

Math 1314 Syllabus
College Algebra
Fall 2020 Sul Ross State University

Sec. 001:	Mon, Wed, Fri: 11–11:50a in ACR 204
Instructor:	Dr. Kris Jorgenson
Office:	ACR 109D
E-mail:	kjorgenson@sulross.edu
Office Hours:	Mon: 10-11a, 2-3:30p; Tue, Thu: 10-11a, 3:30-4:30p; Wed: 10-11a, 1:30-3p; Fri: 10-11a; 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, rectangular graphs, complex numbers, exponential and logarithmic functions, systems of equations, matrices and vectors with real-world application problems throughout.

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). These problems will be listed in these class 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: 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 either be either a major test 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.

Students should always correct their homework and quizzes, if necessary, 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 of 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 2 mid-term tests, which will be given in class. Test 3 will be a take-home exam that you must download and print since I will send each of you this 3rd test by e-mail. For this third take-home test, you may use your notes and textbook, but not the internet in any way. You can only use me for help on any of the tests and to ask questions concerning a test. For the 3rd take-home test, you will need to use your own paper to complete the test (or the paper you use to print the test), then scan or photograph your written work and send these scanned (or photographed) pages back to me. If you cannot print out your test, then write out by hand each test problem along with your work using your blank paper. The dates for the Unit Tests are as follows.

Test 1	Wed, Fri: Sep. 23, 25
Test 2	Wed, Fri: Oct. 28, 30
Test 3	Mon-Tue, Dec. 7-8

As mentioned, the first 2 tests will be given during class time while the 3rd test will be take-home given during final exam week. You will have 24 HOURS to complete the 3rd test, so that you will send your written work back to me by Tue. Dec. 8.

After Thanksgiving, beginning Mon. Nov. 30, all university classes will revert to online delivery. For our last two classes on Mon. Nov. 30 and Wed. Dec. 2 we will meet through Zoom interactive meetings during our regular class time. I will send everyone a link through e-mail prior to this last week of classes that will allow everyone to join in these last 2 Zoom classes.

Smarthinking online tutoring In Blackboard for this course, there is 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**. However you cannot use this service for your take-home Test 3. 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 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:

Sul Ross State University (SRSU) is committed to equal access in compliance with Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the Student's responsibility to initiate a request. Please contact Ms. Rebecca Greathouse Wren, M.Ed., LPC-S, Director/Counselor, Accessibility Services Coordinator, Ferguson Hall (Suite 112) at 432.837.8203; mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas 79832. Students should then contact the instructor as soon as possible to initiate the recommended accommodations.

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

Competency 014 (Number Concepts and Operation) The teacher understands concepts related to numbers, operations and algorithms and the properties of numbers.

Competency 015 (Patterns and Algebra) The teacher understands concepts related to patterns, relations, functions and algebraic reasoning.

Competency 016 (Geometry and Measurement) The teacher understands concepts and principles of geometry and measurement.

Competency 017 (Probability and Statistics) The teacher understands concepts related to probability and statistics and their applications.

Competency 018 (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, August 24	First day of classes, first day of late registration and schedule changes
Thu, August 27	Last day for late registration and schedule changes
Mon, September 7	Labor Day Holiday, No classes
Wed, September 9	Last Day to Drop Without Creating an Academic Record
Fri, September 25	University as a Community Meal on the Mall, in celebration of Lawrence Sullivan Ross's birthday Sept. 27
Wed, November 11	Veteran's Day Holiday, No classes
Fri, November 13	Last day to withdraw from a course with a grade of "W" by 4 pm in Registrar's Office
Wed-Fri, Nov 25-27	Thanksgiving Holidays, No classes
Mon, November 30	REMOTE DELIVERY ONLY for remainder of classes
Wed, Dec. 2	Last Day of Classes
Thu, Dec. 3	Dead Day, No classes
Fri-Wed, Dec. 4, 7-9	Final Exams, End of Term, REMOTE DELIVERY ONLY

