

Math 10A- 51001 and 51002 (Online)

Mathematics for Elementary School Teachers I

Fall 2023

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 have free tutoring at the math center available to you. I will also help you form study groups if you wish to start one. You can find more information on this in Unit 0. I may also contact you via email, especially if you fall behind.

General Information

Instructor

Veronica Andrade-Romeo

Office

Math and Science Room 131

Office Hours

In Person:

Math and Science Building room 131
Mondays and Wednesdays 9:00 – 9:50
Thursdays 1:00 – 2:50

On Zoom:

Fridays 9:00 – 9:50
<https://scccd.zoom.us/j/84847207062>

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

This is a zero-textbook-cost class, no need to purchase any textbooks.

You will need to make videos (this is how you will turn in tests) with sound. You can use a smart-phone and have another person record your hand as you write on paper and speak; if you have a touchscreen PC or Mac you can use Screencast-O-Matic (there is a free version) or Panopto (free to Reedley College Students); There is a very nice set up at the library where you can book half an hour and record your own video and they have a camera set up for you, as well as a board. I do recommend that you upload your videos to YouTube or Google Drive and submit links rather than files. Just make sure that your videos are not set to private but that they are set so that anyone with a link can view the video. If you submit a file I do prefer that you submit one video for all of your questions rather than a video for each question but I will take both.

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 completed the 1-1 to 1-4 homework, AND the Add and the Subtract in Different Bases homework by 8/17/23.
2. You may be dropped if you have not completed the 1-1 to 1-4 homework, Add and the Subtract in Different Bases homework, AND the 1-5 to 1-12 homework by 8/24/23
3. You may be dropped if you do not successfully (75% or better) completed each homework assignment in Unit 1 and Unit 2, as well as the Unit 1 and Unit 2 tests by 9/29/23

I do drop students because if you fall too far behind and are not advancing at a good pace then it is highly unlikely that you will pass the class. Please make sure that you stay on task to be successful in this class.

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

Important Dates

- 8/18/2023: Last day to drop for a full refund
- 8/25/2023: Census-Last day to add a class or drop a class to avoid a "W" (8/27 on Self-Service)
- 10/06/2023: Final drop deadline, a letter grade will be assigned after this date

Grading

Your grade in this class will be entirely on the mastery of each skill set that pertains to each

Student Learning Outcome (SLO). That means that only tests will be part of your grade. Why am I not including homework or activities in your grade? I am not including homework or activities in your grade because I WANT you to complete the homework but NOT just to get points, I want you to focus on learning from the homework to perform well on the tests. I also believe that including only the tests gives a better evaluation of what you master in this course. You might be a little scared right now, but I want you to know that I believe in learning from your mistakes and I also believe in growth. Therefore, you will have an opportunity to retake each test. After your first attempt at each test I will grade your test and leave you written feedback on how you can improve, then you will have an opportunity to resubmit your test. However, in order to take advantage of the feedback you need to make sure that you submit the first attempt. Another good thing about how you will be graded in this class is that you will not lose points for turning assignments in late. That does not mean that you can turn them in whenever you want however, because your tests will be on video and I will be grading them manually I do have to have them turned in by a certain date in order for them to get graded but you will have at least one day after the due date in which you can still turn in the test to have it graded on time and receive feedback. I also absolutely do not encourage this but if for some reason you are unable to turn in your first attempt you will also not be penalized if you only turn in a Make-up test, just know that you won't be able to take advantage of written feedback since I won't have a first attempt to grade.

SLOs

You will be graded on 3 SLOs. Below is the skill mastery checklist that you will be graded on:

MATH-10A SLO1: 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. (16%) (Unit 4 Test)

- 1.1 Solve a problem that requires patterns, problem solving, communication, connections, modeling, reasoning and or representation. Students must explain their thought process, how they arrived at the answer.
- 1.2 Develop a problem-solving activity and Identify the Mathematical Practice(s) that could be developed in the process of doing the activity as well as the appropriate grade level based on the common core standards.
- 1.3 Solve a proportion problem using any method other than cross multiplication and explain their reasoning (this also goes with SLO 3 but proportion problems make good examples for problem solving)

MATH-10A SLO2: Perform conversions and arithmetic operations to solve problems using number bases other than base-10. (28%) (Unit 1 Test)

- 2.1 Write numbers in other bases
- 2.2 Perform calculations (addition or subtraction) with place value systems other than base 10
- 2.3 addition or subtraction with the lattice method and compare it with the traditional method
- 2.4 multiplication with the lattice method, partial products, or area model and compare it with the traditional method
- 2.5 scaffolding method of dividing whole numbers and possibly having a remainder and compare it with the traditional method

