

Western Technical College

10307194 Early Childhood Education (ECE): Math, Science and Social Studies

Course Outcome Summary

Course Information

Description	This 3-credit course will focus on beginning level curriculum development in the specific content areas of math, science and social studies. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; examine the critical role of play; establish a developmentally appropriate environment; develop activity plans that promote child development and learning; create developmentally appropriate science activities; create developmentally appropriate math activities; create developmentally appropriate social studies activities.
Career Cluster	Human Services
Instructional Level	Associate Degree Courses
Total Credits	3
Total Hours	72

Textbooks

Early Education Curriculum: A Child's Connection to the World. 7th Edition. Copyright 2018. Jackman, Hilda, Nancy Beaver, and Susan Wyatt. Publisher: Cengage Learning. **ISBN-13**: 978-1-305-96063-3. Required.

DCF Licensing Rules for Group Daycare Centers. Wisconsin Administrative Code. Publisher: Western. Required.

Learner Supplies

Art Supplies: Adult scissors, jar of rubber cement, small scissors with pointed tip, box of water based colored markers, utility knife, eraser, box of crayons or colored pencils, permanent black marker, large roll of clear contact paper, plastic grid ruler, storage container for materials.. **Vendor**: To be discussed in class. Required.

Western Polo Shirt. **Vendor**: To be discussed in class. Required.

Lanyard with student ID. **Vendor**: To be discussed in class. Required.

Program Outcomes

1. Apply child development theory to practice.

2. Cultivate relationships with children, family, and the community.
3. Assess child growth and development.
4. Use best practices in teaching and learning.

Course Competencies

1. Integrate strategies that support diversity and anti-bias perspectives.

Assessment Strategies

- 1.1. using written or oral activities as provided by the instructor
- 1.2. in a classroom setting or simulated environment
- 1.3. individually or in groups

Criteria

Performance will be satisfactory when you:

- 1.1. follow the guidelines of "Anti-bias Education for Young Children and Ourselves" or a similar anti-bias resource
- 1.2. identify math, science, and social studies materials that are free of bias or stereotypes and promote acceptance of human diversity

Learning Objectives

- 1.a. Describe best practices in anti-bias/culturally sensitive curriculum as it relates to math, science, and social studies.
- 1.b. Identify aspects of the environment that reflect an anti-bias/culturally sensitive approach to math, science, and social studies.
- 1.c. Distinguish between anti-bias/culturally sensitive math, science, and social studies learning activities.
- 1.d. Become familiar with anti-bias/culturally sensitive math, science, and social studies resources.

2. Examine the critical role of play as it relates to math, science, and social studies.

Assessment Strategies

- 2.1. using written or oral activities as provided by the instructor
- 2.2. in a classroom setting or simulated environment
- 2.3. individually or in groups

Criteria

Performance will be satisfactory when your examination includes:

- 2.1. how children play across all age groups during math, science, and social studies activities
- 2.2. the teacher/care giver's role in facilitation of math, science, and social studies play
- 2.3. how math, science, and social studies play opportunities foster development/learning in all domains
- 2.4. how observational skills support assessment of and curriculum planning for math, science, and social studies
- 2.5. how hands-on activities promote child development in all areas (i.e. blocks)

Learning Objectives

- 2.a. Identify structured and unstructured play opportunities for math, science, and social studies for all ages.
- 2.b. Explore learning centers related to math, science, and social studies as appropriate for different ages.

3. Establish a developmentally appropriate environment for math, science, and social studies.

Assessment Strategies

- 3.1. using written or oral activities as provided by the instructor
- 3.2. in a classroom setting or simulated environment
- 3.3. individually or in groups

Criteria

Performance will be satisfactory when the environment for math, science, and social studies includes consideration of:

- 3.1. physical development

- 3.2. cognitive development
- 3.3. language development
- 3.4. social/emotional development
- 3.5. individual differences of children

Learning Objectives

- 3.a. Identify key components to include in the environment when teaching math.
- 3.b. Identify key components to include in the environment when teaching science.
- 3.c. Identify key components to include in the environment when teaching social studies.
- 3.d. Explore materials appropriate to the math, science, and social studies areas.
- 3.e. Define the physical arrangement of math, science, and social studies centers.
- 3.f. Describe the teacher's role in establishing, maintaining and adapting the learning environment.

