

Sul Ross State University
Course Syllabus
2022 Spring MATH 1314 C01 Mrozinski
College Algebra

Instructor: Mr. Richard Mrozinski

Offices: RAS 113 on M, W, F; FH 204 on T, R

Main Phone: 432.294.5315 (cell, 9-4 daily, best way to reach me quickly via texts and calls)

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Office Hours: MWF 2:00-3:00 in RAS 113; TR 9:00-12:00 and 2:00-3:00 in FH 204; Virtually or face-to-face; Alternate arrangements can always be made via e-mail or text. I also have "Open Door Office Hours". Feel free to come in anytime you see me in my office.

Class Meeting Time and Place: TR 12:30-1:45 in LH 300

Course Description: In-depth study and applications of polynomial, rational, radical, and exponential and logarithmic functions and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included.

Course Prerequisites: Undergraduate level Math 0300 Minimum Grade of C or high enough score on one of the math placement exams.

Why College Algebra? (adapted from Hazel Lewis' *10 Reasons for Studying Algebra*):

- Algebra will help your career in terms of better choice and higher earnings.
- Algebra is a powerful tool that allows one to generalize situations using formulas.
- Algebra is critical to studies of biology, chemistry, physics, engineering, computer science, economics, food science, environmental science, medicine, dentistry, pharmacy, psychology and social sciences (and the list goes on).
- Algebra will save, or even make, you money, by helping you avoid wrong decisions about investing, savings, credit cards, loans, and mortgages can cost you tens of thousands of dollars (literally!). Algebra will even help you save money in choosing utility providers, cell phone contracts, where to shop for groceries, and will help you finally understand your federal taxes!
- Algebra helps you get the most from limited time and money - important for employers and individuals.
- Algebra is fundamental to understanding statistics, which are used in the workplace extensively to make wise decisions. Statistical knowledge is also important for today's average citizen, who is bombarded with statistics daily in the media and advertising.
- And lastly, but maybe most importantly, by learning algebra one also learns abstract thinking, critical thinking, and problem-solving skills (not just for math problems but all complex problems). These skills are enormously helpful in your personal life. Such skills are also highly desired by employers, and can set you apart from your competition!

One note before we get started learning this important subject. Henry Ford said "Whether you think you can, or you think you can't — you're right." Let's be frank here. College algebra is an intimidating subject to most people. If you are like many of my past students, may already think you can't learn algebra. If so, we need to change that thinking. My promise is to walk with you every step of the way. I have been teaching math and helping students at Sul Ross since 2015. Prior to coming to Sul Ross, I had 20 years of experience applying algebra as an engineer. Life then brought me to West Texas, and I couldn't be happier. I LOVE teaching math at Sul Ross, and plan to help each of you become algebraically competent critical-thinking-problem-solvers by the end of this semester!

Now, let's go delve in and tackle some algebra!

Objectives, Outline, and Competencies

Course Objectives:

- The student will be able to solve linear, quadratic, rational and radical equations and inequalities using various methods.
- The student will be able to graph functions by plotting points and performing transformations on certain parent functions.
- The student will be able to graph polynomial functions by finding roots using synthetic or long division and distinguish the end behavior of graphs.
- The student will be able to model growth and decay problems using exponential functions.
- The student will be able to solve systems of equations in two and three variables.

Course Outline:

- Number Systems and Fundamental Concepts of Algebra
- Equations and Inequalities of One Variable
- Linear Equations and Inequalities of Two Variables
- Relations, Functions, and Their Graphs
- Exponential and Logarithmic Functions
- Polynomial Functions (if time)
- Rational Functions and Conic Sections (if time)
- Systems of Equations (if time)

Mathematics Student Learning Objectives: The graduating student should be able to:

- Apply knowledge of basic mathematics principles.
- Identify and provide valid proofs or solutions for theorems or problems.
- Recognize and dispute invalid mathematical statements by using counter-examples.

Core Curriculum Marketable Skills: Students will acquire these marketable skills:

- **Critical Thinking.** Students will develop critical thinking skills to include creative thinking, innovation, inquiry, and analysis, evaluation, and synthesis of information.
- **Empirical and Quantitative Skills.** Students will develop empirical and quantitative skills to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

EC-6 Core Teacher Competencies:

- **CO 013 (Mathematics Instruction)** The teacher understands how students learn mathematical skills and uses that knowledge to plan, organize and implement instruction and assess learning.
- **CO 014 (Number Concepts and Operation)** The teacher understands concepts related to numbers, operations and algorithms and the properties of numbers.
- **CO 015 (Patterns and Algebra)** The teacher understands concepts related to patterns, relations, functions and algebraic reasoning.
- **CO 016 (Geometry and Measurement)** The teacher understands concepts and principles of geometry and measurement.
- **CO 017 (Probability and Statistics)** The teacher understand concepts related to probability and statistics and their applications.
- **CO 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.

