

UNIVERSITY OF ARKANSAS PULASKI TECH

Course-Level Assessment Report Course: ECTC 2403 Math & Science in Early Childhood Academic Year: 2020-2021



1. Name of course:

ECTC 2403 – Math & Science in Early Childhood

2. Name of individual(s) con	npiling report:
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Kami Wentz Hicks

3. Date of submission:

4. Academic year:

<u>September 10, 2021</u>

2020-2021

Course-Level Learning Outcomes

1. What are the Course-Level Outcomes (CLOs)?

- 1. Demonstrate use of inquiry method for children birth through Pre-Kindergarten, including children with special needs. (NAEYC 1a,1b,1c,4b.4d)
- 2. Demonstrate the ability to connect with families about math & science concepts for children birth through Pre-Kindergarten, including children with special needs (NAEYC 2a,2b,2c,4b,4c,4d)
- 3. Apply knowledge of children's growth to appropriate teaching strategies for children birth through Pre-Kindergarten, including children with special needs. (NAEYC 1a,1b,1c,4b,4c,4d)
- 4. Develop quality math & science learning environments for children birth through Pre-Kindergarten, including children with special needs. (NAEYC 1a,1b,1c,4b,4c,4d)
- 5. Observe and document children's learning, birth through Pre-Kindergarten, including children with special needs. (NAEYC 3a,3b,3c)
- 6. Connect research and knowledge with professional practice for children through Pre-Kindergarten, including children with special needs. (NAEYC 5a,5b,5c,5d)
- 7. Differentiate the process skills needed for math & science experiences for children birth through Pre-Kindergarten, including children with special needs. (NAEYC 4a,4b,4c,4d)

2. Which CLOs were addressed for this academic year? (2020-2021)

CLO 3. Apply knowledge of children's growth to appropriate teaching strategies for children birth through Pre-Kindergarten, including children with special needs. (NAEYC 1a,1b,1c,4b,4c,4d)



3. Which CLOs are being addressed in your assessment plan next academic year? (2021-2022)

CLO 3 will be assessed again in 2021-2022.

4. Explain the assessment cycle.

CLO 3 was selected by the Faculty to be assessed in 2020-2021 because this course only runs once a year and Faculty would like to see more than one measure of data before moving on to another CLO for assessment. The 2020-2021 school year was the first year that the updated lesson plan project and rubric was implemented. Therefore this CLO will be assessed again for 2021-2022. After a satisfactory amount of data has been achieved on this learning objective and project, Faculty will meet and decide on another CLO on which to report.

5. What are the assessment methods? Are they direct or indirect?

The assessment method here is indirect, as the grading rubric shows measurement in more than one area. For this project, students plan and implement a science and mathbased lesson plan for use in an early childhood classroom. This project also serves as a Key Assessment for purposes of NAEYC accreditation reporting.

6. What are the assessment goal(s)?

Students will achieve 70% or better proficiency on the grading rubric.

7. What were the findings for this academic year? (2020-2021)

This course is only offered yearly in the Spring semester. In Spring 2021, 11 students were enrolled and 10 completed this assessment. Of those, achieved an average of 83% on this assessment overall. The highest score was 98% and the lowest being 61.5%. 9 out of 10 students scored over the 70% threshold and one below. One student did not submit a project.

8. What is your analysis of the findings?

As a part of the re-accreditation process, the Early Childhood Program went through a period of self-study and had a re-accreditation site visit in the Spring of 2021. Over the last academic year and summer, Faculty met to make significant adjustments to this project. While student performance on this particular project was relatively good, Faculty notes that overall student performance on the grading rubric was somewhat lower than in previous years. However, this project is more focused on planning math and science-based learning activities, which was noted by faculty in other courses to be weak. This project was therefore narrowed in scope to give students addition practice in planning and implementing appropriate activities specific to this area.



A breakdown of the rubric analysis indicates that students performed well on most areas of the rubric except writing a detailed explanation of the second selected fingerplay. Students scored an average of 6.5/10 on this rubric item. 70% of students met or exceeded the item, but 30% of students did not meet expectations on this area. This item specifically measures NAEYC standard 4b in relation to the creation of developmentally appropriate teaching strategies. Faculty is unsure what the discrepancy in performance is between the planning of the first fingerplay and the planning of the second fingerplay. Students scored an average of 7.60/10 on planning the first fingerplay. This may indicate that more time may need to be spent on what appropriate fingerplay activities may be, or exploring better resources for students in locating appropriate fingerplays.

9. What is the action plan for the next academic year? (2021-2022) Explain.

Spring 2021 was the first time this newly revised project and rubric was implemented. It will be implemented in Spring 2022 and assessed in a CLO report again. Faculty will devote some extra time in discussion of fingerplays and use of fingerplays in the fall 2021 Literature & Language course in hopes that this may assist students when they enroll in this course in Spring 2022.