



**ED 445/ EDUC 767
Montessori Math Methods**

<p>Semester/Year Summer 2013</p>	<p>Instructor: Elizabeth Park</p>
<p>Course# and Credits: ED 445/ EDUC 767 (3 credits)</p>	<p>Email: epark@chaminade.edu</p>
<p>Class Title: Montessori Math Methods</p>	<p>Phone: Office: 808-735-4859 Cell: 808-295-1390</p>
<p>Course Format: On Ground Brogan Hall Room 101 July 22 –July 27</p> <p>Online July 1-September 12</p> <p>ONLINE ACCESS: http://www.chaminade.college.com LOGIN: CUH ID (7 DIGIT NUMBER) PASSWORD: Last 4 Digits of Social Security</p>	<p>Office Hours/When to Contact: By appointment and online.</p>
<p>Class Time/Day: On Ground Brogan Hall Room 101 July 22 –July 27 9 a.m. – 6 p.m.</p> <p>Online July 1-September 12</p>	<p>O&P/Service Requirement: N/A</p>
<p>Text 1: Montessori, M. (1966). <i>The secret of childhood</i>. New York: Ballantine Books. ISBN 0-345-30583-3 http://montessorimethods.weebly.com/textbooks.html</p>	<p>Text 2: Montessori, M. (1967). <i>The discovery of the child</i>. New York: Ballantine Books. ISBN 0-345-33656-9 http://montessorimethods.weebly.com/textbooks.html</p>

<p style="text-align: center;">Text 3:</p> <p>Bredenkamp, S., & Copple, C. (2009). <i>Developmentally appropriate practice in early childhood programs serving children from birth through age 8</i> (3d ed.). Washington D.C: NAEYC. ISBN: 978-1-928896-64-7</p> <p>http://montessorimethods.weebly.com/textbooks.html</p>	<p style="text-align: center;">Text 4</p> <p>Montessori Math Methods Manual- Purchase online at: http://montessorimethods.weebly.com/manuals.html http://montessorimethods.weebly.com/manuals.html</p>
<p style="text-align: center;">Text 5</p> <p>Smith, S. S. (2009). <i>Early childhood mathematics</i> (5th Ed.). Boston: Pearson. ISBN 0132613689</p> <p>http://montessorimethods.weebly.com/textbooks.html</p>	

Catalog Description:

Development of neuro-motor function and the senses in children ages two and a half to eight. Content explores the influence of culture on brain development, activities for developing the senses and sensori-motor function, and the relationship to other content areas such as reading and math. Research component is required.

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 alignment is designed to prepare education professionals who meet the National Council for Accreditation of Teacher Education (NCATE) standards for effective teaching by demonstrating professional dispositions and empathy, content knowledge, and the pedagogical/leadership skills to work effectively work with a diverse community of learners.

Major Course Topics:

1. Guide students as they develop a basic understanding of the rationale and sequence of the sensorial curriculum in a Montessori early childhood environment.
2. Describe, define and provide opportunities for the students to analyze and model the leadership role of an adult in the sensorial area of a Montessori early childhood environment.
3. Provide opportunities, through explanation, demonstration, and modeling, for students to learn to create the sensorial curriculum of the prepared environment, in accordance with Montessori principles of design, with particular focus on developmentally appropriate materials and activities in the sensorial area of the early childhood environment.
4. Provide opportunities to practice strategies for, the implementation and evaluation the sensorial area of the early childhood prepared environment in terms of meeting developmental needs.

5. Share, and show students how to find, current peer-reviewed research articles, particularly in the areas of the inter-relationships of motor and cognitive development, creation of community and culturally appropriate practice.
6. Provide guidance to relate all the knowledge to HTSB, NAEYC, and MACTE standards and how adaptation accommodations can be made to fit the needs of the non-Montessori environment.

Program Learning Outcomes (PLOs):

Successful teacher candidates in Chaminade University of Honolulu’s initial teacher licensure programs will demonstrate knowledge, skills, and dispositions in the following areas:

PL01	Content Knowledge (<i>Knowledge of subject matter</i>)
PL02	Developmentally Appropriate Practice (<i>Knowledge of how students develop and learn, and engagement of students in developmentally appropriate experiences that support learning</i>)
PL03	Pedagogical Content Knowledge (<i>Knowledge of how to teach subject matter to students and application of a variety of instructional strategies that are rigorous, differentiated, focused on the active involvement of the learner</i>)
PL04	Educational Technology (<i>Knowledge of and application of appropriate technology for student learning</i>)
PL05	Assessment for Learning (<i>Knowledge of and use of appropriate assessment strategies that enhance the knowledge of learners and their responsibility for their own learning</i>)
PL06	Diversity (<i>Skills for adapting learning activities for individual differences and the needs of diverse learners and for maintaining safe positive, caring, and inclusive learning environments</i>)
PL07	Focus on Student Learning (<i>Skills in the planning and design of meaningful learning activities that support and have positive impact on student learning based upon knowledge of subject matter, students, the community, curriculum standards, and integration of appropriate technology</i>)
PL08	Professional & Ethical Dispositions and Communication (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)

