



MA 110-01-1: Pre-Calculus
College of Arts & Sciences
Fall 2026 / 3 Credits
Monday, Wednesday, Friday 10:30 – 11:20 am
Brogan Hall 101

Instructor: Dr. Travis Mukina
✗DO NOT Email: travis.mukina@chaminade.edu

Office Location: Brogan Hall 132
✓Direct Message: GroupMe App

Learning Materials

- **No Textbook Required**
- **Desmos App:** Used daily as a free graphing calculator app.
- **GroupMe App:** Used to stay up-to-date with all class announcements, assessments, and questions between you, your professor, and your classmates.
- **Canvas Student App:** Used to submit all assessments and check progress on mastery of course learning outcomes.
- **3-Ring Binder (Provided):** Used to hold all Graphic Organizers for use on assessments



Math Hours

Designated time every Monday, Wednesday, and Friday from 12:30 - 1:30pm in our regular classroom to ask me questions, work with classmates, study on your own, etc.

Course Catalog Description

This course provides a foundation for further study in mathematics and prepares for Calculus I. Topics include functions and their graphs, polynomial and rational functions, exponential and logarithmic functions, trigonometric functions and their inverses, and some other selected topics.

Course Snapshot

This course is designed to produce better conceptual understanding of functions and mathematics in general that leads into understanding procedural understanding of formulas. A strong development of number relationships also occurs from class discussions, sharing of ideas through collaboration, and thought-provoking assessments.

Marianist Values

An education in the Marianist Tradition is marked by five principles. Reflect on how this course relates to one or more:

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 central to both Marianist and Native Hawaiian culture — both seek transformative, value-centered learning that serves the marginalized. This is reflected in the 'Ōlelo No'eau (Hawaiian proverbs) below:

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 ('Ōlelo No'eau 1200) — Recognize others, be recognized, help others, be helped.
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]

PLO 1	To demonstrate the understanding and skills in reading, interpreting, and communicating mathematical concepts which are integrated into other disciplines or appear in everyday life
PLO 2	To gain understandings of, and practical skills in logical thinking, deductive and inductive reasoning
PLO 3	To articulate the understanding of more advanced mathematical concepts and computational skills to support the study of other disciplines, including skills with numeric, analytic, and graphical methods
PLO 4	Where relevant, to develop mathematical maturity to undertake higher-level studies in mathematics and related fields

Course Learning Outcomes [CLOs]

CLO 1	Recall and explain the definition of a function, their graphs, their properties, operations, and transformations.
CLO 2	Recognize quadratic functions, analyze their behavior, and use their properties to solve equations and real-world problems.
CLO 3	Recognize polynomial functions, analyze their behavior, and use their properties to solve equations and real-world problems.
CLO 4	Recognize rational functions, analyze their behavior, and use their properties to solve equations and real-world problems.
CLO 5	Recognize exponential functions, analyze their behavior, and use their properties to solve equations and real-world problems.
CLO 6	Recognize logarithmic functions, analyze their behavior, and use their properties to solve equations and real-world problems.
CLO 7	Use trigonometric functions to explain right triangle trigonometry and construct the unit circle.
CLO 8	Use trigonometric functions to solve real world problems.
CLO 9	Describe and evaluate limits to prepare for Calculus.
CLO 10	Contribute to a building thinking classroom by proactively participating in daily in-person activities.

Alignment of Course Learning Outcomes

	CLO 1	CLO 2	CLO 3	CLO 4	CLO 5	CLO 6	CLO 7	CLO 8	CLO 9	CLO 10
Marianist Values	2, 5	2, 5	2, 5	2, 5	2, 5	2, 5	2, 5	2, 5	2, 5	2, 5
PLOs	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
Native Hawaiian Values	2, 5	2, 5	2, 5	2, 5	2, 5	2, 5	2, 5	2, 5	2, 5	2, 5

What is the Point of Math Class?