Course Materials

1. **REQUIRED:** Hawkes Online Software Access Code (online learning system plus an e-book of Item #2)
2. **OPTIONAL:** *College Algebra, A Concise Approach* by P. Sisson (Math 1314 physical course textbook)
3. **OPTIONAL:** *College Algebra Guided Notebook* by C. Schroeder (Accompanying help for this specific course)
4. **REQUIRED:** Scientific or graphing calculator
5. **OPTIONAL:** Graph paper

NOTES:

- **Regarding Item 1:** Item #1 is sold as a bundle at the SR Bookstore, under your Math 0314 Section (ISBN 978-1-941552-49-0). The bundle is an envelope that includes an access code for the online software (<http://www.hawkeslearning.com/>) that we'll be using in the course, AND electronic e-book access (via the Hawkes' website) to the course text.
 - *Repeating Students:* If you already bought Hawkes College Algebra access in a prior semester, you DO NOT have to buy it again (you have lifetime Hawkes access to the course and the e-book).
 - *All Students:* You must have purchased online software access (a Hawkes license) by class time no later than the 3rd class day. **If you have not purchased your Hawkes access by the end of the second week of class, you will be dropped from this class with an “F.”**
 - *For help with Hawkes access,* see your Math 0314 instructor or contact Hawkes Technical Support: M-F, 7:00 AM to 9:00 PM (Central Time), 843-571-2825, <http://support.hawkeslearning.com/supportcenter/>
- **Regarding Item 2:** The SR Bookstore has hardcopies of the text that can be bought in combination with Item #1 (a bigger bundle) OR separately from Item #1 without the access code (ISBN 978-1-935782-02-5).
- **Regarding Item 3:** This optional “Guided Notebook” is available for purchase at the Sul Ross bookstore (ISBN 978-1-941552-34-6). It is designed to help walk you through the material of the course. I generally recommend it only if you could use help staying organized.
- **Regarding Item 4:** A scientific calculator is one that has buttons with denotations such as \sqrt{y} , y^x , a^b , \log , \ln , e^x . Scientific calculators have output screens whose height is far shorter than its width. Appropriate scientific calculators cost around 7-35 dollars each. A graphing calculator has many more features, especially the ability to display graphs (for example the TI-83, TI-84, TI-89 or TI-92). A graphing calculator will have a large square output screen that is about as high as it is wide.

Grading Scale and Determination

For MATH 1314, a final letter grade of D or better is considered passing. Final grades are determined as follows:

Assessment	% of Final Numeric Grade	Final Numeric Grade	Final Letter Grade
Exam 1	20%	90 or higher	A
Exam 2	20%	80-89.99	B
Exam 3	20%	70-79.99	C
Exam 4 (Final Exam)	20%	60-69.99	D
Homework	20%	0-59.99	F

Readings - The course and its material are organized by chapter. Each chapter has a reading assignment that explains that chapter's material. **The assigned readings are essential; completing 100% of the assigned readings is expected.**

Homework:

- Homework will be completed in Hawkes. It is considered completed when a 80% mastery level is achieved in the Hawkes certify mode for that lesson. A zero is earned if the mastery level of 80% is never reached in Hawkes Certify mode.
- If the 80% mastery level is achieved, and the homework is completed on time, a score of 100 is earned. However, students are highly encouraged to achieve 100% mastery in all lessons, as all lesson material is potential exam material.
- If the mastery level is achieved, but the homework is 0-1 days late, a score of 75 is earned.
- If the mastery level is achieved, but the homework is 1-2 days late, a score of 50 is earned.
- If the mastery level is achieved, but the homework is 2-3 days late, a score of 25 is earned.
- For 3 or more days late, the earned score will be zero, regardless of mastery level achieved.
- Therefore, the only possible homework scores are 0, 25, 50, 75, and 100.

Exams: Four exams will be given in this course (see schedule).

- Exams are not cumulative in the sense that Exam II does not test the material tested on Exam I, and Exam III does not test material tested on Exams I and II, etc.; however, concepts from throughout in the course will always be needed to complete every exam.
- Exams will be completed in class. Should SR transition to online-only instruction, the remaining exams will be online in Hawkes, *using a strict honor code*; the following statement must be agreed to within any online exam for you to earn a grade other than zero:

– *“I have neither given nor received any unauthorized aid on this exam.”*

- Mastery levels are not utilized for exams in Hawkes.
- Therefore, all scores between 0% and 100% are possible for exams.
- **Late exams will not be accepted** unless arrangements are made with the instructor before the exam end time.

