

ED 212-3 -- Natural Science

INSTRUCTOR: Jaye Hamer

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 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;

Texts:

1. Science Experiences for the Early Childhood Years, J.D. Harlan, Merrill, 1976.
2. The Don't Throw It, Grow It Book of Houseplants
3. Growing a Green Thumb

References:

1. Teaching Science Through Discovery, 3rd Edition, A.A. Carin and R.B. Sund.
2. Science with Young Children, B.G. Holt, N.A.E.Y.C., 1977

LB/lv

Jan. 1980

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.
Prepare a suitable information packet to be used in the preschool, following the format of the Resource File Cover Page, sample attached.
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.
Prepare your preschool presentation using the Resource File Cover Page as a guide.
This experiment must be presented in a preschool on your block placement. Report your experience and evaluate the children's learning and/or interest.
3. Choose a major growing project from Don't Throw It, Grow It, and keep a log of the growing experience. These projects will be presented in class for evaluation during the last two weeks of April.
4. Choose a growing project from Growing a Green Thumb and present it as an experience for the children in the preschool on your block placement, using the Resource File Cover Page as a guide. Write it up and evaluate the experience for the children in terms of their learning and/or interest. Try to choose experiences which have not been presented before to the children concerned.
5. Read: Rachael Carson, A Sense of Wonder
and
Loren Eiseley, The Immense Journey

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.

Evaluation

Each of these assignments is worth 20% of the total grade (100%).

Evaluation will be based on a professional approach to the topic, comprehensive and appropriate coverage of the topic, and the quality of your presentation and written material.

