



Course Syllabus

Chaminade University Honolulu
3140 Waiālae Avenue - Honolulu, HI 96816
www.chaminade.edu

Course Number:	ED 473-90-2
Course Title:	Math Curriculum and Methods
Credit:	3 Credit
Department Name:	Education Division
Instructor Name:	Elizabeth Park, Ph.D.
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Instructor Information:	Elizabeth Park, Ph.D.
Other Contact Information (Zoom):	https://zoom.us/my/epark
Term:	Winter 2016
Dates:	January 11, 2016 - March 26, 2016
Zoom Meetings (optional):	Week 3 and Week 7 (Time to be announced)
Class Location:	Canvas

Required Textbook(s):

The Early Math Collaborative Erikson Institute (2014). *Big Ideas of Early Mathematics: What Teachers of Young Children Need to Know*, Upper Saddle River, NJ: Pearson Education, Inc. ISBN: 9780132946971

Required Software

Students will need access to word processing, spreadsheet and presentation tools. The preferred software is Google Drive tools (Google Doc, Google Spreadsheet, and Google Slides); however, participants are welcome to use the equivalent Microsoft Office (Word, Excel, Powerpoint) or Apple applications (Pages, Numbers, Keynote) or other free open source equivalent application suites such as Open Office - <http://www.openoffice.org/> - as long as the work is saved in MS Office format before posting to eCollege so that everyone can view it. The choice of software both enables and limits access to other online resources for teachers and students that are provided – usually for free – by major software companies such as Apple and Microsoft; and this is one of the issues that we shall discuss.

Internet Access & Applications

Students will also need access to significant amounts of time on-line, ideally utilizing high-speed, broadband connections to the Internet. Students are expected to have an

email account, a valid eCollege account and a valid LiveText account. All of these are available from the University.

Recommended Texts

American Psychological Association. (2010). *Publication manual of the American Psychological Association*. (6th ed.). Washington, DC: Author.

Web Resources

- o Canvas: <http://chaminade.instructure.com/>
- o LiveText: <https://college.livetext.com>
- o APA Resource: <http://owl.english.purdue.edu/owl/resource/560/01/>
- o APA Code of Ethics: <http://www.apa.org/ethics/code/index.aspx>
- o National Council of Teachers of Mathematics (NCTM): <http://www.nctm.org/>
- o NAEYC: <http://www.naeyc.org/>
- o Google Apps for Education: <http://www.google.com/enterprise/apps/education/>

Catalog Course Description

This course introduces the philosophy and rationale for the teaching of math to young children ages 2 through 6 covering logical-mathematical thinking and number concepts demonstrated with manipulatives. Topics include pre-counting, estimation, and math operations.

Prerequisites: ED 215, ED 217 & ED 233.

Organization of the Course

This course is organized in 6 modules, each with its own subject matter and assignments. Each module also includes both online discussions and shared resources with other participants enrolled in the course.

This course is both online and accelerated, covering an entire semester's work in just 10 short weeks. This type of learning requires significant initiative and responsibility on the part of the student. Regular participation in the weekly threaded discussions is equivalent to attendance, and timely submission of assignments is the key to successful completion of the course.

All of the weekly assignments are related to completion of the final "Signature Assignment" required for this course and must be submitted at the conclusion of the course.

Online Environment

Canvas and LiveText are the current online learning environments of Chaminade University and it is the responsibility of each student to become familiar with and be an effective user of these

virtual learning environments for accessing course information and assignments, as well as for interacting online with other participants.

Participants should plan to spend at least three to four hours per week online exploring and examining Internet sites and related materials, participating in discussions and completing assignments. Students are expected not only to complete each assignment, but also to reflect on the posts of other participants, actively engaging in discussion and debate about the topics being discussed. In addition, participants should plan to spend additional time offline, reading the course text and other articles, researching and developing the final project, and reflecting about the course concepts.

Online Discussions & Assignments

Online discussions are considered class participation. Students are expected to complete the assignments and submit them in a timely manner. Any submissions three days passed the due date will be deducted ten points. Other reasons for points being deducted will be assignments missing a name or not following filename protocol. All assignments must be posted to the appropriate submission in Canvas so that each carries a time-date stamp.

If you need help, please send me an email and put your last name, Course Number and Name (i.e. ED 473) and "Help" in the subject line.

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.

Big Ideas (see: http://www.authenticeducation.org/ae_bigideas/article.lasso?artid=99)

- Mathematize the world around us.
- Make mathematics more than the manipulatives.
- Recognize receptive understanding in early mathematics.
- Provide mathematical experiences in multimodal learning opportunities that engages multiple sensory and action systems of the learner.
- Scaffold children to construct their own mathematical understanding.

Essential Questions (See:

http://www.authenticeducation.org/ae_bigideas/article.lasso?artid=53)

- What are some ways to mathematize the world around children in the early years?
- How can early childhood educators make mathematics more than the manipulatives?
- How can early childhood educators recognize receptive understanding of young children when learning about mathematics?
- What are some multimodal learning opportunities that engages young children in mathematical experiences?
- How can early childhood educators help young children to scaffold their own mathematical understanding?

