

**Welcome to Math 2118:  
Math for Elementary and Middle School Teachers**

**Instructor**

Cindi Goodman  
[cyndia@unm.edu](mailto:cyndia@unm.edu)  
Office: LRC 109

**Class Details**

Mon/Wed: 10:30am– 12:10pm  
VCTC 108  
CRN 48295  
MML Course ID:  
goodman27408

**Ask Me Questions/ Check In:**

Mon/Wed: 9:00am – 10:00am  
              2:30pm – 4:00pm  
Thursday: 11:00a – 1:00pm  
Or by appointment

**Online via Zoom**

Wed 2:30pm – 4:00pm  
<https://unm.zoom.us/j/94360342143>

**Password: mathhelp**

Or by appointment

MECS Division Chair: Ariel Ramirez  
[aramirez8@unm.edu](mailto:aramirez8@unm.edu)

**Course Description**

This course offers an in-depth look rational numbers, arithmetic operations (addition, subtraction, multiplication, and division), and basic geometric concepts. Problem solving is emphasized throughout. (3 Credit Hours).



Prerequisite: Math 1118 and (1215X or 1220 or 1230 or 1240 or 1350 or 1430 or 1512 or ACT Math =>19 or SAT Math Section =>480 or ACCUPLACER Next-Generation Quantitative Reasoning, Algebra, and Statistics =>262).

**Get to Know Your Professor**

I am Cindi Goodman and I am an Assistant Professor of Mathematics at UNM-Valencia. I have taught developmental mathematics and critical thinking for mathematics since 2014. I was a tutor for 9 years before I began teaching specializing in math. I have a Bachelor’s degree in Pure Mathematics from The University of New Mexico, a Master’s degree in Mathematics and Education from Western New Mexico University in Silver City, NM.

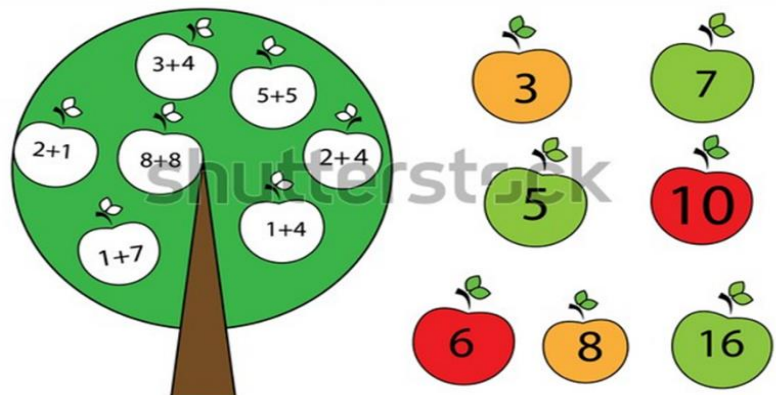
**Course Materials**

**Textbook: e-text**

“Mathematics for Elementary Teachers with Activities,” 5th edition, by Sybilla Beckman

The e-text will be available through Canvas.

**Math Matching Game**  
Sorting apples



## 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



### 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 Mayan's used a vigesimal system, which had a base 20. This system is believed to have been used because, since the Mayan's 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 Mayan's 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>



# 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. Late homework has a 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. 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 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.

**Credit-hour Statement:** This is a three credit-hour course. Class meets for two 75-minute sessions of direct instruction for sixteen weeks during the Fall 2022 semester. Please plan for a minimum of six hours of out-of-class work (or homework, study, assignment completion, and class preparation) each week.

## Grading Distribution & Scale

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%]

## Student Resources

**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 available in the tutoring center, Learning Resource Center.

## Semester Deadlines

Spring 2023– 16-week classes (deadlines will be different for first and second 8-week classes)

- Monday, January 16: Martin Luther King Jr. Day, No Class
- Monday, January 16: First day of class, classes available in UNM Canvas
- Friday, January 27, by 5:00 pm: Last day to add a class or to change credit hours or grade mode in LoboWEB.
- Friday, February 3: Last day to drop without "W" grade and with 100% refund on LoboWEB
- March 12-19 Spring Break, no classes
- Friday, April 14: 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 5: Last day to drop with the permission form.
- Final Exam: Monday, May 8, 10:30 am - 12:30 pm

## COVID-19 Requirements:

**COVID-19 Health and Awareness.** UNM is a mask friendly, but not a mask required, community. To be registered or employed at UNM, Students, faculty, and staff must all meet UNM's [Administrative Mandate on Required COVID-19 vaccination](#). If you are experiencing COVID-19 symptoms, please do not come to class. If you have a positive COVID-19 test, please stay home for five days and isolate yourself from others, per the [Centers for Disease Control \(CDC\) guidelines](#). If you do need to stay home, please communicate with me at [cyndia@unm.edu](mailto:cyndia@unm.edu). I can work with you to provide alternatives for course participation and completion. UNM faculty and staff know that these are challenging times. Please let me, an advisor, or another UNM staff member know that you need support so that we can connect you to the right resources. Please be aware that UNM will publish information on websites and email about any changes to our public health status and community response.

**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:** In accordance with University Policy 2310 and the Americans with Disabilities Act (ADA), academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. It is imperative that you take the initiative to bring such needs to the instructor's attention, as I am not legally permitted to inquire. Students who may require assistance in emergency evacuations should contact the instructor as to the most appropriate procedures to follow. Contact [Accessibility Resource Center](#) at 277-3506 or [arcsrvs@unm.edu](mailto:arcsrvs@unm.edu) for additional information.

