

### Basic Course Information

Semester:	Winter 2020	Instructor Name:	Elizabeth Zumaya
Course Title & #:	SCIENCE AND MATH FOR YOUNG CHILDREN CDEV 122	Email:	elizabeth.zumaya@imperial.edu
CRN #:	15269	Webpage (optional):	
Classroom:	202	Office #:	760-355-6233
Class Dates:	01/06/20 to 01/24/20	Office Hours:	
Class Days:	Monday-Friday	Office Phone #:	
Class Times:	6pm to 8:20 pm	Emergency Contact:	760-355-6232
Units:	2		

### Course Description

Developing a science curriculum aimed at introducing the young child to physical science, simple chemistry and biological science concepts. Developing a math curriculum introducing number and math concepts. Emphasis is placed on developing an age appropriate science and math curriculum and planning a science environment that is meaningful and exciting for the young child. (CSU)

### Course Prerequisite(s) and/or Corequisite(s)

N/A

### Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Investigate and critique developmentally appropriate science and math curriculum. (ILO1, ILO2, ILO4)
2. Demonstrate knowledge of and create child centered math and sciences areas. (ILO2, ILO4)
3. Create math and science activities that are child centered and developmentally appropriate. (ILO2, ILO4)

### Course Objectives

Upon satisfactory completion of the course, students will be able to:

1. Develop a science curriculum introducing young children to physical and simple chemistry, and biological science concepts.
2. Create and demonstrate science and math activities.
3. Develop a math curriculum introducing number and math concepts that are developmentally appropriate for young children.
4. Develop math and science areas in a preschool setting.

### Textbooks & Other Resources or Links

- Chalufour, Ingrid and Worth, Karen 2011. *Young Scientist Series* NAEYC ISBN: Item#3007.
- Charlesworth, Rosalind and Karen K. Lind 2013. *Math and Science for Young Children* 7th. San Francisco. Delmar Publishers ISBN: 978-1111833398.
- Davis, Genevieve A 2009. *Exploring Science and Mathematics in a Child's World* 1st. Prentice Hall ISBN: 978-0130945228.
- Gelman, Rochel; Brenneman, Kinberley; Macdonald, Gay; and Roman, Moises 2011. *Preschool Pathways to Science: Facilitating Scientific Ways of Thinking, Talking, Doing, and Understanding* 1st. NAEYC ISBN: 978-1598570441.
- Pollman, Mary Jo 2011. *Blocks and Beyond: Strengthening Early Math and Science Skills through Spatial Learning* 1st. NAEYC ISBN: 978-1598571011.
- Shillady, Amy 2011. *Spotlight on Young Children and Nature* NAEYC ISBN: 978-1928896746.
- California State Preschool Learning Foundations, Available at: <http://www.cde.ca.gov/sp/cd/re/documents/preschoollf.pdf>

### **Course Requirements and Instructional Methods**

Grades will be based upon class participation, attendance and completion of assignments, pop quizzes, quizzes, and tests throughout the semester. All material presented in study guides, videos, and handouts will be part of the evaluation process.

All assignments should be typed.

No assignments or projects will be accepted late. They are due on the date assigned. Every student has the same chance to prepare assignments. If you miss an assignment and have extra time to prepare, it is unfair to those students who presented and turned assignments in on time. In order to make up an assignment you must show proof for the absence (doctor's note, hospitalization paperwork, etc.) and the instructor must approve it. Regardless of the reason for the missed assignment, all missed assignments must be turned in within a week of when assignments are due. Make-ups are to be determined upon scheduling. Please make sure you are here when assignments and presentations are scheduled. If you are not here for a presentation, you will receive no points for the presentation. A missed assignment is considered an "F" and no points will be given. Plan your schedule to allow for ample time so you will be prepared. There is no penalty for turning in an assignment or presenting before the scheduled time.

Out of Class Assignments: The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

\*Concept/Math/ Science activity plan = 50 pts

Sensory Bin Activity plan /presentation = 75 pts

\*Steam Integrated curriculum activity plan and web / presentation = 150 pts final

In class activities, reflection and participation = 100 pts

**\* For CDEV 200 Portfolio: Assignment meets PLO's 2,5 and 7**

### **Course Grading Based on Course Objectives**

When grades are given for any course of instruction taught in a community college district, the grade given to each student shall be the grade determined by the faculty member of the course, and the determination of the student's grade by the instructor, in the absence of mistake, fraud, bad faith or incompetency, shall be final." California Education Code, Section 76224(a) Everyone in each class can earn an "A" grade. There is no set number or percentage that limits how many A's can be earned in each class. All assignments have a rubric by which the student can view what is required to receive the highest grade on that assignment.

