Welcome to Math 1118.501:
Math for Elementary and Middle School Teachers

Instructor
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Class Details
Monday/Wednesday
Class Time: 3:00-4:15pm
Room: VACTC 108
CRN 70504
Instructor led study sessions:

Mon/Wed-- in person
9:00-10:00 am
1:30-2:30 pm
Mon --online
1:30-2:30 pm
or by appointment
Zoom link:
https://unm.zoom.us/j/96644343017
Passcode: mathhelp

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 1130 or 1215 or 1220 or 1230 or 1240 or 1350 or 1430 or 1512 or FYEX 1010 or ACT Math =>20 or SAT Math Section =>520 or ACCUPLACER Next-Generation QRAS =>255.

Course Materials:
Textbook: e-text
"Mathematics for Elementary Teachers with Activities," 5th edition, by Sybilla Beckman
The e-text will be available through Canvas.

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, and a Master's degree in Mathematics and Education from Western New Mexico University in Silver City, NM.

Course Outcomes:
Goal 1: Represent numbers and operations with models.
SLO 1: Use visual models, including physical objects, drawings of counts, lengths, and area, number lines, and symbols to represent numbers and operations, and flexibly move between representations.
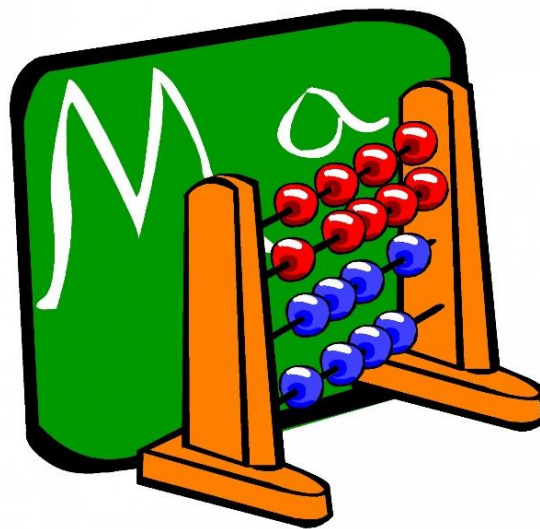**SLO 2:** Explain the relationship between contexts and the appropriate mathematical operations.

Goal 2: Identify and use the deeper structures of arithmetic.
SLO 1: Analyze and perform multiple methods for doing addition, subtraction, multiplication, and division.
SLO 2: Analyze student work, assess the validity of arguments, and identify mathematical misconceptions in mistakes.
SLO 3: Describe and use the relationships between operations to represent and solve problems.
SLO4: Describe and use strategies for mental computation and estimation using fact families, the structure of base-ten numbers, and the arithmetic properties.

Goal 3: Explain concepts in arithmetic.
> **SLO 1:** Explain procedures for doing addition, subtraction, multiplication, and division with base-10 numbers using correct mathematical terminology and notation.
> **SLO 3:** Explain why the commutative and associative properties of addition and multiplication and the distributive property of multiplication over addition make sense.
> **SLO 4:** Explain how estimation and rounding work using models and correct mathematical terminology and notation.
> **SLO 4:** By the end of the course, students will be able to communicate how various mathematical concepts are interconnected, and describe the application of mathematics in a diverse range of fields.

Goal 4: Explain concepts in geometry.
> **SLO 1:** Describe, using appropriate vocabulary and representations, how points, lines, and angles relate to each other and to applications in the real world.
> **SLO 2:** Explain different ways to classify two-dimensional shapes based on their properties.

Classroom Policies:

Attendance / Participation (10%)

You are expected to be <u>on time</u> for each class, stay the <u>entire</u> 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 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. 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 2024 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 and Scale

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

GRADING SCALE:

Students in this course will receive the following grades:

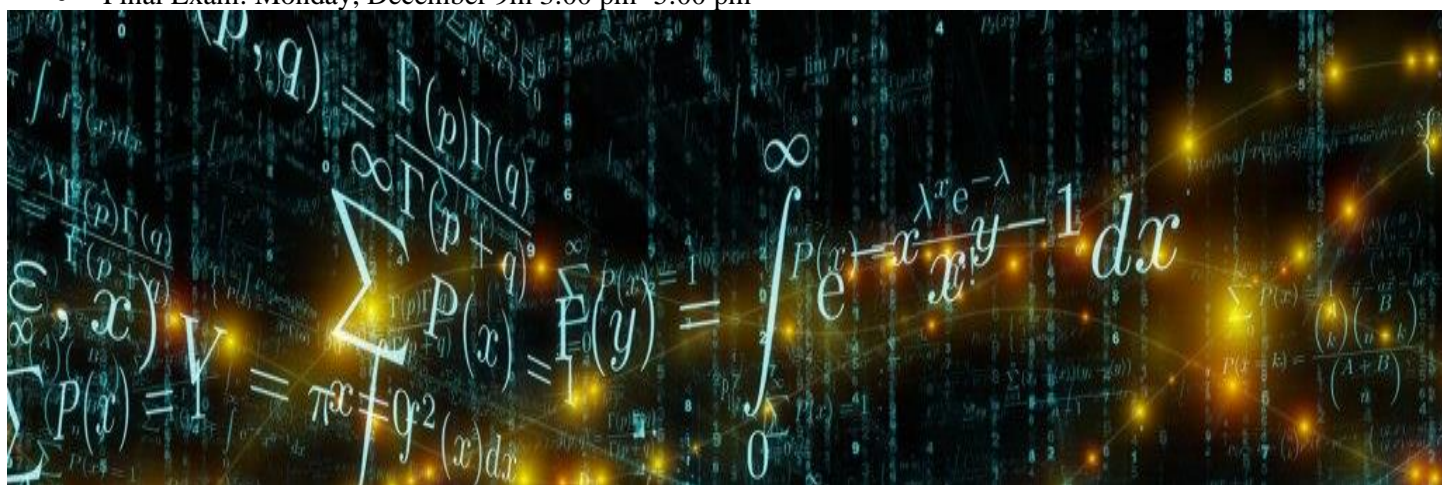|	
A	[90 – 100%]
B	[80 – 90%)
C	[70 – 79%)
D	[60 – 70%)
F	[0 – 60%)

