

**This is a SouthArk Master Syllabus. The course syllabus distributed by the instructor may include additional requirements, must be followed by the student in the given term, and is considered to supersede the Master Syllabus.**

**Course Number**  
ECED 2403

**Course Title**  
Math and Science for Preschool Children

**Course Description**

This course familiarizes students with a variety of ways to introduce children birth through pre-kindergarten, including children with special needs, to ideas and concepts related to math and science. Students create activities; plan and practice developmentally appropriate experiences that would meet recognized standards (NAEYC, NCTM, etc.) for these areas. A minimum of 4 observation hours are required. This course is part of the Birth through Pre-kindergarten Teaching Credential core.

**College Mission**

South Arkansas Community College promotes excellence in learning, teaching, and service; provides lifelong educational opportunities; and serves as a cultural, intellectual, and economic resource for the community.

**College Wide Student Learner Outcomes**

X Critical Thinking                      X Responsibility                      X Communication

**ACTS Course**               **Program Course** X              EARLY CHILDHOOD EDUCATION - AAS

**ACTS Outcomes**

**Program Outcomes**

1. Demonstrate an understanding of typical and atypical infant, toddler, pre-school, and school age development and the influences that ecological systems have on development.
2. Differentiate between and among the cognitive, physical, social, and emotional domains.
3. Develop solutions to meet individual child and program needs based on observation and assessment of children and programs.
4. Demonstrate the ability to create, plan, and implement age-appropriate curriculum, lesson plans, and activities.
5. Demonstrate an understanding of the foundational underpinnings, ethical and professional standards that are applicable to Early Childhood Education as well as basic learning and teaching best practices. (Developmentally Appropriate Practice)
6. Engage in written and verbal communication with families, colleagues, and administration using standard English.

**Course Outcomes**

CLO #	Course Outcomes	Unit Outcomes/ Competencies	ACTS	Program Outcomes	Critical Thinking	Communication	Responsibility	Assessment
CLO 1	Observe, document and analyze the use of math and science techniques and strategies in a preschool level classroom, including comparison to Arkansas Early Childhood Frameworks.	1a, 1b, 1c, 4b, 4c, 4d, 5c, 6d, 6e, 3a, 3b, 3c		1, 2, 5, 6		C1		Classroom Math Observation, Classroom Science Observation, Other Assessments as assigned

CLO 2	Develop, present and document a developmentally appropriate preschool level math lesson AND environment that incorporates standards of math development for preschool age children and integrates family involvement and special needs children.	2a, 2b, 2c, 4a, 4b, 4c, 4d, 5c, 6b, 6c, 6d, 5c, 6c, 6d, 6e		3, 4, 5, 6	CT1	C1, C2	R2	Math Lesson and Environment, Other Assessments as assigned
CLO 3	Develop, present and document a developmentally appropriate preschool level science lesson AND environment that incorporates standards of science development for preschool age children and integrates family involvement and special needs children.	2a, 2b, 2c, 4a, 4b, 4c, 4d, 5c, 6b, 6c, 6d, 5c, 6c, 6d, 6e		3,4, 5, 6	CT1	C1, C2	R2	Science Lesson and Environment, Other Assessments as assigned
CLO 4	Demonstrate use of inquiry method and differentiate the process skills needed for math and science experiences for children birth to pre-kindergarten, including children with special needs.	1a, 1b, 1c, 4a, 4b, 4c, 4d, 5a, 5b, 5c, 6d		2, 3, 4, 5	CT1	C1	R2	Assessment Tasks, Other Assessments as assigned

### Unit Outcomes/ Competencies

The competencies for this course are aligned with the National Association for the Education of Young Children Standards.

