

Sul Ross State University
Course Syllabus
MATH 2310-001: Foundations of Elementary Mathematics I
Fall 2015

Instructor: Dr. Angela Brown

Office Number: ACR 107B

Office Telephone Number: (432)837-8223

Email Address: abrown4@sulross.edu

Office Hours: 10-11 WF, 9-12 TR, others by appointment

Time and Place of Class Meetings: MW 2:00-3:15 Pm ACR 108

Course Prerequisites: Math 1315 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.

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 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.

Required Textbooks: *Mathematics for Elementary Teachers with Activities*, 4th Edition, Sybilla Beckman. ISBN13 978-0-321-82572-8 We will cover most of chapters 1 through 6.

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/In Class Assignments: 25%

Exam 1: 20%

Exam 2: 20%

Projects: 15%

Final Exam: 20%

Homework/in Class Assignments: Homework and/or in class assignments will be assigned daily and homework will be taken up at the beginning of class on Wednesdays. Homework 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.

Exams: No make-up exams will be given. A missed exam will receive a grade of 0. Exams will be closed notes, closed book, and no calculator will be allowed. 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.

Final Exam Date: Wednesday December 9, 2-3pm.

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.

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: Sul Ross State University is committed to equal access in compliance with the Americans With Disabilities Act of 1973. As an instructor I am required to give students reasonable accommodations in each course. It is the student's responsibility to initiate a request for accessibility services. Contact Mary Schwartz, the ADA Coordinator in Counseling and Accessibility Services Ferguson Hall, Room 112. Her phone number is 432-837-8203 or you can email her at mschwartz@sulross.edu.

Important Dates:

August 24	First Day of Classes
August 27	Last Day for Late Registration and Schedule Changes
September 7	Labor Day Holiday
September 9	12th Class Day-Last Day to Drop a Course Without Creating an Academic Record
November 13	Last Day to Withdrawal from University or Drop Classes with a Grade of "W" (by 4 pm)
November 25-27	Thanksgiving Holiday
December 2	Last Day of Classes
December 3-4	Dead Days
December 7-10	Final Exams
December 12	Commencement

Tentative Schedule-Subject to Change

	Tuesday		Thursday
Aug 24	Intro Numbers and Base 10	Aug. 26	Numbers and Base 10
Aug 30	Fractions	Sept. 2	Fractions
Sept. 7	Percents	Sept. 9	Addition and Subtraction
Sept. 14	Addition and Subtraction	Sept. 16	Addition and Subtraction
Sept. 21	Review	Sept. 23	Exam 1
Sept. 28	Multiplication	Sept 30	Multiplication
Oct. 5	Multiplication	Oct. 7	Multiplication
Oct. 12	Multiplication	Oct. 14	Multiplication
Oct. 19	Division	Oct. 21	Division
Oct. 26	Division	Oct. 28	Review
Nov. 2	Exam 2	Nov. 4	Ratios and Proportions
Nov. 9	Ratios and Proportions	Nov. 11	Ratios and Proportions
Nov. 16	Number Theory	Nov. 18	Number Theory
Nov. 23	Number Theory	Nov. 25	Thanksgiving Holiday
Nov 30	Number Theory	Dec 2	Review