Math 1350
Mathematics for Teachers I

Western Texas College

I. Basic Course Information
   A. Course Description: This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the conceptual development of the following: sets, functions, numerations systems, number theory, and properties of the various number systems with an emphasis on problem solving and critical thinking.
   B. Any required prerequisites: Students must make a C or better in Math 1314 (College Algebra). Students who take this course without the prerequisite must realize the transferring institution may require the prerequisite before credit will be given for Math 1350.

II. Student Learning Outcomes
   A. Explain and model the arithmetic operations for whole numbers and integers.
   B. Explain and model computations with fractions, decimals, ratios, and percentages.
   C. Describe and demonstrate how factors, multiples, and prim numbers are used to solve problems.
   D. Apply problem-solving skills to numerical applications
   E. Represent and describe relationships among sets using the appropriate mathematical terminology and notation.
   F. Compare and contrast structures of numeration systems.

III. Testing Requirements
   A. Students are not allowed to use any resources other than a calculator on the final exam.

IV. Major Course Requirements
   A. Major Requirement – There are 3 modules. There is homework for each section, quizzes for each chapter and a combined chapter test for each module.
   B. Major Requirement - There is a lesson plan and project for each module.
   C. Grading
      Percentages Tests
      15%
      Homework..... 12.5%
      Quizzes..... 12.5%
      Final Exam..... 35%
      Lesson Plan..... 12.5%
      Projects..... 12.5%
   D. Grade A = 90 – 100, B = 80 – 89, C = 70 – 79, D = 60 – 69, F = 59 and below.

V. Information on Books and Other Course Materials
   A. Book: Optional: A Problem Solving Approach to Mathematics for Elementary Teachers, 13th edition, Billstein. ISBN: 9780135183885
   B. Access Code: A MyMathLab access code is required. Comes with etext. ISBN: 9780135909751

VI. Other Policies, Procedures and important dates: Please refer to the WTC

Course Catalog for the following:

A. Campus Calendar
B. Final exam schedule
C. How to drop a class
D. Withdrawal information
E. Student Conduct/Academic Integrity
F. Students with disabilities

VII. Planned Course of Study

Module 1	Sections and Concepts Covered
	1.1 Mathematics and Problem Solving
	1.2 Explorations with Patterns
	2.1 An Introduction to reasoning and logic
	2.2 Describing Sets
	2.3 Other Set Operations
	3.1 Numeration Systems
	3.2 Addition of Whole Numbers
	3.3 Subtraction of Whole Numbers
	3.4 Multiplication of Whole Numbers
	3.5 Division of Whole Numbers
	Module 1 Test
	Module 1 Project
	Module 1 Lesson Plan
Module 2	4.1 Divisibility
	4.2 Prime and Composite Numbers
	4.3 Greatest Common Divisor and Least Common Multiple
	5.1 Addition and Subtraction of Integers
	5.2 Multiplication and Division of Integers
	6.1 The set of Rational Numbers
	6.2 Addition, Subtraction, and Estimation with Rational Numbers
	6.3 Multiplication, Division, and Estimation with Rational Numbers
	6.4 Proportional Reasoning
	Module 2 Test
	Module 2 Project
	Module 2 Lesson Plan
Module 3	7.1 Terminating Decimals
	7.2 Operations on Decimals
	7.3 Repeating Decimals
	7.4 Percents
	7.5 Real Numbers
	8.1 Variables
	8.2 Equals Relation and Equations
	8.3 Functions
	Module 3 Test
	Module 3 Project
	Module 3 Lesson Plan
	Final Exam