Math 1314-001 College Algebra--Tentative Course Outline--Fall, 2020			
X = no class	Mon	Wed	Fri
Aug. 24, 26, 28	Graphs of Equations Integers Real Numbers	Equivalent Equations Solving Equations Linear Functions	Slope, Rational Numbers Intercepts Linear Applications
Aug. 31, Sep. 2, 4	Parallel, Perpendicular Lines Polynomials	Polynomial Operations Order of Operations	Polynomial Function Models Square root, cube root radicals
Sep. 9, 11	Labor Day Holiday Sep. 7 X - No Classes	Linear Equations Absolute Value Equations	Linear Inequalities Sets of Real Numbers Set Notation
Sep. 14, 16, 18	Functions Domains of Functions	Multi-Part Functions Irrational Numbers	Radicals, Rational Exponents
Sep. 21, 23, 25	Review for Test 1	Review for Test 1 Test 1, Part 1	Test 1, Part 2
Sep. 28, 30, Oct. 2	Absolute Value Inequalities	Factoring Polynomials Complex Numbers	Complex Numbers Quadratic Equations
Oct. 5, 7, 9	Quadratic Equations	Rational Equations	Applications of Quadratic Equations
Oct. 12, 14, 16	Distance Circles	Circles Quadratic Functions	Quadratic Functions
Oct. 19, 21, 23	Systems of Equations	Matrices and Vectors	Matrices and Vectors
Oct. 26, 28, 30	Review for Test 2	Review for Test 2 Test 2, Part 1	Test 2, Part 2
Nov. 2, 4, 6	Composition Inverse Functions	Inverse Functions	Exponential Functions
Nov. 9, 13	Exponential Functions Logarithmic Functions	Veterans Day Holiday X - No Class Nov. 11	Logarithmic Functions
Nov. 16, 18, 20	Properties of Logs	Applications of Logs	Applications of Logs Exp, Log Equations
Nov. 23	Exp, Log Equations	Thanksgiving Holiday -----> X - No classes Nov. 25, 26, 27	
Nov. 30, Dec. 2 Zoom Classes	Applications of Exps, Logs Remote Delivery ----->	Review Test 3	Final Exams begin
Mon, Tue Dec. 7-8	Test 3 Take-Home Exam		

STUDENT - Quick Start Guide

YOUR INFORMATION

Instructor Name: KRIS JORGENSEN

Section Name: Math 1314, Sec. 1

GETTING STARTED

- 1 Go to learn.hawkeslearning.com.
- 2 Select **Create an Account**.
- 3 Choose one of the following:

Please choose an option:

I have an Access Code or License Number

I want to Purchase Access

Continue

or

Request Temporary Access

- 4 Enter your information into the form provided.
- 5 Set your password, time zone, and security questions.
- 6 Add your profile photo.

Congratulations!

You've just created your Hawkes Learning Account. Remember to log in with the same email and password to access any of the Hawkes Learning courseware. If you forget your password, select **I forgot my password!** We'll ask you the security question you set up or help you reset the password.

ENROLL IN YOUR COURSE

Select your **INSTRUCTOR** and **SECTION** from the drop-down menus, and select **ENROLL**.

You are now ready to complete assignments for this course.

NAVIGATE YOUR COURSE

Watch the Video Tour located under the profile menu to learn more.

Dashboard provides course information and your To-Do List.

To-Do List shows when homework and tests are due.

Navigation Toolbar contains links to important tools such as your grades, eBooks, the notifications center, and messages.

COMPLETE YOUR HOMEWORK

Each lesson involves three phases: Learn, Practice, and Certify. Use Learn and Practice to learn the concepts and work out practice problems. When you feel confident in the material, move to Certify to complete your homework.

For additional help, go to <http://www.hawkestv.com> to watch videos on every lesson.

WE CAN HELP

If you have any questions about registering your email address and password, enrolling in your course, or using the site, contact Hawkes Technical Support.

Phone

800.426.9538

Monday–Friday, 8:00 a.m.–10:00 p.m. ET

Online Chat

www.hawkeslearning.com

24 hours a day, 7 days a week