MA 305-90-4: Math for Elementary Teachers II
School of Education & Behavioral Sciences
Chaminade University Honolulu
Spring 2025
3 Credits

Instructor:	Dr. Travis Mukina	**Office Location:**	Brogan 132
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Learning Materials
- **Textbook (Recommended)**: Beckmann, Sybilla (2017). Mathematics for Elementary Teachers with Activities. 5th ed. Pearson. ISBN-10: 0134392795
- **Google Drive/3-Ring Binder**: This should be comprised of provided guided notes, video lectures, and all other assignments.

Course Catalog Description
This course provides prospective elementary education majors with a deeper and more comprehensive understanding of fundamental concepts underlying the mathematics taught in grades K through 8. This course focuses on the big ideas of geometry, measurement, data analysis, and probability and statistics. This course fulfills an upper division elective requirement in mathematics for Elementary Education majors.

Course Overview
This is the second elementary math course to provide insight on different strategies to solve K - 8 mathematics problems conceptually and procedurally.

Marianist Values
This class represents one component of your education at Chaminade University of Honolulu. An education in the Marianist Tradition is marked by five principles and you should take every opportunity possible to reflect upon the role of these characteristics in your education and development:
1. Education for formation in faith
2. Provide an integral, quality education
3. Educate in family spirit
4. Educate for service, justice and peace
5. Educate for adaptation and change

Native Hawaiian Values
Education is an integral value in both Marianist and Native Hawaiian culture. Both recognize the transformative effect of a well-rounded, value-centered education on society, particularly in seeking justice for the marginalized, the forgotten, and the oppressed, always with an eye toward God (Ke Akua). This is reflected in the ʻOlelo Noʻeau (Hawaiian proverbs) and Marianist core beliefs:
1. Educate for Formation in Faith (Mana) E ola au i ke akua (ʻŌlelo Noʻeau 364) May I live by God
2. Provide an Integral, Quality Education (Naʻauao) Lawe i ka maʻalea a kūʻonoʻono (ʻŌlelo Noʻeau 1957) Acquire skill and make it deep
3. Educate in Family Spirit (ʻOhana) ʻIke aku, ʻike mai, kōkua aku kōkua mai; pela iho la ka nohana ʻohana (ʻŌlelo Noʻeau 1200) Recognize others, be recognized, help others, be helped; such is a family relationship
4. Educate for Service, Justice and Peace (Aloha) Ka lama kū o ka noʻeau (ʻŌlelo Noʻeau 1430) Education is the standing torch of wisdom
5. Educate for Adaptation and Change (Aina) ʻAʻohe pau ka ʻike i ka hālau hoʻokahi (ʻŌlelo Noʻeau 203) All knowledge is not taught in the same school

Program Learning Outcomes (PLOs)

1	Apply knowledge of learner development, learner differences, diverse students and the learning environment to optimize learning for Elementary students.
2	Describe central concepts, tools of inquiry and structures of the subject matter disciplines for Elementary students.
3	Utilize formative and summative assessments, to determine, select, and implement effective instructional strategies for Elementary students.
4	Analyze the history, values, commitments, and ethics of the teaching profession within the school community.
5	Explain the Marianist tradition of providing an integral, quality education within diverse learning communities.

Course Learning Outcomes (CLOs)

1	Students will be able to demonstrate and justify algebraic relationships, generalize patterns, measurable attributes of objects, and geometric relationships.
2	Students will be able to use problem-solving skills to investigate real-life mathematical situations, and communicate mathematical ideas with others verbally, numerically, symbolically, graphically, and/or geometrically.
3	Students will be able to explain the use of elementary classroom manipulatives to model algebraic thinking, and geometry.

General Education Learning Outcomes

- Students will analyze and interpret quantitative data.
- Students will define, identify, locate, evaluate, synthesize and present or demonstrate relevant information.

Alignment of Learning Outcomes

	CLO 1	CLO 2	CLO 3
Marianist Values	Provide an integral and quality education Educate for adaptation and change	Provide an integral and quality education Educate for adaptation and change	Provide an integral and quality education Educate for adaptation and change
WASC Core Competencies	Written Communication Oral Communication Quantitative Reasoning Critical Thinking	Written Communication Oral Communication Quantitative Reasoning Critical Thinking	Oral Communication Quantitative Reasoning Critical Thinking
Program Outcomes	1, 2	1, 2	1, 2

What is the Point of Math Class?

Collaboration
Communicate Thoughts & Ideas
Creativity
Critical Thinking

Assessment

The assignments in this course are each designed to contribute in a different and significant way to your knowledge and experience relative to diagnosis and remediation of mathematics, and to teaching elementary mathematics. A scoring rubric is provided with every assignment to ensure you know what is required to receive the score desired. Feedback and grades on all assignments are provided within 7 days of submission.

1. **Participation Assignments – 0% of Final Grade**
   Module 1: [1 point per assignment]
   ● There is one assignment which contributes to your overall participation in this course: an introductory post. Although this is not a contributing factor to your final grade, it is required to complete.

