

Sul Ross State University
Course Syllabus
MATH 2310-001: Foundations of Elementary Mathematics I
Fall 2025

Instructor: Dr. Angela M. Brown

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Office Hours: 2:00-4:00 M and W, 10:00-11:00 TR, others by appointment.

Time and Place of Class Meetings: TR 2:00-3:15 pm ACR 205

Course Prerequisites: Math 1314 or Math 1342 with a grade of C or better; or equivalent.

Mathematics Program 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.

Marketable Skills:

Program - Interdisciplinary Studies BS

- Students will acquire public speaking skills to a variety of audiences.
- Students will acquire writing skills for lesson plans and other scholarly documents.
- Students will acquire organizational skills to effectively manage time and meet deadlines.

Program - Mathematics BS

- Students Demonstrate Logical and Analytical Skills.
- Students Demonstrate Problem-Solving Using Analytic and Algebraic Methods.
- Students Use Technology in Problem-Solving and Presentation.
- Students Use Communication and Pedagogical Skills.

Course Objectives:

By the end of the course, the successful student will be able to:

- Understand and discuss mathematics content for pre-service elementary and middle school teachers;
- Be able to relate the topics below to teaching at those levels;
- Grasp and understand the reasons for addressing mathematical concepts rather than solving problems;
- Demonstrate their understanding of the material with an end-of-the-semester exam or presentation;

EC-6 Teaching 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 Operations): The teacher understands concepts related to numbers, operations and algorithms and the properties of numbers.
- 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.

This whole course deals with the Competency 2: number concepts and operations. IN working through this material we will also cover Competencies 1 and 6 as processes rather than topics..

TAC 235 Math Standards:

- (a) Teachers demonstrate research and evidence-based best practices specific to planning, instruction, and assessment of mathematics.
- (b) Teachers communicate, using multiple means of representation, the relationship between mathematical concepts and mathematical procedures.
- (c) Teachers engage students in recursive lesson activities that reinforce automaticity in prerequisite knowledge and skills to mitigate the use of working memory when engaging those knowledge and skills as task complexity increases.
- (d) Teachers use multiple means of representation to engage students in mathematical tasks that deepen students' understanding of conceptual understanding, procedural fluency, and mathematical reasoning.
- (e) Teachers prepare and deliver instruction and questioning to deliberately solicit different explanations, representations, solutions, and reasoning from all students.
- (f) Teachers prepare and deliver explicit instruction and modeling that links grade-level conceptual understanding with mathematical procedures and avoids shortcuts to problem solving.

- (g) Teachers analyze instructional plans to ensure an appropriate balance between conceptual understanding and procedural fluency.
- (h) Teachers facilitate discourse through regular opportunities for students to communicate the relationship between mathematical concepts and mathematical procedures.
- (i) Teachers provide time for students to apply conceptual understanding and procedural fluency collaboratively and independently to problem-solving.
- (j) Teachers communicate and model the connections between mathematics and other fields that utilize mathematics to problem solve, make decisions, and incorporate real-world applications in instruction.
- (k) Teachers explicitly teach and model that math abilities are expandable and improvable.

Required Textbooks: *Mathematics for Elementary Teachers with Activities*, 6th Edition, Sybilla Beckman. We will cover most of Chapters 1 through 8.

Other Equipment Needed: paper and pencils, other equipment may be needed as the course progresses.

Grading Scale: 90-100 A, 80-89 B, 70-79 C, 60-69 D, 59-Below F

Grading Policy: The grade weighting will be as follows:

Homework 15%

In Class Assignments (Packets): 10%

Notebook 10%

Exams: 45%

Project: 20%

Homework/in Class Assignments: Homework and/or in class assignments will be assigned daily and will be turned in through Blackboard by the due date. All will be graded on completion and accuracy. Copying answers out of the back of the book is plagiarism and will be prosecuted.