Participation:

- I expect a high level of engagement to enhance everyone's learning. This includes interacting with the instructor and other students, asking questions during class, posting in the Blackboard discussion forums, writing entries in Blackboard journals, attending office hours (in-person and/or online), completing outside of class assignments and readings, and being prepared to participate in class discussions.
- **Online Participation:** Any time you attend class online (via Blackboard Collaborate Ultra), you are required to be properly dressed, avoid video distractions, and keep your microphone muted except to ask questions or request clarification. **Anyone causing distractions may be muted, have their video shut off, and/or removed from the session without warning, at the instructor's discretion..**

Due Dates/Times/Extensions - All graded work, including exams, are expected to be on-time (11:59 pm central time on due date). **No due dates for ANY graded work, including exams, will be extended without PRIOR e-mail arrangements initiated by the student, and only for valid reasons. Before an accommodation (e.g. extended due date) can be granted for a COVID-related reason, students are required to first submit the SR COVID-19 Self Report form found at <https://srinfo.sulross.edu/covid-19/self-report/>.**

Academic Integrity: Academic dishonesty hurts everyone and reduces the value of college degrees. Doing someone else's work, presenting the ideas and work of others as your own, submitting the same paper for multiple classes, and/or failing to cite your sources when you utilize the ideas of others, are all examples of academic dishonesty. It is your responsibility to read and understand the university's policy on academic dishonesty in the SRSU Student Handbook, as all violations will be taken seriously and handled through the appropriate university process. The Student Handbook can be downloaded at: <https://www.sulross.edu/student-life/> (page 80). In addition, please note that plagiarism detection software will be used in this class for written assignments, as well as monitoring software for any online exams. **Any student shown to violate academic integrity will receive no credit (0) for work done and/or may be penalized in accordance with published University Rules.**

Communication: You are required to check your *Sul Ross e-mail and Blackboard announcements* several times per week. I do not use the personal or preferred e-mail addresses that you may have on record with the university.

Attendance Policy:

- Students are expected to make every effort to attend class live (as it happens) either online OR in person (when available and if comfortable doing so). All lectures will be recorded and posted in Blackboard. If live class must be missed, the student is expected to watch the recorded lecture as soon as practical.
- Roll WILL be taken every lecture for the face-to-face students, attendance will be automatically recorded for those joining live lecture online, and viewing of recorded lectures will also be automatically recorded by Blackboard.
- It is policy of this class to **drop a student with a grade of "F" if 9 hours or more of class are missed.** For this course that would be 8 or more class sessions missed. Any time class is missed, for any reason, it will be recorded as an absence, unless an absence can be shown to be due to a college-related event.
- Students are expected to arrive to class on time. If a student is perpetually late, they will be asked to not attend class unless they can arrive on time. If tardiness becomes a problem for the class as a whole, people who arrive late will not be permitted to enter the class. If this stricter policy becomes necessary, there will be an announcement made in class.

Electronics in the Classroom: The use of personal laptops, cell phones, iPads, headphones, and other electronic devices can create distractions for learning, both for yourself and others. As such, none of these are not allowed in class. Be aware that cell phones can not be used as calculators on any assignment or exam. Any phone ringing during class will be taken up until the end of class. If a phone rings during a test or quiz, the student will forfeit their right to finish that test or quiz.

General Expectations

Algebra can be a very intimidating subject. However, you cannot do well in college without knowing algebra. To maximize learning in this course, we should have some expectations of each other.

I expect from you:

- ASK whenever something is unclear. Preferably in class, as it is likely that others have the same question. **THIS IS YOUR MOST IMPORTANT JOB!**
- ATTEND lecture; be on time as a courtesy to others.
- PARTICIPATE in class.
- READ the required sections from the text. If you come to me with a question and it is clear that you haven't read the book or the lecture notes, I will direct you to the reading first.
- DO all assignments, do them in a timely manner, and ensure I can read them! Parts of assignments that I can't read will not be graded. If you are late with assignments, it prevents me from returning others' assignments until I have yours in-hand.
- BE HONEST in all of your work.

What you can expect from me:

- GIVE 100% effort in teaching you the best I can.
- Make myself AVAILABLE to help outside of class.
- ANSWER all of your questions to the best of my knowledge, and if I don't know the answer I will find out.
- Be FAIR in all grading.
- Provide you with timely, constructive FEEDBACK regarding your work.

