

## MATH-1321-001: SYLLABUS

### 1. COURSE INFORMATION

- Course Title: Mathematics for Elementary School Teachers I
- Course Number: 1321
- Credit Hours: 4; Clinical Hours: 0; Lecture Hours: 4; Lab Hours: 0
- Meet Times: Tuesday and Thursday from 1100 to 1250.
- Meet Location: BIC 1447
- Course Description: Students interested in a career working with children from birth to grade 8 would benefit from taking this course. It is the first course of a two-part sequence. Students will explore sets, logic and mathematical reasoning, problem solving, numeration systems, and elementary number theory. Other topics will include properties, algorithms, and computation with the sets of whole numbers, integers, rational numbers, and real numbers. Active participation in problem solving, conceptual understanding, and mathematical reasoning are integral foundations of this course. Students are expected to already have mastery level arithmetic skills and be proficient at arithmetic operations. This class is intended to teach pre-service teachers multiple strategies for presenting elementary mathematical content. An arithmetic skills assessment is a required mastery component and must be passed with a score of at least 80% for successful course completion. The arithmetic skills assessment is designed to measure a student's ability to perform arithmetic skills without the use of a calculation device or assistance. This course requires students to perform strategies, methods and/or skills where students perform calculations without the use of any assistance. Assistance includes but is not limited to charts, notes, formulas, and technology.
- Repeatable for Credit: NO
- Pre-Enrollment Criteria: N/A
- Prerequisite: Demonstrated geometry competency (level 1), and MATH 0482 or college equivalent with a grade of C or better or a qualifying score on the mathematics placement test or a qualifying ACT or SAT math sub-score or a qualifying high school GPA with successful completion of a 4th year high school math class.

### 2. INSTRUCTOR INFORMATION

- Name: Michael McCabe, M.S.
- Email: mccabem85@cod.edu
- Office: 3436B
- Office Phone: 630 942 2152
- Office Hours: Labeled on Blackboard (always available by appointment)

### 3. GENERAL COURSE OBJECTIVES

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

- 1 Describe the nature and structure of the real number system
- 2 Apply mathematical reasoning to solve problems and analyze solutions
- 3 Apply the fundamental operations of the arithmetic of real numbers
- 4 Interpret mathematical concepts with respect to structures of mathematics
- 5 Demonstrate an ability to use problem solving skills

### 4. TOPICAL OUTLINE

- 1.: Problem solving, logic, and mathematical reasoning
  - a.: Problem solving strategies
  - b.: Logic mathematical reasoning
- 2.: Sets and functions
  - a.: Intersection of sets
  - b.: Union of sets
  - c.: Cartesian product of sets
  - d.: Functions and relations
- 3.: Whole numbers and integers
  - a.: Properties of whole numbers and integers
  - b.: Addition, subtraction, multiplication, and division algorithms of whole numbers and integers
  - c.: Equations and inequalities
- 4.: Numeration systems
  - a.: Properties of numeration systems
  - b.: Addition, subtraction, multiplication, and division algorithms
  - c.: Numeration systems with bases other than ten
- 5.: Elementary number theory
  - a.: Tests for divisibility
  - b.: Primes, composites, and factorization
  - c.: Greatest Common Divisor (GCD) and Least Common Multiple (LCM)
- 6.: Rational numbers and real numbers
  - a.: Properties of rational and real numbers
  - b.: Algorithms for operations with rational numbers
  - c.: Decimals
  - d.: Irrationals

### 5. REQUIRED TEXTS, MATERIALS, AND SUPPLIES

- **Required Text:** Problem Solving Approach to Mathematics for Elementary School Teachers by Billstein
- **Materials:** MyLab Math Access Code will be required for homework.
- **Supplies:** Internet, extra notebooks, and extra writing tools

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### 6. SCHEDULE

#### 6.1. Academic Calendar.

- First Day: 08/25/2025

- No Class: 10/14, 11/26, 11/27, and 11/28
- Last Day to Withdraw: 11/16
- Final Exam: Thursday, December 18 from 1100 to 1250.

## 6.2. Exam Dates (Tentative).

- Basic Skills Test (Attempt One): 09/04/2025
- Exam 1: 10/09/2025
- Exam 2: 11/06/2025
- Exam 3: 12/11/2025
- Deadline for BST (Attempt Two): 12/13/2025

## 7. METHOD OF EVALUATION

- (1) Exams [Weight 50%]
  - (a) No drops and no retakes.
- (2) Blackboard Assignments [Weight 20%]
- (3) MyLab Math Homework Sets [Weight 10%]
  - (a) At least three of the lowest scores will be dropped.
  - (b) No extensions
- (4) Arithmetic Skills Exam
  - (a) Must pass with an 80% or better on the arithmetic skills assessment.
  - (b) The exam will happen on the second week.
  - (c) Only have **two attempts** and no partial credit.
- (5) Final Exam [Weight 20%]
  - (a) Test on everything covered throughout the semester (Cumulative Exam).
  - (b) Constructed to be completed during a 2 hour time limit on the scheduled Final Exam day.
  - (c) I plan to construct the Final Exam with about 20 questions.

