

South Plains College
Department of Mathematics and Engineering
MATH FOR TEACHERS II: 1351.001
Spring 2017 Course Syllabus

Instructor: Kaylan K Thompson
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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

Prerequisite: a grade of C or better in Math 1314 and Math 1350

Course Description: Topics include concepts of geometry, probability, and statistics, as well as applications of the algebraic properties of real numbers to concepts of measurement with an emphasis on problem solving and critical thinking.

Purpose: Math 1351 is designed to provide the prospective elementary/junior high school teacher with some background in geometry, probability, and statistics. This course is a requirement for the Associate of Arts in Teaching (AAT) degree.

Course Learning Outcomes:

Upon completion of this course, the student should be able to do the following:

1. Compute probabilities and odds.
2. Use permutations and combinations in computing probabilities.
3. Organize data and represent the data with an appropriate statistical graph.
4. Compute measures of central tendency and measures of variation.
5. Use geometric terms to identify figures and relationships between figures.
6. Make geometric constructions using only a compass and a straightedge.
7. Graph and write equations of lines.
8. Use both the customary English system and the metric system, and be able to carry out conversions within both systems.
9. Compute linear measure, area, and volume.
10. Know the Pythagorean Theorem and the distance formula, and be able to use them in problem solving.
11. Write a detailed lesson plan for a K – 8 math class.

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, composition notebook, 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/Activities/Mini Lessons	10%	Grading Scale: A 90-100 B 80-89 C 70-79 D 60-69 F 59 or below
	Quizzes	5%	
	Detailed Lesson Plan	5%	
	Interactive Notebook	5%	
	Unit Exams	60%	
	Final Exam	15%	

Homework: Homework will be assigned for each section on MyMathLab (MML). The Course ID is **thompson90408** 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.

Interactive Notebook:

Each student will complete a geometry vocabulary interactive notebook. 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 II Tentative Course Calendar Spring 2017

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

MATH 1351.001 – TR 2:30 – 3:45 PM

Week	Date	Sections covered
1	Tues, Jan 17	9.1 Determining Probabilities
	Thurs, Jan 19	Probability Activity
2	Tues, Jan 24	9.2 Multistage Experiments and Modeling Games
	Thurs, Jan 26	9.3 Applications in Probability
3	Tues, Jan 31	9.4 Permutations and Combinations in Probability
	Thurs, Feb 2	10.2 Displaying Data: Part I
4	Tues, Feb 7	10.3 Displaying Data: Part II
	Thurs, Feb 9	10.4 Measures of Central Tendency and Variation
5	Tues, Feb 14	Review
	Thurs, Feb 16	Exam 1 -- Chapters 9 & 10
6	Tues, Feb 21	11.1 Basic Notions
	Thurs, Feb 23	11.2 Curves, Polygons, and Symmetry
7	Tues, Feb 28	11.3 More About Angles
	Thurs, Mar 2	Interactive Notebook Set-up
8	Tues, Mar 7	Review
	Thurs, Mar 9	Exam 2 -- Chapter 11
	March 13-17	Spring Break
9	Tues, Mar 21	12.1 Congruence Through Constructions
	Thurs, Mar 23	12.2 Additional Congruence Theorems
10	Tues, Mar 28	12.4 Similar Triangles and Other Similar Figures
	Thurs, Mar 30	13.1 Translations and Rotations
11	Tues, Apr 4	13.2 Reflections and Glide Reflections, Review
	Thurs, Apr 6	Test 3 -- Chapters 12 & 13
12	Tues, Apr 11	14.1 Linear Measurement
	Thurs, Apr 13	14.2 Areas of Polygons and Circles
13	Tues, Apr 18	14.3 The Pythagorean Theorem, Distance Formula
	Thurs, Apr 20	14.4 Surface Areas
14	Tues, Apr 25	14.5 Volume, Mass, and Temperature
	Thurs, Apr 27	Review
15	Tues, May 2	Test 4 -- Chapter 14
	Thurs, May 4	Review for Final Exam
16	Tues, May 9	Comprehensive Final Exam
		1:00 pm – 3:00 pm

Important Dates: January 16: Martin Luther King Holiday
 March 13 – 17: Spring Break
 April 17: Easter Holiday
 April 27: Last Day to Drop