



Course Outline

EDECE2013 INVESTIGATING: NUMERACY AND TECHNOLOGY

Title: INVESTIGATING: NUMERACY AND TECHNOLOGY

Code: EDECE2013

School / Division: School of Education

Level: Advanced

Pre-requisites: Nil

Co-requisites: Nil

Exclusions: Nil

Progress Units: 15

ASCED Code: 070101

Objectives:

After successfully completing this course, students should be able to:

Knowledge:

- observe and critically analyse their own and children's interactions during play and other small and whole group experiences;
- examine and review current early education teaching models and determine those which best facilitate mathematical and technology learning.

Skills:

- understand and recognise the investigative process in play and other informal learning contexts;
- understand and identify particular mathematical concepts associated with number, space, and measurement;
- identify the technologies that will facilitate children's learning of mathematical concepts;
- design, implement and report on a two-week plan that enhances mathematical and technology learning.

Values:

- appreciate and understand the integrated nature of social learning contexts and mathematical concepts.

Content:

Topics may include:

- The context-embedded (or situated) nature of early mathematical and technology learning.
- The meaning of investigation as a collaborative teaching-learning process.
- Knowledge of specific mathematical concepts relevant for early childhood education.



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- Perceiving technology as both a concrete and virtual tool and resource for early learning.
- Acquiring competence in carrying out running record and anecdotal observations for analysis of mathematical meanings and technology use.
- Studying relevant curriculum models such as Reggio Emilia's Project Approach, and DAP's standards.
- Applying understandings from the course to design a mathematically stimulating program, to implement it, and then evaluate the degree to which mathematical and technology objectives were met.

Learning Tasks & Assessment:

Learning Task	Assessment	Weighting
Carry out and analyse the mathematical concepts and technology used by two children over two weeks.	Report of observations and analyses	20-30%
Plan and submit a two- week a program of activities based on the strengths and learning interests for the selected two children.	A two-week plan for mathematical and technology experiences	40-50%
Write a report critically analysing the teaching strategies and conceptual engagement of the two focus children	Evaluate and report on the plan's teaching-learning process	20 – 30%

Adopted Reference Style:

APA