

**Math 1314 Syllabus**  
**College Algebra**  
**Spring 2021 Sul Ross State University**

<b>Sec. 003:</b>	Mon, Wed, Fri: 12–12:50p in ACR 204
<b>Instructor:</b>	Dr. Kris Jorgenson
<b>Office:</b>	ACR 109D
<b>E-mail:</b>	kjorgenson@sulross.edu
<b>Office Hours:</b>	Mon: 11a-12p, 2:30-3:30p; Tue, Thu: 10-11a, 2:30-4p; Wed: 11a-12p; Fri: 11a-12p, 3:30-4:30p; also by appointment

**Course Description:** The prerequisite is Math 0301 or a satisfactory score on a Mathematics Placement Exam. This is a college-level algebra course for students who plan to take calculus. Topics include linear and quadratic equations and functions, inequalities, sets of real numbers, rectangular graphs, complex numbers, exponential and logarithmic functions with real-world application problems.

**This course satisfies 3 hours of math requirements of the Core Curriculum.**

**Students who are required to take Math 1314 include those planning to take**

- (1) Calculus 1 (Math 2413, which has the additional prerequisite of Math 1316);**
- (2) Business Calculus (Math 1325);**
- (3) Foundations of Elementary Mathematics 1 (Math 2310);**
- (4) Computer Science and many other Bachelor of Science Degrees—check with your advisor.**

**Student Learning Objectives** Successful students will demonstrate correct understanding and knowledge of the algebra topics including but not limited to those of the Course Description. Particular emphasis will be placed on the order of operations and the algebra and language of functions. Students will apply concepts and problem-solving methods to different problem-solving situations. Students will demonstrate correct knowledge of the difference between numbers that are in exact form and numbers that are approximate and will be able to report numbers in exact form and with a correct approximation when required. Such numbers are often in the context of other mathematical objects such as a function or algebraic expression. Students will express their solutions clearly in writing and complete sentences when appropriate.

**Necessary Materials:** Textbook: College Algebra: A Concise Approach by Paul Sisson, ISBN (including software bundle): 978-1-935782-04-9. You should either get a hard copy of this textbook with the software for online homework, or just the e-book that comes with the software package. Some of your homework grade will be based on online homework, which I denote as OHW (Online Homework). The OHW assignments will be in the lecture notes along with other required homework problems. You should collect the Online Homework problems as well as the lecture notes HW together in a notebook that you will be able to use during the in-class quizzes.

Scientific Calculator: There will be some need of a scientific calculator, which has buttons with denotations such as  $y^x$ ,  $a^b$ ,  $\wedge$ ,  $e^x$ , LN, LOG, but use of a calculator will not be a large part of this course. Only a stand-alone (not connected to a phone or computer) calculator may be used on the in-class quizzes and tests. Appropriate scientific calculators cost usually \$8-\$50 each. Any graphing calculators (for example the TI-83, TI-84, TI-89 or TI-92) **are not allowed**.

Class Materials: Students are expected to be prepared in every class with pencils and paper in some sort of organized notebook for taking notes of lecture content and examples, and for homework. You are required to be involved in class activities every class day. This will be part of your grade.

Blackboard: You are required to have access to Blackboard and have an e-mail address that you check regularly be your e-address registered in Bb since I will regularly need to contact you outside of class with important information.

**Pandemic Restrictions** Note: Except for the first 2 weeks of classes, this is a face-to-face course that requires attendance, so with recent Covid-19 restrictions, this class also requires proper face covering and social distancing. Students will not be allowed into the classroom without a proper face covering (or mask). There should be free masks available in all main departmental offices. However, students are responsible for their own proper face covering before entering the classroom. "Proper face covering" does not include a mask with an air valve or a single-layer, cloth handkerchief. Cloth handkerchiefs can be used if they are folded to create a double-layer (or more) or have another mitigating layer such as a coffee filter inserted underneath. "Social distancing" means a 6-foot (or more) distance between people with proper face coverings.

**Grading and Assignments**: The assignments discussed below will help students achieve all of the Learning Objectives mentioned previously through active learning and assessment. Your total grade will break down as follows:

**Daily Grade (DG)** is worth **30%** of your total grade and consists of **Class Study Grades (CSG) (10%)**, **Online Homework (OHW) (10%)**, and in-class **Quizzes (10%)**. Every class day after the first class there will be either a major test, in-class quiz, or a CSG. The **Test Average** worth **70%** will be based on 3 unit tests.

