

Math 10A-52700

Mathematics for Elementary School Teachers I

Spring 2022

Course Syllabus

Hi, and welcome to Math 10A. I love to teach this class because many of you will be teachers of our young children and I really want to share ideas and help out as much as I can. You will be challenged in this class but you will also be supported. I want to welcome ALL of you right now to reach out to me whenever you have a question or need of help. College is NOT meant to be done alone, we all had help. To support you in this class you will have my office hours, you can ask to make an appointment if my office hours do not work for you, you will have an embedded tutor and you can make an appointment with them as well and they also have drop-in hours, you have free tutoring at the math center available to you. I will also form study groups for you and you will meet with them about 13 times during the semester. After I make the study groups, if your study group is not working out for you, you can ask to be moved to one of the other available study groups. I may also contact you via email, especially if you fall behind.

General Information

Instructor

Veronica Andrade

Office

Math and Science Room 131

Office Hours

Virtual Office Hours

Tuesdays: 12:00 noon – 12:50 PM

Fridays: 9:00 AM – 10:50 AM

I will connect automatically on these days and times, click on this link during

those times if you would like to connect:

<https://scccd.zoom.us/j/98241771641>

In person Office Hours

Mondays: 1:10 PM – 2:00PM

Wednesdays: 11:00 AM – 11:50 AM

These office hours will be held in my office.

Class Times

We will have one mandatory meeting (an orientation meeting) on Tuesday 1/11/2022 at 9:00 AM. If you complete Unit 0 before 1/11/2022 you do NOT have to attend this meeting and you will NOT be

penalized. It is only mandatory for those who do not complete Unit 0, the meeting is to help you get started. If you DO NOT complete Unit 0 prior to 1/11/2022 here is the link to the meeting at 9:00 AM: <https://scccd.zoom.us/j/99507902871> , the meeting is to help you get started.

You have video lessons to guide you through the course (they will be available on CANVAS) you need to watch and take notes when it is convenient for you but before the due dates. You must also complete the assignments to gain access to the unit tests. We will not meet regularly but I will be available for you, all you have to do is email me, or visit me during my office hours.

Email

maria.andrade-romeo@reedleycollege.edu

Tutoring

The math center is available. If you do not have the RC_Math Center on your CANVAS Dashboard (It has a tiger on the cover) please go to Unit 0 and there are instructions there on how to self-enroll. If you need help please email me.

Prerequisites

none

Course Description

Mathematics for Elementary School Teachers I, focuses on the development of quantitative reasoning skills through in-depth, integrated explorations of topics in mathematics, including real number systems and subsystems. Emphasis is on comprehension and analysis of mathematical concepts and applications of logical reasoning.

Text and Required Material

Beckmann, "Mathematics for Elementary Teachers with Activities" 5th Edition MyMathLab Access Card. The best and cheapest way to purchase the access card is with a credit card through CANVAS. (I recommend you first use the 14-day free trial to sign up and then purchase by 1/26). You only need to purchase the 18 week access card BUT remember this semester has 19 weeks because of Spring Break this is why it is so important to use the 14-day free trial FIRST.

You have two options. Option one: purchase the MathLab Access Card only or Option two: Purchase BOTH the textbook AND the MyMathLab Access Card. In other words, the MyMathLab access card is required and the actual textbook is completely optional (older editions of the textbook are ok because the textbook is not required. I recommend only purchasing the access card since it comes with a digital copy of the book.

Reasons for which you may be dropped

I don't like to drop students but from time to time I have had to, here are the reasons for which you may be dropped:

1. You may be dropped if you have not signed up for MyMathLab by Tuesday January 11th. Please use the 14-day free trial to sign up. Then you can purchase it during the second or

third week of classes (must be purchased by 1/26/22). Make sure that you sign up through the CANVAS website. From CANVAS click on “MyLab and Mastering” on the left-hand side menu this will take you to the Pearson website, but DO NOT go directly to the Pearson website. This means that I will NOT give you a course ID. When you sign up through CANVAS MyMathLab will automatically know what course you need to enroll in.

