South Plains College
Department of Mathematics and Engineering
MATH FOR TEACHERS I: 1350.001
Spring 2017 Course Syllabus

Instructor: Kaylan K Thompson
Office: M111
Telephone: (806) 716-4886
Email: kthompson@southplainscollege.edu

Office Hours: As listed or by appointment.

Monday	Tuesday	Wednesday	Thursday	Friday
12:30 – 1:00	9:00 – 11:00	12:30 – 1:00	9:00 – 11:00	9:00-12:00

Course Description: This course is designed to provide the prospective elementary/junior high school teacher with some background in elementary analysis. This course is a requirement for the Associate of Arts in Teaching (AAT) degree. Pre-requisite: MATH 1314.

Course Objectives: To successfully complete this course, you must master 70% of the following objectives:
- Analyze numerical and geometric patterns and express them mathematically in words or in symbols.
- Use problem solving strategies and algebraic thinking.
- Use set notation and Venn diagrams.
- Define, add, subtract, multiply, and divide whole numbers, integers, rational numbers, decimals, and real numbers.
- Identify functions, evaluate functions, and write functions in algebraic notation.
- Convert numerals in the Hindu-Arabic numeration system into the Roman numeration system and other number base systems and vice versa.
- Determine if a number is prime or composite.
- Determine the greatest common divisor and least common multiple of a set of numbers.
- Solve proportions.
- Convert decimals and fractions into percent and percent into decimals and fractions.

Core Objectives: Communication Skills:
- Develop, interpret, and express ideas through written, oral, and visual communication

Critical Thinking:
- Generate and communicate ideas by combining, changing, and reapplying existing information
- Gather and assess information relevant to a question
- Analyze, evaluate, and synthesize information

Empirical and Quantitative Competency Skills:
- Manipulate and analyze numerical data and observable facts, and arrive at an informed conclusion

Textbook: A Problem Solving Approach to Mathematics for Elementary School Teachers, 12th edition, by Billstein, Libeskind, & Lott.

Supplies: Pencils, erasers, 3-ring binder, notebook paper, calculator (when allowed)

Attendance:

Attendance and effort are crucial for success in this course. Record of your attendance will be maintained throughout the semester. Leaving class early and being tardy will be recorded as ½ of an absence. Sleeping in class will also be recorded as an absence. You may be dropped from this course with a grade of X or F if you are absent four consecutive days or if you accrue five absences for any reason throughout the semester. Absences are not classified as 'excused' or 'unexcused'.

Student Responsibilities & Expectations:

- **Come to class on time and prepared to learn. (Pencil, book, notebook, calculator, ect.)**
- Read the syllabus.
- **Good study habits are essential for success.**
- Take notes, participate in class, and complete course assignments early enough to seek help if needed.
- Food and drink are NOT allowed in the classroom with the exception of bottled water.
- Cell phones and any other electronic devices must be silenced and put away before entering the classroom. Use of these devices during class will result in a zero for that day's quiz, homework, or exam.

Grading:

Homework/Quizzes/Activities/Mini Lessons	15%	**Grading Scale:**	A	90-100
Detailed Lesson Plan	10%		B	80-89
Unit Exams	60%		C	70-79
Final Exam	15%		D	60-69
			F	59 or below

Homework: Homework will be assigned for each section on MyMathLab (MML). The Course ID is **thompson90476** and the zip code is **79336**. Although the homework is done online, the problems should be worked neatly either in a spiral or notebook paper in pencil.

Quizzes: Quizzes will also be assigned on MML. Again, the problems should be worked neatly in either a spiral or on notebook paper in pencil.

Activities: There will be activities on a regular basis. You will receive a grade for your participation in these activities. If you are absent on the day an activity is given, you will receive a zero for that activity.

Mini Lessons: Each student will be required to prepare and teach mini lessons throughout the semester. If you are absent on the day you are to teach a lesson, you will receive a zero.

Detailed Lesson Plan:

Each student will write a detailed lesson plan. More information will be given in class. A grading rubric will also be provided.