100-90 A

89-80 B

79-70 C

69-60 D

59-0 F

### **Attendance**

- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See [General Catalog](#) for details.
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absence exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

### **Classroom Etiquette**

- **Electronic Devices:** Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- **Food and Drink** are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed by the instructor.

- **Disruptive Students:** Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the [General Catalog](#).
- **Children in the classroom:** Due to college rules and state laws, only students enrolled in the class may attend; children are not allowed.

### Online Netiquette

- **What is netiquette?** Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.
- Students are to comply with the following rules of netiquette: (1) identify yourself, (2) include a subject line, (3) avoid sarcasm, (4) respect others' opinions and privacy, (5) acknowledge and return messages promptly, (6) copy with caution, (7) do not spam or junk mail, (8) be concise, (9) use appropriate language, (10) use appropriate emoticons (emotional icons) to help convey meaning, and (11) use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks (!!!!)].

### Academic Honesty

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property.

There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

- **Plagiarism** is taking and presenting as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to "cite a source" correctly, you must ask for help.
- **Cheating** is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or plagiarizing will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the [General Catalog](#) for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to, the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or

on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment; (e) using a commercial term paper service.

### Additional Student Services

Imperial Valley College offers various services in support of student success. The following are some of the services available for students. Please speak to your instructor about additional services which may be available.

- **CANVAS LMS.** Canvas is Imperial Valley College's main Learning Management System. To log onto Canvas, use this link: [Canvas Student Login](#). The [Canvas Student Guides Site](#) provides a variety of support available to students 24 hours per day. Additionally, a 24/7 Canvas Support Hotline is available for students to use: 877-893-9853.
- **Learning Services.** There are several learning labs on campus to assist students through the use of computers and tutors. Please consult your [Campus Map](#) for the [Math Lab](#); [Reading, Writing & Language Labs](#); and the [Study Skills Center](#).
- **Library Services.** There is more to our library than just books. You have access to tutors in the [Study Skills Center](#), study rooms for small groups, and online access to a wealth of resources.

### Disabled Student Programs and Services (DSPS)

Any student with a documented disability who may need educational accommodations should notify the instructor or the [Disabled Student Programs and Services \(DSP&S\)](#) office as soon as possible. The DSP&S office is located in Building 2100, telephone 760-355-6313. Please contact them if you feel you need to be evaluated for educational accommodations.

### Student Counseling and Health Services

Students have counseling and health services available, provided by the pre-paid Student Health Fee.

- **Student Health Center.** A Student Health Nurse is available on campus. In addition, Pioneers Memorial Healthcare District provide basic health services for students, such as first aid and care for minor illnesses. Contact the IVC [Student Health Center](#) at 760-355-6128 in Room 1536 for more information.
- **Mental Health Counseling Services.** Short-term individual, couples, family and group counseling services are available for currently enrolled students. Services are provided in a confidential, supportive, and culturally sensitive environment. Please contact the IVC [Mental Health Counseling Services](#) at 760-355-6310 or in the building 1536 for appointments or more information..

## **Veteran's Center**

The mission of the [IVC Military and Veteran Success Center](#) is to provide a holistic approach to serving military/veteran students on three key areas: 1) Academics, 2) Health and Wellness, and 3) Camaraderie; to serve as a central hub that connects military/veteran students, as well as their families, to campus and community resources. Their goal is to ensure a seamless transition from military to civilian life. The Center is located in Building 600 (Office 624), telephone 760-355-6141.

## **Extended Opportunity Program and Services (EOPS)**

The Extended Opportunity Program and Services (EOPS) offers services such as priority registration, personal/academic counseling, tutoring, book vouchers, and community referrals to qualifying low-income students. EOPS is composed of a group of professionals ready to assist you with the resolution of both academic and personal issues. Our staff is set up to understand the problems of our culturally diverse population and strives to meet student needs that are as diverse as our student population.

