

NATURAL SCIENCE
Course Title

ED 212-3, 1983
Course Number

Course Description

This course will provide students with a working knowledge of natural science and with a knowledge of a process, open-ended approach to teaching natural science to preschoolers.

Course Philosophy

Most teaching in the preschool is spontaneous and process-oriented. An open-ended, discovery-through-experience approach is used with the children. This is particularly so in the natural science areas of the curriculum. This course is designed to provide the student with the maximum opportunity to integrate this teaching strategy into his teaching practice, balancing process and content.

Course Goals

1. To help individuals become self-directed learners (student-teachers, preschoolers)
2. To help the student acquire a working knowledge of natural science.
3. To provide the students with experience in presenting natural science learning opportunities to colleagues and preschoolers, using a process-oriented, open-ended approach.

Terminal Objectives

The student will demonstrate ability through course development, project construction and implementation:

1. To recognize needs and interest of the preschool child relating to natural science;
2. To understand the natural science materials and information which will be used in the program (general background knowledge);
3. To identify, locate, and utilize available resources for a natural science program;
4. To organize chosen natural science learning environment for nursery school children;
5. To select appropriate methods of presentation of natural science experiences using process-oriented, open-ended teaching methods;

Terminal Objectives

6. To select appropriate methods of presentation of natural science experiences using process-oriented, open-ended teaching methods;
7. To apply knowledge, understanding and skill in designing a sequence of natural science learning experiences;
8. To evaluate one's teaching, the learning of the children, and the natural science program;
9. To communicate and interact effectively with colleagues by micro-teaching the natural science program designed;
10. To deal with the dynamics of inter-personal relations with colleagues in class and in the nursery school;
11. To integrate theory and practice relating to group development and group process;

Text - To be announced

Assignments

1. Present to the class pertinent background information relating to an animal of your choice which is native to Canada, with preference for our region. Schedule to be arranged in class.

15%

Prepare a suitable information packet to be used in the preschool. Use information to present in preschool setting.

2. Choose a topic (in groups of two) from one of the following: water, air, fire, seasons (weather), solar system, dinosaurs, plants, trees, machines, rocks and minerals, magnets, birds, and reptiles (or a topic of your choice cleared with the instructor). Present background information to the class regarding your topic. Include one visual presentation relating to your topic (experiment or other).

15% - dates to be arranged in class

(As in assignment #1 these projects are to be presented in a preschool setting as well).

3. Plan in detail a science curriculum (for 3 months) to be integrated into the preschool curriculum. Include appropriate bibliography for preschool children.

35% - due April 3, 1983

Assignments

4. Read a book specifically related to Natural Science (please clear with instructor). As you read, keep a journal of your impressions. Quote your favorite passages and compare with other materials you have read.

10% - due *March 20*

5. FINAL EXAM - based on text readings and classroom presentations.

20% - *April 10, 1988*

- WEEK I - Intro - Course Outline, etc.
Beginning Concepts of Science - Discovery System - for Science
- WEEK II - Ecology, Light and Colour
- WEEK III - Electricity (Magnets, etc.) and Gravity
- WEEK IV - Botany (Seasons and Weather)
- WEEK V - Zoology
- WEEK VI - Zoology
- WEEK VII - Overlap to Humans & Reproduction
- WEEK VIII - Seasons and Weather
- WEEK IX - Water
- WEEK X - Air and Geology

* Assignments to be presented in preschool setting must be presented two weeks after they are handed in for grading--arrange times for presentation with instructor.