South Plains College
Common Course Syllabus: MATH 1314
Revised December 2019

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.

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 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: 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.

Course Information Sheet – MATH 1314.271 – Spring 2020

Instructor: Denise Johansen   **Office:** LBC 125-F; (806)716-4632

Cell/Text: (513)227-0095   **Email:** djohansen@southplainscollege.edu

Time/Place: MW 8:30am-10:15am/LBC 131

Lubbock Center Office Hours: MW 1pm-2pm, T/Th 10am-11am and 5pm-6pm, F 10am-12pm, or 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 required (Course ID: **johansen41052**); 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
> MyMathLab website. Login at MyMathLab.com

Course Requirements: To maximize the potential to successfully complete this course, a student should attend all class meetings, take notes and participate in class, login to MyMathLab at least 3 times a week, read the required textbook sections, watch the required lecture videos, thoroughly complete all homework assignments, and prepare well for examinations including the final examination.

Contacting Your Instructor: I am available by phone or face-to-face visit in my office on the Lubbock Center campus during my posted office hours; you can email me or text my cell at any time. I can also be reached by phone using my cellphone number (513-227-0095) during reasonable hours. If you have to leave a message, my response time is 1 business day or less.

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.

- Explore assignment - Explore assignments for each section will be posted in MyMathLab under the Assignments button and will contain video lectures and vocabulary/concept check questions. As you view the videos/animations, you should add any new information to your textbook notes and copy into your notes any examples worked for you in the video, just as if you were sitting in class with that instructor. The exploration assignment is like a guided practice—concepts are still very new, but you should be getting more familiar with them.
- In-Class assignment – On most days that we meet for class, we will take some time to practice what you've learned and/or to apply the concepts to lab exercises.
- 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.

Course Evaluation:
- Daily Explore assignments will be posted, worth 5% of your grade. These are due before the class where the section will be discussed.
- There will be in-class assignments collected daily. By their very nature, in-class assignments can NOT be made up. The in-class average is worth 10% of your grade, and the lowest 2 in-class grades will be dropped.
- Daily online homework assignments will be due weekly, usually before class on Mondays. The homework average is worth 10% of your grade, and the lowest 3 homework grades will be dropped.
- There will be 7 online Quizzes (1 per "chapter" we cover) posted in MyMathLab under the Assignments button. You may prepare ONE 3"x5" handwritten notecard for your reference for each quiz, but other than that notecard and your calculator, each quiz is to be **completed on your own and without references**—no using your text, no Google, no Phone a Friend. The purpose of each quiz is to help you review the chapter and start to see the "bigger picture", rather than just one section at a time. Quizzes are TIMED and help get you ready for the Exams. You have two attempts on each quiz (I HIGHLY recommend taking your first attempt early enough that you have time to review your errors before taking the quiz again), and only the highest of your two attempts will count in your average. The Quiz Average is worth 10% of your grade, and the lowest quiz grade will be dropped.
- There will be 3 in-class exams, each worth 15% of your grade. For each of these exams, you are allowed ONE 3"x5" handwritten, front and back, notecard. If an exam is missed for a legitimate reason, the Final Exam grade will be substituted for the missed

exam. There are NO makeup exams given for any reason. It is still your responsibility to contact me to let me know if you are going to miss an exam.

- There will be 1 in-class cumulative final exam on **Monday, May 4th from 8am-10am**, worth 20% of your grade.
- **Late work:** Late work on Explore, Homework, and Quizzes will be accepted in MyMathLab with a 10% deduction **per day** late. This means that if an assignment has 10 questions, and you get 9 of them correct and on time, you earned a 90% on the assignment. If you get the same 9 of them correct, but 2 days late, you have earned 80% of 90%, which is only 72%. PLEASE do your assignments on time; don't shoot yourself in the foot!

