Math 206 Math for Elem School Teachers IISpring 2025Instructor:Terra StampsPrairie State College

Prerequisites: Math 200 with a C or better or equivalent **In-Person Office Hours:** Mon & Wed 11:30-1, Tues & Thurs 11:30-12:30 and by appointment **Virtual Office Hours:** Available by appointment only via google meet

Office: Room 2301 Email: <u>tstamps@prairiestate.edu</u> Office Phone: (708) 709-3608 Website: www.terrastamps.com

Course Meetings: Tues & Thurs 12:30-2:10pm in Room 2625 Credit: 4 hours Text: A Problem-Solving Approach to Mathematics for Elementary School Teachers, Billstein, Boschmans, Libeskind, & Lott, 13th edition

Calculator & Tools: A scientific calculator is required for this course. I recommend either a TI-83 or TI-84 graphing calculator or a TI-30XS Multiview scientific calculator. You will also need a compass and straightedge for chapter 12 when we do constructions.

D2L: Videos, lecture notes, and assignments for each week will be posted in D2L. Your final exam will also be posted as a quiz in D2L.

MyLab: This course will utilize MyLab Math for online homework and quizzes. You are required to purchase an access code to utilize this software. This access code can be purchased from the PSC bookstore or directly from <u>Pearson Publishing</u>. Once you have the access code you will need our class code: stamps11668.

Course Description: This course is a continuation of Mathematics for Elementary Teaching I. The topics studied include geometry, probability, statistics, and measurement. Mathematical reasoning and problem solving will be emphasized. This course is recommended to meet the requirements for teacher certification in Illinois. This is a content course; however, some methods will also be taught.

Grading Scale: 90%-100% A 80%-89% B 70%-79% C 60%-69% D 0%-59% F

Grading (All grades will be posted in D2L):

- > 4 tests worth 50 points each for a total of 200 points (53% of your grade)
- 12 quizzes worth 5 points each (I will drop your lowest 2 quiz grades.) for a total of 50 points (13% of your grade)
- 21 sections of homework worth 3 points each (you may skip 3) for a total of 54 points (14% of your grade)
- > 1 comprehensive final exam worth 75 points (20% of your grade)

> Total number of points possible is 379 points.

Accommodations: Your success is important to us. Prairie State College seeks to maintain academic standards while providing equal access and support services to students who can benefit from college-level work, have the commitment to succeed, and have a documented disability. Students with disabilities, who need accommodations, can learn more by contacting Shelley Tekeste, Access & Disability Coordinator at (708) 709-3755 or email <u>disabilityservices@prairiestate.edu</u>. Lastly, if you require accommodation for the observance of a religious holiday, please notify me during the first week of the semester.

Tests: There will be 4 tests, each worth 50 points. You will be able to replace your lowest test grade with 2/3 of your final exam score (if it helps). Tests will be available in D2L on Monday at 12am on the week when they are assigned. The worked tests are to be scanned and uploaded to the appropriate D2L assignment folder on or before the due date (Wed at 11:59pm). Since the tests are available for 3 days, I do **not** give make-up tests. However, if you should miss **one** exam, I will replace the missing test with 2/3 of your score from the final exam. **Any additional exams that are missed will result in a grade of zero**.

Quizzes: There will be 12 quizzes worth 5 points each. All quizzes will be done in MyLab. You will have 2 attempts to get the best possible score on each quiz. Quizzes are always due on the Saturday of the week they are assigned by 11:59pm. I will drop your lowest two quiz grades at the end of the semester; thus, quizzes will ultimately count the same as a test.

Homework: Practice is essential in the mastery of mathematics. There are 21 sections of homework assigned in MyLab, but only 18 will be counted in your grade. Each section is worth 3 points which will be awarded to any homework section that has a score of 75% or higher. Homework points are all or nothing. If you score below 75%, you get 0 points for that section. If you score 75% (or any score higher) you get 3 points for that homework section. You will have unlimited attempts on each homework section. All homework is due by 11:59pm on Saturday May 10. It is in the best interest of your grade to keep up with the homework assignments throughout the semester.