Collaboration

Communicate Thoughts & Ideas

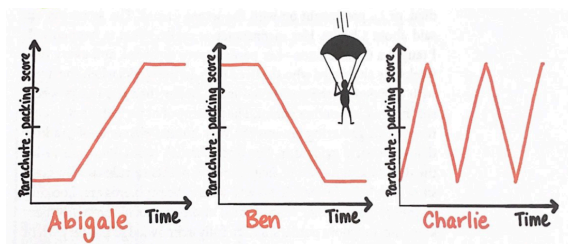
Creativity

Critical Thinking

Assessment

This course is designed to contribute in a different and significant way to your knowledge and experience relative to diagnosis and remediation of mathematics. Always be prepared to effectively participate in class discussions, analyze the thinking of others in class, and clearly explain your thinking. A Mastery rubric is provided with every assessment with Mastery being defined as your most recent assessment level. Feedback on all assessments is provided within 7 days of submission. **All Written & Verbal Assessments must be completed and be completed in order, or a passing grade cannot be earned in the course.**

How Many CLOs Demonstrate Mastery ?										
10	9	8	7	6	5	4	3	2	1	0
A	A	B	C	D	F	F	F	F	F	F



1. Participation Assignments

Assessed: Entire Semester

- There are multiple assignments that do not affect your overall grade, but are all required to complete in order to receive a grade in the course:
 - GroupMe Registration
 - Mathematical Beliefs Questionnaire (Pre & Post)
 - Exit Tickets

2. Written Assessments

[CLO 1, 2, 3, 4, 5, 6, 7, 8, 9]

Assessed: At the completion of CLOs 1 & 2, CLOs 3 & 4, CLOs 5 & 6, CLOs 7, 8, 9

- These assessments focus on Course Learning Outcomes (CLOs) demonstrated in the building thinking classroom activities and strategies used in your Check for Understanding. A full class period is provided to master multiple CLOs in a written communication format.

3. Verbal Assessments

[CLO 1, 2, 3, 4, 5, 6, 7, 8, 9]

Assessed: At the completion of CLOs 1, 2, 3, 4 and CLOs 5, 6, 7, 8, 9

- These assessments focus on Course Learning Outcomes (CLOs) demonstrated in the building thinking classroom activities and strategies used in your Check for Understanding. A 10-minute designated time slot is provided to master one CLO in a verbal communication format.

4. Optional Written Assessments

[CLO 1, 2, 3, 4, 5, 6, 7, 8, 9]

Assessed: At the completion of CLOs 1, 2, 3, 4 and CLOs 5, 6, 7, 8, 9

- These assessments focus on Course Learning Outcomes (CLOs) demonstrated in the building thinking classroom activities and strategies used in your Check for Understanding. A full class period is provided to master multiple CLOs in a written communication format.

5. Building a Thinking Classroom

[CLO 10]

Assessed: Throughout the Semester

- You are expected to contribute to our building thinking classroom by communicating effectively with your classmates to solve various mathematical situations. To earn Mastery for CLO 10, the following must be met:
 - Absent/Tardy 6 or less days of in-person class, for any reason, during the entire semester
 - Attend 10 or more Math Hours during the entire semester

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 for any reason will result in being withdrawn from the course by the instructor.
- Repeated, non-consecutive absences for any reason put students at risk of a failing grade.

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, plagiarism, and *unauthorized and/or undisclosed AI usage*, in addition to more obvious dishonesty. See catalog section *Student Use of Artificial Intelligence in Academic Work* for further information.

Questions of academic dishonesty in a particular class are first reviewed by the instructor, who must make a report with recommendations to the Director of the Academic College. Punishment for academic dishonesty will be determined by the instructor, Director, and the Dean of Academic College and may include an "F" grade for the work in question, an "F" grade for the course, academic notice, or dismissal from the University.