UNM is committed to providing courses that are inclusive and accessible for all participants. As your instructor, it is my objective to facilitate an accessible classroom setting, in which students have full access and opportunity. If you are experiencing physical or academic barriers, or concerns related to mental health, physical health and/or COVID-19, please consult with me after class, via email/phone or during office hours. You are also encouraged to contact [Accessibility Resource Center](#) at [arcsrvs@unm.edu](mailto:arcsrvs@unm.edu) or by phone 277-3506. If you are a Valencia campus student, contact Equal Access Services at Valencia Campus at (505)925-8560 or [Valencia Student Services](#). If you are a main campus student, you can receive documentation from the main campus Accessibility Resource Center. I will not guarantee accommodation without the appropriate documentation.

**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.

Any student judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question or for the course.

**Respectful and Responsible Learning:** We all have shared responsibility for ensuring that learning occurs safely, honestly, and equitably. Submitting material as your own work that has been generated on a website, in a publication, by an artificial intelligence algorithm, by another person, or by breaking the rules of an assignment constitutes academic dishonesty. It is a student code of conduct violation that can lead to a disciplinary procedure. *Please ask me for help in finding the resources you need to be successful in this course. I can help you use study resources responsibly and effectively.* Off-campus paper writing services, problem-checkers and services, websites, and AIs can be incorrect or misleading. You can only learn the course material if you complete and submit your own work. UNM preserves and protects the integrity of the academic community through multiple policies including policies on student grievances (Faculty Handbook D175 and D176), academic dishonesty (FH D100), and respectful campus (FH CO9). These are in the *Student Pathfinder* (<https://pathfinder.unm.edu>) and the *Faculty Handbook* (<https://handbook.unm.edu>).

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.*

**Title IX Reporting Obligations:** Our classroom and our university should always be spaces of mutual respect, kindness, and support, without fear of discrimination, harassment, or violence. Should you ever need assistance or have concerns about incidents that violate this principle, please access the resources available to you on campus, especially the LoboRESPECT Advocacy Center and the support services listed on its website (<http://loborespect.unm.edu/>). Please note that, because UNM faculty, TAs, and GAs are considered "responsible employees" by the Department of Education, any disclosure of gender discrimination (including sexual harassment, sexual misconduct, and sexual violence) made to a faculty member, TA, or GA must be reported by that faculty member, TA, or GA to the university's Title IX coordinator at the [Office of Compliance, Ethics, and Equal Opportunity](#). For more information on the campus policy regarding sexual misconduct, please see: <https://policy.unm.edu/university-policies/2000/2740.html>.

**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 [vrcc@unm.edu](mailto:vrcc@unm.edu). The Veterans Coordinator at UNM-Valencia is in the Student Services Office, at 505-925-8560.

**Course Outline (Math 2118: (Spring 2023) Course outline is subject to change)**

<b>Week</b>	<b>Dates</b>	<b>Sections / Topics</b>	<b>Assignments Due at beginning of class Wednesdays</b>
1	1/18	Introduction Section 3.4	
2	1/23-1/25	Sections 5.1, 5.2	
3	1/30-2/1	Sections 6.4, 6.5	Written homework 1 due
4	2/6-2/8	Sections 6.6, 7.1	Written homework 2 due
5	2/13-2/15	Section 7.2 <b>Review</b>	Written homework 3 due
6	2/20-2/22	<b>Test # 1</b> Section 9.2	Written homework 4 due
7	2/27-3/1	Sections 9.3, 9.4, 9.5	Written homework 5 due
8	3/6-3/8	Sections 9.3, 9.4, 9.5 continued	Written homework 6 due Group Project 1
	3/13-3/15	<b>Spring Break</b>	
9	3/20-3/22	Sections 11.1, 11.4	Written homework 7 due
10	3/27-3/29	<b>Review</b> <b>Test #2</b>	Written homework 8 due
11	4/3-4/5	Sections 12.1, 12.2	Written homework 9 due
12	4/10-4/12	Section 12.3, 12.4	Written homework 10 due Group Project 2
13	4/17-4/19	Section 12.6, 12.8	Written homework 11 due
14	4/24-4/26	Sections 15.2, 15.3	Written homework 12 due
15	5/1-5/3	Review	
16	5/8	<b>Final Exam (4:30—6:30 pm)</b>	

# Math 2118: Spring 2023

*Due dates in this outline may change as needed.*

Unit	MTH 2118 Written Homework Problems	Due Date
1	Sec. 3.4: page 131 #3, 12, 13, 21	2/1
2	Sec. 5.1: page 203 #5a-d, 6a-c, 11 Sec. 5.2: page 209 #1, 3, 9a-b	2/8
3	Sec. 6.4 page 260 #7a, 9, 14 Sec. 6.5 page 268 #3, 7, 10	2/15
4	Sec. 6.6 page 277 #3a-c, 10, 14a-b Sec. 7.1 page 288 #1, 7a-b, 8a-b	2/22
5	Sec. 7.2 page 297 #1a-b, 5a-d, 9, 18a-b	3/1
6	Sec. 9.2 page 394 #4a-c, 7, 17	3/8
7	Sec. 9.3 page 403 #1a-c, g, i, 5 a-b Sec. 9.4 page 410 #2, 4, 8 Sec. 9.5 page 423 #1a-c, 3, 5a-c	3/22
8	Sec. 11.1 page 504 #2a-f, 6 Sec. 11.4 page 521 #1a-b, 3, 12	3/29
9	Sec. 12.1 page 529 #3a-b, 6a-b Sec. 12.2 page 534 #3a-b, 4	4/5
10	Sec. 12.3 page 542 #2, 7, 10 Sec. 12.4 page 548 #6, 7a-b	4/12
11	Sec. 12.6 page 560 #4, 7a-b Sec. 12.8 page 569 #2, #10a-d	4/19
12	Sec. 15.2 page 692 #3a-g Sec. 15.3 page 700 #4, 7, 10a-b	4/26