radical Equations	
	Thurs	E-1- 4	Assignment 1.5: Other Types of Equations; Linear and Absolute Value	
	Inurs	Feb 4	Inequalities	
4	Tues	Feb 9	Unit 1 Review	
	Thurs	Feb 11	Unit 1 Exam (15%), Binder Check	
5	Tues	Feb 16	Assignment 2.1: Function Notation and Graphs	
	Thurs	Feb 18	Assignment 2.2: Linear Functions and Slope	
6	Tues	Feb 23	Assignment 2.3: Distance, Midpoint, & Circles,	
Ů			Combinations of Functions, Composite Functions	
	Thurs	Feb 25	Assignment 2.4: Inverse Functions, Quadratic Functions	
7	Tues	Mar 2	Assignment 2.5: Long Division, Synthetic Division	
	Thurs	Mar 4	Unit 2 Review	
8	Tues	Mar 9	Unit 2 Exam (15%)	
	Thurs	Mar 11	Assignment 3.1: Polynomial Functions & Their Graphs, Roots of Polynomials	
		Mar 15-19	Spring Break	
9	Tues	Mar 23	Assignment 3.2: Rational Functions & Their Graphs	
	Thurs	Mar 25	Assignment 3.3: Polynomial & Rational Inequalities	
10	Tues	Mar 30	Assignment 3.4: Exponential Functions; Logarithmic Functions	
	Thurs	Apr 1	Assignment 3.5: Properties of Logarithms	
11	Tues	Apr 6	Assignment 3.6: Exponential & Logarithmic Equations	
	Thurs	Apr 8	Unit 3 Review	
		<i>Apr 12</i>	Online Registration opens for Summer and Fall classes	
12	Tues	Apr 13	Unit 3 Exam (15%)	
	Thurs	Apr 15	Assignment 4.1: 2x2 Systems; 3x3 Systems	
13	Tues	Ann 20	Assignment 4.2: Nonlinear Systems; Graphing Inequalities & Systems of	
13	1 ues	Apr 20	Inequalities, Graphing Nonlinear Systems of Inequalities	
	Thurs	Apr 22	Assignment 4.3: Solving Systems of Equations by Gauss Jordan	
	Tituis	Apr 22	Elimination	
14	Tues	Apr 27	Assignment 4.4: Solving Systems of Equations by Determinants &	
14	1 ues	Apr 27	Cramer's Rule	
	Thurs	Apr 29	Unit 4 Review	
	Thurs	<i>Apr 29</i>	Last day to drop a course	
15	Tues	May 4	Unit 4 Exam (15%)	
	Thurs	May 6	Comprehensive Review	
16	Tues	May 11	MATH 1314.007 Final Exam (25%) 8:00-10:00 MATH 1314.010 Final Exam (25%) 1:00-3:00	
	Fri	May 14	Graduation (25%) 1:00-3:00	
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