AI (Artificial Intelligence) Statement

Chaminade University recognizes the increasing role of artificial intelligence (AI) technologies in academic and professional environments. AI encompasses, but is not limited to, generative AI platforms, automated writing or content generation software, coding assistants, and similar tools. Students must ensure all submitted work genuinely reflects their knowledge and effort. Using AI to produce or significantly complete graded assignments, exams or other academic tasks – defined as use that substitutes for or substantially replaces a student's own analysis, reasoning or written expression – without explicit instructor approval is considered academic misconduct and will be dealt with according to the University's Academic Honesty Policy.

If an instructor has reasonable grounds to question whether submitted work genuinely reflects a student's own knowledge, authorship, or mastery of course material — or whether it meets the course's expectations for AI use — the instructor may require the student to provide additional or alternative evidence of authorship and content mastery. Such evidence may include drafts, notes, revision history, source materials, process explanations, oral discussion, in class work, or completion of an alternative assessment. A student's refusal or inability to provide such evidence may be considered, along with other available information, in evaluating whether the work meets course requirements and stated learning outcomes. Instructors will not rely solely on AI detection software or other automated tools in making grading or academic integrity determinations. Such determinations will be based on the totality of the available information and handled in accordance with applicable University policies and procedures. See the catalog section *Student Use of Artificial Intelligence in Academic Work* for further information.

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. For pregnant and parenting students, I am also obligated to provide you with similar resources for support and protections available to you. My goal is to make sure that you are aware of the range of options available to you and have access to the resources and support you need.

Contact information and reporting options: chaminade.edu/titleix/nondiscrimination/. File a report via the [Campus Incident Report Form](#).

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](#).

Student with Disabilities Statement

Accessibility Services recognizes disability as a valued aspect of diversity and ensures equal access to the educational environment in accordance with Section 504 of the Rehabilitation Act; the Americans with Disabilities Act, as amended; and the principles and professional standards of the Association on Higher Education and Disability. Access is supported through reasonable accommodations and referrals to campus and community resources. Appointments with the Accessibility Services Coordinator are available through Stellic at

<https://chaminade.stellic.com> and may be held virtually or in person. Drop-in appointments are also welcome.

Students seeking support must meet with the Accessibility Services Coordinator as early as possible, even if they are unsure whether they have appropriate documentation of their disability or its impacts. The Accessibility Services Coordinator prioritizes listening to students's experiences and will discuss any documentation needs during the initial intake meeting. Students may seek support at any time.

Learn more at <https://chaminade.edu/ada-accommodations>

Assessment of Student Work

Chaminade University may use student work anonymously to assess achievement of course, program, and institutional learning outcomes as part of ongoing quality improvement efforts.

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)
In Class - Seat Time	37.5
In Class - Weekly Math Hour	10
Outside Class - Remaining Hours • Study for Assessments • Organize GOs • Review BTAs • Video Lectures • Check for Understanding	87.5
Remaining Hours / 15 Weeks	~ 5.8 hours / week

Campus Resources & Support Services

The following resources are available to all Chaminade students. Reach out early — these services exist to support your success.

Resource	Description	Contact / Website
Accessibility Services (Kōkua 'Ike)	Accommodations under Section 504 and ADA. Contact early — appointments via Stellic, virtual or in person.	ada@chaminade.edu chaminade.edu/ada-accommodations
Tutoring & Academic Coaching (Kōkua 'Ike)	Tutoring and Academic Coaching Services support students' progression toward their academic, personal, and professional goals with clarity and intention. Services include individualized support in English, math, nursing, sciences, and social sciences, as well as guidance in developing goals and study strategies.	chaminade.edu/tutoring-academic-coaching-services
Career Services	Career Services supports students throughout their career journeys. Services include individualized job search strategy coaching, resume reviews, job interview coaching, and access to career-related resources and opportunities.	chaminade.edu/career-services
Basic Needs Resources	Support for food insecurity, housing instability, and other basic needs.	chaminade.edu/basic-needs/
Title IX / Nondiscrimination	Reporting and support for sex discrimination and gender-based violence. Campus Incident Report Form available online.	chaminade.edu/titleix/resources-and-support/
Hazing Prevention	Confidential support, crisis intervention, and reporting for any type of abuse including hazing.	hazingpreventionnetwork.org/athlete-helpline/
Campus Safety / SafeSwords	Security escort service for anyone who feels unsafe walking alone on campus at any time of day. Call security and a professional will escort you to your destination.	chaminade.edu/student-life/security/campus-safeswords-program/
CUH Alert Emergency Notification	Emergency text system. Register your cell number via the Chaminade portal and confirm the text to complete enrollment.	chaminade.edu