4. Develop activity plans that promote child development and learning.

Assessment Strategies

- 4.1. using written or oral activities as provided by the instructor
- 4.2. in a classroom setting or simulated environment
- 4.3. individually or in groups

Criteria

Performance will be satisfactory when your activity plan for math, science, and social studies:

- 4.1. includes appropriate materials and strategies
- 4.2. includes all required component parts
- 4.3. is developmentally appropriate for the age group
- 4.4. includes an accurate and reflective assessment of the activity plan
- 4.5. incorporates the Wisconsin Model Early Learning Standards

Learning Objectives

- 4.a. Select appropriate strategies to support all component parts of the activity plan development for math, science, and social studies.
- 4.b. Select appropriate materials to support all component parts of the activity plan development for math, science, and social studies.
- 4.c. Describe procedures for implementation of activity plans for math, science, and social studies.
- 4.d. Describe ways to incorporate follow-up assessment of activity plans for math, science, and social studies.
- 4.e. Modify activity plans for math, science, and social studies based on follow-up assessment results and reflection.

5. Create developmentally appropriate science activities.

Assessment Strategies

- 5.1. using written or oral activities as provided by the instructor
- 5.2. in a classroom setting or simulated environment
- 5.3. individually or in groups

Criteria

Performance will be satisfactory when the science activities:

- 5.1. are culturally sensitive
- 5.2. are developmentally appropriate
- 5.3. include effective and motivating presentation techniques
- 5.4. enhance growth and development
- 5.5. incorporate relevant developmental domains (physical, cognitive, language, social/emotional)
- 5.6. incorporate the Wisconsin Model Early Learning Standards

Learning Objectives

- 5.a. Explore activities related to science, i.e. classification, sensory play, outdoor/nature, discovery, experimentation, cooking, etc.
- 5.b. Distinguish between high quality and low quality science resources.
- 5.c. Compile resources to support science activities.
- 5.d. Create learning materials to support science activities.
- 5.e. Ensure the developmental appropriateness of science activities.

- 5.f. Identify techniques for presentation of science activities.
- 5.g. Describe the categories of science topics: physical, earth, life, technology, etc.

6. Create developmentally appropriate math activities.

Assessment Strategies

- 6.1. using written or oral activities as provided by the instructor
- 6.2. in a classroom setting or simulated environment
- 6.3. individually or in groups

Criteria

Performance will be satisfactory when the math activities:

- 6.1. are culturally sensitive
- 6.2. are developmentally appropriate
- 6.3. include effective and motivating presentation techniques
- 6.4. enhance growth and development
- 6.5. incorporate relevant developmental domains (physical, cognitive, language, social/emotional)
- 6.6. incorporate the Wisconsin Model Early Learning Standards

Learning Objectives

- 6.a. Explore activities related to math, i.e. seriation, classification, manipulative play, counting, patterning, shapes, technology, cooking, etc.
- 6.b. Distinguish between high quality and low quality math resources.
- 6.c. Compile resources to support math activities.
- 6.d. Create learning materials to support math activities.
- 6.e. Ensure the developmental appropriateness of the math activities.
- 6.f. Identify techniques for presentation of math activities.
- 6.g. Identify the role of math in developing fine motor and cognitive skills.
- 6.h. Describe the importance of block play in the development of mathematical concepts.

7. Create developmentally appropriate social studies activities.

Assessment Strategies

- 7.1. using written or oral activities as provided by the instructor
- 7.2. in a classroom setting or simulated environment
- 7.3. individually or in groups

Criteria

Performance will be satisfactory when the social studies activities:

- 7.1. are culturally sensitive
- 7.2. are developmentally appropriate
- 7.3. include effective and motivating presentation techniques
- 7.4. enhance growth and development
- 7.5. incorporate relevant developmental domains (physical, cognitive, language, social/emotional)
- 7.6. incorporate the Wisconsin Model Early Learning Standards
- 7.7. promote a positive, respectful classroom community

Learning Objectives

- 7.a. Explore activities related to social studies, i.e. field trips, family involvement, neighborhood and communities, etc.
- 7.b. Identify the role of social studies in developing social and emotional skills.
- 7.c. Distinguish between high quality and low quality social studies resources.
- 7.d. Compile resources to support social studies activities.
- 7.e. Create learning materials to support social studies activities.
- 7.f. Ensure the developmental appropriateness of social studies activities.
- 7.g. Identify techniques for presentation of social studies activities.
- 7.h. Describe how to enhance dramatic play experiences.
- 7.i. Describe how to enhance block play.