Montessori Accreditation Council for Teacher Education Competencies

3.2 EARLY CHILDHOOD (2 1/2 through 6)

The Candidate for Certification:

1. Montessori Philosophy and Human Development	2. Classroom Leadership	3. Curriculum Implementation	4. Community Involvement and Partnership with Families
a. Demonstrates an understanding of and implements Montessori philosophy with a focus on the early childhood years	a. Demonstrates observation, documentation, and analytical skills necessary for planning and recording the progress of children;	a. Demonstrates the principles of Montessori environmental and material design	a. Demonstrates cultural sensitivity in communications and work with families and children
b. Comprehends and utilizes an understanding of the stages of human growth, development, and educational theories with an emphasis from two and one-half (2 1/2) through six (6) years of age.	b. Utilizes cultural sensitivity in support of the development of individual children	b. Articulates the rationale and sequence of the Montessori curriculum;	b. Demonstrates an awareness of community resources for additional support of children and families.
c. Demonstrates evidence of personal growth through self-evaluation and introspection.	c. Demonstrates an ability to implement effective classroom strategies.	c. Demonstrates proficiency in applying Montessori principles in the context of the curriculum, didactic materials, and lesson presentations	c. Identifies and has an awareness of available professional associations.
d. Demonstrates knowledge of developmental and behavioral norms and potential recommendations toward early intervention services.	d. Demonstrates leadership skills and an understanding of professional standards; e. incorporates an understanding of administrative functions.	d. Designs and maintains a developmentally appropriate Montessori environment in response to the needs of students; utilizes a variety of instructional strategies and assessment methods.	
		e. Demonstrates an awareness and understanding of governmental regulations.	

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Course Learning Objectives:

At the end of this course, the students will:

CLO 1 MACTE 1a <i>(HTSB 1,2,5)</i> <i>(NAEYC 1,5)</i>	Demonstrates an understanding of and implements Montessori philosophy with a focus on the early childhood years.
CLO 2 MACTE 1b <i>(HTSB 1,2,5)</i> <i>(NAEYC 1,5)</i>	Comprehends and utilizes an understanding of the stages of human growth, development, and educational theories with an emphasis from two and one-half (2 1/2) through six (6) years of age.
CLO 3 MACTE 1c <i>(HTSB 9,10)</i> <i>(NAEYC 5)</i>	Demonstrates evidence of personal growth through self-evaluation and introspection
CLO 4 MACTE 2b <i>(HTSB 1,2,3,4,5)</i> <i>(NAEYC1,5)</i>	Utilizes cultural sensitivity in support of the development of individual children.
CLO 5 MACTE 3a <i>(HTSB 1,2, 3, 4,5, 8)</i> <i>(NAEYC 1,3)</i>	Demonstrates the principles of Montessori environmental and material design.
CLO 6 MACTE 3b <i>(HTSB 15,6,7)</i> <i>(NAEYC 1,3,4)</i>	Articulates the rationale and sequence of the Montessori curriculum.
CLO 7 MACTE 3c <i>(HTSB 5, 6,7, 8)</i> <i>(NAEYC 3,4)</i>	Demonstrates proficiency in applying Montessori principles in the context of the curriculum, didactic materials, and lesson presentations.

Linkages between Course Learning Objectives (CLOs) and Program Learning Objectives

	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8
CLO 1	X	X	X					
CLO 2	X							X

CLO 3	X	X				X	X	X
CLO 4	X	X			X	X	X	X
CLO 5								
CLO 6	X	X	X					
CLO 7	X	X	X				X	

Essential Questions Addressed in This Course

Essential Questions	Related CLO's	Related PLO's
What are the key components of Montessori's philosophy of sensorial and how are these practiced in the classroom?	1, 2, 3	1,2,
What is the purpose of sensorial to the overall philosophy and methodology of Montessori teaching and learning?	6, 7	1,2,3,4, 5, 6, 7, 8
What competencies and practical experiences in making, presenting sensorial lessons, and setting up a sensorial area in a classroom based upon scope and sequence; are essential to the professional development of Montessori teachers?	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7, 8

Key Teaching-Learning Strategies This is an online course. The key instructional, learning, strategies and activities include:

