

## MA 305 COURSE SYLLABUS

**Course Term:** Online PACE 2016-17SE  
**Office Hours:** By appointment

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### COURSE DESCRIPTION

#### MA 305 Math for Elementary Teachers II (3cr)

Provides a foundation for prospective elementary education majors with a deeper and more comprehensive understanding of the fundamental concepts underlying the mathematics taught in grades K to 8. Guided by NCTM principles and standards, 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. Prerequisites: MA 105.

### CONCEPTUAL FRAMEWORK

The Education Division's Conceptual Framework is based upon a set of beliefs that flow from the University's vision and mission statements, the Division's vision and mission statements, and the core academic beliefs of Chaminade University. These values and beliefs are based on the Catholic Marianist principles; a commitment to mentor teacher and educational leader candidates to their fullest potential; a commitment to teaching, scholarship and research; and a commitment to serve the university and the larger community. This rigorous alignment is designed to prepare education professionals who demonstrate professional dispositions and empathy, content knowledge, and the pedagogical/leadership skills to work effectively work with a diverse community of learners.

### EDUCATION DIVISION MISSION STATEMENT

The Education Division's mission is to foster the development of knowledgeable, proficient, and reflective teachers and educational leaders. Our programs are based in the liberal arts tradition, Catholic Marianist values, current research, best practice, and professional standards. In this context we develop educators who demonstrate ethical, effective and culturally responsive practices, and a commitment to building a just and peaceful society.

**WASC CORE COMPETENCIES:**

1. Written communication
2. Oral communication
3. Quantitative reasoning
4. Information literacy
5. Critical thinking

**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

## CHAMINADE LEVERS OF SUCCESS

- Enhance educational excellence
  - a. Build academic quality
  - b. Known for fully prepared, competitive graduates
  - c. Develop capacity to support excellence
- Partner for the common good
- Expand level of international engagement
- Use tech to achieve pedagogical advantage

## PROGRAM LEARNING OUTCOMES (PLO)

Successful teacher candidates must meet relevant professional, state, and institutional standards through meeting the following Program Learning Outcomes. PLOs highlighted will be emphasized through this course.

**PLO1** Knowledge of subject matter such as reading/language arts, mathematics, social sciences, science, visual arts, musical arts, and kinesthetic arts (*Content Knowledge*).

PLO2 Knowledge of how students develop and learn, and engagement of student in developmentally appropriate experiences that support learning (*Developmentally Appropriate Practice*).

PLO3 Knowledge of how to teach subject matter to students and the application of a variety of instructional strategies that are rigorous, differentiated, focused on the active involvement of the learner (*Pedagogical Content Knowledge*).

PLO4 Knowledge and application of appropriate technology for student learning (*Technology*).

PLO5 Knowledge and use of appropriate assessment strategies that enhance the knowledge of learners and their responsibility for their own learning (*Assessment*).

PLO6 Skills for adapting learning activities for individual differences and the needs of diverse learners and for maintaining safe, positive, caring, and inclusive learning environments (*Diversity*).

PLO7 Skills in the planning and design of meaningful learning activities that support and have a positive impact on student learning based upon knowledge of subject matter, students, the community, curriculum standards, and integration of appropriate technology (*Focus on Student Learning*).

PLO8 Professional dispositions, professionalism in teaching, and ethical standards of conduct consistent with Marianist values, and positive and constructive relationships with parents, the school community and professional colleagues (*Professional & Ethical Dispositions and Communication*).

## COURSE LEARNING OUTCOMES (CLO)

At the end of this course, the student will:

CLO1 Demonstrate mathematics content knowledge required for further study in mathematics education.

- CLO2 Use problem solving skills to investigate real-life mathematical situations, formulate valid questions from problem situations, and represent situations verbally, numerically/symbolically, graphically, and/or geometrically.
- CLO3 Develop an appreciation for mathematics as a body of knowledge that is interesting and useful.
- CLO4 Use a variety of methods, calculators, computer programs, and other appropriate technology to investigate and explain mathematics.

CLO	Knowledge	Skill	Disposition	Program LO	CUH LS	WASC Core Competency	Marianist Values
1	I	D	D	1,2,3,5	1a,1c	3,5	2,5
2	I	D	D	1,3,6	1a,1b,1c	1,2,3,4,5	2,5
3	D	D	D	1,3,5,6,7	1a,1b,1c	5	2,3,5
4	D	D	D	1	1a	1,3,4,5	2

(I=Introduced to the concept; D=Developing; C=Competent; M=Mastered)

### LEARNING MATERIALS

- **Textbook (same text book as Math 105):** Beckmann, Sybilla (2014). *Mathematics for Elementary Teachers with Activities*. 4th ed. Pearson. ISBN---10:0321825721
- **On-line Resource:** MyMathLab ([www.mymathlab.com](http://www.mymathlab.com))
- **Praxis I PPST** (Strongly recommended: *Praxis I Study Guide*).  
This is available in the university bookstore, local bookstores and online. Passage of Praxis I is a requirement for enrollment in almost all Education courses. You should register to take Praxis I at the end of this semester or the beginning of the next semester.
- **Problem Solving Journal (PSJ)**  
Throughout this course, you will keep a running journal of the course material. This is YOUR journal - use it to take notes and reflect on the readings, complete practice problems, respond to the material presented in discussions or even post questions. You can create this journal using loose-leaf paper in a 3-ring binder or spiral notebook.
- **Kahn academy:** <https://www.khanacademy.org/>
- **Udacity:** <https://www.udacity.com/>

### COURSE FORMAT

This on-line course requires self-motivation and self-engagement to be successful. Weekly assignments and two exams (mid-term and final) will be given throughout the course period. Addition to class assignments, it is highly recommended to do practice exercises by yourself at the end of each section.

