MA 110 – Pre Calculus
Fall 2018 / Ching 253
3 credits
Monday, Wednesday, Friday 11:30 – 12:20pm

Instructor: Dr. Travis Mukina
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Office Hours: Brogan 132
Mon & Fri 2:30 – 3:30pm
Tues & Thurs 1:00 – 2:00pm
By Appointment

Learning Materials:

- **Textbook**: Sullivan and Sullivan, Precalculus: Concepts Through Functions, A Right Triangle Approach to Trigonometry (2nd Edition) Custom Edition for Chaminade University, Pearson, New York, 2011. ISBN-10: 1-269-37602-0, ISBN-13: 978-1-269-37602-0
- **MyMathLab Online Homework**: Purchase access code directly on www.pearson.com/mylab
  - Course ID: **mukina79013**
- **3-Ring Binder**: Throughout the course, you should keep a collection of the course material. This is comprised of chapter notes, online homework, and exams. Notes will be posted on Canvas under weekly "Modules" and should be kept in an organized binder once completed.
- **Graphing Calculator**: TI-84 (or higher) is required.

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.

Mission Statement:
The mission of the education division is to foster the education of teachers and leaders in education through programs based in the liberal arts tradition, Catholic Marianist's values, current research, and best practices.

Marianist Values:

1. Educate 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

WASC Core Competencies:

1. Written Communication
2. Oral Communication
3. Quantitative reasoning
4. Critical Thinking
5. Information Literacy

Assessment:
Dates noted are tentative. Read the textbook sections BEFORE class as indicated on the tentative schedule at the end of this syllabus. Always be prepared to contribute to discussion, explain your thinking, and analyze the thinking of others in class. The assignments described below are each designed to contribute in a different and significant way to your knowledge and experience relative to diagnosis and remediation of mathematics. It will be your responsibility to turn in all assignments on time. Late assignments will <u>not</u> be accepted.

1. Attendance / Professionalism / Class Participation – 10% of Final Grade
Due: Ongoing evaluation by instructor throughout the semester
Your attendance, promptness, attention, cooperation, and active participation are necessary to facilitate this course. If you are unable to attend class, it is your responsibility to notify your instructor and to find out what you missed that day during class. Attitude and responsibility are also important aspects of professionalism. It is your instructor's responsibility to challenge you to grow as a professional and to help you develop a professional disposition. However, you also have a responsibility to be in class every day, to be responsive, and participate fully in all class activities. It is important that you listen to the ideas of others and respect their thoughts. Your grade will be determined based a holistic evaluation of your professionalism and participation in the following ways:

- Attendance & Professionalism
- Active Participation in Small Group Tasks
- Active Participation in Whole Class Discussions

2. MyMathLab Online Homework – 30% of Final Grade
Due: Throughout the semester
10 points per section
Homework will be assigned after each class online through the MyMathLab website. All homework assignments for each section are due by *midnight* of the *next* day of class. Extensions will not be granted unless extreme circumstances take place. Some days, there will be time at the beginning of class to ask homework questions before they are due that night.

3. Exams – 60% of Final Grade (20% Each)
Exam 1: Sept. 28th *Exam 2: Oct. 29th* *Exam 3: Nov. 30th*
100 points each
All three exams will focus on content demonstrated in the homework along with your notes from class discussions. There is no "cumulative" final exam. Each exam will cover specific content from previous weeks.

Assignments	Percentage of Final Grade
Attendance / Professionalism / Participation	10%
MyMathLab Online Homework	30%
Exam 1	20%
Exam 2	20%
Exam 3	20%

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

Course Attendance Policy:
As stated in the Chaminade University Catalog, students are expected to attend all classes for courses in which they are registered. Students must follow the attendance policy as stipulated in the syllabus of Education Division courses. Penalties for not meeting the attendance requirements may result in lowering of the grade, withdrawal from the course, or failing the course.

1. Excused Absences.
1.1. Since it is expected that students will participate in all class sessions, excused absences

are only granted in exceptional situations where evidence is provided by the student to the instructor. Examples would include illness (with verification by a doctor) or the death of a close family member. Students should notify their instructors when a situation prevents them from attending class and make arrangements to complete missed assignments. *While notification of the instructor by a student that he/she will be absent is courteous, it does not necessarily mean the absence will be excused.*

1.2. In cases where excused absences constitute a significant portion of a course's meetings (e.g., more than 20% of on-ground course meetings, or a significant portion of online or hybrid courses), the instructor should refer the case to the Dean with a recommendation on how the case should be handled (e.g., withdrawal or incomplete).

2. Unexcused Absences. Chaminade University policy states that in cases where unexcused absences are equivalent to more than a week of classes the instructor has the option of lowering the grade. In the Education Division, we have added detailed guidelines to cover different types of courses and class schedules:

2.1. On-Ground courses: Missing more than 2 weeks of class (6 classes) will result in an automatic lowering of one letter grade after final grade is calculated.

