

Welcome to Math 2118.501: Math for Elementary and Middle School Teachers

Class Information

Instructor

Cindi Goodman
cyndia@unm.edu
 Office: LRC 109 and
 Zoom scheduled times

Class Details:

Mon/Wed 3:00pm – 4:15pm
 LRC 119
 CRN 53342

Instructor led study sessions:

Mon/Wed-- in person
 8:30-10:00 am
 Mon --online
 1:00-2:30 pm
 or by appointment

Zoom link:

<https://unm.zoom.us/j/94393422801>

Passcode: mathhelp

MECS Division Chair:

Andy Taylor
ataylor19@unm.edu

Course Description:

This course offers an in-depth look at rational numbers, arithmetic operations (addition, subtraction, multiplication, and division), and basic geometric concepts. Problem solving is emphasized throughout.

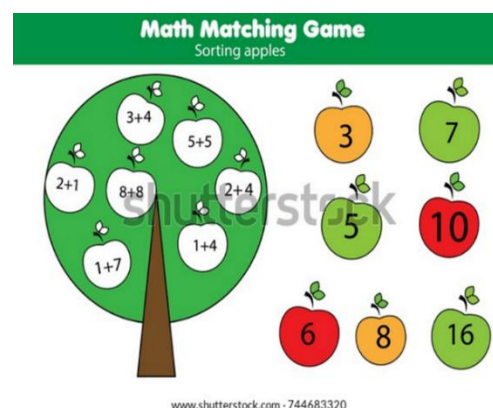
Credit-hour statement:

This is a three-credit-hour course. Class meets for two 75-minute sessions of direct instruction for fifteen weeks during the Spring 2026 semester.

Course Materials:

Textbook: e-text

“Mathematics for Elementary Teachers with Activities,” 5th edition, by Sybilla Beckman. The e-text will be available through RedShelf in Canvas.



Course Outcomes:

Goal 1: Understand data analysis from the viewpoint of the elementary school curriculum, such as making and interpreting dot plots, pictographs, and bar graphs.

SLO 1: By the end of the course, students will display, analyze, and interpret data.

Goal 2: Know how to use appropriate vocabulary, notation, and reasoning in valid mathematical explanations.

SLO 2: By the end of the course, students will construct valid mathematical explanations.

Goal 3: Understand problem solving in the context of mathematical applications.

SLO 3: By the end of the course, students will be able to model and solve a variety of mathematical applications using various approaches relevant to the K-8 curriculum.

Goal 4: Understand the interconnectedness of elementary mathematical concepts and relate these concepts to application problems.

SLO 4: By the end of the course, students will describe real-world situations that model expressions and equations.

Goal 5: Understand algebraic concepts from the viewpoint of elementary school curriculum.

SLO 5: By the end of the course, students will be able to demonstrate an understanding of algebraic concepts of the K-8 curriculum.

Classroom Policies:

Attendance / Participation (10%)

You are expected to be on time for each class, stay the entire class, have the necessary course materials on hand, and participate in the lecture or group activities to receive full credit for attendance each day.

Absences: If you know ahead of time you will miss a class, send me an email indicating the date of the absence to receive an excused absence.

Arrange before the next class meeting to get notes from a classmate. The student bears full responsibility for the material and information covered in class.

Each student starts with 100 attendance points. Attendance is taken at the **beginning** of class. Seven attendance points are deducted for each unexcused absence: Four attendance points for tardiness.

Written Homework (40%)

Each section will have a small separate written homework and must be completed as indicated on the outline. The purpose of the written homework is to determine if you understand the concepts correctly. I will not grade illegible homework. Each homework assignment is worth 25 points.

Homework must be submitted in class or saved as a pdf (not converted to pdf) and uploaded to Canvas by 6:00 pm. **Late homework has a two week's grace period and will receive a 20% penalty. No work will be accepted after two weeks.**

Group Assignments (10%)

There will be two small assignments to be completed in a group. The groups will be between two and three students. These assignments will further develop your conceptual understanding of the topics presented in the course.

You must be present to participate and receive any credit.

Exams/Final Exam (20%/20%)

Two exams will be given during the semester. Students are expected to show their work clearly.

All of the tests (including the final exam) will be in class and will follow a specific procedure. Information on this will be disseminated later in the course.

All students are expected to show all work to get full credit.

If you are unable to take a test, you must notify me **in advance** of the scheduled test. We will determine when a make-up test is to be administered.

The final exam in this class is worth 20%. The sections covered will be communicated as we are near the end of the semester. Permission to take the final exam other than scheduled occurs only under extenuating circumstances as approved by me. Emergency situations will be considered on an individual basis.

Support: If you are struggling in this course, do not be afraid to ask for help!

- Tutoring Hours: See my tutoring hours listed at the beginning of this syllabus.
- Form study groups: You may work together with other members of our class.
- Free Tutoring: <http://valencia.unm.edu/campus-resources/the-learning-center/learning-center.html>
- Tutoring is available in the tutoring center, Learning Resource Center.



