Cadet Teaching - Science

Rationale

In a world filled with the products of scientific inquiry, scientific literacy is a necessity for everyone in order to use scientific information to make wise choices. Today, the job market demands advanced skills, requiring people to be able to learn new skills, use reason, think creatively, make decisions, and solve problems. An understanding of science and the processes of science contribute in an essential way to these skills.

Course Description

This course gives the opportunity for the student to participate in many activities that will familiarize him/her with the teaching process as well as strengthen his/her own science skills. The student will help prepare lessons, tests, and lab investigations. The cadet teacher will also assist small groups of students and present a lesson to the class.

Prerequisites

Prerequisite: Application approval

Open to: 12

Credit: 1/2 Unit - One Semester (Elective) CPC

Course Objectives

1. The student will research and analyze two effective teaching methods and classroom management techniques with. Assessed on the local level. (CA6; 4.4, 4.5, 4.8) (A+: Research)

ACT Standards:
• Compare or combine data from a complex data presentation. Interpretation of Data 502
• Analyze given information when presented with new, simple information. Interpretation of Data 506
• Understand the methods and tools used in a complex experiment. Scientific Investigation 501
• Understand a complex experimental design. Scientific Investigation 502
• Determine the experimental conditions that would produce specified results. Scientific Investigation 504
• Select a simple hypothesis, prediction, or conclusion that is supported by one or more data presentations or models.
Models/Inferences/Experimental Results 501
• Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why.
Models/Inferences/Experimental Results 502
• Identify strengths and weaknesses in one or more models. Models/Inferences/Experimental Results 503
• Identify similarities and differences between models. Models/Inferences/Experimental Results 504
• Determine which model(s) is (are) supported or weakened by new information. Models/Inferences/Experimental Results 505
• Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion.
Models/Inferences/Experimental Results 506

2. The student will write one or more lesson plans per semester for teaching the targeted science class. Assessed on the local level. (SC7; 1.5, 4.4, 4.5, 4.8) (A+: Writing)

3. The student will tutor peers in both group and individual settings. Assessed on the local level. (CA3, 6; 1.5, 2.1, 3.2, 3.3, 4.1, 4.4, 4.5, 4.8) (A+: Speaking)

4. The student will read handouts, articles, and literature to develop and conduct teacher-assigned activities. (CA6; 2.1, 4.5) (A+: Reading)

BOE 11-6-14