Student Resources

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

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

Semester Deadlines Fall 2024– 16-week classes

- Monday, August 19: First day of class, classes available in UNM Canvas
- Saturday, August 30, by 11:59 pm: Last day to add a class or to change credit hours or grade mode in LoboWEB..
- Monday, September 2: Labor Day, NO CLASS
- Friday, September 6, by 5:00 pm: Last day to drop without "W" grade and with 100% refund on LoboWEB
- Thursday and Friday, October 10-11: Fall Break
- Friday, November 8, by 5:00 pm: Last day to drop *without* Dean's permission on LoboWEB. Will receive a "W" grade and will be responsible for tuition for the course.
- Thursday and Friday, November 28-Dec 1 Thanksgiving Break, NO CLASS
- Friday, December 5, by 5:00 pm: Last day to drop with the permission form.
- Final Exam: Monday, December 9m 3:00 pm- 5:00 pm

University Policies

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. 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.

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 the opportunity to participate. To engage in a confidential conversation about the process for requesting reasonable accommodations for this class and/or program, please contact the UNM-Valencia Equal Access Services (Sarah Clawson, Coordinator), at (505) 925-8840 or by email at sjclawson@unm.edu.

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 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 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.

Math 1118: (Fall 2024) *Course outline is subject to change*

Week	Dates	Sections / Topics	Assignments
1	8/19-8/21	Introduction Unit 1 Sections 1.1, 1.2	All assignments due at the beginning of class Wednesday
2	8/26-8/28	Unit 2 Sections 1.3, 1.4	
3	9/4	Unit 3 Section 2.1	Written homework 1 due
4	9/9-9/11	Unit 4 Sections 2.2, 2.3	Written homework 2 due
5	9/16-9/18	Unit 5 Section 2.4 **Review**	Written homework 3 due
6	9/23-9/25	**Test # 1** Unit 6 Section 3.1	Written homework 4 due
7	9/30-10/2	Unit 7 Sections 3.2, 3.3,4.1	Written homework 5 due
8	10/7-10/9	Unit 8 Sections 4.2, 4.3, 4.4	Written homework 6 due Group Project 1
	10/10-10/12	**Fall Break**	
9	10/14-10/16	Unit 9 Sections 4.5, 4.6	Written homework 7 due
10	10/21-10/23	Unit 10 Section 6.1, 6.2	Written homework 8 due
11	10/28-10/30	**Review (through 4.6)** **Test #2**	Written homework 9 due
12	11/4-11/6	Unit 11 Section 6.3	Written homework 10 due
13	11/11-11/13	Unit 12 Sections 10.1, 10.2	Group Project 2
14	11/18-11/20	Unit 13 Sections 10.3, 10.4	Written homework 11 due
	11/25 – 11/27		Written homework 12 due
15	11/28-11/30	**Thanksgiving Holiday**	
16	12/2-12/4	**Review**	Written homework 13 due
17	12/9	**Final Exam (3:00—5:00 pm)**	

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Due dates in this outline may change as needed.

Unit	Written Homework Problems	Due Date
1	Sect. 1.1: page 23 #5a, b, c, 8, 11a, b, c Sect. 1.2: page 38 #1a, b, c, d, e, f, g, h, 7a, b, c, d, 14, 17	9/4
2	Sec. 1.3: page 47 #3, 7a, b, c, d, 8a, b, 13a, b, c Sec. 1.4: page 52 #2, 4, 5	9/11
3	Sect. 2.1: page 65 #5, 10a, b, c, 12a, b, c, 16, 19, 23	9/18
4	Sect. 2.2: page 76 #1, 3, 7, 10, 14, 18, 20 Sect. 2.3: page 85 #2, 3, 4, 6, 12, 15, 17	9/25
5	Sect. 2.4: page 97 #3, 4, 9a, b, c, d, 10, 12, 16, 19	10/2
6	Sect. 3.1: page 111 #1a, b, c, 3a, b, c, 10	10/9
7	Sect. 3.2: page 122 #3a, b, 5, 6, 7, 10a Sect. 3.3: page 131 #2, 3, 6, 7 Sect. 4.1: page 161 #1a, b, c, f, 2, 6	10/16
8	Sect. 4.2: page 165 #1, 3 Sect. 4.3: page 176 #3, 7, 10, 13, 22a, b, c Sect. 4.4: page 187 #6a, b, c, 9a, b, 11a, b	10/23
9	Sect. 4.5: page 195 #7, 8, 10, 16 Sect. 4.6: page 204 #4, 7a, b, c, d, 12a, b, c, d	10/30
10	Sect. 6.1: page 247 #1a, b, c, d, e, f, 2, 6a, b Sect. 6.2: page 254 #3, 5a, b, c, 9a, b, c, d, e, 15	11/6
11	Sect. 6.3: page 267 #2a, b, 5a, b, 7a, 21a, b	11/20
12	Sect. 10.1: page 486 #3a, 4a, b, c, 6, 10a, b, c Sect. 10.2: page 493 #2, #4a, b, c, d	11/27
13	Sect. 10.3: page #1, 2, 3a, b, c, d, e Sect. 10.4: page 512 #3, 5a, b, 9, 11a, b, 16a, b	12/4