



EDUC 614-90-3: Elementary Math Methods
School of Education & Behavioral Sciences
[Chaminade University Honolulu](https://www.chaminade.edu/)
Winter 2025 / 3 Credits
Online Graduate

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Learning Materials

- **Textbook (Required):** J.A. Van DeWalle, K. Kary, J.M. Bay-Williams (2022). *Elementary and middle school mathematics: Teaching developmentally*. 11th ed. Pearson. ISBN: 9780136818038
- **Textbook (Required):** Parrish, Sherry (2014). *Number talks: Whole number computation, grades K-5*. Math Solutions. ISBN-10: 1935099655
- **Textbook (Required):** Parrish, S., Dominick, A. (2016). *Number talks: Fractions, decimals, and percentages*. Math Solutions. ISBN-13: 9781935099758
- **GroupMe App:** A way to stay up-to-date with all class routines, assignments, and questions between you, your professor, and your classmates.
- **Google Drive/3-Ring Binder:** This is comprised of problem-solving sets, discussion posts, and all other assignments.



Course Catalog Description

Philosophy and rationale for teaching math to young children. General math theory and concepts are demonstrated through the use of math materials and other manipulatives.

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 'Ōlelo No'eau (Hawaiian proverbs) and Marianist core beliefs:

1. Educate for Formation in Faith (Mana) E ola au i ke akua ('Ōlelo No'eau 364) May I live by God
2. Provide an Integral, Quality Education (Na'auao) Lawe i ka ma'alea a kū'ono'ono ('Ōlelo No'eau 1957) Acquire skill and make it deep
3. Educate in Family Spirit ('Ohana) 'Ike aku, 'ike mai, kōkua aku kōkua mai; pela iho la ka nohana 'ohana ('Ōlelo No'eau 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 no'eau ('Ōlelo No'eau 1430) Education is the standing torch of wisdom
5. Educate for Adaptation and Change (Aina) 'A'ohe pau ka 'ike i ka hālau ho'okahi ('Ōlelo No'eau 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 design real-world mathematics lessons that reflect appropriate consideration of student needs, objectives to be achieved, content to be taught while allowing exploration, conjectures, and logical reasoning.
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 analyze and implement various approaches, strategies, and materials for teaching lower and upper elementary mathematics.

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	Written Communication 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. Always be prepared to effectively participate in class discussions, analyze the thinking of others in class, and clearly explain your thinking in every assignment. 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 each]

- There are two participation assignments, described on Canvas, which contributes to your overall participation in this course: joining our class GroupMe with an initial post and completing a Mathematical Beliefs Questionnaire. These do not affect your overall grade, but are required to complete in order to receive a grade in the course.

2. Van De Walle Reflections (VDWR) – 10% of Final Grade

[CLO 2 & 3]

Modules 1 & 2: [1 point each]

- After reading the first five chapters of the Van De Walle textbook, you will submit reflections about what you read by responding to provided questions.

3. Number Talks Reflections (NTR) – 30% of Final Grade

[CLO 2 & 3]

Modules 1, 2, 3, 4, 6, 8, 9: [1 point each]

- After reading specific pages in the Parrish & Dominick textbook and watching the corresponding classroom videos, you will submit reflections about what you saw by responding to provided questions.

4. Problem-Solving Sets (PSS) – 30% of Final Grade

[CLO 2, & 3]

Modules 4, 6, 7, 8, 9: [10 points per set]

- During certain modules, you will complete five questions from that chapter's content. These questions will require detailed explanation of thought processes and mathematical drawings to show solutions.

5. Three-Act Task – 30% of Final Grade

[CLO 1]

Module 2, 3, 5, 10: [66 points]

- You will create your own real-world math lesson called a Three-Act Task, which must focus on one of the content areas covered in this course. You will submit parts of the task during specific modules for feedback before you submit the full, completed task in the final module.

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

** The Model Code of Ethics for Educators 2.0 is intertwined throughout various activities within this course, as well as the other courses you will take within the program. The responsibility to profession, of professional competence, to our students, to the school, and with the use of technology are integral to all aspects of this course. **

Kōkua 'Ike: 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 'Ike: 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 'Ike'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 'Ike 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)
Key Assessments <ul style="list-style-type: none">VDWRs & NTRsProblem-Solving SetsThree-Act Task	65
Remaining Hours <ul style="list-style-type: none">ReadingResearching	70
<i>Remaining Hours / 10 Weeks</i>	<i>7 hours/week</i>