2. **Problem-Solving Sets (PSS) – 50% of Final Grade**   **[CLO 1, 2, & 3]**
   Modules 1, 2, 3, 4, 6, 7, 8, 9: [10 points per set]
   ● Each chapter, you will complete five questions from each chapter's content. These questions will require detailed explanation of thought processes and mathematical drawings to show solutions.

3. **Open Middle Problems (OMP) – 50% of Final Grade (25% Each)**   **[CLO 1, 2, & 3]**
   Modules 5 & 10: [15 points each]
   ● Both sets of open middle problems focus on content demonstrated in the guided notes and strategies used in your problem-solving sets. These are meant to be thought provoking and to provide you with a resource to use in your future classrooms.

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

A - Outstanding scholarship and an unusual degree of intellectual initiative
B - Superior work done in a consistent and intellectual manner
C - Average grade indicating a competent grasp of subject matter
D - Inferior work of the lowest passing grade, not satisfactory for fulfillment of prerequisite course work
F - Failed to grasp the minimum subject matter; no credit given

Technical Assistance for Canvas Users
   ● Search for help on specific topics or get tips in Canvas Students
   ● Live chat with Canvas Support for students
   ● Canvas Support Hotline for students: +1-833-209-6111
   ● Watch this video to get you started
   ● Online tutorials: click on "Students" role to access tutorials
   ● Contact the Chaminade IT Helpdesk for technical issues: helpdesk@chaminade.edu or call (808) 735-4855

Kōkua ʻIke: Tutoring & Learning Services
Chaminade is proud to offer free, one-on-one tutoring and writing assistance to all students. Tutoring and writing help is available on campus at Kōkua ʻIke: Center for Student Learning in a variety of subjects (including, but are not limited to biology, chemistry, math, nursing, English, etc.) from trained Peer and Professional Tutors. Please check Kōkua ʻIke's website for the latest times, list of drop-in hours, and information on scheduling an appointment. Free online tutoring is also available via TutorMe. Tutor Me can be accessed 24/7 from your Canvas account. Simply click on Account > TutorMe. For more information, please contact Kōkua ʻIke at tutoring@chaminade.edu or 808-739-8305.

Course Policies

Attendance Policy
Students are expected to attend regularly all courses for which they are registered. Students should notify their instructors when illness or other extenuating circumstances prevents them from attending class and make arrangements to complete missed assessments. Notification may be done by contacting the instructor via a direct message on GroupMe. It is the instructor's prerogative to modify deadlines of course requirements accordingly. Any student who stops attending a course without officially withdrawing may receive a failing grade. Unexcused absences equivalent to more than a week of classes may lead to a grade reduction for the course. Any unexcused absence of two consecutive weeks or more may result in being withdrawn from the course by the instructor, although the instructor is not required to withdraw students in that scenario. Repeated absences put students at risk of failing grades.
Federal regulations require continued attendance for continuing payment of financial aid. When illness or personal reasons necessitate continued absence, the student should communicate first with the instructor to review the options. Anyone who stops attending a course without official withdrawal may receive a failing grade or be withdrawn by the instructor at the instructor's discretion.

Late Work Policy
Always accepted, but feedback may be delayed.

Grades of Incomplete
This policy on incomplete grades aligns with the same University policies.

Instructor and Student Communication
Questions for this course can be sent through a direct message on the GroupMe app. Online and/or in-person meetings can be arranged. Response time will take place up to 24 hours.

Important Information

Academic Honesty
Academic honesty is an essential aspect of all learning, scholarship, and research. It is one of the values regarded most highly by academic communities throughout the world. Violations of the principle of academic honesty are extremely serious and will not be tolerated.
Students are responsible for promoting academic honesty at Chaminade by not participating in any act of dishonesty and by reporting any incidence of academic dishonesty to an instructor or to a University official. Academic dishonesty may include theft of records or examinations, alteration of grades, and plagiarism, in addition to more obvious dishonesty.
Questions of academic dishonesty in a particular class are first reviewed by the instructor, who must make a report with recommendations to the Dean of the Academic Division. Punishment for academic dishonesty will be determined by the instructor and the Dean of Academic Division and may include an "F" grade for the work in question, an "F" grade for the course, suspension, or dismissal from the University.
For the most up to date information, please refer to the Academic Honesty Policy on the Chaminade University Catalog website.

Title IX and Nondiscrimination Statement
Chaminade University of Honolulu is committed to providing a learning, working and living environment that promotes the dignity of all people, inclusivity and mutual respect and is free of all forms of sex discrimination and gender-based violence, including sexual assault, sexual harassment, gender-based harassment, domestic violence, dating violence, and stalking. As a member of the University faculty, I am required to immediately report any incident of sex discrimination or gender-based violence to the campus Title IX Coordinator.

