

Sul Ross State University
Course Syllabus
MATH 2311: Foundations of Elementary Mathematics II
Spring 2023

Instructor: Dr. Angela Brown

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Office Hours: 10 am-12 pm and 2-4 pm M, 10 am-12 pm and 4-5 pm W, 10-11 TR, others by appointment

Time and Place of Class Meetings: TR 3:30-4:45 ACR 205

Prerequisites: Satisfactory completion of Math 2310 with a grade of C or better.

Required Textbooks: *Mathematics for Elementary Teachers with Activities*, 4th Edition, Sybilla Beckman ISBN13 978-0-321-82572-8. We will cover most of chapters 9 through 16.

Other Equipment Needed: paper and pencils.

Course Description: Second course in the mathematics content sequence for preservice elementary and middle school teachers. Topics include: functions, basic notions of geometry, measurement, and basic probability and statistics.

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 course exams

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.

EC to 6 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 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.

Competencies 001 and 006 are generic and will be addressed throughout the course. The others will be covered in their specified subjects. Competency 002 was covered in detail in MATH 2310 and will be continued to be touched on in this course.

Marketable Skills

- 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.

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: 40%

Project: 25%

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: Notebooks will be required for each chapter. They will require big ideas, definitions, examples, and a conclusion/questions. You will need to include the TEKS that align to the chapters.

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.

General Policies: Class will start at the designated time and run for 1 hour and 15 minutes with no breaks. You are expected to be on time, attend every class meeting, stay for the duration of class time and come to learn. Do not schedule any appointments that will conflict with class time; if you have done so then I need documentation of the appointments.

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, tablets, and i-pods. A cell phone cannot be used as a calculator. Devices for recording the lecture are permitted; either audio or video, but please inform the instructor if you plan to do so.

If you come to class without your materials then you will be released from class to go get the appropriate materials. If you try to sleep during class or put your head on your desk you will be asked to leave class. Working on another class is not allowed during class time. If you are causing others around you to miss lecture material then you will be asked to leave.

Any personal business must be conducted during office hours or by appointment. I will only discuss grades and attendance issues in my office. 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.

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.

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

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.

Cell Phone Policy: Cell phones are not allowed in class. They can not be used as calculators on any assignment. 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 said test or quiz.

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 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 mschwartze@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.

Library Services: The Sul Ross Library 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 your LoboID and password. Check out materials using your photo ID. 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	TEKS		Thursday	TEKS
			Jan 19	Expressions and Equations	3
Jan 24	Solving Equations	3	Jan 26	Algebraic Word Problems	3
Jan 31	Sequences	3	Feb 2	Functions	3
Feb 7	Geometry	4	Feb 9	Geometry	4
Feb 14	Measurement	1,4	Feb 16	Exam 1	
Feb 21	Measurement	1,4	Feb 23	Area	4
Feb 28	Area	4	Mar 2	Area	4
March 7	Area	4	Mar 9	Exam 2	
Mar 21	Volume and Surface Area	4	Mar 23	Volume and Surface Area	4
Mar 28	Geometry of Motion	4	Mar 30	Geometry of Motion	4
Apr 4	Exam 3		Apr 6	Statistics	5
Apr 11	Statistics	5	Apr 13	Statistics	5
Apr 18	Statistics	5	Apr 20	Probability	5
Apr 25	Probability	5	Apr 27	Probability	5
May 2	Probability	5	May 4	Probability	5
May 9	Probability	5			

Exam 4 Monday May 15 3:00 during the final exam period