2.2. Online courses and online portion of hybrid courses: The instructor will specify and enforce expectations for online participation and receipt of assignments appropriate to the design of the course. For online/hybrid courses failure to log in for one week is equivalent to an absence in a traditional on-ground course. Two weeks of not logging in constitutes grounds for removal of the student from the course.

3. Additional Notes.

3.1. If a student does not logon to an online or hybrid course for the first two weeks, the instructor should notify the Dean and the student will be withdrawn from the course.

3.2. Any student who stops attending an on-ground course or stops participating in an online course without officially withdrawing may receive a failing grade.

University Policies

Academic Honesty Statement: Violations of the Honor Code are serious. They harm other students, your professor, and the integrity of the University. Alleged violations will be referred to the Office of Judicial Affairs. If found guilty of plagiarism, a student might receive a range of penalties, including failure of an assignment, failure of an assignment and withholding of the final course grade until a paper is turned in on the topic of plagiarism, failure of the course, or suspension from the University.

Violations of Academic Integrity: Violations of the principle include, but are not limited to:

- Cheating: Intentionally using or attempting to use unauthorized materials, information, notes, study aids, or other devices in any academic exercise.
- Fabrication and Falsification: Intentional and unauthorized alteration or invention of any information or citation in an academic exercise. Falsification is a matter of inventing or counterfeiting information for use in any academic exercise.
- Multiple Submissions: The submission of substantial portions of the same academic work for credit (including oral reports) more than once without authorization.
- Plagiarism: Intentionally or knowingly presenting the work of another as one's own (i.e., without proper acknowledgment of the source).
- Abuse of Academic Materials: Intentionally or knowingly destroying, stealing, or making inaccessible library or other academic resource materials.

  Complicity in Academic Dishonesty: Intentionally or knowingly helping or attempting to help another to commit an act of academic dishonesty.

Plagiarism includes, but is not limited to:

- Copying or borrowing liberally from someone else's work without his/her knowledge or permission; or with his/her knowledge or permission and turning it in as your own work.
- Copying of someone else's exam or paper.
- Allowing someone to turn in your work as his or her own.
- Not providing adequate references for cited work.
- Copying and pasting large quotes or passages without properly citing them.

Title IX Compliance: Chaminade University of Honolulu recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct, physical and/or psychological abuse will NOT be tolerated at CUH. If you have been the victim of sexual misconduct, physical and/or psychological abuse, we encourage you to report this matter promptly. As a faculty member, I am interested in promoting a safe and healthy environment, and should I learn of any sexual misconduct, physical and/or psychological abuse, I must report the matter to the Title IX Coordinator. Should you want to speak to a confidential source you may contact the following:

- Chaminade Counseling Center: 808-735-4845
- Any priest serving as a sacramental confessor or any ordained religious leader serving in the sacred confidence role.

Disability Access:
The University is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Students who need accommodations must be registered with Student Disability Services. Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from the Counseling Center by the end of week three of the class, in order for the instructor to plan accordingly. Failure to provide written documentation will prevent your instructor from making the necessary accommodates. Please refer any questions to the Dean of Students.

Tentative Course Outline (Fall 2018)

***The professor reserves the right to make adjustments to this outline to better accommodate student needs.**

Week # / Day # Date	Class Description	Assignments Due
Week 1 August 20th	Introduction to Course & Syllabus	
Week 1 August 22nd	Foundations: A Prelude to Functions • Pages 2 – 6 • *Section 0.1*: The Distance and Midpoint Formulas	• Register for MyMathLab & Purchase Graphing Calculator
Week 1 August 24th	**FALL SPIRITUAL CONVOCATION 11:30 – 1:30PM**	**NO CLASS**
Week 2 August 27th	Foundations: A Prelude to Functions • Pages 9 – 16 • *Section 0.2*: Graphs of Equations in Two Variables; Intercepts; Symmetry	• MML 0.1
Week 2 August 29th	Foundations: A Prelude to Functions • Pages 19 – 29 • *Section 0.3:* Lines	• MML 0.2
Week 2 August 31st	Foundations: A Prelude to Functions • Pages 35 – 39 • *Section 0.4:* Circles	• MML 0.3
Week 3 September 3rd	**LABOR DAY**	**NO CLASS**
Week 3 September 5th	Chapter 1: Functions and Their Graphs • Pages 43 – 53 • *Section 1.1:* Functions	• MML 0.4
Week 3 September 7th	Chapter 1: Functions and Their Graphs • Pages 57 – 61 • *Section 1.2:* The Graph of a Function	• MML 1.1
Week 4 September 10th	Chapter 1: Functions and Their Graphs • Pages 67 – 75 • *Section 1.3:* Properties of Functions	• MML 1.2
Week 4 September 12th	Chapter 1: Functions and Their Graphs • Pages 80 – 86 • *Section 1.4:* Library of Functions; Piecewise-defined Functions	• MML 1.3
Week 4 September 14th	Chapter 1: Functions and Their Graphs • Pages 90 – 99 • *Section 1.5:* Graphing Techniques - Transformations	• MML 1.4
Week 5 September 17th	Chapter 2: Linear and Quadratic Functions • Pages 123 – 129	• MML 1.5

