# South Plains College Department of Mathematics and Engineering Fundamentals of Math I: 1350.001 Fall 2019 Course Syllabus

Instructor: Kaylan K Thompson

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**Office Hours**: As listed or by appointment.

Monday	Tuesday	Wednesday	Thursday	Friday
9:00-10:00, 1:00-2:30		9:00-10:00, 1:00-2:30		TBA

#### **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/MyMathLab:** A Problem Solving Approach to Mathematics for Elementary School Teachers, 13<sup>th</sup> edition, by Billstein, Libeskind, & Lott.

**Required Materials:** MyMathLab Student Access Kit: This kit is free with the purchase of a new textbook at either SPC bookstore or you may also purchase it online at pearsonmylabandmastering.com in which you will need a credit card or PayPal. I encourage you to purchase this kit immediately. Whether you purchase MyMathLab at a bookstore or online, you will need to go to pearsonmylabandmastering.com and click on "Get Registered" in the students box. If you have not yet purchased the access code, that opportunity should be provided as you go through the registration process. You will need the course ID thompson95567.

**Optional Materials:** Textbook: A Problem Solving Approach to Mathematics for Elementary School Teachers, Twelfth Edition, by Billstein, Libeskind, & Lott. The textbook is available in multimedia e-form as a part of MyMathLab. If you prefer to own a hard copy, you must purchase a textbook **and** the MyMathLab Student Access Kit. If you purchase a new textbook, the student access kit is free.

**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%	<b>Grading Scale:</b> A 90-100
	Detailed Lesson Plan	10%	В 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 **thompson95567** 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. Homework problems given in MML may be reworked as many times as you wish, before the deadline, to get a 100 on the assignment.

## 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. You may submit quizzes two times, and the highest of the two grades will be counted.

**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.

**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 Office) 806-716-2577, Reese Center (Building 8) 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

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.

**Diversity Statement**: In this class, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

**Non-Discrimination Statement:** South Plains College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College, 1401 College Avenue, Box 5, Levelland, TX 79336. Phone number 806-716-2360.

Campus Concealed Carry - Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in South Plains College buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and South Plains College policy, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to the SPC policy at: (<a href="http://www.southplainscollege.edu/human\_resources/policy\_procedure/hhc.php">http://www.southplainscollege.edu/human\_resources/policy\_procedure/hhc.php</a>). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all South Plains College campuses. Report violations to the College Police Department at 806-716-2396 or 9-1-1.

**Sexual Misconduct Statement**: As a faculty member, I am deeply invested in the well-being of each student I teach. I am here to assist you with your work in this course. If you come to me with other non-course-related concerns, I will do my best to help.

It is important for you to know that all faculty members are mandated reporters of any incidents of sexual misconduct. That means that I cannot keep information about sexual misconduct confidential if you share that information with me. Crystal Gilster, the Director of Health & Wellness, can advise you confidentially as can any counselor in the Health & Wellness Center. They can also help you access other resources on campus and in the local community. You can reach Ms. Gilster at 806-716-2362 or email cgilster@southplainscollege.edu or go by the Health and Wellness Center for assistance. You can schedule an appointment with a counselor by calling 806-716-2529.

**4.1.1.4 Title IX Pregnancy Accommodations Statement**: If you are pregnant, or have given birth within six months, Under Title IX you have a right to reasonable accommodations to help continue your education. To activate accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Director of Health and Wellness. Once approved, notification will be sent to the student and instructors. It is the student's responsibility to work with the instructor to arrange accommodations. Contact Crystal Gilster, Director of Health and Wellness at 806-716-2362 or email cgilster@southplainscollege.edu for assistance.

# Fundamentals of Mathematics I Tentative Course Calendar Fall 2019

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	August 26	1-1 Mathematics and Problem Solving	
	Wednesday	August 28	1-2 Explorations with Patterns	
2	Monday	September 2	Labor Day Holiday (no class)	
	Wednesday	September 4	2-2 Describing Sets	
3	Monday	September 9	2-3 Other Set Operations and Their Properties	
	Wednesday	September 11	3-1 Numeration Systems, Review 1	
4	Monday	September 16	Exam 1—Chapters 1 & 2 and Section 3-1 (15%)	
			3-2 Addition and Subtraction of Whole Numbers	
	Wednesday	September 18	3-3 Multiplication and Division of Whole Numbers	
_			3-4 Mental Mathematics and Estimation for Addition and Subtraction	
5	Monday	September 23	3-5 Mental Mathematics and Estimation for Whole-Number Operations	
	Wednesday	September 25	4-1 Divisibility	
6	Monday	September 30	4-2 Prime and Composite Numbers	
	Wednesday	October 2	4-3 Greatest Common Divisor and Least Common Multiple, Review 2	
7	Monday	October 7	Exam 2—Chapters 3 & 4 (15%), Lesson Plan due	
	Wednesday	October 9	Lesson Plan Presentations	
8	Monday	October 14	Lesson Plan Presentations	
		0 1 1 46	5-1 Integers and the Operations of Addition and Subtraction	
	Wednesday	October 16	5-2 Multiplication and Division of Integers	
9	Monday	October 21	6-1 The Set of Rational Numbers	
	Wednesday	October 23	6-2 Addition, Subtraction, and Estimation with Rational Numbers	
10	Monday	October 28	6-3 Multiplication and Division of Rational Numbers	
	Wednesday	October 30	6-4 Ratios, Proportions, and Proportional Reasoning	
11	Monday	November 4	Exam 3—Chapters 5 & 6 (15%)	
	Wednesday	November 6	7-1 Introduction to Decimals	
12	Monday	November 11	7-2 Operations on Decimals	
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12	Wednesday	November 13	7-4 Percent and Interest	
13	Monday	November 18	7-5 Real Numbers	
	Wednesday	November 20	8-1 Variables 8-2 Equations	
14	Monday	November 25	8-3 Functions	
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4.5	Wednesday	November 27	Thanksgiving Holiday (no class)	
15	Monday	December 2	Exam 4—Chapters 7 & 8 (15%)	
	Wednesday	December 4	Review for Comprehensive Final Exam	
16	Monday	December 9	Comprehensive Final Exam (15%) (1:00 pm – 3:00 pm)	

Important Dates: September 2: Labor Day Holiday

September 13 (by 11:00 am): Lesson plan conference must be completed

October 11: Fall Break (no office hours)

October 7: Lesson Plan Due November 14: Last day to drop

November 27-29: Thanksgiving Holiday