

South Plains College Mathematics Department
College Algebra – MATH 1314
Course Syllabus – Spring 2019

Instructor: Karol Albus

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Office hours: As listed or by appointment.

Monday	Tuesday	Wednesday	Thursday	Friday
9:30-10:00	1:00-4:00	9:30-10:00	12:30-1:30	9:00-12:00

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 Description: MATH 1314 - College Algebra (3:3:1) A standard course in college algebra. Quadratic equations; ratio and proportion; variation, binomial theorem; progressions; inequalities; complex numbers; theory of equations; determinants and matrices; linear programming; mathematical induction; permutations and combinations. Semester Hours: 3, Lecture Hours: 3, Lab Hours: 1. Pre-requisite: Two units of high school algebra or MATH 0320.

Learning Outcomes: Successful completion of this course should reflect mastery of the following objectives.

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.

Course Supplies:

- **Required:** Scientific Calculator (with log and ln). 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 on 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 have them in class. They will also be a requirement in the binder check.
- **Warning:** Do not expect your instructor to have supplies for you to borrow.

Homework/Quizzes/ Binder Checks:

- Homework will be assigned at each class. Work the problems early enough to seek help if needed.
- Homework is due at 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 4 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 randomly by the instructor during the semester.

Binder organization:

- Section 1: Syllabus
- Section 2: Unit 1: By section Notes, Assignment, and Quiz(corrected on a separate sheet of paper behind the quiz). At the end of the unit you will have a review and an Exam.

- Section 3: Unit 2
- Section 4: Unit 3
- Section 5: Unit 4
- Section 6: Post Unit 4 material and Comprehensive Review

These pages will be kept in chronological order. **Being absent does not excuse you from notes, homework or quizzes. Everything is available on Blackboard and should be printed and completed even if you are not in class.**

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.....	15%
Final Exam.....	25%

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

Classroom Etiquette:

- **Class attendance is expected, not optional.** Class attendance may be taken at any time during the class period, so please do not be late or leave early. Leaving early and being tardy will be considered ½ absence. You may be dropped from this course with a grade of X or F if you are absent four consecutive classes or if you exceed five absences (**for any reason**).
- Preparation for class (including homework) is to be completed before – not during – the lecture.
- Chronic tardiness (entrance after lecture has begun) is unacceptable.
- NO tobacco use of any form is allowed in the classroom.
- Discussion of course material among students is encouraged during class, but habitually disruptive students will be asked to leave.
- All electronic communication devices are to be silenced and put away during class.

Resources:

- Blackboard! The course syllabus, notes, homework, 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 (4 consecutive or 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 25, 2019.

Equal Opportunity: South Plains College strives to accommodate the individual needs of all students in order to enhance their opportunities for success in the context of a comprehensive community college setting. It is the policy of South Plains College to offer all educational and employment opportunities without regard to race, color, national origin, religion, gender, disability, or age.

Core Objectives:

Communication Skills: effective development, interpretation, and expression of ideas through written, oral, and visual communication.

- Develop, interpret, and express ideas through written communication
- Develop, interpret, and express ideas through oral communication
- Develop, interpret, and express ideas through visual communication

Critical Thinking: creative thinking, innovation, inquiry, analysis, evaluation, and synthesis of information.

- Generate and communicate ideas by combining, changing, and reapplying existing information
- Gather and assess information relevant to a question
- Analyze, evaluate, and synthesize information

Empirical and Quantitative Competency Skills: the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

- Manipulate and analyze numerical data and arrive at an informed conclusion
- Manipulate and analyze observable facts and arrive at an informed conclusion

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 Center 806-716-2577, Reese Center (also covers ATC) Building 8: 806-716-4675, Plainview Center Main Office: 806-716-4302 or 806-296-9611, or the Health and Wellness main number at 806-716-2529.

Sexual Misconduct Statement: As a faculty member, I am deeply invested in the well-being of each student I teach. I am here to assist you with your work in this course. If you come to me with other non-course-related concerns, I will do my best to help.

It is important for you to know that all faculty members are mandated reporters of any incidents of sexual misconduct. That means that I cannot keep information about sexual misconduct confidential if you share that information with me. The Director of Health & Wellness, can advise you confidentially as can any counselor in the Health & Wellness Center. They can also help you access other resources on campus and in the local community. You can get more information at 716-2563 or go by the Health and Wellness Center. You can schedule an appointment with a counselor by calling 716-2529.

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, please refer to the SPC policy at:

(http://www.southplainscollege.edu/human_resources/policy_procedure/hhc.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.

College Algebra Tentative Course Outline
MATH 1314.004 (M/W 12:30-2:15) MATH 1314.005 (M/W 2:30-4:15)
Spring 2019