Program Learning Outcomes (PLOs)

- PLO 1: Content Knowledge (Knowledge of subject matter such as reading/language arts, mathematics, social sciences, science, visual arts, musical arts, and kinesthetic arts).
- PLO 2: Developmentally Appropriate Practice (Knowledge of how students develop and learn, and engagement of students in developmentally appropriate experiences that support learning).
- PLO 3: Pedagogical Content Knowledge (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).
- PLO 4: Educational Technology (Knowledge of and application of appropriate technology for student learning).
- PLO 5: Assessment for Learning (Knowledge of and use of appropriate assessment strategies that enhance the knowledge of learners and their responsibility for their own learning).
- PLO 6: Diversity (Skills for adapting learning activities for individual differences and the needs of diverse learners and for maintaining safe positive, caring, and inclusive learning environments).
- PLO 7: Focus on Student Learning (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).
- PLO 8: 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).

Course Learning Outcomes (CLOs)

Through the course discussions, readings, assignments and case studies, participants will be able to:

- Identify and create lesson plans associated with the big ideas about sets.

- Identify and create lesson plans associated with the big ideas about number sense.
- Identify and create lesson plans associated with the big ideas about counting.
- Identify and create lesson plans associated with the big ideas about number operations.
- Identify and create lesson plans associated with the big ideas about pattern.
- Identify and create lesson plans associated with the big ideas about measurement.
- Identify and create lesson plans associated with the big ideas about data analysis.
- Identify and create lesson plans associated with the big ideas about spatial relationships.
- Identify and create lesson plans associated with the big ideas about shape.

Assignments and Grading

Assignment	Points	Percentage
Discussions	100	10%
Module 2 Early Math Big Idea Resources	150	15%
Module 3 Early Math Big Idea Resource	150	15%
Module 4 Early Math Big Idea Resources	150	15%
Module 5 Early Math Big Idea Resources	150	15%
Signature Assignment (Early Math Big Idea Resource Book)	300	30%
Total Potential Points	1000	100%
Grade = (Points Earned/1000)*100		

Linkages between Course Learning Outcomes (CLOs) and Program Learning Outcomes (PLOs)

CLOs	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8
1. Identify and create lesson plans associated with the big ideas about sets.	I	I	D				D	
2. Identify and create lesson plans associated with the big ideas about number sense.	I	I	D				D	

3. Identify and create lesson plans associated with the big ideas about counting.	I	I	D				D	
4. Identify and create lesson plans associated with the big ideas about number operations.	I	I	D				D	
5. Identify and create lesson plans associated with the big ideas about pattern.	I	I	D				D	
6. Identify and create lesson plans associated with the big ideas about measurement.	I	I	D				D	
7. Identify and create lesson plans associated with the big ideas about data analysis.	I	I	D				D	
8. Identify and create lesson plans associated with the big ideas about spatial relationships.	I	I	D				D	
9. Identify and create lesson plans associated with the big ideas about shapes.	I	I	D				D	

*I = Introduced, D = Developing, and M = Mastered

Instructional Strategies

Instructional strategies for this course will include case studies, presentations, discussion, research and online communication. The facilitator will engage course participants in the online threaded discussions and through email.

Discussion & Written Assignments

The following criteria will be used to evaluate written assignments and presentations:

- The writer/presenter demonstrates an understanding of the assignment by using a style, form and language that is appropriate for its intended audience.

- The writer/presenter has chosen a topic in accord with the assignment and limited it sufficiently to explore in depth in the space and time allotted.
- The writer/presenter focuses the presentation by means of a clear statement of purpose (thesis statement, hypothesis or posed question) and logically organized sub-topic sections.
- The writer/presenter substantiates abstractions, judgments and assertions with specific illustrations, facts and evidence appropriate to the assignment and/or discipline.
- The writer/presenter has added to on-going discussions of the topic with his or her own critical analysis, rather than simply repeating what others have said through quotation-stacking, paraphrasing or summaries.
- The writer/presenter draws upon research as needed to support critical analysis or assertions made and properly cites the work of others in APA.
- The writer's/presenter's work conforms to the minimal essentials of Standard American English grammar, word choice, spelling and punctuation.

Major Topics

- Sets
- Number Sense
- Counting
- Number Operations
- Pattern
- Measurement
- Data Analysis
- Spatial Relationships
- Shapes

Netiquette for Online Activities

- Be polite and respectful of one another.
- Avoid personal attacks. Keep dialogue friendly and supportive, even when you disagree or wish to present a controversial idea or response.
- Be careful with the use of humor and sarcasm. Emotion is difficult to sense through text.
- Be helpful and share your expertise. Foster community communication and collaboration.
- Contribute constructively and completely to each discussion. Add value in your comments. Avoid short, repetitive "I agree" responses.
- Consider carefully what you write. Make sure that you re-read all of your e-mail and discussion questions before you send or post to the class site. Remember that e-mail is considered a permanent record that may be forwarded to others.
- Be brief and succinct. Don't use up other people's time or bandwidth.
- Use descriptive subject headings for each e-mail message.