COURSE SCHEDULE

Module # Dates	Content	Assessments
Module 1 Jan 6 - 12	<p>Van De Walle Textbook</p> <ul style="list-style-type: none"> Chapter 1: Developing Confident and Competent Mathematics Learners Chapter 2: Exploring What It Means to Know and Do Mathematics Chapter 3: Teaching Problem-Based Mathematics <p>Number Talks Whole Number Computation Textbook</p> <ul style="list-style-type: none"> Chapter 1: What is a Classroom Number Talk? 	<ul style="list-style-type: none"> GroupMe Registration Mathematical Beliefs Questionnaire VDWR (Chap. 1 – 3) NTR (Module 1)
Module 2 Jan 13 - 19	<p>Van De Walle Textbook</p> <ul style="list-style-type: none"> Chapter 4: Planning in the Problem-Based Classroom Chapter 5: Creating Assessments for Learning Chapter 6: Teaching Mathematics Equitably to All Students <p>Number Talks Whole Number Computation Textbook</p> <ul style="list-style-type: none"> Chapter 2: How Do I Prepare for Number Talks? 	<ul style="list-style-type: none"> VDWR (Chap. 4, 5, & 6) NTR (Module 2) Three-Act Task Information & Understanding
Module 3 Jan 20 - 26	<p>Van De Walle Textbook</p> <ul style="list-style-type: none"> Chapter 7: Developing Early Number Concepts and Number Sense Chapter 8: Developing Meanings for the Operations <p>Number Talks Whole Number Computation Textbook</p> <ul style="list-style-type: none"> Chapter 3: How Do I Develop Specific Strategies in the K – 2 Classroom? 	<ul style="list-style-type: none"> NTR (Module 3) PSS (Chap. 8) Three-Act Task (First Submission)
Module 4 Jan 27 - Feb 2	<p>Van De Walle Textbook</p> <ul style="list-style-type: none"> Chapter 9: Developing Basic Fact Fluency Chapter 10: Developing Whole-Number Place-Value Concepts <p>Number Talks Whole Number Computation Textbook</p> <ul style="list-style-type: none"> Select videos from different chapters 	<ul style="list-style-type: none"> NTR (Module 4) PSS (Chap. 9) PSS (Chap. 10)
Module 5 Feb 3 - 9	Work on Three-Act Task	<ul style="list-style-type: none"> Three-Act Task (Second Submission)
Module 6 Feb 10 - 16	<p>Van De Walle Textbook</p> <ul style="list-style-type: none"> Chapter 11: Developing Strategies for Addition and Subtraction Computation <p>Number Talks Whole Number Computation Textbook</p> <ul style="list-style-type: none"> Chapter 5: How Do I Develop Specific Addition and Subtraction Strategies in the 3 – 5 Classroom? 	<ul style="list-style-type: none"> NTR (Module 6) PSS (Chap. 11)
Module 7 Feb 17 - 23	<p>Van De Walle Textbook</p> <ul style="list-style-type: none"> Chapter 12: Developing Strategies for Multiplication and Division Computation <p>Number Talks Whole Number Computation Textbook</p> <ul style="list-style-type: none"> Chapter 7: How Do I Develop Specific Multiplication and Division Strategies in the 3 – 5 Classroom? 	<ul style="list-style-type: none"> NTR (Module 7) PSS (Chap. 12)
Module 8 Feb 24 - Mar 2	<p>Van De Walle Textbook</p> <ul style="list-style-type: none"> Chapter 14: Developing Fraction Concepts <p>Number Talks Fractions, Decimals, & Percentages Textbook</p> <ul style="list-style-type: none"> Introduction: Why Fractions, Decimals, and Percentages? Chapter 3: What Are the Big Ideas with Rational Numbers? Chapter 4: Number Talks to Help Students Build Fractional Reasoning 	<ul style="list-style-type: none"> NTR (Module 8) PSS (Chap. 14)
Module 9 Mar 3 - 9	<p>Van De Walle Textbook</p> <ul style="list-style-type: none"> Chapter 15: Developing Fraction Operations <p>Number Talks Fractions, Decimals, & Percentages Textbook</p> <ul style="list-style-type: none"> Chapter 6: Number Talks for Addition with Fractions Chapter 7: Number Talks for Subtraction with Fractions Chapter 8: Number Talks for Multiplication with Fractions Chapter 9: Number Talks for Division with Fractions 	<ul style="list-style-type: none"> NTR (Module 9) PSS (Chap. 15)
Module 10 Mar 10 - 16	Work on Three-Act Task	<ul style="list-style-type: none"> Three-Act Task (Final Submission)