

Sul Ross State University
Course Syllabus
MATH 2310-001: Foundations of Elementary Mathematics I
Fall 2022

Instructor: Dr. Angela M. Brown

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Office Hours: 10 am-12 pm and 2-4 pm M, 10 am-12 pm and 2-3 pm W, 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 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.

Required Textbooks: *Mathematics for Elementary Teachers with Activities*, 4th Edition, Sybilla Beckman. ISBN 13 978-0-321-82572-8 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 5, 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. The seat you pick will be your assigned seat for the remainder of the semester. A seating chart will be made the first day and will be used to check attendance. This is not only to keep roll, but to be able to properly contact trace for the class.

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 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 Schwartz 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, Sul Ross State University, Alpine, Texas, 79832.

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, 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 phone (432-837-8123).

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.

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.

Diversity Statement: 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.

Important Dates:

Aug 22 First Day of Classes
 Aug 25 Last Day for Late Registration and Schedule Changes
 Sept 5 Labor Day Holiday
 Sept 7 12th Class Day-Last Day to Drop a Course Without Creating an Academic Record
 Nov 14 Last Day to Withdrawal from University or Drop Classes with a Grade of "W" (by 4 pm)
 Nov 23-25 Thanksgiving Holiday
 Dec 2,5-7 Final Exams

Tentative Schedule-Subject to Change

	Tuesday		Thursday
Aug. 23	Intro Numbers and Base 10	Aug. 25	Numbers and Base 10
Aug. 30	Fractions	Sept. 1	Fractions
Sept. 6	Percents	Sept. 8	Percents
Sept. 13	Addition and Subtraction	Sept. 15	Addition and Subtraction
Sept. 20	Addition and Subtraction	Sept. 22	Exam 1
Sep 27	Multiplication	Sep 29	Multiplication
Oct. 4	Multiplication	Oct. 6	Multiplication
Oct. 11	Multiplication	Oct. 13	Multiplication
Oct. 18	Multiplication	Oct 20	Exam 2
Oct. 25	Division	Oct 27	Division
Nov. 1	Division	Nov. 3	Ratios and Proportions
Nov. 8	Ratios and Proportions	Nov. 10	Ratios and Proportions
Nov. 15	Number Theory	Nov. 17	Number Theory
Nov. 22	Number Theory	Nov. 24	Thanksgiving Holiday
Nov. 29	Number Theory		

Dec 5 (Final Exam day) Exam 3 12:30-2:30