### Assignments

Practice exercises and problems will be assigned each week. You are required to turn in weekly assignments as a **PDF format (Scanned) by Sundays at 11:59pm HST every week**. You will find some exercises/problems challenging and difficult. Feel free to work together (through discussions) and use any resources that are listed here and available to you.

**ASSESSMENT**

Assignments (practices/problems)	60 %
Mid-term Exam	20 %
Final Exam	20 %
	100 %

*(subject to change at the instructor's discretion in the interest of sound pedagogy)*

**GRADING SCALE:**

Your final grade will be weighted as follows:

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

**ACADEMIC HONESTY**

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 accommodations. Please refer any questions to the Dean of Students. All accommodations MUST be approved through the Director of Counseling Services, Dr. June Yasuhara. To make an appointment, please email at [jyasuhar@chaminade.edu](mailto:jyasuhar@chaminade.edu) or call (808) 735-4845.

## **ONE-ON-ONE TUTORING**

Student Support Services and the Academic Achievement program offer free, one-on-one tutoring for all undergraduate students at Chaminade University. Tutoring services are designed to guide students to the point at which they become independent learners, no longer needing a tutor. Subjects tutored include, but are not limited to: biology, chemistry, math, nursing, English, etc. The tutoring team is composed of trained Peer and Professional Tutors.

Tutoring is available by appointment only. Tutoring takes place in the Student Support Services building during the hours of 9:00 am to 5:00 pm, Monday through Friday. In order to receive tutoring, a student must first complete and submit an intake form. After submitting the intake form, a staff member will assist the students in creating an online account that allows him/her to book an appointment through the online system. All appointments must be made two (2) days prior to the desired appointment. Cancellations must be made 24 hours in advance. For further information, contact Student Services at (808) 735-4724.

## EDUCATION DIVISION 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 note 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 **Hybrid Courses** (online combined with 3 or more on-ground meetings)

One absence from on-ground classes lowers grade one letter. Two or more absences from on-ground meetings results in failure or withdrawal. For the online portion of the course the instructor will specify and enforce expectations for online participation and receipt of assignments appropriate to the design of the course.

#### 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 course 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. Tardy

10% of class time (on-ground) missed is equivalent to 1/2 class absence (i.e. missing 18 minutes of a 3 hour class is equivalent to a 1/2 class absence; missing 24 minutes of a 4 hour class also equates to a 1/2 class absence).

### 4. Additional Notes

4.1 **If a student does not log on to online or hybrid course for the first two weeks, the instructor should notify the Dean and the student will be withdrawn from the course.**

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

## MA 305 COURSE SCHEDULE

- It is critical you read assigned chapter of each week prior to completing the assignments. When you study each assigned learning topic, highlight important concepts and vocabulary words; take notes and/or write questions in your **Problem Solving Journal (PSJ)**.
- Do problems labeled with the apple core.
- It is **highly recommend to do Practice Exercises at the end of each section**. This will help you to check your understanding of the learning concept and materials.

Week	Learning Topic	Assignments
1: Apr. 10 - Apr. 16	- Introduction - Chapter 9: Algebra (sections 9.1, 9.2, 9.3)	- Read Syllabus - Read assigned sections of chapter 9 - practice the followings: 9.1: Class Activity 9A 9.2: Class Activity 9H -Problems: 9.14a, 9.2.7a, 9.3.5
2: Apr. 17 - Apr. 23	Chapter 9: Algebra (sections 9.4, 9.5, 9.6)	Problems: 9.4.5, 9.5.2, 9.5.4, 9.6.5
3: Apr. 24 - Apr. 30	Chapter 10: Geometry (sections 10.1, 10.2, 10.4, 10.5)	Problems: 10.1.1, 10.2.3, 10.4.1, 10.5.3
4: May 1 - May 7	Chapter 11: Measurement (sections 11.1, 11.2, 11.3, 11.4)	Problems: 11.1.2, 11.2.4, 11.3.3, 11.4.3
5: May 8 - May 14	Chapter 12: Area of Shapes (sections 12.1, 12.2, 12.3, 12.4)	Problems: 12.1.1, 12.2.3, 12.3.2, 12.4: Class Activity 12H
6: May 15 - May 21 <b>Midterm Exam (Ch. 9-11)</b>	Chapter 12: Area of Shapes (sections 12.6, 12.8, 12.9)	<b>Submit Midterm</b> Problems: 12.6.3, 12.8.2, 12.8.4, 12.9.3
7: May 22 - May 28	Chapter 13: Solid Shapes and Their Volume and Surface Area (sections 13.1, 13.2, 13.3)	Problems: 13.1.4, 13.2.1, 13.3
8: May 29 - Jun. 4	Chapter 14: Geometry of Motion and Change (sections 14.1, 14.2, 14.3)	Problems: 14.5.4, 14.5.6, 14.6.5
9: Jun. 5 - Jun. 11	Chapter 14: Geometry of Motion and Change (sections 14.5, 14.6)	Problems: 14.5.4, 14.5.6, 14.6.5
10: Jun. 12 - Jun. 18	Chapter 15: Statistics (section 15.3) Chapter 16: Probability (section 16.1)	Problems: 15.3.3, 15.3.6, 16.1.1
By Jun. 21: <b>Final Exam</b>	<b>Ch. 12-16</b>	<b>Submit Final Exam</b>

*(subject to change at the instructor's discretion in the interest of sound pedagogy)*