

# CHILD DEVELOPMENT – SCIENCE AND MATH INTEGRATION – ASSOCIATE IN SCIENCE DEGREE, CERTIFICATE OF ACHIEVEMENT

Top Code:

1305.00

The field of child development/early childhood education studies involves the study of the developmental patterns and learning theories of children from birth to age twelve. The Certificate of Achievement Child Development Science & Math Integration prepares students to incorporate science, technology, engineering and mathematical (STEM) concepts into the classroom.

Professionals in this field invoke the term development as a way to understand the child's growth and learning and to inform practice. The Child Development (CHDV) discipline at Pasadena City College offers a curriculum that guides students on various pathways, which may include the attainment of a Transfer Degree (wherein, they can transfer to a 4-year institution and obtain advanced degrees), or an Associate of Science Degree, and/or a Certificate of Achievement in Child Development that will lead students to immediate career opportunities working with infants, toddlers, preschoolers, and children with special needs.

Courses provide a theoretical foundation and prepare students for careers in Teaching in Early Care and Education schools such as infant, toddler, preschool, or Transitional Kindergarten (TK) programs, Elementary Schools (public or private), Before-and After-school programs, Family Child Care Homes, General Education Settings including parks and recreation programs, Medical Centers/Hospitals as a Child Life Specialist, Private Households, non-profit and governmental agencies concerned with the welfare of children, and Social and Human Service programs. Child Development coursework can also lead to work with elementary and secondary age students in a credentialed teaching position.

The Certificate of Achievement Child Development - Science & Math Integration meets the coursework requirement for the California Child Development Teacher (or Master Teacher) permit issued by the California Commission on Teacher Credentialing for employment in Public School Programs (Title 5) and for employment in community care facilities under Title 22 of the California State Department of Social Services. Additionally, a number of courses (1-99) meet General Education requirements for the Associate of Science Degree and Associate in Science for Transfer Degree. Completion of the Associate in Science for Transfer (AS-T) Degree in Early Childhood Education ensures transfer students will complete the lower division general education requirements as well as many lower division major requirements for a bachelor's degree in Child Development prior to transferring to a 4-year institution.

Requirements for the **Associate Teacher** Child Development Permit<sup>1</sup>:

Completion of 16 required core units as follows: PSYC 021, CHDV 010, CHDV 015, CHDV 020, and CHDV 013A and CHDV 013AF. Completion of these courses with a C or better must be verified by official transcripts. At least 50 days of experience in an instructional capacity, working at least three hours per day within the last two years in a child care and development program is also required.

Requirements for the **Teacher** Child Development Permit<sup>1</sup>:

Completion of the Certificate of Achievement, Child Development - Science & Math Integration major requirements plus 16 additional general education units as follows: at least one course each in Humanities, Social Sciences, Math and/or Science, and English. Completion of these courses with a C or better must be verified by official transcripts. 175 days of experience in an instructional capacity, working at least three hours per day within the last four years in a child care and development program is also required.

Requirements for the **Master Teacher** Child Development Permit<sup>1</sup>:

Completion of the Certificate of Achievement, Child Development - Science & Math Integration major requirements, six additional units in one area of specialization (infant-toddler, multi-cultural, math and science, early intervention, special education, language and literacy or administration), two units of Adult Supervision course work (CHDV 119), plus 16 additional general education units as follows: at least one course each in Humanities, Social Sciences, Math and/or Science, and English; completion of these courses with a C or better must be verified by official transcripts. 350 days of experience in an instructional capacity, working at least three hours per day within the last four years in a child care and development program is also required.

Requirements for the **Site Supervisor** Child Development Permit<sup>1</sup>:

Completion of the Certificate of Achievement, Child Development - Science & Math Integration major requirements, completion of an associate degree or 60 semester units, plus six additional units of course work in administration and supervision: CHDV 012A, Administration I: Programs; CHDV 012B, Administration II: Personnel and Leadership; and CHDV 119, Adult Supervision and Mentoring in Early Care and Education. Completion of these courses with a C or better must be verified by official transcripts. 350 days of experience in an instructional capacity, working at least three hours per day within the last four years in a child care and development program is also required. This experience must include at least 100 days of supervising adults in a child care and development program.

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Permits are issued by the California Commission on Teacher Credentialing. Depending on initial placement, students may be required to take additional English and ESL courses.

A Certificate of Achievement is awarded upon completion of all required courses with a grade of C or better.

## Program Outcomes

- Explain using original written and/or oral presentations, the theories and practices of the social, emotional, cognitive, and physical development of young children as related to STEM conceptual processing.

- Evaluate important factors in planning a STEM curriculum program, and the ethical issues involved in implementing this curriculum with young children.
- Compare and contrast the skills necessary for educators in working with and supporting diverse family, structures, and program practices.
- Support developmentally appropriate practices and all relevant curriculum standards in classroom application.
- CSU Breadth (<https://curriculum.pasadena.edu/academic-programs-leading-degree-certificate/#csubreadthtext>)
- IGETC (<https://curriculum.pasadena.edu/academic-programs-leading-degree-certificate/#igetctext>)

## Requirements for the Certificate of Achievement

Code	Title	Units
CHDV 010	PRINCIPLES AND PRACTICES OF TEACHING YOUNG CHILDREN	3
CHDV 013A	PRACTICUM IN CHILD DEVELOPMENT – A	2
CHDV 013AF	FIELD PRACTICE IN CHILD DEVELOPMENT – A	2
CHDV 013B	PRACTICUM IN CHILD DEVELOPMENT – B	2
CHDV 013BF	FIELD PRACTICE IN CHILD DEVELOPMENT – B	2
CHDV 014	OBSERVATION AND ASSESSMENT OF YOUNG CHILDREN	3
CHDV 015	CHILD, FAMILY AND COMMUNITY	3
CHDV 016	HEALTH, SAFETY AND NUTRITION	3
CHDV 017	TEACHING CHILDREN IN A DIVERSE SOCIETY	3
CHDV 020	INTRODUCTION TO CURRICULUM PLANNING	3
CHDV 025A	EARLY CHILDHOOD EDUCATION STEM – MATHEMATICS	3
CHDV 025B	EARLY CHILDHOOD STEM – SCIENCE	3
PSYC 021	DEVELOPMENTAL PSYCHOLOGY: THE CHILD	3
or PSYC 021H	HONORS DEVELOPMENTAL PSYCHOLOGY: THE CHILD	
ENGL 001A	READING AND COMPOSITION	4
or ENGL 001AH	HONORS READING AND COMPOSITION	
or ENGL 100	READING AND WRITING SKILLS	
or ESL 005	ADVANCED ACADEMIC ENGLISH	
<b>Total Units</b>		<b>39</b>

## Recommended Electives

Code	Title	Units
CHDV 024B	SPECIAL TOPICS IN CHILD DEVELOPMENT – CURRICULUM	2

Visit the Program Mapper (<https://pasadena-city.programmapper.ws/academics/interest-clusters/679da697-6b16-49ad-b2d5-fd769f23be0d/programs/e5668f83-01dc-84f5-74b9-ad7dfd15b388/>) for a suggested sequence of courses.

## General Education Requirements for the Associate in Science Degree

- General Information (<https://curriculum.pasadena.edu/academic-programs-leading-degree-certificate/>)
- PCC Local Gen Ed (<https://curriculum.pasadena.edu/academic-programs-leading-degree-certificate/#pcclocaltext>)