

Master Syllabus

ECE 2102 - Math & Science Experiences

Division: Liberal Arts, Communication and Social Sciences

Department: Education

Credit Hour Total: 3.0

Lecture Hrs: 3.0

Prerequisite(s): AND ECE 1201 AND MAT 0200OR MAT 1120OR MAT 1410 ECE 1200

Other Prerequisite(s): AND Approval of Department , AND Other OTM Science , AND Other Must complete all courses with a "C" or better

Date Revised: November 2014

Course Description:

Creation of a developmentally appropriate math and science curriculum for preschool children following guidelines and standards established by the major professional organizations and the Ohio Department of Education Early Learning Content Standards for Mathematics and Science.

General Education Outcomes:

- ▣ Written Communication Competency
- ▣ Critical Thinking/Problem Solving Competency

Course Outcomes:

Implementation

Plan and implement developmentally appropriate science and math experiences.

Assessment Method: Performance appraisals

Performance Criteria:

Score of 4 out of 5 on rubric

Conceptual Knowledge

Demonstrate a basic knowledge of science and math concepts identified in the Ohio Department of Education Early Learning Content Standards.

Assessment Method: Locally developed exams

Performance Criteria:

80% or higher

Natural Interest

Enhance children's natural interest in mathematics and science and their disposition to use it to make sense of their world.

Assessment Method: Locally developed exams

Performance Criteria:

80% or higher

Assessment Method: Performance appraisals

Performance Criteria:

Score of 4 out of 5 on rubric

Integration

Integrate math and science in the total learning environment.

Assessment Method: Locally developed exams

Performance Criteria:

80% or higher

Assessment Method: Portfolios

Performance Criteria:

Score of 4 out of 5 on rubric.

Outline:

Fundamental science concepts for children from birth to age five developed from the ODE Early Learning Content Standards and National Association for the Education of Young Children (NAEYC) Standards.

The development of science curriculum in the areas of Life Science, Earth Science, Physical Science, and Health Science

The Science Process Skills/Inquiry Method

Fundamental math concepts for children from birth to age five developed from the ODE Early Learning Content Standards and NAEYC Standards

The development of math curriculum in the areas of Measuring/Estimating, Patterns, Geometry, Number Sequence, Data Analysis, and Serialization/Ordinal Sequence

The development of a developmentally appropriate and safe classroom environment to support math and science learning

The appropriate use of field trip experiences to support math and science learning