Academic Honesty: In a math class, it is extremely important that the work you present to your instructor is genuinely something that you have produced. Relying heavily on other people and/or technology can create a false sense of achievement that ultimately leads to failure on quizzes and tests when those resources are no longer available. Part of my role as instructor is to communicate to you in what situations the use of technology, such as calculator, website, or app, is acceptable, and when it is not. <u>In general, the use of any technology that allows students to simply type in a problem and have the entire problem solved for them is prohibited</u>.

Any student suspected of academic misconduct will meet with me, another math faculty member, and/or the Dean of Math & Sciences. The student will be asked to explain their work and rework a similar problem. If the student is unable to complete both tasks, a grade of 0 will be awarded on the assignment and a violation form will be completed and placed in the student's file. After 3 academic misconduct violations the student will face disciplinary actions that may include expulsion.

Math 206 Sections and Topics to Be Covered

- 9-1 Determining Probabilities
- 9-2 Multistage Experiments and Modeling Games
- 9-3 Simulations and Application of Probability
- 9-4 Counting and Techniques in Probability
- 10-1 Designing Experiments and Collecting Data
- 10-2 Displaying Data Part I
- 10-3 Displaying Data Part II
- 10-4 Measures of Central Tendency and Variation
- 11-1 Basic Notions in Geometry
- 11-2 Curves, Polygons, and Symmetry
- 11-3 More About Angles
- 11-4 Geometry in Three Dimensions
- 12-1 Congruence Through Constructions
- 12-2 Additional Congruence Theorems
- 12-3 Additional Constructions
- 12-4 Similar Triangles and Other Similar Figures
- 13-1 Linear Measure
- 13-2 Areas of Polygons and Circles
- 13-3 The Pythagorean Theorem, Distance Formula, and Equation of a Circle
- 13-4 Surface Area
- 13-5 Volume and Mass

Course Goals/Objectives:

- To acquaint students with the basic concepts of geometry, measurement, probability, and statistics.
- To increase the students' skill in thoroughly understanding the fundamentals of mathematics
- To increase the students' reasoning and problem-solving abilities

MATH 206 TENTATIVE COURSE OUTLINE

This is *tentative* so please do not be upset if it changes throughout the semester.

Week 1	1/14 & 1/16	9-1	Quiz 1 on 9-1
Week 2	1/21 & 1/23	9-2 & 9-3	Quiz 2 on 9-2 & 9-3
Week 3	1/28 & 1/30	9-4 & activity	Quiz 3 on 9-4
Week 4	2/4 & 2/6	Test 1 on Ch 9 and 10-1	
Week 5	2/11 & 2/13	10-2 & 10-3	Quiz 4 on 10-1 to 10-3
Week 6	2/18 & 2/20	10-4 & activity	Quiz 5 on 10-4
Week 7	2/25 & 2/27	11-1 & 11-2	Quiz 6 on 11-1 & 11-2
Week 8	3/4 & 3/6	11-3 & 11-4	Quiz 7 on 11-3 & 11-4
	3/9-3/15	SPRING BREAK	
Week 9	3/18 & 3/20	Test 2 on Ch 10 & 11 and 12-1	
Week 10	3/25 & 3/27	12-2 & 12-3	Quiz 8 on 12-1 & 12-2
Week 11	4/1 & 4/3	12-4	Quiz 9 on 12-3 & 12-4
Week 12	4/8 & 4/10	Test 3 on Ch 12 and 13-1 The last day to drop is 4/7/25.	
Week 13	4/15 & 4/17	13-2 & 13-3	Quiz 10 on 13-1 & 13-2
Week 14	4/22 & 4/24	13-4	Quiz 11 on 13-3 & 13-4
Week 15	4/29 & 5/1	13-5	Quiz 12 on 13-5
Week 16	5/6 & 5/8	Test 4 on Ch 13 and Review for Final Exam	

Your final exam will be available in D2L under "quizzes" from Sunday May 11 at 12:01am until Wednesday May 14 at 11:59pm. No extensions will be given.