Presentations: One of the focuses of this class is problem solving as a pedagogical tool. In addition to mathematics, you will learn some of the pedagogy of mathematics appropriate for the elementary and middle school grades. Each student, will plan and present lessons, demonstrate problem solutions to the class or teach the class lessons from the text book. Also during the week (except for test days) some of you will be chosen to present solutions to homework problems.

Content Notebook Student will be required to keep a content notebook for the topics covered as they relate to the TEKS for this subject. More information will be provided about this soon.

Exams: No make-up exams will be given. A missed exam will receive a grade of 0. Exams will be in class, closed notes and book. Any restroom breaks need to be taken before an exam starts. You cannot leave the classroom in the middle of an exam under any circumstances, but you are allowed to leave as soon as you have completed the exam.

Final Exam Date: Monday December 8, 12:30-2:30 pm.

General Policies: You are expected to bring all necessary materials and take notes and participate. You are expected to turn-off and not to access any electronic, non-task oriented device such as cell/smart phones/pads and i-pods unless your textbook is on such a device. Again, a cell phone cannot be used as a calculator. Devices for recording the lecture are permitted; either audio or video, but unless there is a glitch, all lectures will be recorded and accessible through Blackboard. Any personal business must be conducted during office hours or by appointment. I will only discuss grades and attendance issues in my office or a by a zoom meeting during office hours. Classroom time is for the entire class.

Attendance Policy: Students are expected to attend every class. If class must be missed, the student is expected to get the notes from a classmate, and to check with me or on Blackboard for announcements and updated assignments.

You are expected to check your Sul Ross e-mail account. Absences due to school functions should be discussed with me ahead of time.

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 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.

It is policy of the university to drop a student with a grade of "F" if 9 hours or more of class are missed. For this course that would be 6 or more class sessions missed.

Americans With Disabilities Act: SRSU Accessibility Services. Sul Ross State University (SRSU) is committed to equal access in compliance with the 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. Students seeking accessibility/accommodations services must contact Mrs. Mary Schwartze Grisham, LPC, SRSU's Accessibility Services Director or Ronnie Harris, LPC, Counselor, at 432-837-8203 or email mschwartz@sulross.edu or ronnie.harris@sulross.edu. Our office is located on the first floor of Ferguson Hall, room 112, and our mailing address is P.O. Box C122, Sul Ross State University, Alpine. Texas, 79832.

Counseling: Sul Ross has partnered with TimelyCare where all SR students will have access to nine free counseling sessions. You can learn more about this 24/7/365 support by visiting [Timelycare/SRSU](https://www.timelycare.com/sulross). The SR Counseling and Accessibility Services office will continue to offer in-person counseling in Ferguson Hall room 112 (Alpine campus), and telehealth Zoom sessions for remote students and RGC students.

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

No matter where you are based, public libraries and many academic and special libraries welcome the general public into their spaces for study. SRSU TexShare Cardholders can access additional services and resources at various libraries across Texas. Learn more about the TexShare program by visiting library.sulross.edu/find-and-

borrow/textshare/ or ask a librarian by emailing srsulibrary@sulross.edu.

Mike Fernandez, SRSU Librarian, is based in Eagle Pass (Building D-129) to offer specialized library services to students, faculty, and staff. Utilize free services such as InterLibrary Loan (ILL), ScanIt, and Direct Mail to get materials delivered to you at home or via email.

Distance Education Statement: Students enrolled in distance education courses have equal access to the university's academic support services, such as Smarthinking, library resources, online databases, and instructional technology support. For more information about accessing these resources, visit the SRSU website. Students should correspond using Sul Ross email accounts and submit online assignments through Blackboard, which requires secure login information to verify students' identities and to protect students' information. The procedures for filing a student complaint are included in the student handbook. Students enrolled in distance education courses at Sul Ross are expected to adhere to all policies pertaining to academic honesty and appropriate student conduct, as described in the student handbook. Students in web-based courses must maintain appropriate equipment and software, according to the needs and requirements of the course, as outlined on the SRSU website.