Wk	Day	Date	Lesson/Assignment
1	Mon	Jan 14	Introduction Assignment 1: Linear & Rational Equations including Preskills Review
	Wed	Jan 16	Skills Assessment, Assignment 2: Linear Applications
2	<i>Mon</i>	<i>Jan 21</i>	<i>Martin Luther King Holiday – no classes</i>
	Wed	Jan 23	Assignment 3: Complex Numbers; Quadratic Equations Part 1
3	Mon	Jan 28	Assignment 4: Quadratic Equations Part 2, Radical Equations
	Wed	Jan 30	Assignment 5: Other Types of Equations; Linear and Absolute Value Inequalities
4	Mon	Feb 4	Unit 1 Review
	Wed	Feb 6	Unit 1 Exam (15%), Binder Check
5	Mon	Feb 11	Assignment 7: Function Notation and Graphs
	Wed	Feb 13	Assignment 8: Linear Functions and Slope
6	Mon	Feb 18	Assignment 9: Distance, Midpoint, & Circles, Combinations of Functions, Composite Functions
	Wed	Feb 20	Assignment 10: Inverse Functions, Quadratic Functions
7	Mon	Feb 25	Assignment 11: Long Division, Synthetic Division, Roots of Polynomials
	Wed	Feb 27	Unit 2 Review
8	Mon	Mar 4	Unit 2 Exam (15%)
	Wed	Mar 6	Assignment 12: Polynomial Functions & Their Graphs
		<i>Mar 11-15</i>	<i>Spring Break</i>
9	Mon	Mar 18	Assignment 13: Rational Functions & Their Graphs
	Wed	Mar 20	Assignment 14: Polynomial & Rational Inequalities, Compound Interest
10	Mon	Mar 25	Assignment 15: Exponential Functions; Logarithmic Functions
	Wed	Mar 27	Assignment 16: Properties of Logarithms, Solving Exponential Equations Part 1
11	Mon	Apr 1	Assignment 17: Solving Exponential Equations Part 2, Solving Logarithmic Equations
	Wed	Apr 3	Unit 3 Review
12	Mon	Apr 8	Unit 3 Exam (15%)
	Wed	Apr 10	Assignment 19: 2x2 Systems; 3x3 Systems
13	Mon	Apr 15	Assignment 20: Nonlinear Systems; Graphing Inequalities & Systems of Inequalities, Graphing Nonlinear Systems of Inequalities
	Wed	Apr 17	Assignment 21: Solving Systems of Equations by Gauss Jordan Elimination
14	<i>Mon</i>	<i>Apr 22</i>	<i>Easter Holiday – no classes</i>
	Wed	Apr 24	Assignment 22: Solving Systems of Equations by Determinants & Cramer's Rule
15	Mon	Apr 29	Unit 4 Exam (15%)
	Wed	May 1	Comprehensive Review
16	Mon	May 6	Final Exam (25%) MATH 1314.005 1:00-3:00
	Wed	May 8	Final Exam (25%) MATH 1314.004 10:15-12:15
	Fri	May 10	Graduation Ceremonies

College Algebra Tentative Course Outline

MATH 1314.006 (T/R 7:50-9:20)

Spring 2019

Week	Day	Date	Lesson / Tentative Assignment
1	Tues	Jan 15	Introduction Preskills Review
	Thurs	Jan 17	Skills Assessment, Assignment 1: Linear & Rational Equations
2	<i>Mon</i>	<i>Jan 21</i>	<i>No class Martin Luther King Day</i>
2	Tues	Jan 22	Assignment 2: Linear Applications
	Thurs	Jan 24	Assignment 3: Complex Numbers; Quadratic Equations Part 1
3	Tues	Jan 29	Assignment 4: Quadratic Equations Part 2, Radical Equations
	Thurs	Jan 31	Assignment 5: Other Types of Equations; Linear and Absolute Value Inequalities
4	Tues	Feb 5	Unit 1 Review
	Thurs	Feb 7	Unit 1 Exam (15%), Binder Check
5	Tues	Feb 12	Assignment 7: Function Notation and Graphs
	Thurs	Feb 14	Assignment 8: Linear Functions and Slope
6	Tues	Feb 19	Assignment 9: Distance, Midpoint, & Circles, Combinations of Functions, Composite Functions
	Thurs	Feb 21	Assignment 10: Inverse Functions, Quadratic Functions
7	Tues	Feb 26	Assignment 11: Long Division, Synthetic Division
	Thurs	Feb 28	Unit 2 Review
8	Tues	Mar 5	Unit 2 Exam (15%)
	Thurs	Mar 7	Assignment 12: Polynomial Functions & Their Graphs, Roots of Polynomials
		<i>Mar 11-15</i>	<i>Spring Break</i>
9	Tues	Mar 19	Assignment 13: Rational Functions & Their Graphs
	Thurs	Mar 21	Assignment 14: Polynomial & Rational Inequalities
10	Tues	Mar 26	Assignment 15: Exponential Functions; Logarithmic Functions
	Thurs	Mar 28	Assignment 16: Properties of Logarithms
11	Tues	Apr 2	Assignment 17: Exponential & Logarithmic Equations
	Thurs	Apr 4	Unit 3 Review
12	Tues	Apr 9	Unit 3 Exam (15%)
	Thurs	Apr 11	Assignment 19: 2x2 Systems; 3x3 Systems
13	Tues	Apr 16	Assignment 20: Nonlinear Systems; Graphing Inequalities & Systems of Inequalities, Graphing Nonlinear Systems of Inequalities
	Thurs	Apr 18	Assignment 21: Solving Systems of Equations by Gauss Jordan Elimination
14	<i>Mon</i>	<i>Apr 22</i>	<i>Easter Holiday no class</i>
14	Tues	Apr 23	Assignment 22: Solving Systems of Equations by Determinants & Cramer's Rule
	Thurs	Apr 25	Unit 4 Review
15	Tues	Apr 30	Unit 4 Exam (15%)
	Thurs	May 2	Comprehensive Review
	Tues	May 7	Final Exam (25%) 8:00-10:00
	Fri	May 10	Graduation

