Summer Session 1999

EDUC 476 - 4
Designs for Learning: Natural Sciences (K-12)

Thursday & Saturday: 13:00 - 16:50
Location: MPX 7500F

D02.00

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PREREQUISITE

Educ 401/402

COURSE DESCRIPTION

•Knowledge about how individuals learn has increased significantly over the past few decades. This knowledge is very important with respect to developing curricula and understanding the role of the science teacher.

•Central to our agenda will be teacher as "facilitator," rather than teacher as provider of knowledge. The distinction rests with the identity of the learner as being "involved" in a meaning-making task. Our guidelines will therefore focus on a "process approach" of learning and teaching. Such a venture will include engaging ourselves in analyzing various classroom experiences and cultivating a practice of theory-building.

•Teaching science based solely on content is possibly an erroneous one. Research suggests knowledge to be a social construction. This understanding applies to traditional scientific [knowledge] as well as the science thinking elicited from students.

•Modeling such a problem-based approach will involve student teachers learning to build their own low-cost, hands-on/minds-on curriculum materials. Learning from and with various science activities will therefore shape our classroom dialogues and writing projects.

REQUIREMENTS

Midterm research paper involving the interview of a K-12 child while they are engaged in a science activity. Value: 40%

Final assignment will include developing a series of science lessons appropriate to the age level you will be teaching and showing how these might belong to a theme or unit study. Value: 40%

Class participation which in addition to attendance, includes [Preparedness] and performance in class. Value: 20%

READINGS

Based on in-class handouts.