Grading Policy:

Explore average	5%	
Homework average	10%	
In-Class average	10%	
Quiz average	10%	
Exams (3*15%)	45%	
Final exam	20%	

Letter Grades:

90% - 100%	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
59% & below	F

How your work is graded: MyMathLab grades online assignments as a percentage based on how many parts of a question were answered correctly, and these grades are immediately included in your class average and in your MyStatLab Gradebook. For the Exams that I grade, I give a percentage of points based on how many parts of the question were answered correctly. I will upload Exam grades into MyStatLab within 48 hours of their due dates, and MyStatLab will update your Gradebook and current class average to include those scores.

Response times for grading:
- Explore/Homework - Graded immediately by MyMathLab, reviewed by me within 1 business day if you contact me with a specific question/issue.
- In-Class - Graded by me and returned to you, usually by the next class meeting.
- Quiz - Graded immediately by MyMathLab, reviewed by me within 1 business day if you contact me with a specific question/issue.
- Exams - Graded by me and returned to you, usually by the next class meeting. Exception: the final exam is not returned to you, but you can come by the office to see it after grading.

Last day to drop is Thursday, April 23rd.

SPC School Holidays:
Monday, 1/20, Martin Luther King Holiday
Monday-Friday, 3/16-3/20, Spring Break
Monday, 4/13, Easter Holiday

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.

Dress Code: Reasonable standards of decency apply to the college community. The student should dress in a manner which does not distract from the academic atmosphere. Revealing attire or clothing carrying obscene or offensive slogans is not permitted. In all academic buildings, classrooms, offices, the Student Center, and dining facilities, students are required to wear shirts and shoes.

Language: Please be respectful of others and use language that is appropriate to the workplace.

COURSE OUTLINE / CALENDAR*

Problems are assigned online for each section of the textbook that we cover. To access online assignments, you must have an access code (you can buy a code for MyMathLab bundled with your textbook or you can buy just the code at the SPC bookstore or www.mymathlab.com) and register for our course (Course ID: **johansen41052**) at www.mymathlab.com Assignments have due dates, and you will lose 10% per day for work completed after the due date passes. To master the material and prepare for the exams, you **MUST** work extra problems!

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

Date	Content	Assignments
Week 1 1/13 1/15	**Syllabus; Readiness Assessment; & Graphs, Functions, and Applications (Part 1)** • Syllabus Overview, Factoring Review, and Readiness Assessment • 2.2 Functions and Graphs • 2.3 Finding Domain and Range	Read Sections 2.2-2.3 MML Explore 2.2-2.3 MML Hwk Orientation, 2.2-2.3 **Due 8am, 1/22**
Week 2 1/20 1/22	**Graphs, Functions, and Applications (Part 2) & Polynomials and Polynomial Functions** • **Martin Luther King, Jr. Holiday – No Classes!** • 2.4 The Algebra of Functions • 2.7 Finding Equations of Lines; Applications • 4.8 Applications of Polynomial Functions and Equations	Read Sections 2.4, 2.7, 4.8 MML Explore 2.4, 2.7, 4.8 MML Hwk 2.4, 2.7, 4.8 **MML Quiz 1 (Ch. 2 & 4)** **Due 8am, 1/27**
Week 3 1/27 1/29	**Rational Expressions, Equations, and Functions & Radical Expressions, Equations, and Functions (Part 1)** • 5.5 Solving Rational Equations • 5.6 Applications and Proportions • 5.7 Formulas and Applications • 6.6 Solving Radical Equations	Read Sections 5.5-5.7, 6.6 MML Explore 5.5-5.7, 6.6 MML Hwk 5.5-5.7, 6.6 **MML Quiz 2 (Ch. 5)** **Due 8am, 2/3**

