

Course Outline

COURSE: CD 16 **DIVISION:** 50 **ALSO LISTED AS:**

TERM EFFECTIVE: Fall 2018 **CURRICULUM APPROVAL DATE:** 11/27/2017

SHORT TITLE: EXPLORE MATH W/CHILD-FOUN/FRAM

LONG TITLE: Exploring Mathematics with Children-Foundations and Frameworks

Units	Number of Weeks		Contact Hours/Week		Total Contact Hours
1	18	Lecture:	1	Lecture:	18
		Lab:	0	Lab:	0
		Other:	0	Other:	0
		Total:	1	Total:	18

COURSE DESCRIPTION:

Introduces math experiences for children and presents an organized, sequential approach for developing a math curriculum. Provides strategies for implementing the California Preschool Learning Foundations and Frameworks developed for this domain. Focuses on including the strands of number sense, algebra and functions, measurement, geometry, and mathematical reasoning. Applicable to required or professional development units for Child Development Permit holders, pre-school, transitional kindergarten, and early-primary teachers. **ADVISORY:** Eligible for English 250 and English 260.

PREREQUISITES:

COREQUISITES:

CREDIT STATUS: D - Credit - Degree Applicable

GRADING MODES

L - Standard Letter Grade

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:

02 - Lecture and/or discussion

72 - Dist. Ed Internet Delayed

STUDENT LEARNING OUTCOMES:

1. Explain the roles of the California Preschool Learning Foundations and Frameworks in the education of young children and their relationship to the Desired Results Developmental (DRDP), California

Common Core State Standards for kindergarten and Content Standards for California Public Schools (kindergarten).

Measure of assessment: homework: written assignment, exam

Year assessed, or planned year of assessment: 2018

Semester: Spring

2. Produce math lessons and activity plans for use with children aged 2-8 through the use of planned environments and experiences to support mathematical learning, based on the observation of children in classroom settings.

Measure of assessment: homework, exam, activity folder

Year assessed, or planned year of assessment: 2018

Semester: Spring

3. Articulate the teacher's role in collaborating with families to support children's mathematical learning.

Measure of assessment: discussion, homework, exam

CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS

Curriculum Approval Date: 11/27/2017

3 Hours

Content: Introduction to the California Preschool Learning Foundations for Mathematics. Including its purpose and use, relationship to the California Core State Standards and Content Standards for California Public Schools, and the Relationship to Desired Results Developmental Profile (DRDP). Math Activity Folder Assignment. Observation Assignment.

Student Performance Objectives: Define the roles of the CA Foundations and Frameworks: Math and their relationship to the Desired Results Developmental Profile (DRDP), California Common Core State Standards for kindergarten and Content Standards for California Public Schools (kindergarten).

10 Hours

Content: Lectures and discussions on: The Five Components/Math Domains and How to Implement the Foundations and Frameworks into the Curriculum. Evaluate various materials for mathematics learning. Providing a math rich environment. Planning based on observation of children's interests, skills and abilities. Use of inquiry and exploration to foster problem solving and mathematical reasoning. Use of daily experiences and routines as a vehicle to promote children's mathematical knowledge. Hands-on opportunities to explore math concepts.

Student Performance Objectives: Identify classroom structures that promote these domains. Identify activities to teach the five math domains. Describe typical math learning activities for young children. Describe similarities between math and science. Demonstrate how to use the CA Foundations and Frameworks to plan curriculum experiences for various interests and abilities of children.

2 Hours

Content: Lectures and discussions on: Supporting Children's Learning of Mathematics. Recognizing and building on children's natural interest in mathematics: teachable moments. Language of math. Partnering with Parents and Other Caregivers. English Language Learners – Supporting Them as They Concurrently Develop Math Skills While Learning English.

Student Performance Objectives: Explain the role of partnership with parents and other caregivers in supporting children's learning of mathematics. Describe strategies to support English language learners in developing mathematical knowledge as they concurrently acquire English.

1 Hour

Content: Student presentations of Math Activity Folders using math concept vocabulary.

Student Performance Objectives: Present contents of Math Activity Folder.

2 Hours

METHODS OF INSTRUCTION:

Lecture, discussion, multi-media.

OUT OF CLASS ASSIGNMENTS:

Required Outside Hours: 6

Assignment Description: Out of Class Assignments: Read related textbook sections. Select observation location. Begin Math Activity Folder.

Required Outside Hours: 20

Assignment Description: Out of Class Assignments: Read related textbook sections. 4 Observations and Summaries: Observe several young children using math materials and engaged in math activities in a local child development center, pre-school, transitional kindergarten and/or early-primary setting. Write a summary of each math domain observed during each observation. Each observation time totals 30 minutes. Math Activity Folder: Include an activity plan for each math domain, including selecting and evaluating materials for mathematics learning.

Required Outside Hours: 4

Assignment Description: Out of Class Assignments: Read related textbook sections. Complete a written reflections paper on: your strategies for building partnerships with parents and/or your ideas to support English language learners as they learn math.

Required Outside Hours: 2

Assignment Description: Out of Class Assignments: Study for final exam.

METHODS OF EVALUATION:

Writing assignments

Percent of total grade: 40.00 %

Percent range of total grade: 30% to 50% Written Homework, Observation and Summary, Reflections Paper

Objective examinations

Percent of total grade: 40.00 %

Percent range of total grade: 30% to 50% Multiple Choice, True/False, Short Answer

Problem-solving assignments

Percent of total grade: 20.00 %

Percent range of total grade: 10% to 30% Project - Math Activities Folder

REPRESENTATIVE TEXTBOOKS:

Recommended Representative Textbooks

Rosalind Charlesworth. Math and Science for Young Children, 8th Edition. Cengage Learning, 2016.

ISBN: 978-1305088955

Reading Level of Text, Grade: 12th Verified by: Pat Henrickson

Required Other Texts and Materials

California Preschool Curriculum Framework, Volume 1 Publisher: California Department of Education, Child Development Division Sacramento, CA

Recommended Other Texts and Materials

Blocks and Beyond: Strengthening Early Math and Science Skills Through Spatial Learning by Mary Jo Pollman; Brookes Publishing

ARTICULATION and CERTIFICATE INFORMATION

Associate Degree:

CSU GE:

IGETC:

CSU TRANSFER:

Transferable CSU, effective 200730

UC TRANSFER:

Not Transferable

SUPPLEMENTAL DATA:

Basic Skills: N

Classification: Y

Noncredit Category: Y

Cooperative Education:

Program Status: 1 Program Applicable

Special Class Status: N

CAN:

CAN Sequence:

CSU Crosswalk Course Department: CD

CSU Crosswalk Course Number: 16

Prior to College Level: Y

Non Credit Enhanced Funding: N

Funding Agency Code: Y

In-Service: N

Occupational Course: C

Maximum Hours:

Minimum Hours:

Course Control Number: CCC000300126

Sports/Physical Education Course: N

Taxonomy of Program: 130500