#### NAEYC STANDARDS

##### Standard 1. Promoting Child Development and Learning

1a: Knowing and understanding young children's characteristics and needs

1b: Knowing and understanding the multiple influences on development and learning

1c: Using developmental knowledge to create healthy, respectful, supportive, and challenging learning environments

##### Standard 2. Building Family and Community Relationships

2a: Knowing about and understanding diverse family and community characteristics

2b: Supporting and engaging families and communities through respectful, reciprocal relationships

2c: Involving families and communities in their children's development and learning

##### Standard 3. Observing, Documenting, and Assessing to Support Young Children and Families

3a: Understanding the goals, benefits, and uses of assessment

3b: Knowing about and using observation, documentation, and other appropriate assessment tools and approaches

3c: Understanding and practicing responsible assessment to promote positive outcomes for each child

3d: Knowing about assessment partnerships with families and with professional colleagues

##### Standard 4. Using Developmentally Effective Approaches to Connect with Children and Families

4a: Understanding positive relationships and supportive interactions as the foundation of their work with children

4b: Knowing and understanding effective strategies and tools for early education

4c: Using a broad repertoire of developmentally appropriate teaching/learning approaches

4d: Reflecting on their own practice to promote positive outcomes for each child

##### Standard 5. Using Content Knowledge to Build Meaningful Curriculum

5a: Understanding content knowledge and resources in academic disciplines

5b: Knowing and using the central concepts, inquiry tools, and structures of content areas or academic disciplines

5c: Using their own knowledge, appropriate early learning standards, and other resources to design, implement, and evaluate meaningful, challenging curricula for each child.

##### Standard 6. Becoming a Professional

6a: Identifying and involving oneself with the early childhood field

6b: Knowing about and upholding ethical standards and other professional guidelines

6c: Engaging in continuous, collaborative learning to inform practice

6d: Integrating knowledgeable, reflective, and critical perspectives on early education

6e: Engaging in informed advocacy for children and the profession

**Assessment Description(s)**

Assessments for this course are comprised of a variety of individual and small group activities that include written and oral reports and presentations, tests, quizzes, child observations, etc. These assessments provide students with an opportunity to demonstrate competency in critical thinking, written and oral communication, and responsibility for both individual and group assignments. To receive a passing grade in this class all students are required to complete the assigned child observations and child study project and submit a signed verification of observation hours.

**Materials and Technological Requirements**

Charlesworth, Rosalind & Lind, Karen K. (2013). Math and Science for Young Children: 7th  
ISBN: 9781111833398

- Criminal Background Check
- Child Maltreatment Clearance
- Free from Tuberculosis
- Student Observer Badge

Computer with reliable internet service  
Recommended: Flash Drive or other electronic storage device as backup for assignment files

**Class Attendance Policy**

Students are expected to attend all classes in which they are enrolled. If a student is absent from a class session, it is the student’s responsibility to make arrangements to complete or make up any work missed. No make-up work for missed classes will be allowed without the approval of the instructor. Students who enroll late must assume all responsibility for work missed. Classes not attended as a result of late enrollment may be counted toward excessive absences. Students not attending the entire class period may be counted absent for that period. An instructor may drop students with a grade of “WE” if students have been absent for an excessive number of days. Warning letters will be sent to the students advising them of the consequences of nonattendance and urging them to contact their instructors immediately. Excessive absences are defined as follows:

**Regular Semester**

- Courses which meet once a week ..... 2 absences
- Courses that meet twice per week ..... 3 absences
- Courses that meet four times per week ..... 5 absences

**Summer Session**

- Courses that meet four times per week in a five week session ..... 3 absences
- Courses which meet two evenings per week in a 10 week session ..... 3 absences

Students enrolled in special programs or individualized instruction should contact their program director/instructor regarding specific attendance requirements for the program/course. Some of the selective-admission, health-science programs have specific criteria regarding attendance. Students are encouraged to refer to program policies in these matters.

Jury Duty/Military/Official School Function

Scheduled absences are those that occur due to college-related activities or as a result of summons to jury duty or military duty. Classes missed as a result of scheduled absences will not be counted as excessive absences if the instructor is notified and provided documentation prior to the absence(s). Make-up work for scheduled absences will be at the discretion of the instructor.

In all instances, documentation must be provided to the instructor within 24 hours of receipt. Documentation should come from an appropriate party on letterhead or other official stationery with a signature and contact information. Documentation should list the corresponding dates of the leave.

