

Math 3309

Survey of Basic Math Theory II

Sul Ross State University
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Office Hours
By appointment

Catalog description: Fractions, Decimals, Algebraic concepts, Geometric concepts, probability, statistics, estimation, problem solving, and other related topics.

Pre-requisites, co-requisites, and other requirements: Math 3308

Required: MyMathlab Access Code for Long/Long/DeTemple - Mathematics for Elementary Teachers - Media update 7/e (access to mymathlab + ebook). The ISBN is 978-013-5903650
(Course ID: **davis22228**)

Readings and Lecture Topics will include the following

CHAPTER 6 – FRACTIONS AND RATIONAL NUMBERS

- 6.1 The Basic Concepts of Fractions and Rational Numbers
- 6.2 Addition and Subtraction of Fractions
- 6.3 Multiplication and Division of Fractions
- 6.4 The Rational Number System

CHAPTER 7 – DECIMALS, REAL NUMBERS, AND PROPORTIONAL REASONING

- 7.1 Decimals and Real Numbers
- 7.2 Computation with Decimals
- 7.3 Proportional Reasoning
- 7.4 Percent

CHAPTER 8 –ALGEBRAIC REASONING, GRAPHING, AND CONNECTIONS WITH GEOMETRY

- 8.1 Variables, Algebraic Expressions, and Functions
- 8.2 Graphing Lines, Points, and Elementary Functions
- 8.3 Connections with Geometry

CHAPTER 9 – GEOMETRIC FIGURES

- 9.1 Figures in the Plane
- 9.2 Curves and Polygons in the Plane

CHAPTER 10 – MEASUREMENT: LENGTH, AREA, AND VOLUME

- 10.1 The Measurement Process
- 10.2 Area and Perimeter
- 10.3 The Pythagorean Theorem
- 10.4 Volume

CHAPTER 11 – TRANSFORMATIONS AND SYMMETRIES

- 11.1 Rigid Motions and Similarity Transformations
- 11.2 Patterns and Symmetry

CHAPTER 13 – STATISTICS: THE INTERPRETATION OF DATA

- 13.1 Organizing and Representing Data
- 13.2 Measuring the Center and Variation of Data

Course requirements and policies:

A. Grade Requirements

Grading Procedure:	Tests (2 Tests-100 points each)	200 points
	Homework (2 Homeworks-100 points each)	200 points
	Final Exam	100 points
Due Dates	Chapters 6, 7 & 8 Homework	October 13 (by midnight)
	Chapters 6, 7 & 8 Test	October 13 (by midnight)
	Chapters 9, 10, 11 & 13 Homework	November 24 (by midnight)
	Chapters 9, 10, 11 & 13 Test	November 24 (by midnight)
	Final Exam	December 8 (by midnight)
PowerPoint Audio Files	Course Content will be delivered through Audio PowerPoint Lecture Notes, which are available on Blackboard. Each section listed on page one of the syllabus will have an associated Audio PowerPoint Lecture file. These notes, along with the etext, will contain all material sufficient to complete the homework and the tests.	
MyMathLab	MyMathLab is an online homework and testing system that will be used for assessment (homework and tests) in this course. You must purchase an access code directly from Pearson via the MyMathLab website (online price is \$69.99 for 18-week subscription) or through the Sul Ross Bookstore. Be advised you will need a credit or debit card to purchase the code online. If you are purchasing the access code via the MyMathLab website, please see the Blackboard MyMathLab link for complete instructions. If you are purchasing the access code through the Sul Ross Bookstore, please make sure you purchase the correct access code. The ISBN for the MyMathLab access code is listed on page one of the syllabus.	
Homework Policy	The homework grade is based on the homework score on MyMathlab. Test 1 Homework will contain questions from Chapters 6, 7, and 8. Test 2 Homework will contain questions from Chapters 9, 10, 11, and 13. Each homework set is worth 100 points toward your final grade. Homework due dates are stated above and on MyMathLab. These are due dates; you do not have to wait until that date to finish the homework. Please be advised that NO EXTENSIONS WILL BE GRANTED.	
Test Policy	Each test grade is based on the test score on MyMathlab. Test 1 will contain questions from Chapters 6, 7, and 8; specifically I will select questions from Test 1 homework. Test 2 will contain questions from Chapters 9, 10, 11, and 13; specifically, I will select questions from Test 2 homework. Each test is worth 100 points toward your final grade. Test due dates are stated above and on MyMathLab. These are due dates; you do not have to wait until that date to finish the test. Please be advised that NO EXTENSIONS WILL BE GRANTED.	
Grade Determination:	<u>Total Points</u>	<u>Letter Grade</u>
	450-500	A
	400-449	B
	350-399	C
	300-349	D
	0-299	F

B. Policies:

Technology Requirement: Calculators are allowed on all tests and homework.

ADA Statement: “As per Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, if accommodation is needed notify me as soon as possible. Sul Ross State University is committed to equal access in compliance with the Americans with Disabilities Act of 1973. It is the student’s responsibility to initiate a request for accessibility services. Students seeking accessibility services must contact Mary Schwartz, M. Ed., L.P.C., in Counseling and Accessibility Services, Ferguson Hall, Room 112. The mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas 79832. Telephone: 432-837-8691. E-mail: mschwartz@sulross.edu .

Academic Dishonesty: Students may be subject to disciplinary proceedings resulting in an academic penalty or disciplinary penalty for academic dishonesty. Academic Dishonesty includes, but is not limited to, cheating on a test, plagiarism and collusion.

Zoom Meetings: Except for the first week of class, Zoom meetings will be held every Thursday from 9:30-10:30 AM. The first week, the Zoom meeting will be held on Tuesday. These sessions are available for you to ask questions concerning course content and the homework. These meetings are not mandatory; they are available as an additional resource to help you be successful in the course. If available, I will upload the Zoom meeting recordings to Blackboard.

C. Student Learning Outcomes

1. Student Learning Outcomes- See Department of Education outcomes- The preservice teacher understands how students learn mathematical skills and uses that knowledge to plan, organize and implement instruction and assess learning. The preservice teacher understands concepts related to numbers, operations and algorithms and the properties of numbers. The preservice teacher understands concepts related to patterns, relations, functions and algebraic reasoning. The preservice teacher understands concepts and principles of geometry and measurement. The preservice teacher understands concepts related to probability and statistics and their applications. The preservice teacher understands mathematical processes and knows how to reason mathematically, solve mathematical problems and make mathematical connections within and outside of mathematics.
2. Course Competencies—See TExES Competencies for Math EC-6 on the following pages

Distance Education Statement: Students enrolled in distance education courses have equal access to the university’s academic support services, such as Smarthinking, library resources, such as 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. **[If the course requires students to take proctored exams or to purchase additional software or equipment, please describe those requirements here.]** 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.