Each class students will be told which of the assignments they should be concentrating on to stay up with from the online and lecture notes HW. There are deadlines posted for the Online HW that serve as a guideline to help you keep up with this HW. It is very important that you keep up with all of the homework in your notebook. On average, students should make it a goal to complete and understand 5 or more homework exercises each day. The homework assignments (which include the online homework and the lecture notes HW) will be the basis for the 3 unit tests. The Quizzes will primarily be over the HW in the lecture notes.

Besides studying and doing the online and lecture notes HW, students should always study and/or correct their graded quizzes, since this affords an important opportunity for learning the material that will appear on the tests. Making mistakes based on your own work and correcting these mistakes with my help, if necessary, is a

great way to learn mathematics! Each student will be able raise 1 Quiz grade to 100% before each test by communicating with me and correcting the quiz in order to fill in any gaps in your understanding.

There will be **3 Unit Tests** each based on the corresponding Unit Assignments. Each of these tests will count in your **test average**. Students may use only pencil(s)/eraser(s) and scientific calculator on the 3 tests, which will be given in class. The dates for the Unit Tests are as follows.

<b>Test 1</b>	<b>Wed, Fri: Feb. 10, 12</b>
<b>Test 2</b>	<b>Wed, Fri: Mar. 24, 26</b>
<b>Test 3</b>	<b>Tue: May 4, 12:30-2:30p</b>

The first 2 tests will each be split between 2 class periods during class time Wed. and Fri. so that students will have at least 75 minutes for each of these 2 mid-term tests. Test 3 will be given during finals week during the allotted 2-hour period.

### **Blackboard Collaborate Ultra**

During the first 2 weeks of classes, class will be conducted remotely through Blackboard Collaborate Ultra. Instructions for joining class during these first 2 weeks will be given before the first class.

**Smarthinking online tutoring** I will post through Blackboard for this course a link to Smarthinking online tutoring (Alpine campus undergraduate). You may use this to get **24/7 tutoring help on your homework or correct your HW, Quizzes, or Tests for free**. Whenever you use this service, please print out your tutoring session and bring it to me to discuss, so that I can be sure that you are benefitting the most from this free tutoring resource.

### **General (But Important) Policies**

**Late Work, Rescheduled Quizzes/Tests** Deadlines are given online for each OHW grade. These are guidelines to help you keep up with the work, but there will be no late penalties for OHW grades except no credit will be given for OHW done after the unit test that covers a particular OHW.

To take an in-class quiz or test at a time other than during the scheduled time or to make up a Class Study Grade, you must notify me of this absence on or before the day missed, and satisfy one of two requirements: either (1) a written medical excuse signed by a medical professional is supplied for the day of the absence, or (2) if your excuse is for a university organization activity, you must notify me of this authorized absence in writing with your name, the name of your organization and the date(s) of your absence (sending me an e-mail is a good way to do this), and your name must appear on a published explained absence list that I am provided or verified by communication to me from a faculty sponsor. Also, you and I must set up a time for you to make up the quiz or test within a reasonable time period (not more than 2 or 3 days) before or after the time of the missed grade. Usually I will let you make up a grade according to the above conditions if it is due to another one-time occurrence,

such as the care of someone else in your family or a friend, or a work-related excuse as long as you can document your absence and you let me know **BY THE DAY OF THE ABSENCE AT THE LATEST**. A CSG can also be made up if you follow the above policy.

**Attendance** I will be taking attendance as university policy precludes you from missing 3 weeks or more for anything other than authorized university activities. To excuse an absence for a university activity, in addition to letting me know of the absence by the day of the absence (as explained previously) you must also spend at least 45 minutes outside of class on this course with me or with a tutor, but they will need to sign a note that documents this made-up time. Also I will allow you to excuse a test day for a documented medical absence as long as you also make up the test with me or in the testing center. If you have 3 weeks or more of unexcused absences, I reserve the right to drop you from this class with a grade of 'F', which is university policy.