Medical leave

For medical-related absences, documentation must include written notice from the treating medical professional documenting time needed off related to medical reasons and time student may resume classes. The medical reason does not need to be listed on the documentation; the documentation must include only that there is a medical reason, the amount of time the student needs to be absent, and the time the student should be able to return to classes. Students who elect to work at home while on excused leave must meet with their instructors to make arrangements to do so. Working on coursework while on medical leave is not a requirement but can be requested by students. If

students request that they be allowed to work at home while on an excused leave, the instructor will make every reasonable effort to ensure that the student is able to do so.

For students who have a medical condition necessitating time off or accommodation:

- 1) They may work at home on assignments if they choose to if on medical leave approved by a medical professional
- 2) Receive appropriate accommodations related to coursework (i.e., excused from labs with potentially harmful chemicals, have a larger desk, etc.)
- 3) Resume their studies where they left off once they return to classes
- 4) Be allowed to make up any missed work related to medical leave
- 5) Receive incompletes on their transcripts until coursework is completed, according to the incomplete grade contract.
- 6) Be given a reasonable time frame in which to complete missed coursework

### **Academic Honesty Policy**

Students enrolled at South Arkansas Community College are expected at all times to uphold standards of integrity. Students are expected to perform honestly and to work in every way possible to eliminate academic dishonesty. Academic dishonesty includes cheating and plagiarism, which are defined as follows:

- Cheating is an attempt to deceive the instructor in his/her effort to evaluate fairly an academic exercise. Cheating includes copying another student's homework, class work, or required project (in whole or in part) and/or presenting another's work as the student's own. Cheating also includes giving, receiving, offering, and/or soliciting information on a quiz, test, or examination.
- Plagiarism is the copying of any published work such as books, magazines, audiovisual programs, electronic media, and films or copying the theme or manuscript of another student. It is plagiarism when one uses direct quotations without proper credit or when one uses the ideas of another without giving proper credit. When three or more consecutive words are borrowed, the borrowing should be recognized by the use of quotation marks and proper parenthetical and bibliographic notations.

If, upon investigation, the instructor determines that the student is guilty of cheating or plagiarism, the following penalties will apply:

- The student will receive a penalty of no less than a zero on the work in question.
- The instructor will submit a written report of the incident to the Vice President for Learning
- The Vice President for Learning will determine whether further disciplinary action will be taken.
- All decisions may be appealed for review through the college's Academic Appeals procedure.

### **Equal Opportunity-Affirmative Action Statement**

South Arkansas Community College does not discriminate on the basis of age, race, color, creed, gender, religion, marital status, veteran's status, national origin, disability, or sexual orientation in making decisions regarding employment, student admission, or other functions, operations, or activities.

### **Library Services**

Library Homepage: <http://southark.libguides.com/homepage> Library Contact: LibraryStaff@southark.edu or 870.864.7115

### **Procedures to Accommodate Students with Disabilities:**

If you need reasonable accommodations because of a disability, please report this to the Vice President of Student Services with proper documentation. . VPSS Contact: 870.875.7262

### **The Early Alert System**

In an effort to ensure student retention and success, South Arkansas Community College employs an Early Alert System to identify and support at-risk students as soon as possible in a given semester. The intent of Early Alert is to provide this assistance while there is still time to address behaviors or issues that have the potential of preventing students from completing their courses and degree plans. Students referred through the Early Alert System will be required to work on a corrective action plan with their student advising coach and to include attendance accountability and mandatory academic tutoring either in the academic division or in the Testing and Learning Center (TLC).

Once the Student Advising Coach has met with the referred student, and again when the student has met the prescribed corrective actions, the coach will update the Early Alert System so that the instructor is kept informed of the progress in resolving issues.

### **Behavioral Review Team**

At South Arkansas Community College (SouthArk), we are committed to proactive leadership in student wellbeing and campus safety. By focusing on prevention and early intervention with campus situations that involve any person experiencing distress or engaging in harmful or disruptive behaviors, the BRT will serve as the coordinating hub of existing resources to develop intervention and support strategies and offer case management. Students, faculty, staff, and campus guests are encouraged to report any person on campus who is a concern. BRT Contact: 870.875.7262  
BRT@southark.edu

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Master Syllabus