2. You may be dropped IF YOU HAVE NOT PURCHASED the access code by Wednesday January 26th.
3. You must either complete Unit 0 before Tuesday 1/11/22 OR attend the orientation meeting on Tuesday 1/11/22. You DO NOT NEED TO DO BOTH ONLY ONE. If you attend the orientation meeting you will still need to complete Unit 0, the orientation meetings is just for clarification on how to get started. EVERYONE must complete Unit 0. If you DO NOT COMPLETE UNIT 0 BY 1/19/22 you may be dropped. Unit 0 Includes a syllabus quiz, an introduction, filling out a student information sheet, signing up for MyMathLab, and completing a doodle poll that will be used to assign study groups.

NOTE: If you want to drop the class, make sure that you do so on Webadvisor, do not depend on me to drop you.

Important Dates

1/21/2022: Last day to drop for a full refund.

1/28/2022: Census-Last day to add a class or drop a class to avoid a “W” (1/30 on Webadvisor)

3/11/2022: Final drop deadline, a letter grade will be assigned after this date

5/16/2022 – Final Exam Due

Grading

Grade	Range
A	90 – 100%
B	80 – 89%
C	70 – 79%
D	60 – 69%
F	0 – 59%

Grade Category	Weight
Exams: Tests Only	100%

YOUR GRADE IS THE GRADE ON THE CANVAS GRADEBOOK (NOT THE GRADE IN MYMATHLAB)

Tests

You may not give or receive help on tests.

Homework

Homework WILL NOT be part of your grade but you are required to do the homework to help you prepare for the exam (unit test). You will not have access to the unit tests until you complete all of the MyMathLab unit homework with at least a 75%.

Instruction

I will post the readings and video lessons in CANVAS, please go to the CANVAS homepage and click on the sections to do the readings, watch the videos and take notes. The assignments will also be on CANVAS

Students with Disabilities

If you have any special needs addressed by the American Disability Act and need course materials in alternate modes, or alternate testing circumstances, do notify me as soon as possible. Upon notification, immediate reasonable efforts will be made to accommodate your special needs.

Student Learning Outcomes

Upon completion of this course, students will be able to:

1. Solve multi-step problems using a variety of strategies, including making a table, creating a math drawing, making a model, using patterns, working backward, guessing and checking, and comparing with previous experience.
2. Perform conversions and arithmetic operations to solve problems using number bases other than base-10.
3. Use greatest common factors and least common multiples in computations with rational numbers, including comparing, graphing, and performing arithmetic operations.

Course Objectives

In the process of completing the course, the student will:

1. Perform calculations with place value systems
2. Evaluate the equivalence of numeric algorithms and explain the advantages and disadvantages of equivalent algorithms in different circumstances
3. Apply algorithms from number theory to determine divisibility in a variety of settings
4. Analyze least common multiples and greatest common divisors and their role in standard algorithms
5. Explain the concept of rational numbers, using both ratio and decimal representations
6. Analyze the arithmetic algorithms for these two representations and justify their equivalence
7. Analyze the structure and properties of whole, rational, and real number systems
8. Define the concept of rational and irrational numbers, including their decimal representation and illustrate the use of a number line representation
9. Develop and reinforce conceptual understanding of mathematical topics through the use of patterns, problem solving, communication, connections, modeling, reasoning, and representation
10. Develop activities implementing curriculum standards

Course Outline

1. Numeration systems: history, Hindu-Arabic numeration system, and place value systems
2. Integers: structure and basic properties, computational algorithms
3. Basic number theory: divisibility, prime and composite numbers, prime factorization, fundamental theorem of arithmetic
4. Least common multiple and greatest common divisor

5. Rational numbers: structure and properties, ratio and proportion
6. Real numbers: structure and basic properties, arithmetic operations, rational and irrational numbers, decimal representation, number line representation
7. Patterns, problem solving, communication, connections, modeling, reasoning, and representation
8. National and state curriculum standards for elementary school math including Common Core State Standards.

Disclaimer

Ms. Andrade-Romeo reserves the right to make changes to the syllabus with whole class notification.