- Respect privacy. Don't forward a personal message without permission.
- Cite references. Include web addresses, authors, names of articles, etc.
- Keep responses professional and educational. Do not advertise or send chain letters.
- Do not send large attachments unless you have been requested to do so or have permission from all parties.
- Documentation: Any material not original to the student should be cited in APA 6th Edition.

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 **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.

Grade Dissemination (Clearly share how and when students will learn of their grades.):

Example: Graded tests and materials in this course will be returned individually only by request. You can access your scores at any time using the Grade Book function of our University Learning Management System. My goal will be to return graded assignments within one week of the due date.

Course Policies

Late Work Policy :

There are no make-ups for in-class writing, quizzes or exams. Essays turned in late will be assessed a penalty: a half-letter grade if it is one day late, or a full-letter grade for 2-7 days late. Essays will not be accepted if overdue by more than seven days.

Grades of "Incomplete":

The current university policy concerning incomplete grades will be followed in this course. Incomplete grades are given only in situations where unexpected emergencies prevent a student from completing the course and the remaining work can be completed the next semester. Your instructor is the final authority on whether you qualify for an incomplete. Incomplete work must be finished by the end of the subsequent semester or the "I" will automatically be recorded as an "F" on your transcript.

Rewrite Policy:

Example: Rewrites are entirely optional; however, only the formal essay may be rewritten for a revised grade. Note that an alternate grading rubric will be used for the rewrite, featuring an additional column that evaluates the changes made specifically.

Writing Policy:

Example: Commentary on written work will be delivered in written format, at the end of the assignment. However, upon request, an alternate delivery method can be used. If desired, instructor comments can be made verbally and delivered to the student as an mp4. This approach yields far fewer written comments, but much more commentary in general is delivered, due to the speed and specificity of speech. Those requesting mp4 feedback must state so when the essay is turned in. All papers should demonstrate mastery of grammar, punctuation,

spelling and syntax expected of college level students. Use of [APA](#) is required for all papers. If you need writing assistance, please seek help from Student Support Services and the [Academic Achievement Program](#). All papers are to be word-processed, proofread, and solely the work of the author.

Group Work Policy:

Example: Everyone must take part in a group project. All members of a group will receive the same score; that is, the project is assessed and everyone receives this score. However, that number is only 90% of your grade for this project. The final 10% is individual, and refers to your teamwork. Every person in the group will provide the instructor with a suggested grade for every other member of the group, and the instructor will assign a grade that is informed by those suggestions. Also, everyone must take part in a group essay. The grading criteria are the same as the group project. Once formed, groups cannot be altered or switched, except for reasons of extended hospitalization.

Appropriate Technology:

You are expected to work with appropriate technology including mobile devices for your course work.

Student Expectations

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.

Title IX Compliance

Chaminade University of Honolulu (CUH) 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 Chaminade Counseling Center at [808 735-4845](tel:8087354845) and/or any priest serving as a sacramental confessor or any ordained religious leader serving in the sacred confidence role.

Attendance Policy (Offer specifics about your expectations for attendance – physically and mentally – perhaps a word on engagement and what it means to be “present”. How many absences are acceptable/expected? Will students get points for attendance and/or participation? You may also describe expectation of courtesy here, i.e., when discussing, we will create an

active, open environment, which encourages diverse thought and comments. We strive to create evidence-based arguments and attack the idea, never the person):

Professionalism Policy:

Please attend to all university policy and classroom etiquette procedures. Those not heeding the policies will be asked to leave the classroom/lab immediately so as to not disrupt the learning environment. Please arrive on time, be attentive, and respectful for all class meetings. Students who habitually disturb the class by talking, arriving late or other unprofessional behavior may suffer a reduction in their final class grade.

Academic Conduct Policy

The success of the Honor Code is made possible only with the acceptance and cooperation of every student. Each student is expected to maintain the principles of the Code. Example of Honor Code violations include:

- Giving or receiving information from another student during an examination;
- Using unauthorized sources for answers during an examination;
- Illegally obtained test questions before the test;
- Any and all forms of plagiarism – submit all or part of someone else’s work or ideas as your own;
- The destruction and/or confiscation of school and/or personal property.

A violation is reported either to the professor involved, who will report it to the Dean of Students, or directly to the Dean of Students.

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.

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](tel:8087354724).

Acknowledgement Statement

(Please cut and paste and return to the instructor via email)

Course:

Term:

Printed Name:

Signature:

[Note: signature is not required if submitting through email]

By emailing this, I agree that I have completely read this syllabus and understand and agree to the course requirements. I also agree to the academic honesty statement and understand that plagiarism or cheating will result in an "F" grade for the assignment or course, or dismissal from the program.

Please indicate any special needs or circumstances that may have some impact on your work in this class, and for which you may require special accommodations, including but not limited to physical or mental disabilities, inability to log in for online courses, arrive in class on time, the need to leave class early, and/or observance of religious holidays.