The Mayans Number System

The Mayan number system dates back to the fourth century and was approximately 1,000 years more advanced than the Europeans of that time. This system is unique to our current decimal system, which has a base 10, in that the Mayans used a vigesimal system, which had a base 20. This system is believed to have been used because, since the Mayans lived in such a warm climate and there was rarely a need to wear shoes, 20 was the total number of fingers and toes, thus making the system workable. Therefore two important markers in this system are 20, which relates to the fingers and toes, and five, which relates to the number of digits on one hand or foot.

The Mayans were also the first to symbolize the concept of nothing (or zero). The most common symbol was that of a shell () but there were several other symbols (e.g. a head). It is interesting to learn that with all of the great mathematicians and scientists that were around in ancient Greece and Rome, it was the Mayan Indians who independently came up with this symbol which usually meant completion as opposed to zero or nothing.

<http://www.math.wichita.edu/history/topics/num-sys.html>

Instructor Response Time:

I routinely check the course for postings or emails, Monday (7 am) – Friday (noon), and sometimes on the weekend. You can anticipate a 24 to 48-hour response from me, Monday – Thursday. I will try and respond to all weekend (Friday afternoon to Sunday) emails and postings by noon on Monday or earlier. I prefer all communication through UNM Canvas.

Grading: Course Averages:

Attendance	10%
Homework (Written)	40%
Group Assignments	10%
Exams	20%
<u>Final Exam</u>	<u>20%</u>
Total	100%

Grading Scale: Students in this course will receive the following grades:

A	[90 – 100%]
B	[80 – 90%)
C	[70 – 79%)
D	[60 – 70%)
F	[0 – 60%)

Semester Deadlines Spring 2026– 16-week classes:

- Monday, January 19 MLK Jr. Day NO CLASS
- Monday, January 19 First day of class, classes available in UNM Canvas
- Wednesday, January 21 First day of class, classes available in UNM Canvas
- Friday, February 6: Last day to add a class or to change credit hours or grade mode in LoboWEB.
- Friday, February 6: Last day to drop without "W" grade and with 100% refund on LoboWEB
- Friday, April 17: Last day to drop *without* Dean's permission on LoboWEB. Will receive a "W" grade and will be responsible for tuition for the course.
- Friday, May 8: Last day to drop with the permission form.
- Final Exam:

Connecting to Campus and Finding Support: UNM has many resources and centers to help you thrive, including opportunities to get involved, mental health resources, academic support such as tutoring, resource centers for people like you, free food at Valencia Campus Food Pantry, and jobs on campus. Your advisor, staff at the resource centers and Academic Affairs Office, and I can help you find the right opportunities for you.

Support: PASOS Resource Center (505) 925-8546, <mailto:pasos@unm.edu>. The Resource Center is an on-campus center that serves as a “one-stop” for all non-academic needs of UNM-Valencia students.

Wellness: If you do need to stay home due to illness or are experiencing a wellness challenge, please take advantage of the resources below. You can communicate with me at []; I can work with you to provide alternatives for course participation and completion. Let me, an advisor, or another UNM staff member know that you need support so that we can connect you to the right resources. UNM is a mask friendly, but not a mask required, community. If you are experiencing COVID-19 symptoms, please do not come to class.

For Military Connected Students: There are resources on campus designed to help you succeed. You can approach any faculty or staff for help with any issues you may encounter. Many faculty and staff have completed the GREEN ZONE training to learn about the unique challenges facing military-connected students. If you feel that you need help beyond what faculty and/or staff can give you, please reach out to the Veterans Resource Center on main campus at 505-277-3181, or by email at vrc@unm.edu. The Veterans Coordinator at UNM-Valencia is in the Student Services Office, at 505-925-8560.

Land Acknowledgement: Founded in 1889, the University of New Mexico sits on the traditional homelands of the Pueblo of Sandia. The original peoples of New Mexico Pueblo, Navajo, and Apache since time immemorial, have deep connections to the land and have made significant contributions to the broader community statewide. We honor the land itself and those who remain stewards of this land throughout the generations and also acknowledge our committed relationship to Indigenous peoples. We gratefully recognize our history.

University Policies:

Accommodations:

UNM is committed to providing equitable access to learning opportunities for students with documented disabilities. As your instructor, it is my objective to facilitate an inclusive classroom setting, in which students have full access and opportunity to participate. To engage in a confidential conversation about the process for requesting reasonable accommodations for this class and/or program, please contact Accessibility Resource Center at arcsrvs@unm.edu or by phone at 505-277-3506. The [UNM-Valencia Equal Access Services](#) (Sarah Clawson, Coordinator), at (505) 925-8840 or by email at sjclawson@unm.edu.