Learning Environment, and Life

I aim to create a learning environment for my students that supports a diversity of thoughts, perspectives and experiences, and honors your identities (including race, gender, class, sexuality, religion, ability, socioeconomic class, age, nationality, etc.). I also understand that the crisis of COVID, economic disparity, and health concerns, or even unexpected life events could impact the conditions necessary for you to succeed. My commitment is to be there for you and help you meet the learning objectives of this course. I do this to demonstrate my commitment to you and to the mission of Sul Ross State University to create an inclusive environment and care for the whole student as part of the Sul Ross Familia. If you feel like your performance in the class is being impacted by your experiences outside of class, please don't hesitate to come and talk with me. I want to be a resource for you.

Resources and Assistance

SRSU Library Services:

The Bryan Wildenthal Memorial Library in Alpine offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, <https://library.sulross.edu/>. Off-campus access requires logging in with your LoboID and password. Librarians are a tremendous resource for coursework and can be reached in person, by email (srsulibrary@sulross.edu), or phone (**432-837-8123**).

Tutoring:

SRSU tutoring will be available shortly after the semester starts. Contact Anita Banegas (**432-837-8992**, abane-gas@sulross.edu) or Mabel Garcia (**432-837-8629**, mag15bf@sulross.edu) to get information or to request an appointment.

Blackboard's Support Desk:

If you have any technical issues with Blackboard itself, e.g. if you are having issues submitting a document, getting videos to play, or you are dealing with a technical error in the course, then the Blackboard Support Desk is ready to help you. The support desk is open 24 hours a day, 7 days a week. You can reach the support desk by calling **888-837-6055**, emailing blackboardsupport@sulross.edu, using resources from the Technology Support tab within Blackboard, or clicking the Support Desk graphic on the course homepage. As always, academic questions about course assignments, due dates, and general course questions should be directed to your instructor.

SRSU Disability Services:

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 each semester for each class. Alpine students seeking accessibility/accommodations services must contact Mary Schwartze Grisham, M.Ed., LPC, SRSU's Accessibility Services Coordinator at **432-837-8203** (please leave a message and we'll get back to you as soon as we can during working hours), or email mschwartz@sulross.edu. Our office is located on the first floor of Ferguson Hall (Suite 112), and our mailing address is P.O. Box C-122, SUI Ross State University, Alpine. Texas, 79832.

Co-Requisite Model Information

I will introduce each College Algebra concept and work through some examples in the MATH 1314 lectures. Your MATH 0314 class is designed to provide you with support for your MATH 1314 class. Your MATH 0314 instructor will help ensure that you have the math skills needed to master each MATH 1314 concept. **You WILL ultimately need to attend both classes to be successful.**

Drop Requests: Any student can ask the MATH 1314 instructor to drop MATH 1314 **BEFORE Monday March 28, 2022** (the last day for students to drop a class with a “W”). Upon request, your Math 1314 instructor will determine, in consultation with your Math 0314 instructor, if you have made a good faith effort to pass MATH 1314. If over the course of the semester you attend both classes, complete your homework assignments, quizzes, and exams for both classes, but it does not look like you will be able to pass MATH 1314, then your MATH 1314 instructor has the *option* to allow you to drop MATH 1314 with a “W.”

If your MATH 1314 instructor determines that you are eligible to drop MATH 1314 with a “W,” then your MATH 1314 instructor will give you a signed form that you will take to Lobo Den so that you can be dropped from MATH 1314. Only Lobo Den can drop you from your MATH 1314 course and only if you have the form signed by your MATH 1314 instructor.

You will then spend the rest of the semester attempting to complete MATH 0314 successfully. You will not be allowed to drop your MATH 0314 course.

NOTE: Before dropping any class, be sure to check the impact of a withdrawal on your full-time status, financial aid status, scholarship status, and NCAA eligibility.

Tentative Course Schedule (Subject to Change)

Tuesday	Topic(s)	Thursday	Topic(s)
1/11	Course Intro	1/13	Intro, Blackboard Tour, 1.1
1/18	1.1	1/20	1.1, 1.2
1/25	1.2	1/27	1.3
2/01	Overview of Exams and Reviews, 1.4	2/03	1.4
2/08	1.4, 1.5	2/10	1.5
2/15	1.5	2/17	1.6
2/22	2.1	2/24	2.2
3/01	2.2, 2.3	3/03	2.3, 2.5
3/08	SPRING BREAK	3/10	SPRING BREAK
3/15	2.5	3/17	2.6, 3.1
3/22	3.1	3/24	3.2, 3.3
3/29	3.3, 4.1	3/31	4.1, 4.2
4/05	4.5	4/07	4.6
4/12	7.1, 7.2	4/14	7.2
4/19	7.3	4/21	7.4
4/26	7.5	4/28	Dead Day

NOTE: Final Exam for Math 1314 C01 will be held on Wednesday, May 04, 10:15-12:15.