

ECE 203: Mathematics in Early Childhood Education
Department of Educational Foundations, Faculty of Education, University of Jos
Course Outline

Course Code: ECE 203

Course Name: Mathematics in Early Childhood Education

Credit Load: 3 Credits

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Academic Session: First Semester 2019/2020

Website: www.KorbEdPsych.com

Course Description

Logico-mathematical and spatio-temporal learning by the child's own experience with objects (learning by discovery), creating and inventing relationships between objects and symbols and resulting integration and reorganization of ideas by the child. Spatial relations, time concepts, number concepts, one-to-one correspondence, comparing sizes, comparing amounts, comparing and evaluating different points of view, classification, seriation, conservation. Teaching aids for nursery mathematics. Learning activities for nursery mathematics. Assessing mathematics in nursery education. Shapes, sets and sorting patterns, money, time, weight, length.

Course Objectives

By the end of this course, students will be able to:

- Describe how young children learn mathematics.
- Explain effective approaches for teaching mathematics in the early years.
- Describe developmentally appropriate mathematics concepts for the early years.
- Plan an effective mathematics lesson for young children.

Course Outline

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| 1. Introduction to mathematics learning in the early years | 8. Measurement |
| 2. How children learn mathematics | 9. Algebra and patterns |
| 3. Effective approaches for teaching mathematics in the early years | 10. Data analysis |
| 4. Number sense and counting | 11. Planning an effective mathematics lesson |
| 5. Comparing and ordering numbers | 12. Assessment of mathematics in the early years |
| 6. Operations with numbers | 13. Conclusion |
| 7. Shapes | |

Continuous Assessments

Option 1

- CA Test (40 points)

Option 2

- Mathematics Journal (15 points)
- Lesson Plan (10 points)
- Practicum (15 points)

Course Readings

Korb, K. A. (2018). *Celebrating young children: Mathematics learning in the early years*. Jos, Kaduna: Prudent Universal Press.

National Association for the Education of Young Children, & National Council of Teachers of Mathematics. (2010). *Early childhood mathematics: Promoting good beginnings* [Position Statement]. Retrieved from <https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/position-statements/psmath.pdf>

Other readings may be posted on the course website.