Academic Integrity: Students in this class are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. A scholar is expected to be punctual, prepared, and focused; meaningful and pertinent participation is appreciated. Examples of academic dishonesty include but are not limited to: Turning in work as original that was used in whole or part for another course and/or professor; turning in another person's work as one's own; copying from professional works or internet sites without citation; collaborating on a course assignment, examination, or quiz when collaboration is forbidden.

Required Student Responsibilities Statement

All full-time and part-time students are responsible for familiarizing themselves with the Student Handbook and the Undergraduate & Graduate Catalog and for abiding by the University rules and regulations. Additionally, students are responsible for checking their Sul Ross email as an official form of communication from the university. Every student is expected to obey all federal, state and local laws and is expected to familiarize themselves with the requirements of such laws.

Classroom Climate of Respect: Importantly, this class will foster free expression, critical investigation, and the open discussion of ideas. This means that all of us must help create and sustain an atmosphere of tolerance, civility, and respect for the viewpoints of others. Similarly, we must all learn how to probe, oppose and disagree without resorting to tactics of intimidation, harassment, or personal attack. No one is entitled to harass, belittle, or discriminate against another on the basis of race, religion, ethnicity, age, gender, national origin, or sexual preference. Still, we will not be silenced by the difficulty of fruitfully discussing politically sensitive issues.

Supportive Statement: I am to create a learning environment for my students that supports various perspectives and experiences. I understand that the recent pandemic, economic disparity, and health concerns, or even unexpected life events may 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 a supportive 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.

Tutoring: The Lobo Den Tutoring Center offers FREE tutoring support to help you excel in your courses.

Whether you need assistance in Writing, Math, Science, or other subjects, we're here to help!

Important Information:

Drop-in and Scheduled Appointments: Flexible options to fit your needs. Hours of Operation: Monday–Friday, 8:00 AM – 5:00 PM. Workshops: Attend our regularly hosted academic workshops on STEM topics and professional development, often in collaboration with specialized faculty. Location: BWML Room 128. Contact Us: For more information or to book an appointment, email tutoring@sulross.edu or call (432) 837-8726. Looking for additional support?

Tutor.com offers FREE 24/7 online tutoring in over 200 subjects, including specialized support for ESL and ELL learners with native Spanish-speaking tutors. Access Tutor.com via Blackboard: Log in to your Blackboard account to get started anytime, anywhere. Take advantage of these valuable resources to boost your confidence and performance in your classes. We look forward to helping you succeed!

Important Dates:

August 25	First day of classes
August 28	Last day for late registration and schedule changes Payment deadline for students, 4 p.m.
September 1	Labor Day Holiday
September 10	Census day
October 20	Mid-term
November 7	Last day to drop a session I course with a 'W'. Drops must be processed and in the University Reg
November 26-28	Thanksgiving
December 3	Last Class Day
Decemeber 5, 8-10	Final Examinations

Tentative Schedule-Subject to Change

	Tuesday		Thursday
Aug. 26	Intro Numbers and Base 10	Aug. 28	Numbers and Base 10
Sept. 2	Fractions	Sept. 4	Fractions
Sept. 9	Percents	Sept. 11	Percents
Sept. 16	Addition and Subtraction	Sept. 18	Addition and Subtraction
Sept. 23	Addition and Subtraction	Sept. 25	Exam 1
Sept 30	Multiplication	Oct 2	Multiplication
Oct. 7	Multiplication	Oct. 9	Multiplication
Oct. 14	Multiplication	Oct. 16	Multiplication
Oct. 21	Multiplication	Oct 23	Exam 2
Oct. 28	Division	Oct 30	Division
Nov. 4	Division	Nov. 6	Ratios and Proportions
Nov. 11	Ratios and Proportions	Nov. 13	Ratios and Proportions
Nov. 18	Number Theory	Nov. 20	Number Theory
Nov. 25	Number Theory	Nov. 27	Thanksgiving Holiday
Dec 2	Number Theory		