Nondiscrimination Policy & Notice of Nondiscrimination
Chaminade University of Honolulu does not discriminate on the basis of sex and prohibits sex discrimination in any education program or activity that it operates, as required by Title IX and its regulations, including in admission and employment. Inquiries about Title IX may be referred to the University's Title IX Coordinator, the U.S. Department of Education's Office for Civil Rights, or both and contact information may be found at the [Chaminade University Title IX Office Contact Information and Confidential Resources website](). On-campus Confidential Resources may also be found here at [CAMPUS CONFIDENTIAL RESOURCES]().
The University's Nondiscrimination Policy and Grievance Procedures can be located on the University webpage at: https://chaminade.edu/compliance/title-ix-nondiscrimination-policies-procedures/.
To report information about conduct that may constitute sex discrimination or make a complaint of sex discrimination under Title IX, please refer to the [Campus Incident Report form](). Chaminade University of Honolulu prohibits sex discrimination in any education program or activity that it operates. The NOTICE of NONDISCRIMINATION can be found here: [Notice of Nondiscrimination]().

CUH Alert Emergency Notification
To get the latest emergency communication from Chaminade University, students' cell numbers will be connected to Chaminade's emergency notification text system. When you log in to the Chaminade portal, you will be asked to provide some emergency contact information. If you provide a cell phone number, you will receive a text from our emergency notification system asking you to confirm your number. You must respond to that message to complete your registration and get emergency notifications on your phone.

Assessment for Student Work
With the goal of continuing to improve the quality of educational services offered to students, Chaminade University conducts assessments of student achievement of course, program, and institutional learning outcomes. Student work is used anonymously as the basis of these assessments, and the work you do in this course may be used in these assessment efforts.

Student with Disabilities Statement
Chaminade University of Honolulu offers accommodations for all actively enrolled students with disabilities in compliance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) of 1990, and the ADA Amendments Act (2008).
Students are responsible for contacting Kokua Ike: Center for Student Learning to schedule an appointment. Verification of their disability will be requested through appropriate documentation and once received it will take up to approximately 2–3 weeks to review them. Appropriate paperwork will be completed by the student before notification will be sent out to their instructors. Accommodation paperwork will not be automatically sent out to instructors each semester, as the student is responsible to notify Kokua Ike via email at ada@chaminade.edu each semester if changes or notifications are needed.

Credit Hour Policy
This is a three-credit hour course requiring 135 clock hours of student engagement, per the official CUH Credit Hour Policy.

Clock Hour Category	Total Time (hours)
Seat Time	37.5
Key Assessments ● Problem-Solving Sets ● Open Middle Problems	36
Remaining Hours ● Video Lectures ● Guided Notes	61.5
Remaining Hours / 15 Weeks	*4.1 hours/week*

Course Schedule

Module Information
- o *Modules do not have a start or end date.*
- o *Modules must be completed in sequential order and all assignments from the previous module must be submitted before the next module will open to ensure each student completes the module at a pace appropriate for them.*
- o *All modules must be submitted by **May 2nd, 2025**.*

Module #	Module Content	Assignments
Module 1	Chapter 9: Algebra Section 9.1: Numerical Expressions Section 9.2: Expressions with Variables Section 9.3: Equations Section 9.4: Solving Algebra Word Problems with Strip Diagrams & Algebra	o Introductory Post
Module 2	Chapter 9: Algebra Section 9.5: Sequences Section 9.6: Functions Section 9.7: Linear and Other Relationships	o PSS (Chap. 9)
Module 3	Chapter 10: Geometry Section 10.1: Lines and Angles Section 10.3: Circles and Spheres Section 10.4: Triangles, Quadrilaterals, and Other Polygons	o PSS (Chap. 10)
Module 4	Chapter 11: Concepts of Measurement Section 11.1: Concepts of Measurement Section 11.2: Length, Area, Volume, and Dimension Section 11.4: Converting from One Unit of Measurement to Another	o PSS (Chap. 11)
Module 5	Work on Open Middle Problems (Chap. 9 – 11)	o OMP (Chap. 9 – 11)
Module 6	Chapter 12: Area of Shapes Section 12.1: Areas of Rectangles Revisited Section 12.2: Moving and Additivity Principles About Area Section 12.3: Areas of Triangles Section 12.4: Areas of Parallelograms and other Polygons	
Module 7	Chapter 12: Area of Shapes Section 12.6: Area and Circumference of Circles and the Number Pi Section 12.8: Contrasting and Relating the Perimeter and Area of Shapes Section 12.9: Using the Moving and Additivity Principles to Prove the Pythagorean Theorem	o PSS (Chap. 12)
Module 8	Chapter 13: Solid Shapes and Their Volume and Surface Area Section 13.1: Polyhedra and Other Solid Shapes Section 13.2: Patterns and Surface Area Section 13.3: Volumes of Solid Shapes	o PSS (Chap. 13)
Module 9	Chapter 14: Geometry of Motion and Change Section 14.1: Reflections, Translations, and Rotations Section 14.2: Symmetry Section 14.3: Congruence Section 14.5: Similarity	o PSS (Chap. 14)
Module 10	Work on Open Middle Problems (Chap. 12 – 14)	o OMP (Chap. 12 – 14)