- Readings
- Class and Online Lessons
- Class and Online discussions
- Written assignments
- Writing a Rationale
- Individual research
- Self-Reflection
- Rubrics
- Setting up Practical Life Areas
- Practicing working with practical life materials
- Creating Practical Life Materials
- Demonstrating and Performing How to Present Lessons in Practical Life

Course learning Objectives	Instructional Activities	Assessment/s
<u>CLO 1</u>	Readings, Online Discussions, Making materials and lesson plan,	Online Discussions, Making materials and lesson plan, setting up sensorial shelves,

	setting up sensorial shelves, writing sensorial rationale.	writing sensorial rationale.
<u>CLO 2</u>	Readings, Online Discussions, Making materials and lesson plan, setting up practical life shelves, writing practical life rationale.	Readings, Online Discussions, Making materials and lesson plan, setting up practical life shelves, writing practical life rationale.
<u>CLO 3</u>	Readings, Class and Online lessons, Online Discussions, Individual Research,	Self-reflections, self-assessments as a result of practice and setting up practical life areas, creating and demonstrating practical life activity and lesson plan.
<u>CLO 4</u>	Readings, classroom and online discussions and lessons, writing rationale, and individual research.	Writing rationale, demonstration of competencies in presenting, demonstrating and creating practical life lessons.
<u>CLO 5</u>	Readings, lass and online lessons, setting up a practical life area according to scope and sequence, creating a practical life activity and lesson and writing a rationale.	Setting up a practical life area according to scope and sequence, creating a practical life activity and lesson and writing a rationale.
<u>CLO 6</u>	Class and online lessons, setting up a practical life area according to scope and sequence, creating a practical life activity and lesson and writing a rationale.	Setting up a practical life area according to scope and sequence, creating a practical life activity and lesson and writing a rationale.
<u>CLO 7</u>	Class and online lessons, setting up a practical life area according to scope and sequence, creating a practical life activity and lesson and writing a rationale.	Setting up a practical life area according to scope and sequence, creating a practical life activity and lesson and writing a rationale.

Course Requirements

Assignment	Points	Assignment Description	Due Date
Attendance & Participation (Practice)	10 points	<p>Attendance, Participation, and Practice</p> <ul style="list-style-type: none"> ● Arrive and leave on time; attend sessions. ● Actively and enthusiastically participate in session discussions and practice. ● Practice with materials on a daily basis as assigned to develop pedagogical skill 	On-Ground and Ongoing Online July-Sept
Discussions Online	10 points	<p>Discussion Online You will post your thoughts on discussion questions to two topics</p> <p>For full points you will need to:</p> <ul style="list-style-type: none"> ● post discussion posting by due date ● respond to at least one other classmate's posting by due date <p>To create a threaded discussion response: Click on (Respond).</p> <p>To reply to your classmate's post: Click on (Reply). Each student will be required to post a minimum of two responses to their classmate's posts per module.</p>	<p>Post Discussion Week 8 Friday 11 p.m.</p> <p>Responses to Classmates (at least two) Week 8 Sunday 11 p.m.</p>
Reflections	10 points	<p>Reflections on Readings Prepare a 3-5 page reflection paper for each of 5 sets of readings</p> <p>For full points each reflection will:</p> <ul style="list-style-type: none"> ● Be written in Standard American English ● Include connections to personal and professional experience ● Compare Montessori's methods to DAP and contemporary research on emergent reading and writing. <p>The paper should cover the following reflective topics:</p> <ol style="list-style-type: none"> Teaching how to count and developments to arithmetic Choose a topic from your textbook readings which you have a strong positive or negative reaction. Compare and contrast that topic with your Montessori reading with particular emphasis on the two chapters in <i>Discovery of the</i> 	Week 8 Friday 11 p.m.

		<i>Child</i> (chapters 18 and 19)	
Performance Practice	10 points	<p>Performance Practice</p> <p>For full points, performance will:</p> <ul style="list-style-type: none"> ● name activity / placement on shelf ● identify appropriate age range ● give accurate presentation ● identify direct and indirect aims ● identify points of interest and control of error 	
Activity	25 points	<p>Key Assignment: Activity</p> <p>Students will make and demonstrate a developmentally appropriate math activity inspired by children’s literature. This activity lesson plan will include appropriate standards and benchmarks, student learning objectives, content, assessment plan, procedures, and reflections. This lesson also examines how the lesson plan can be adapted to mainstream early childhood environment that includes developmentally appropriate modifications to meet the needs of diverse and exceptional learners.</p> <p>For full points, activity will</p> <ul style="list-style-type: none"> ● be aesthetically made ● have original elements ● be appropriate for age ● include lesson plan that includes criteria listed above ● be clearly and gracefully presented <p>Please submit your activity lesson plan write-up in Doc Sharing prior to your presentation. After your instructor's feedback you will submit your final version in LiveText by Friday (Week 10) 11 p.m.</p>	Week 10 Friday 11 p.m.
Math Album	35 points	<p>Key Assignments: Math Rationale and Album</p> <p>An album that incorporates math activities that promote development math concepts. Albums will include the big idea (rationale), lessons, photos, and resources for the teaching sensorial curriculum to young children. Each of the lessons included in these albums will include adaptation and accommodations and appropriate content standards.</p> <p>1) Rationale (10 pts.)</p> <p>For full points Rationale will:</p> <ul style="list-style-type: none"> ○ be written in Standard American English and APA style 	Week 10 Friday 11 p.m.

