

Bossier Parish Community College
Master Syllabus

Course Prefix and Number: CDYC 170

Credit hours: 3

Course Title: Math and Science for Early Childhood Educators

Course Prerequisites:

ACT or Placement Test;

Completion of any required developmental courses with a minimum grade of C;

Completion of CDYC 101, CDYC 103, and CDYC 105 with a minimum grade of C.

Textbook(s): Charlesworth, Rosalind and Karen Lind. *Math and Science for Young Children*. Cengage Publishing. (For the exact textbook requirement, please refer to your instructor's course information syllabus.)

This course requires only the MindTap Access Code

Course Description: This course presents an organized, sequential approach to creating developmentally appropriate math and science curricula for young children. It is designed to support children's construction of concepts and skills essential to a basic understanding of mathematics and science. This course focuses on the excitement children have for math and science experiences in the preprimary years. Using natural interests of children and guiding them to construct then apply math and science concepts through developmentally appropriate, traditional early childhood activities are emphasized.

Learning Outcomes:

At the end of the course, the student will:

- A. use theories and principles of concept development in mathematics and science education in early childhood;
- B. apply fundamental concepts, attitudes and skills in mathematics and science;
- C. demonstrate the ability to use higher-level symbols and operations in order to instill in young children a strong mathematic and scientific foundation;
- D. create an environment conducive to mathematic and scientific learning.

To achieve the learning outcomes, the student will:

- 1. compare the learning theories of concept development and thought; (A)
- 2. describe how science and math concepts are interrelated; (A) (B)
- 3. give examples of math/ science activities in the following areas: one-to-one correspondence, number sense and counting, sorting, classification, patterning, seriating, comparing, geometry, spatial sense, likenesses/differences, parts/wholes, measurement of volume, weight, length, time, temperature and math/ science language and literacy, technology, and logical thinking skills; (B) (D)

4. explain the various types of learning experiences and learning styles; (A) (B) (C) (D)
5. create non-routine math problems and describe the steps and strategies in solving each; (A) (B) (C)
6. discuss the impact of a quality early childhood math and science program in a child's primary grade experience. (A) (C)

Course Requirements:

- A. Attend class regularly if attending a traditional (face to face) course. Students enrolled in hybrid (50% campus/50% online) or online courses must log-in at least twice per week;
- B. engage in required and supplemental readings;
- C. prepare for and complete written assignments, activities and discussions and submit through Canvas by the due date/time; and
- D. complete coursework and projects with at least 70% mastery.

In addition to requirements stated herein, each instructor will communicate additional requirements unique to his/her section via the instructor's section syllabus.

Course Grading Scale:

- A 90-100%
- B 80-89%
- C 70-79%
- D 60-69%
- F 59% or below

Attendance Policy: The college attendance policy is available at:
<http://www.bpcc.edu/catalog/current/academicpolicies.html>

Course Fees: N/A

Nondiscrimination Statement: Bossier Parish Community College does not discriminate on the basis of race, color, national origin, gender, age, religion, qualified disability, marital status, veteran's status, or sexual orientation in admission to its programs, services, or activities, in access to them, in treatment of individuals, or in any aspect of its operations. Bossier Parish Community College does not discriminate in its hiring or employment practices.

Section 504 and ADA Coordinator
Angie Cao, Student and Disability Services Specialist
Disability Services, F-254
6220 East Texas Street
Bossier City, LA 71111
Phone: 318-678-6511
Email: acao@bpcc.edu
Hours: 8:00 a.m.-4:30 p.m. Monday - Friday, excluding holidays and weekends.

Title IX and Equity/Compliance Coordinator

Teri Bashara, Director of Human Resources
Human Resources Office, A-105
6220 East Texas Street
Bossier City, LA 71111
Phone: 318-678-6056
Hours: 8:00 a.m.-4:30 p.m. Monday - Friday, excluding holidays and weekends.

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