MATH-10A SLO3: Use greatest common factors and least common multiples in computations with rational numbers, including comparing, graphing, and performing arithmetic operations. (56%) (Unit 2 and Unit 3 Tests)

- 3.1 Simplify a fraction both using the GCF and not using the GCF (multiple simplification steps) and compare the two methods
- 3.2 Demonstrate understanding in comparing fractions with unlike numerators and denominators without using cross multiplication. Use the LCD and the "easiest common denominator" and compare the two methods
- 3.3 Use properties of the real numbers to simplify a complex expression
- 3.4 Convert a decimal that repeats forever into a fraction and provide reasoning

- 3.5 Convert a rational number into a fraction, decimal and percentage and explain their reasoning
- 3.6 Use circle diagrams to add two fractions with unlike denominators (such as $2/3 + 1/2$) and explain why we need common denominators from the diagrams.
- 3.7 Use an example to explain why the "invert and multiply" method works when dividing fractions.
- 3.8 Multiply two decimals by turning them into fractions (do not simplify the fractions) and compare to the standard algorithm for multiplying decimals.
- 3.9 Use equivalent fractions to explain why we divide decimals the way we do
- 3.10 Use an area model to multiply two fractions and graph its simplified fraction answer on the number line to the nearest tenths

Weighted Grade Categories

- SLO2 Unit 1 Test (28% of grade)
- SLO 3 Unit 2 and Unit 3 Tests (56% of grade)
- SLO 1 Unit 4 Test (16 % of grade)

I am weighing the SLOs relative to how many skills you must master for each SLO. As you can see under the SLOs, SLO 1 includes 3 skills, SLO 2 includes 5 skills and SLO 3 includes 10 skills.

The Grading Rubric

I will use a 4-point rubric to grade each question on each test. Here is the general rubric, and I will include a more detailed rubric for each question on each test.

Criteria	Ratings					Points
SLO skill	4.Exceeds Standard	3.Met standard	2.Approaching Standard	1.Not yet met standard	0.Insufficient evidence	4

Final Grades

Every question on each test will be graded using the 4-point scale and then the questions will be averaged (mean) to determine your test grade. That means that the highest number of points you can earn on each test is a 4. After this the four tests will be weighted as described below and your final grade determined. That means that a 4 is equivalent to earning a 100% in class. You will need a minimum of 2 to pass the class. Here is the grading scale and how I will assign letter grades.

Grade	Range	Percentage
A	3.50 – 4.00	87.50% - 100%
B	2.75 – 3.49	68.75% - 87.49%
C	2.00- 2.74	50% - 68.74%
D	1.25 – 1.99	31.25% - 49.99%
F	1.24 and below	Less than 31.25%

Your grade will be tracked in the CANVAS gradebook. Please read through this syllabus carefully and communicate with me if there are any parts that you do not understand. It is especially important that you understand how you will be graded.

Tests

Your test will be recorded and a video or video link will be submitted through CANVAS. You do want to work on the test questions before you record your video. Read the instructions for each test carefully. You will have an opportunity to retake/Make-up Unit1 test, Unit 2 Test, and Unit 3 Test. After the Unit 4 Test you will have an opportunity to retake/Make-up up to two tests as the final exam (Any time that you are turning in a retake you do NOT have to do the entire test again, only the questions that you want to improve).

- Do NOT turn in tests by uploading it as a comment on the assignment page and do NOT turn in tests by emailing them to me.
- Tests can only be turned in by hitting “submit” and submitting it through CANVAS in the assignment page, it must be done by the deadline and definitely before the “grace-period” ends.
- If you miss the deadline and grace-period you must wait until a retake opportunity (if there is one left) or the final exam. There will be at least two opportunities to submit each test. Read the calendar under Unit 0 carefully.
- Submit a video under Unit 0 introducing yourself (please read the instructions). This needs to be done by 8/11/23 and before any tests are submitted.

Homework

Homework will not be part of your grade but it is REQUIRED. I will NOT grade your Unit Test if you do not obtain at least a 75% on each homework assignment for that unit. You can only submit homework by clicking on “submit” on the assignment page, similar to tests do not submit in the comments and do not email homework to me.

Instruction

You will have to follow entirely online by doing the reading, watching the videos and doing the homework, the calendar with all of the due dates is under Unit 0. This is an online, asynchronous class and we will not have any mandatory whole class meetings. However, from time to time I will schedule review sessions that you can join through Zoom and they are optional.

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.

Disclaimer

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