Also, under the umbrella of EOPS our CARE (Cooperative Agency Resources for Education) Program for single parents is specifically designed to provide support services and assist with the resolution of issues that are particular to this population. Students that are single parents receiving TANF/Cash Aid assistance may qualify for our CARE program, for additional information on CARE please contact Lourdes Mercado, 760-355- 6448, [lourdes.mercado@imperial.edu](mailto:lourdes.mercado@imperial.edu).

EOPS provides additional support and services that may identify with one of the following experiences:

- Current and former foster youth students that were in the foster care system at any point in their lives
- Students experiencing homelessness
- Formerly incarcerated students

To apply for EOPS and for additional information on EOPS services, please contact Alexis Ayala, 760-355-5713, [alexis.ayala@imperial.edu](mailto:alexis.ayala@imperial.edu).

## **Student Equity Program**

- The Student Equity Program strives to improve Imperial Valley College's success outcomes, particularly for students who have been historically underrepresented and underserved. The college identifies strategies to monitor and address equity issues, making efforts to mitigate any disproportionate impact on student success and achievement. Our institutional data provides insight surrounding student populations who historically, are not fully represented. Student Equity addresses disparities and/or disproportionate impact in student success across disaggregated student equity groups including gender, ethnicity, disability status, financial need, Veterans, foster youth, homelessness, and formerly incarcerated students. The Student Equity Program provides direct supportive services to empower students experiencing insecurities related to food, housing, transportation, textbooks, and shower access. We recognize that students who struggle meeting their basic needs are also at an academic and economic disadvantage, creating barriers to academic success and wellness. We strive to remove barriers that affect IVC students' access to education, degree and certificate completion, successful completion of developmental math and English courses, and the ability to transfer to a university. Contact: 760.355.5736 or 760.355.5733 Building 100.
- The Student Equity Program also houses IVC's Homeless Liaison, who provides direct services, campus, and community referrals to students experiencing homelessness as defined by the McKinney-Vento Act. Contact: 760.355.5736 Building 100.

## **Student Rights and Responsibilities**

Students have the right to experience a positive learning environment and to due process of law. For more information regarding student rights and responsibilities, please refer to the IVC [General Catalog](#).

## **Information Literacy**

Imperial Valley College is dedicated to helping students skillfully discover, evaluate, and use information from all sources. The IVC [Library Department](#) provides numerous [Information Literacy Tutorials](#) to assist students in this endeavor.

**Anticipated Class Schedule/Calendar**

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 1 1/6-1/10	<ul style="list-style-type: none"> <li>• Syllabus &amp; Introduction</li> <li>• Student Learning Outcomes</li> <li>• What is DAP, Reflections</li> <li>• Preschool learning Foundations Volume 3 Pgs. 48-72</li> </ul> <ul style="list-style-type: none"> <li>▪ <a href="http://www.cde.ca.gov/sp/cd/re/documents/preschoolfoundationsvol3.pdf">http://www.cde.ca.gov/sp/cd/re/documents/preschoolfoundationsvol3.pdf</a></li> </ul>	*Read: Pre-K Learning Foundations Volume 3 Pgs.48-72 *Modules 1-4 * <u>Due Friday 1/10 Concept/ Math/Science Plan</u>
Week 2 1/13-1/17	<ul style="list-style-type: none"> <li>• Discuss Math and Science areas and Materials</li> <li>• Paper copter Activity</li> <li>• Written Reflection Activities</li> <li>• Discuss and Demonstrate Water play- Sink and Float</li> <li>• Article: Making most of Water play</li> <li>• Written Reflection paper</li> </ul>	*Written Reflections *Modules 5-8  * <u>Due Thursday 1/16 Sensory Bin Activity &amp; Present</u>
Week 3 1/20-1/24	<ul style="list-style-type: none"> <li>• Sand and Rock Play</li> <li>• Article: Investigating Rocks and Sand</li> <li>• Written Reflection Paper</li> <li>• Assignment: Make homemade discovery Bottles</li> </ul>	*Written Reflections *Modules 9-12 * <u>Due Thursday 1/23 Final Presentations</u>
	<ul style="list-style-type: none"> <li>• Discuss Number Sense</li> <li>• Sets and Sorting</li> <li>• Math and Science Area Plan Due</li> </ul>	* <u>Due Friday 1/24 Reflections</u>
	<b>*Calendar Tentative Subject to Change*</b>	

