PHYC 102 Preparation of Physical Science Teaching Materials

Catalog Description

Selected topics in physical science stressing the construction of models and experimentation appropriate to the classroom. Designed primarily for students in elementary education programs.

Prerequisite: PHYC 101 or permission of the department chairperson.
Open only to students in the teacher-education curriculum. (3 credit hours)

Course Objectives

A program of study designed to aid in the development and use of hands-on demonstration experiments in physical science. Students will be trained in the acquisition, assembly and use of inexpensive materials required to perform interesting and informative experiments and principles in physical science.

Course Rationale

One of the courses offer to the student who majors in Elementary Education with a Concentration in Science - Physical Sciences

Course Content, Format, and Bibliography

Content

Course Outline

Mechanics: Newton’s laws, v, a, mass, g, momentum
Rotation: center of gravity, torque, rotation
Energy
Pressure and Density
Chemistry
Heat
Waves and sound
Electricity and Magnetism
Light

Format

Learn-by-doing experiments with pre and post discussion of the physical principles used and the construction techniques needed in the hands on experiments. A make-it, take-it approach to more than a hundred learn-by-doing experiments applicable to the classroom.
Bibliography

Textbook