## 7.1. Grade Scale.

- A:** 90% to 100%  
**B:** 80% to 89%  
**C:** 70% to 79%  
**D:** 60% to 69%  
**F:** 59% or less

I do round.

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## 8. ULTRA COURSE VIEW PILOT

Welcome to Math 0481! This course is part of a pilot program for Blackboard Ultra Course View, a user-friendly learning management system designed to enhance your online learning experience. You may engage with various newly available tools and features within the platform to access course materials, participate in discussions, submit assignments, and receive feedback. This pilot of Blackboard Ultra does not change course credits or the instructor established grading basis and course requirements.

Throughout the term, you may be asked to provide feedback through anonymous course surveys. Please be as candid as possible as this is an opportunity for both

instructors and students to explore and provide feedback on the Blackboard Ultra Course View experience.

If you, at any time, experience any difficulties using the Ultra Course View, the College has technical support available just for you. Please send us an email at [studentultrahelp@cod.edu](mailto:studentultrahelp@cod.edu). Staff are available during traditional business hours (8am – 5pm) and we will get back to you as soon as possible. For on-demand help, please use Blackboard Learn Help for Students –{} Ultra Course View.

## 9. ACADEMIC HONESTY

As members of the College of DuPage community, we share a commitment to the highest standards of learning and ethical behavior. The College and its faculty strive to build meaningful and productive relationships with our students. The expectation of honesty and effort is the foundation of that relationship. Academic dishonesty damages the learning partnership built between student and faculty and is considered a serious breach of the principles of learning and growth. Violations of the Code of Academic Conduct will be dealt with appropriately and may become part of a student's educational record. Please don't risk it! For further information about the expectations, please review the Code of Academic Conduct found at the following website: Code of Academic Conduct.

## 10. ACCESS AND ACCOMMODATIONS

- As a course policy, I do not accept late work/make up for My Open Math assignments, attendance, and participation. I am committed to providing fair, equal, and unbiased accommodations. If you believe that your circumstances qualify you for accommodations, please contact the Center for Access and Accommodations at [access@cod.edu](mailto:access@cod.edu). Staff from the Center can help you better understand if your situation qualifies you for an accommodation.
- If you are student who is registered with the Center for Access and Accommodations, please send me your Letter of Accommodation as soon as possible.
- Please do not send me personal medical records or similar personal documents.
- Here is a to start the process for accommodations: Center for Access and Accommodations Intake Form  
([https://cod-accommodate.symplicity.com/public\\_accommodation/](https://cod-accommodate.symplicity.com/public_accommodation/)).

The College of DuPage is committed to the equitable access of educational opportunities for students with disabilities in accordance with The Americans with Disabilities Act, As Amended and Section 504 of the Rehabilitation Act of 1973. Any student who feels they may need an accommodation on the basis of an illness, injury, medical condition, or disability should contact the Center for Access and Accommodations to determine eligibility for accommodations and to obtain an official Letter of Accommodation. The Center for Access and Accommodations can be reached via email at [access@cod.edu](mailto:access@cod.edu). Students may also initiate a request for services by going to [www.cod.edu/access](http://www.cod.edu/access) and clicking on the green box labeled “complete form to request accommodations.” If you are already registered with the

Center for Access and Accommodations, please email me your Letter of Accommodation as soon as possible. Please DO NOT send any private health documentation or Doctor's notes to me.

#### 11. WITHDRAW POLICY

**Withdrawal from a Class.** The final day for a student to withdraw from any course will be equal to 75% of the time for the respective academic session (see the Registration Calendar) through MyAccess or in person at the Registration office, Student Services Center (SSC), Room 2221.

**Administrative Withdrawal.** After the deadline, students will be required to appeal for late withdrawal and provide appropriate documentation to the Student Registration Services Office for all requests. Students who are granted approval to withdraw by petition will not be eligible for refunds of tuition or fees and will receive a 'W' grade on their transcript. Appeals must be submitted prior to the designated final exam period for 16-week classes and before the last class meeting for all other session classes.

**Coronavirus Information.** Stay up to date with information provided by the college about alternative withdrawal policies. [Coronavirus Information](#)