CLO # Dates	Content	Assessments
Course Intro & Algebra Review August 17 - 23	Course Introduction & Algebra Review - Fractions & Proportions - Properties of Exponents & Radicals - Linear Functions, Models, & Equations - Factoring & Completing the Square - Solving Quadratic, Rational, & Radical Equations	 GroupMe Registration  Mathematical Beliefs Questionnaire (Pre)
CLO 1 Aug 24 - Sept 6	Functions and Their Graphs - Function or Not? - Graph of Functions & Vital Information - Transformations of Functions - Operations & Composition of Functions - One-to-One & Inverse Functions	
CLO 2 September 7 - 13	Quadratic Functions - Forms & Zeros of Quadratic Functions - Sketching Quadratic Functions <i>Applications of Quadratic Functions</i>	 CLO 1 & 2 Written Assessment  CLO 1 & 2 Exit Ticket
CLO 3 September 14 - 20	Polynomial Functions - Analyzing Equations & Graphs of Polynomial Functions - Sketching Polynomial Functions - Polynomial Function or Not? <i>Applications of Polynomial Functions</i>	
CLO 4 Sept 21 - 27	Rational Functions - Asymptotes & Holes of Rational Functions - Sketching Rational Functions <i>Applications of Rational Functions</i>	 CLO 3 & 4 Written Assessment  CLO 3 & 4 Exit Ticket
CLOs 1 - 4 Sept 28 - Oct 2	 CLO 1 - 4 Verbal Assessment #1: <i>Monday, September 28</i>  CLO 1 - 4 Verbal Assessment #2: <i>Wednesday, September 30</i>  CLO 1 - 4 Optional Written Assessment: <i>Friday, October 2</i>	
CLO 5 October 5 - 11	Exponential Functions - Properties of Exponential Functions - The Natural Number e - Solving Exponential Equations <i>Applications of Exponential Functions</i>	
Wellness Week October 12 - 18		
CLO 6 Oct 19 - Nov 1	Logarithmic Functions - Exponential $\longleftrightarrow$ Logarithmic Functions - Properties of Logarithms - Solving Logarithmic Equations <i>Applications of Logarithmic Functions</i>	 CLO 5 & 6 Written Assessment  CLO 5 & 6 Exit Ticket
CLO 7 November 2 - 10	Trigonometric Functions - Angles & Their Measures - Right Triangle Trigonometry - Special Right Triangles - The Unit Circle	
CLO 8 November 11 - 15	Applications of Trigonometry - Real-World Trigonometry (Missing Sides) - Real-World Trigonometry (Missing Angles)	
CLO 9 November 16 - 29	Limits - Limits with Graphs & Tables - One-Sided Limits - Limits with Algebra - Limits with Trigonometric Functions	 CLO 7, 8, 9 Written Assessment  CLO 7, 8, 9 Exit Ticket
CLOs 5 - 9 Nov 30 - Dec 4	 CLO 5 - 9 Verbal Assessment #1: <i>Monday, November 30</i>  CLO 5 - 9 Verbal Assessment #2: <i>Wednesday, December 2</i>  CLO 5 - 9 Optional Written Assessment: <i>Friday, December 4</i>  Mathematical Beliefs Questionnaire (Post)	
CLOs 1 - 9 December 7	 CLO 1 - 9 Optional Written Assessment: <i>Monday, December 7</i>	