**Good Advice** Concentrate on learning the material of the course rather than worrying about your grade. Your time is best spent concentrating on the material to be learned in the impending assignments, asking questions, and devoting yourself to activities that will help you learn the material and do better in the course. I will worry about the details of your grade since you doing so does not help you earn a higher grade. But learning the material and doing well on the tests *will* help your grade. **Remember that math is not a spectator sport**, so the more problems you work yourself, the more practice you will get, the more confident you will be, and the better you will do in this course. Working on the problems helps you to figure out what your specific questions are. Remember an individual homework or quiz grade may not count for a lot in your overall grade, but working and learning from the homework and quizzes is **essential** because this is where you learn the topics that will appear on the tests, which do count for a lot of your grade. The best lessons learned often come from correcting a quiz or homework problem in which you have made a mistake.

### **More Good Advice**

Keep absences to a minimum. You never know when you might miss something important either from the lecture or class discussion such as questions other students ask. Remember: **YOU ARE RESPONSIBLE FOR EVERYTHING THAT IS DISCUSSED DURING CLASS WHETHER YOU ARE PRESENT OR NOT.**

Also do not allow yourself to develop bad habits such as missing classes. It's human nature to be controlled by our habits, so once you develop a weekly habit for the semester, it can be hard to break this habit. So be sure that you allow the necessary time for this course **FROM THE BEGINNING OF THE TERM, ESPECIALLY** if you consider mathematics not to be your best subject. If you have trouble in math, then you should attend **EVERY** class of a college mathematics course. Not showing up to class or not doing the required work will not cause this class to "go away". If you are not understanding the material and/or have fallen behind in your work, missing class will not help. **IF YOU FALL BEHIND, PLEASE DO NOT DROP THIS COURSE WITHOUT TALKING TO ME FIRST.** Making mistakes or

falling behind is natural, so it is best to talk to me about this. If you do have to miss class, let me know before class. Discuss with me what you are not understanding. It is essential to get your questions answered. But meeting with me outside of class is not a substitute for attending class.

Ask questions no matter how easy or trivial they may seem. There is no such thing as a bad or silly question. Questions result when you are interested and have been thinking about areas, such as mathematics, in which you have some limitations in your educational background. Being in a college mathematics course means you will have questions both obvious and more subtle. Asking questions is a very important part of learning.

Study and work problems regularly—every day or every other day. Work on assignments discussed in class as soon as you can after class while the methods discussed are still fresh in mind. You can't expect to succeed in a math course by waiting till the last minute to only study and cram prior to a test. If you promise yourself you will study for a ½-hour, get into the work, forget the clock, then the next thing you know, you've studied and worked for one to two hours. Remember that

**LEARNING FROM MISTAKES + PERSISTENCE = SUCCESS!**

**Classroom Conduct** It is important to conduct yourself in a college classroom so that everyone can benefit from good communication between instructor and students. My goal is to create an environment in which everyone can do their best work, learn, and make the best grades possible.

I think you will find that I am a very friendly, sympathetic, and generous instructor as long as you are sincerely working to succeed in this course and certain guidelines for classroom behavior are followed to allow a sanctity of study for your fellow students. Habits such as holding conversations during class, or being engaged in activities not related to this course such as working on a different course or reading your cell-phone will work against the goals of this course and cause you to be counted absent and you will lose Daily Grade credit. Also engaging with electronic communication devices of any kind during class or coming into class more than 5 minutes late or leaving early before class is dismissed circumvent the goals of this course and cause you to lose credit. My sympathy and generosity will quickly evaporate if I find that you are working against the goals of the course or that you are simply trying to get a good grade without learning or without honestly doing the required work. I want you to have every opportunity to learn and succeed in this course.

Please be aware of the rules for Academic Honesty that you will find in the Sul Ross Student Handbook.

Use commonsense to think of anything else that will allow you to learn and do the best work that you can in this class, and for me to better help you do your best work. Remember that being registered for this course does not allow you to behave in any manner you wish during class. You must keep other people in mind. It is within university policy for me to send a student out of this class on a temporary or permanent basis if disruptions or interruptions like the types listed above persist.

## **Equal Access and Students with Special Needs:**

**ADA Statement:** Sul Ross State University is committed to equal access in compliance with the Americans with Disabilities Act of 1973. Students with qualifying disabilities who seek accommodations must initiate a request for a meeting for accessibility services. Students seeking accessibility services must contact Rebecca Greathouse Wren, M.Ed., LPC-S, Counseling & Accessibility Services, Telephone: 432-837-8203, or E-mail: [rebecca.wren@sulross.edu](mailto:rebecca.wren@sulross.edu).

