



## MATH1314-006 – College Algebra

Room: 122, Math and Engineering Building

M/W: 11:00 AM – 12:45 PM

### Contact

**Instructor:** Mr. Vargas

**Email:** [evargas@southplainscollege.edu](mailto:evargas@southplainscollege.edu)

**Phone:** (806) 716-4673

### Office Hours

**M/W:** 8:00 AM – 10:45 AM

Levelland Campus, **M101**

**F:** 8:00 AM – 10:30 AM

Lubbock Downtown Center, **B032**

### Description

In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Emphasis in solving equations and graphing functions.

### Supplies

1. Pencils, erasers, and paper.
2. Non-graphing calculator.
3. **MyLab Math Code:** *College Algebra with Intermediate Algebra: A Blended Course*, Beecher, Penna Johnson and Bittinger. ISBN-13: 9780134555263
  - a. **Textbook is NOT required**
  - b. Code purchased from Bookstore OR online. **A Course ID will not be given to you!**
4. *College Algebra* by OpenStax - <https://openstax.org/details/books/college-algebra>

### Grading

<b>A: 90-100</b>	<b>Pass – Excellent Performance</b>
<b>B: 80-89</b>	<b>Pass – Good Performance</b>
<b>C: 70-79</b>	<b>Pass – Satisfactory Performance</b>
<b>D: 60-69</b>	<b>Depends – Less than Satisfactory</b>
<b>F: 0-59</b>	<b>Fail – Unsatisfactory Performance</b>

### Weights

<b>Homework</b>	20%
<b>Exams (3)</b>	20% each
<b>Final Exam</b>	20%
<b>Total</b>	<b>100%</b>

### Homework

Assigned through **MyLab Math**. Students receive immediate feedback as progress is made for each assignment.

1. Physical homework is not required to turn in.
2. Due Dates are displayed in **MyLab Math** and the **Course Calendar**.
3. Unlimited try attempts before the due date without penalty.
4. Assignments cannot be made up after the due date has passed.

Exams cover topics stated in the Calendar. Students are required to handwrite and complete all problems by showing step-by-step calculations that lead to the solution(s) or graphs.

### Examinations

1. Closed book and notes. Full class time available. – **Unprogrammable scientific calculators only!**
2. The Final Exam is comprehensive, covering any or all topics in the semester.
3. Exams cannot be made up if missed. **The Final Exam may replace your lowest scored exam.**
4. Final Exam is scheduled @ **Monday, May 6, 10:15 AM – 12:15 PM**
5. **Failure to attempt the Final Exam will result in a failing grade for the course regardless of current grade.**
6. **Extra Credit** is offered on every exam by solving an additional problem! (up to 10%)

## Class Policies and Information

**Disclaimer: The instructor reserves the right to alter any class policies/dates as deemed necessary by the instructor. If there are any changes, they will be announced over Blackboard and via your SPC email.**



### Attendance Policy

The student is expected to **submit at least eighty percent (80%)** of the class assignments to have the best chance of success. If the student fails to meet these minimum requirements, the instructor can remove the student from the class.



### Pearson – MyLab Math

Students are expected to purchase **Pearson's MyLab Math** from the bookstore OR online through Pearson. It is a **required** course material item. **The textbook is not required.** A 14-day free trial period is offered if the student needs extra time to purchase the software. Students must have full access to the software by the second week of class. Instructions can be found [here](#).



### Office Hours

Office hours will be held at the listed times. Please come prepared with questions and examples of the attempted problem(s)



### South Plains College Email Policy

The instructor will respond to all emails **within 36 hours** during the week day. Emails sent after 5:00 PM on Fridays may not be answered until the following Monday morning.



### Additional Support

Online demo videos and a free textbook is available!

- Videos are provided to the student via Blackboard located in each week's folder.
- A free, [online textbook](#), is available for online viewing or digital download.

SPC also offers **free tutoring!** This information is located [here](#).



### Drop/Withdrawal

Students should submit a [Student Initiated Drop Form](#) online to drop from the course. If the student wishes to withdraw from this or more courses, the student needs to contact the Advising Office.

### Wellness Statement

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

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

Please also notify DeEtte Edens, BSN, RN, Associate Director of Health & Wellness, at 806-716-2376 or [dedens@southplainscollege.edu](mailto:dedens@southplainscollege.edu)



MATH1314.006 Calendar		
Week	Lesson	
1	Jan 15	Martin Luther King Jr. Day; No Class
	Jan 17	• Review of Basic Algebra • Linear Expressions • Solving Linear Equations and Inequalities
2	Jan 22	• Graphing Linear Functions and Inequalities
	Jan 24	• Radical Algebra
3	Jan 29	• Solving Radical Equations • Complex Numbers and Algebra
	Jan 31	• Solving Quadratic Equations – AC Method
4	Feb 5	• Solving Quadratic Equations – Complete Square
	Feb 7	• Graphing Quadratic Functions and Inequalities
5	Feb 12	February 12: Exam #1; Homework #1 Due
	Feb 14	• Polynomial Algebra • Solving Polynomial Equations
6	Feb 19	• Rational Roots Theorem • Solving Polynomials using Rational Roots
	Feb 21	• Graphing Polynomial Functions
7	Feb 26	• Solving Rational Equations • Graphing Rational Functions
	Feb 28	• Solving Polynomial Inequalities
8	Mar 4	• Solving Rational Inequalities
	Mar 6	• Function Algebra and Composition
March 11-15: Spring Break – All campuses closed.		
9	Mar 18	March 18: Exam #2; Homework #2 Due
	Mar 20	• Inverse Functions • Exponential and Logarithm Properties
10	Mar 25	• Solving Exponential Equations
	Mar 27	• Solving Logarithm Equations
11	Apr 1	• Graphing Exponential Functions
	Apr 3	• Graphing Logarithm Functions
12	Apr 8	• Logarithm and Exponential Applications
	Apr 10	• Piecewise Functions
13	Apr 15	April 15: Exam #3; Homework #3 Due
	Apr 17	• Systems of Equations and Graphing
14	Apr 22	• Matrices and Matrix Algebra • Determinants and Cramer's Rule
	Apr 24	• Inverse Matrices
April 25: Last day to drop Spring courses		
15	Apr 29	• Row Operations and Gauss-Jordan Elimination
	May 1	May 1: Final Exam Review
	May 3	May 3: Homework #4 Due
16	May 6	May 6: Final Exam 10:15 AM – 12:15 PM

**South Plains College**  
**Common Course Syllabus: MATH 1314**  
**Revised December 2022**

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

**Discipline:** Mathematics

**Course Number:** MATH 1314

**Course Title:** College Algebra

**Available Formats:** conventional, hybrid, internet, and ITV

**Campuses:** Levelland, Downtown Center, Plainview 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 TSIA1, minimum score of 950 on the TSIA2, a diagnostic score of 6 on the TSIA2, TSI-exempt status, a successful completion with a grade of 'C' or better in MATH 0320, or successful completion of NCBM-0114.

**Credit:** 3 **Lecture:** 3 **Lab:** 1

**Textbook:** *College Algebra with Intermediate Algebra: A Blended Course*, Beecher, Penna, Johnson, and Bittinger, 2018, 1<sup>st</sup> 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/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 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.

**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: <https://www.southplainscollege.edu/syllabusstatements/>. 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>.

**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.