



MA 305 Course Syllabus

3140 Waiālae Avenue - Honolulu, HI 96816

www.chaminade.edu

Course Number: MA 305

Course Title: Math for Elementary Teachers II

College/School/Division Name: Education

Term: PACE Fall 2016

Credits: 3

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Office Location: Brogan 132

Office Hours: By appointment

University Course Catalog Description

This course provides prospective elementary education majors with a deeper and more comprehensive understanding of the fundamental concepts underlying the mathematics taught in grades K through 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 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

- Educate for adaptation and change

Chaminade Levers of Success

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

Program Learning Outcomes

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.

PLO 1: Content Knowledge. Knowledge of subject matter such as reading/language arts, mathematics, social sciences, science, visual arts, musical arts, and kinesthetic arts (*Content Knowledge*).

Course Learning Outcomes

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 manipulatives, 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	1a, 1c	3, 5	2, 5
2	I	D	D	1	1a, 1b, 1c	1, 2, 3, 4, 5	2, 5
3	D	D	D	1	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

- Beckmann, Sybilla (2014). *Mathematics for Elementary Teachers with Activities*. 4th ed. Pearson. ISBN-10: 0321825721
- MyMathLab (www.mymathlab.com)
- Other open education resource readings and video links will be provided.

Praxis I PPST

Strongly recommended: *Praxis I Study Guide*.

There are several available in the university bookstore, in 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, react to the material presented in discussions or even pose questions. You can create this journal using loose-leaf paper in a 3-ring binder or spiral notebook.

Homework (Practice Exercises & Problems): Homework will be assigned. It will be turned in and graded regularly at the end of each week (by Saturday at 11:59 p.m. HST). These will be the most difficult tasks you will receive, so feel free to work together (through discussions) and use any resources available to you. Remember to turn in a printed copy (PDF) by the weekly due date!

Assessment

Assignments		
Homework (Problems)	60 pts.	
Mid-term	20 pts.	
Final	20 pts.	
	100 pts.	

May be subject to change.

Grading scale

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

Schedule

Week	Topic	Assignments Due by Sunday Chapter Problems
(1) Oct. 3 – Oct. 9	Introduction Read Foreword & Preface p. x & xii-xvii Chapter 9: Algebra (sections 9.1, 9.2, 9.3) Highly recommended to do Practice Exercises at the end of each section.	Do assigned problems labeled with the apple core. 9.1: Class Activity 9A (#1, 2, 3) 9.2: Class Activity 9H (#1, 2, 3) Problems: 9.3.5
(2) Oct. 10 – Oct. 16	Chapter 9: Algebra (Sections 9.4, 9.5, 9.6)	Problems: 9.4.5, 9.5.2, 9.5.4, 9.6.5
(3) Oct. 17 – Oct. 23	Chapter 10: Geometry (Sections 10.1, 10.2, 10.4, 10.5)	Problems: 10.1.1, 10.2.4, 10.4.1, 10.5.3

Week	Topic	Assignments Due by Sunday Chapter Problems
(4) Oct. 24 – Oct. 30	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) Oct. 31 – Nov. 6	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) Nov. 7 – Nov. 13 Midterm (Chapters 9 – 11)	Chapter 12: Area of Shapes (Sections: 12.6, 12.8, 12.9)	Problems: 12.6.3, 12.8.2, 12.8.4, 12.9.3
(7) Nov. 14 – Nov. 20	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) Nov. 21 – Nov. 27	Chapter 14: Geometry of Motion and Change (Sections: 14.1, 14.2, 14.3)	Problems: 14.1.1, 14.1.7, 14.2.4, 14.2.7 14.3: Practice Exercise #2
(9) Nov. 28 – Dec. 4	Chapter 14 Geometry of Motion and Change (Sections: 14.5 & 14.6)	Problems: 14.5.4, 14.5.6, 14.6.5
(10) Dec. 5 – Dec. 11	Chapter 15 (Section: 15.3) Chapter 16: Probability (Section: 16.1)	Problems: 15.3.3, 15.3.6, 16.1.1
December 14, 2016 Final Exam	Chapters 12 - 16	

May be subject to change based on the dynamics of current events.

Weekly Schedule of Required Reading and Homework Assignments

It is important that you read the text carefully. Highlight important concepts and vocabulary words; take notes and/or write questions in your notebook. At the end of each section is a summary and study items including practice exercises to “check yourself” on your understanding of the important concepts.

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.

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 corps consists 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 Support Services at (808) 735-4724.

Education Division Attendance Policy

(Revised 3/8/10)

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:

1.2 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.

1.3 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. Tardy. 10% of class time (on-ground) missed is equivalent to ½ class absence (i.e. missing 18 minutes of a 3 hour class is equivalent to a ½ class absence; missing 24 minutes of a 4 hour class also equates to a ½ class absence).

4. Additional Notes.

- 4.1 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.
- 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.