Date	Content	Assignments
Week 4 2/3 2/5	**Radical Expressions, Equations, and Functions (Part 2) & Review for Exam I** • 6.8 Increasing, Decreasing, and Piecewise Functions; Applications • Review for Exam I	Read Section 6.8 MML Explore 6.8 MML Hwk 6.8 **MML Quiz 3 (Ch. 6)** **Due 8am, 2/10**
Week 5 2/10 2/12	**Exam I & Quadratic Functions and Equations (Part 1)** • **Exam I** (Chapters 2, 4, 5, 6) • 7.1 Symmetry • 7.3 The Complex Numbers	Read Sections 7.1, 7.3 MML Explore 7.1, 7.3 MML Hwk 7.1, 7.3 **Due 8am, 2/17**
Week 6 2/17 2/19	**Quadratic Functions and Equations (Part 2)** • 7.2 Transformations • 7.4 Quadratic Equations, Functions, Zeros, and Models • 7.5 Analyzing Graphs of Quadratic Functions	Read Sections 7.2, 7.4-5 MML Explore 7.2, 7.4-5 MML Hwk 7.2, 7.4-5 **MML Quiz 4 (Ch. 7)** **Due 8am, 2/24**
Week 7 2/24 2/26	**Polynomial Functions and Rational Functions (Part 1)** • 8.1 Polynomial Functions and Models • 8.2 Graphing Polynomial Functions • 8.3 Polynomial Division; The Remainder Theorem and the Factor Theorem • 8.4 Theorems about Zeros of Polynomial Functions	Read Sections 8.1-8.4 MML Explore 8.1-8.4 MML Hwk 8.1-8.4 **Due 8am, 3/2**
Week 8 3/2 3/4	**Polynomial Functions and Rational Functions (Part 2)** • 8.5 Rational Functions • 8.6 Polynomial Inequalities and Rational Inequalities	Read Sections 8.5-8.6 MML Explore 8.5-8.6 MML Hwk 8.5-8.6 **MML Quiz 5 (Ch. 8)** **Due 8am, 3/9**
Week 9 3/9 3/11	**Review & Exam II** • Review for Exam II • **Exam II** (Chapters 7 & 8)	
3/16-20	**Spring Break – No Classes!**	

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Date	Content	Assignments
Week 10 3/23 3/25	**Exponential Functions and Logarithmic Functions (Part 1)** • 9.1 The Composition of Functions • 9.2 Inverse Functions • 9.3 Exponential Functions and Graphs	Read Sections 9.1-9.3 MML Explore 9.1-9.3 MML Hwk 9.1-9.3 **Due 8am, 3/30**
Week 11 3/30 4/1	**Exponential Functions and Logarithmic Functions (Part 2)** • 9.4 Logarithmic Functions and Graphs • 9.5 Properties of Logarithmic Functions	Read Sections 9.4-9.5 MML Explore 9.4-9.5 MML Hwk 9.4-9.5 **Due 8am, 4/6**
Week 12 4/6 4/8	**Exponential Functions and Logarithmic Functions (Part 3)** • 9.6 Solving Exponential Equations and Logarithmic Equations • 9.7 Applications and Models: Growth and Decay; Compound Interest	Read Sections 9.6-9.7 MML Explore 9.6-9.7 MML Hwk 9.6-9.7 **MML Quiz 6 (Ch. 9)** **Due 8am, 4/15**
Week 13 4/13 4/15	**Easter Holiday & Review for Exam III** • **Easter Holiday – No Classes!** • Review for Exam III	
Week 14 4/20 4/22	**Exam III & Matrices (Part 1)** • **Exam III** (Chapter 9) • 10.1 Matrices and Systems of Equations	Read Section 10.1 MML Explore 10.1 MML Hwk 10.1 **Due 8am, 4/27**
Week 15 4/27 4/29	**Matrices (Part 2)& Review for Final Exam** • 10.4 Determinants and Cramer's Rule • Review for Final Exam	Read Section 10.4 MML Explore 10.4 MML Hwk 10.4 **MML Quiz 7 (Ch. 10)** **Due 8am, 5/4**
Week 16 5/4	**Comprehensive Final Exam** • **Final Exam, 8am-10am**	

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