SAULT COLLEGE
EARLY CHILDHOOD EDUCATION January 82

ED 212-3 Natural Science

INSTRUCTOR: Jaye Hamer
CLASS CONTACT HOURS : 45 hrs.

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 area 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 materials into relevant learning experiences for preschool children;
5. To provide an effective natural science learning environment for nursery school children;
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 esperiences;

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;

Texts:

1. Science Experiences for the Early Childhood Years, J.D. Harlan, Merrill, 1967.
2. Science With Young Children, B.G. Holt, NAE 4C, 1977.

Assignments - Ed 202-3

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.
   Due week 5 - 15%

   Prepare a suitable information packet to be used in the preschool. Use information to present in preschool setting. After presentation do self-evaluation (written with modifications)

2. Choose a topic from the text, Science Experiences for the Early Childhood Years, and present to the class the background information about your topic and one of the text experiments relating to your topic.
   Due week 3 - 15%

   Prepare your preschool presentation using the Resource File Cover Page as a guide. This experiment must be presented in a preschool setting. Report your experience and evaluate the children's learning and/or interest.

3. Choose a major growing project and keep a log of the growing experience. These projects will be presented in class for evaluation .
   Due week 7 - 15%

4. Plan in a detail science curriculum (for a year) to be integrated into the preschool curriculum. Include appropriate Bibliography for preschool children.
   Due April 2/81 - 40%

5. Read: Rachael Carson, A Sense of Wonder

   As you read, keep a journal of your impressions. You may quote favourite passages, compare with other readings and just use material from where your mind takes you as you read.
   Due week 5 - 15%

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.

JH:lv
Jan. '81