	• *Section 2.1:* Properties of Linear Functions and Linear Models	
Week 5 September 19th	Chapter 2: Linear and Quadratic Functions • Pages 141 – 149 • *Section 2.3:* Quadratic Functions and Their Zeros	• MML 2.1
Week 5 September 21st	Chapter 2: Linear and Quadratic Functions • Pages 152 – 160 • *Section 2.4:* Properties of Quadratic Functions	• MML 2.3
Week 6 September 24th	Chapter 2: Linear and Quadratic Functions • Pages 178 – 180 • *Section 2.7:* Complex Zeros of a Quadratic Function	• MML 2.4
Week 6 September 26th	• Review for Exam 1	• MML 2.7
Week 6 September 28th	**EXAM 1 (CHAPTERS 0, 1, & 2)**	
Week 7 October 1st	Chapter 3: Polynomial and Rational Functions • Pages 194 – 210 • *Section 3.1:* Polynomial Functions and Models	
Week 7 October 3rd	Chapter 3: Polynomial and Rational Functions • Pages 215 – 223 • *Section 3.2:* Properties of Rational Functions	• MML 3.1
Week 7 October 5th	Chapter 3: Polynomial and Rational Functions • Pages 226 – 237 • *Section 3.3:* The Graph of a Rational Function	• MML 3.2
Week 8 October 8th	**DISCOVERER'S DAY**	**NO CLASS**
Week 8 October 10th	Chapter 3: Polynomial and Rational Functions • Pages 248 – 258 • *Section 3.5:* The Real Zeros of a Polynomial Function	• MML 3.3
Week 8 October 12th	Chapter 4: Exponential and Logarithmic Functions • Pages 275 – 279 • *Section 4.1:* Composite Functions	• MML 3.5
Week 9 October 15th	Chapter 4: Exponential and Logarithmic Functions • Pages 282 – 291 • *Section 4.2:* One-to-One Functions; Inverse Functions	• MML 4.1
Week 9 October 17th	Chapter 4: Exponential and Logarithmic Functions • Pages 297 – 307 • *Section 4.3:* Exponential Functions	• MML 4.2

Week 9 October 19th	Chapter 4: Exponential and Logarithmic Functions • Pages 312 – 321 • *Section 4.4:* Logarithmic Functions	• MML 4.3
Week 10 October 22nd	Chapter 4: Exponential and Logarithmic Functions • Pages 325 – 331 • *Section 4.5:* Properties of Logarithms	• MML 4.4
Week 10 October 24th	Chapter 4: Exponential and Logarithmic Functions • Pages 334 – 338 • *Section 4.6:* Logarithmic and Exponential Equations	• MML 4.5
Week 10 October 26th	• Review for Exam 2	• MML 4.6
Week 11 October 29th	**EXAM 2**	
Week 11 October 31st	Chapter 5: Trigonometric Functions • Pages 378 – 387 • *Section 5.1:* Angles and Their Measure	
Week 11 November 2nd	Chapter 5: Trigonometric Functions • Pages 391 – 399 • *Section 5.2:* Right Triangle Trigonometry	• MML 5.1
Week 12 November 5th	Chapter 5: Trigonometric Functions • Pages 403 – 410 • *Section 5.3:* Computing the Values of Trigonometric Functions of Acute Angles	• MML 5.2
Week 12 November 7th	Chapter 5: Trigonometric Functions • Pages 414 – 422 • *Section 5.4:* Trigonometric Functions of Any Angle	• MML 5.3
Week 12 November 9th	Chapter 5: Trigonometric Functions • Pages 424 – 432 • *Section 5.5:* Unit Circle Approach; Properties of the Trigonometric Functions	• MML 5.4
Week 13 November 12th	**VETERAN'S DAY**	**NO CLASS**
Week 13 November 14th	Chapter 6: Analytic Trigonometry • Pages 478 – 487 • *Section 6.1:* The Inverse Sine, Cosine, and Tangent Functions	• MML 5.5
Week 13 November 16th	Chapter 6: Analytic Trigonometry • Pages 496 – 501 • *Section 6.3:* Trigonometric Equations	• MML 6.1
Week 14 November 19th	Chapter 6: Analytic Trigonometry • Pages 496 – 501	

	• *Section 6.3:* Trigonometric Equations	
Week 14 November 21st	Chapter 6: Analytic Trigonometry • Pages 506 – 511 • *Section 6.4:* Trigonometric Identities	• MML 6.3
Week 14 November 23rd	**THANKSGIVING BREAK**	**NO CLASS**
Week 15 November 26th	• Review for Exam 3	• MML 6.4
Week 15 November 28th	**STUDY DAY**	**NO CLASS**
Week 15 November 30th	**EXAM 3**	