Exams: There are 4 unit exams (15% each) and a comprehensive final exam (15%). Dates for the exams are given on the course calendar. If for any reason you are unable to take an exam at the designated time you must contact me prior to class time. Make-up exams will be given at the discretion of the instructor.

Religious Holy Days: In accordance with Section 51.911, Texas Education Code, South Plains College will allow a student who is absent from class for the observance of a religious holy day to take an examination or complete an assignment scheduled for that day within seven (7) calendar days after the absence. Students are required to file a written notification of absence with each instructor within the first fifteen (15) days of the semester in which the absence will occur. Forms for this purpose are available in the Student Services Office along with instructions and procedures. "Religious holy days" means a holy day observed by a religion whose place of worship is exempt from property taxation under Section 11.20, Tax Code. (copied from current South Plains College catalog)

Equal Opportunity: South Plains College strives to accommodate the individual needs of all students in order to enhance their opportunities for success in the context of a comprehensive community college setting. It is the policy of South Plains College to offer all educational and employment opportunities without regard to race, color, national origin, religion, gender, disability, or age.

Disability Statement: Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland Student Health & Wellness Center 806-716-2577, Reese Center (also covers ATC) Building 8: 806-716-4675, Plainview Center Main Office: 806-716-4302 or 806-296-9611, or the Health and Wellness main number at 806-716-2529.

Fundamentals of Mathematics I Tentative Course Calendar Spring 2017

This is a tentative schedule. Changes will be announced in class.

MATH 1350.001 – MW 2:30 – 3:45 PM

Wk	Day	Date	Lesson
1	**Monday**	**January 16**	**Martin Luther King Day Holiday**
	Wednesday	January 18	1-1 Mathematics and Problem Solving
2	Monday	January 23	1-2 Explorations with Patterns
	Wednesday	January 25	2-2 Describing Sets
3	Monday	January 30	2-2 Other Set Operations and Their Properties
	Wednesday	February 1	3-1 Numeration Systems
4	**Monday**	**February 6**	**Exam 1—Chapters 1 & 2 and Section 3-1 (15%)**
	Wednesday	February 8	3-2 Addition and Subtraction of Whole Numbers 3-3 Multiplication and Division of Whole Numbers
5	Monday	February 13	3-4 Mental Mathematics and Estimation for Addition and Subtraction 3-5 Mental Mathematics and Estimation for Whole-Number Operations
	Wednesday	February 15	4-1 Divisibility
6	Monday	February 20	4-2 Prime and Composite Numbers
	Wednesday	February 22	4-3 Greatest Common Divisor and Least Common Multiple
7	**Monday**	**February 27**	**Exam 2—Chapters 3 & 4 (15%)**
	Wednesday	March 1	5-1 Integers and the Operations of Addition and Subtraction 5-2 Multiplication and Division of Integers Lesson Plan Due
8	Monday	March 6	Lesson Plan Presentations
	Wednesday	March 8	Lesson Plan Presentations
			SPRING BREAK—MARCH 13 – 17
9	Monday	March 20	6-1 The Set of Rational Numbers
	Wednesday	March 22	6-2 Addition, Subtraction, and Estimation with Rational Numbers
10	Monday	March 27	6-3 Multiplication and Division of Rational Numbers
	Wednesday	March 29	6-4 Ratios, Proportions, and Proportional Reasoning
11	**Monday**	**April 3**	**Exam 3—Chapters 5 & 6 (15%)**
	Wednesday	April 5	7-1 Introduction to Decimals
12	Monday	April 10	7-2 Operations on Decimals
	Wednesday	April 12	7-3 Nonterminating Decimals 7-4 Percent and Interest
13	**Monday**	**April 17**	**Easter Holiday (No class)**
	Wednesday	April 19	8-1 Real Numbers
14	Monday	April 24	8-2 Variables 8-3 Equations
	Wednesday	April 26	8-4 Functions
15	**Monday**	**May 1**	**Exam 4—Chapters 7 & 8 (15%)**
	Wednesday	May 3	Review for Comprehensive Final Exam
16	**Wednesday**	**May 10**	**Comprehensive Final Exam (15%) (3:15 – 5:15)**