For more information see: <https://www.sulross.edu/page/1384/accessibility-services>

This course is supportive of the  
Student Learning Outcomes for the Bachelor of Science degree in Mathematics:

- 1) The student will be able to demonstrate content knowledge of basic mathematical principles.
- 2) The student will be proficient in logic, able to negate statements, provide counterexamples to false statements, and determine the validity of arguments.
- 3) The student will be able to communicate mathematical content clearly and with valid reasoning.

And:

### EC-6 Core Teacher Competencies:

Competency 001 (Mathematics Instruction) The teacher understands how students learn mathematical skills and uses that knowledge to plan, organize and implement instruction and assess learning.

Competency 002 (Number Concepts and Operation) The teacher understands concepts related to numbers, operations and algorithms and the properties of numbers.

Competency 003 (Patterns and Algebra) The teacher understands concepts related to patterns, relations, functions and algebraic reasoning.

Competency 004 (Geometry and Measurement) The teacher understands concepts and principles of geometry and measurement.

Competency 005 (Probability and Statistics) The teacher understands concepts related to probability and statistics and their applications.

Competency 006 (Mathematical Processes) The teacher understands mathematical processes and knows how to reason mathematically, solve mathematical problems and make mathematical connections within and outside of mathematics.

### Important University Dates

Mon, January 11	First day of classes, first day of late reg. and schedule changes
Thu, January 14	Last day for late registration and schedule changes
Mon, January 18	Martin Luther King, Jr. Holiday, No classes
Wed, January 27	Last Day to Drop Without Creating an Academic Record
Mon-Fri, March 8-12	Spring Break Holidays, No classes
Thu, April 1	Last day to withdraw from a course with a grade of "W" by 4 pm in Registrar's Office
Thu, April 1	University/Community Meal on the Mall; SRSU birthday Sat. April 3
Fri, April 2	Good Friday Holiday, No classes
Mon, April 19	Honors Convocation, 7 pm Marshall Auditorium
Wed, April 28	Last Day of Classes before finals
Thu, April 29	Dead Day, No classes
Fri-Wed, Apr. 30, May 3-5	Final Exams, End of Term

<b>Tentative Course Schedule-Math 1314 Spring 2021</b>			
<b>X = no class</b>	Mon	Wed	Fri
Jan. 11, 13, 15	First Day of Class Graphs Sets of Real Numbers	Function notation Metric Conversion	Radical Expressions Irrational Numbers
Jan. 18, 20, 22	<b>X - MLK Holiday</b>	Solving Equations Repeating Decimals	Linear Functions Slope
Jan. 25, 27, 29	Linear Functions Intercepts	Linear Functions Parallel, Perpendicular Lines	Polynomials Operations of Polyns.
Feb. 1, 3, 5	Order of Operations Polynomial Equations Properties of Radicals	Properties of Radicals Inequalities	Inequalities Functions: Domain and Range
Feb. 8, 10, 12	Review for Test 1	<b>Test 1</b>	<b>Test 1</b>
Feb. 15, 17, 19	Rational Exponents Properties of Radicals	Rational Exponents Absolute Value Equations	Absolute Value Inequalities
Feb. 22, 24, 26	Factoring Polynomials	Complex Numbers	Quadratic Equations
Mar. 1, 3, 5	Quadratic Equations Rational Equations	Rational Equations Distance	Circles
Mar. 8-12	<b>X - Spring Break Holidays -----&gt;</b>		
Mar. 15, 17, 19	Circles	Quadratic Functions	Applications of Quadratic Functions and Equations
Mar. 22, 24, 26	Review for Test 2	<b>Test 2</b>	<b>Test 2</b>
Mar. 29, 31, Apr. 2	Composition of Functions Inverse Functions	Inverse Functions	<b>X - Good Friday Holiday</b>
Apr. 5, 7, 9	Exponential Functions	Exponential Functions Logarithmic Functions	Logarithmic Functions
Apr. 12, 14, 16	Properties of Logs	Applications of Logs Exp, Log Equations	Exp, Log Equations
Apr. 19, 21, 23	Applications of Exp, Log Functions	Applications of Exp, Log Functions	Applications of Exp, Log Functions
Apr. 26, 28, 30	Review for Test 3	Review for Test 3	<b>Final Exams X - No class</b>
May. 4	<b>Test 3: Tue May 4, 12:30-2:30p</b>		<b>May 7 - 7 pm Commencement</b>
May. 10	<b>Grades due for continuing students by noon</b>		<b>Gallego Center</b>