Title IX: UAP 2720 and 2740. Our classroom and university should always be spaces of mutual respect, kindness, and support, without fear of discrimination, harassment, or violence. If you ever need assistance or have concerns about incidents that violate this principle, please access campus support resources. These include confidential services at [LoboRESPECT Advocacy Center](#), the [Women's Resource Center](#), and the [LGBTQ Resource Center](#). The University of New Mexico prohibits discrimination on the basis of sex (including gender, sex stereotyping, gender expression, and gender identity). UNM faculty and graduate teaching assistants are considered "responsible employees." "Responsible employees" must [communicate reports](#) of sexual harassment, sexual misconduct and sexual violence to [Compliance, Ethics and Equal Opportunity](#). For more information on the campus policy regarding sexual misconduct, reporting, and reporting for "responsible employees," please see [UAP 2720](#) and [UAP 2740](#). If you are pregnant or experiencing a pregnancy-related condition, you may contact UNM's Office of Compliance, Ethics, and Equal Opportunity at ceeo@unm.edu. The CEOO staff will provide you with access to available resources and supportive measures and assist you in understanding your rights. [Pregnancy and Parenting Support information](#) is available here.

Academic Integrity:

Having academic integrity is paramount to your success in any class. Plagiarism or cheating is not tolerated. Any instance of this will result in a grade of zero for that assignment. Here is the link to the UNM Academic Dishonesty Policy:

<https://policy.unm.edu/regents-policies/section-4/4-8.html>. The policy states:

Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or who otherwise fails to meet the expected standards. Any student judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course.

Academic Dishonesty is defined as:

"Academic dishonesty" includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.

Course Outline (Math 2118: (Spring 2026) Course outline is subject to change)

Week	Dates	Sections / Topics	Assignments Due at the beginning of class Wednesdays OR submitted as a pdf by 3:00 pm on the due date.
1	1/21	Introduction Unit 1: Section 3.4	
2	1/26-1/28	Unit 2: Sections 5.1, 5.2	
3	2/2-2/4	Unit 3: Sections 6.4, 6.5	Written homework Unit 1
4	2/9-2/11	Unit 4: Sections 6.6, 7.1	Written homework Unit 2
5	2/16-2/18	Unit 5: Section 7.2 Review	Written homework Unit 3
6	2/23-2/25	Test # 1 Unit 6: Section 9.2	Written homework Unit 4
7	3/2-3/4	Unit 7: Sections 9.3, 9.4, 9.5	Written homework Unit 5
8	3/9-3/11	Sections 9.3, 9.4, 9.5 continued	Written homework Unit 6 Group Project 1
	3/16-3/18	Spring Break	
9	3/23-2/25	Unit 8: Sections 11.1, 11.4	
10	3/30-4/1	Review Test #2	Written homework Unit 7
11	4/6-4/8	Unit 9: Sections 12.1, 12.2	Written homework Unit 8
12	4/13-4/15	Unit 10: Section 12.3, 12.4	Written homework Unit 9
13	4/20-4/22	Unit 11: Section 12.6, 12.8	Written homework Unit 10 Group Project 2
14	4/27-4/29	Unit 12: Sections 15.2, 15.3	Written homework Unit 11
15	5/4-5/6	Review	Written homework Unit 12
16	5/11	Final Exam: Monday, May 11 (3:00-5:00 pm)	

Math 2118: Spring 2026

Due dates in this outline may change as needed.

Unit	MTH 2118 Written Homework Problems	Due Date
1	Sec. 3.4: page 141 #3, 12, 13, 21	2/4
2	Sec. 5.1: page 215 #5a-d, 6a-c, 11 Sec. 5.2: page 223 #1, 3, 9a-b	2/11
3	Sec. 6.4 page 275 #7a, 9, 14 Sec. 6.5 page 284 #3a-d, 7, 10	2/18
4	Sec. 6.6 page 293 #3a-c, 10, 14a-b Sec. 7.1 page 305 #1, 7a-b, 8a-b	2/25
5	Sec. 7.2 page 314 #1a-b, 5a-d, 9, 18a-b	3/4
6	Sec. 9.2 page 412 #4a-c, 7, 17	3/11
7	Sec. 9.3 page 423 #1a-c, g, i, 5 a-b Sec. 9.4 page 430 #2, 4, 8 Sec. 9.5 page 443 #1a-c, 3, 5a-c	4/1
8	Sec. 11.1 page 529 #2a-f, 6 Sec. 11.4 page 546 #1a-b, 3, 12	4/8
9	Sec. 12.1 page 556 #3a-b, 6a-b Sec. 12.2 page 560 #3a-b, 4	4/15
10	Sec. 12.3 page 568 #2, 7, 10 Sec. 12.4 page 574 #6, 7a-b	4/22
11	Sec. 12.6 page 586 #4, 7a-b Sec. 12.8 page 595 #2, #10a-d	4/29
12	Sec. 15.2 page 720 #3a-g Sec. 15.3 page 729 #4, 7, 10a-b	5/6

The page numbers are a suggested starting point. Make sure you solve the problems for the section, and not the practice exercises.