		<ul style="list-style-type: none"> ○ have a clear introduction and supporting paragraphs ○ include a complete summary ○ be at least two pages with 12 point font/ one inch margins ○ answer the questions <i>what, why, where, and when</i> ○ include at least one appropriate quote from your reading <p>2) Lessons, Photos, Standards, and Accommodations (20 pts.)</p> <p>3) Resources (5 pts.)</p> <p>Please click here to view the rubric for the rationale.</p>	
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Please see eCollege and LiveText for detailed rubrics.

Anything below 79 points (graduate students) is not a passing grade and the class will have to be re-taken. All written course assignments must follow American Psychological Association (APA) standards for writing student papers (See chapter six of APA manual 6th ed.).

Grading Scale:

A- 90-100 points

B- 80-90 points

Below 79 Must Retake the Class

University Policies:

Attendance: 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 of the Division as appropriate for the course format (on-ground, hybrid, or online).* Penalties for not meeting the attendance requirements may result in lowering of the grade, withdrawal from the course, or failing the course.

A summary of the Education Division’s attendance policy is attached at the end of this syllabus.

Writing Standards: All work submitted by Chaminade University students must meet the following writing standards. Written assignments should:

1. Use correctly the grammar, spelling, punctuation, and sentence structure of Standard Written English.
2. Develop ideas, themes, and main points coherently and concisely.
3. Adopt modes and styles appropriate to their purpose and audience.
4. Be clear, complete, and effective.
5. Carefully analyze and synthesize material and ideas borrowed from sources. In addition, the sources of the borrowed material should be correctly acknowledged to avoid plagiarism.

Plagiarism: “Plagiarism is the offering of work of another as one’s own. Plagiarism is a serious offense and may include, but is not limited to, the following:

1. Complete or partial copying directly from a published or unpublished source without

proper acknowledgement to the author. Minor changes in wording or syntax are not sufficient to avoid charges of plagiarism. Proper acknowledgement of the source of a text is always mandatory.

2. Paraphrasing the work of another without proper author acknowledgement.
3. Submitting as one's own original work (however freely given or purchased) the original exam, research paper, manuscript, report, computer file, or other assignment that has been prepared by another individual.

Please refer to your **Student Handbook** and the **Graduate Catalog** for other important institutional and academic policies including more detailed information regarding Grading, Plagiarism, Classroom Department, Freedom of Expression, Add/Drop, Disabilities, and others.

Diversity/Full Inclusion: Chaminade University of Honolulu is committed to a policy of non-discrimination and recognizes the obligation to provide equal access to its programs, services, and activities to students with disabilities. If a student is in need of accommodation due to a documented disability, he/she should contact the Counseling Center at 735-4845 or 739-4603. A determination will be made if the student meets the requirements for documented disability in accordance with the Americans with Disabilities Act. It is important to contact them as soon as possible so that accommodations are implemented in a timely fashion.

Beyond the legal requirements Chaminade's Education Division is committed to an integral, quality education that begins with respect for the complexity and diversity of each person. Subsequently, faculty members attempt to engage the whole person with quality courses and activities that challenge the intellectual, emotional, aesthetic, physical, and ethical dimensions that make up each student's life experience.

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.

- 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.
- 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:

- **On-ground courses.** When unexcused absences total more than 10% of the number of classes will result in a lowering of the overall grade by one letter grade. A student who

misses 20% or more should withdraw or be administratively withdrawn.

- Accelerated Semester Classes (10 classes): More than one absence lowers grade one letter. Missing more than two classes results in failure or withdrawal.
- Undergraduate Day Courses T/Th (30 classes): More than 3 absences lowers grade one letter. Missing more than six classes results in failure or withdrawal.
- Undergraduate Day Courses MWF (45 classes): More than 4 absences lowers grade one letter. Missing more than nine classes results in failure or withdrawal.
- **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.
- **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.

3. **Additional Notes**

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