

# PHYS 112 : Physical Science II

This course is designed as a general survey of the contributions of physics and chemistry to man's understanding of basic physical science concepts and will expose you to the basic scientific vocabulary of physics and chemistry. In laboratory, Learners will develop skill with equipment, laboratory techniques and procedures, and lab investigative skills to solve physics and chemistry-related problems. The lab emphasis will be on the application of basic physical science principles while studying and solving problems as well as the operation of basic lab equipment. Learners will need to have had sufficient math skills to support their understanding associated principles illustrated through mathematical structures.

**Credits 4**

**Prerequisites**

**PHYS 111**

**Course Outcomes**

After successfully completing the course, the learner will be able to:

- Evaluate his or her understanding of physical science concepts and correct any misconceptions.
- Attain a general understanding of the basic principles and terminology of physics and chemistry.
- Demonstrate familiarity with basic laboratory materials.
- Apply physical science principles and simple mathematical equations to solve elementary physical science-related problems.
- Develop an appreciation for the physical environment.
- Demonstrate knowledge of the role of physical science in solving contemporary problems and its impact on the way we live.
- Demonstrate problem-solving skills in the classroom and laboratory and use those skills to identify unknown quantities and correctly answer application questions.
- Use a microcomputer and probe ware to collect and analyze laboratory data, to simulate physical science scenarios, to solve problems, and to review concepts.
- Develop skill in performing inquiry-based elementary physical science experiments in the laboratory to obtain results and formulate conclusions.
- Correctly use common laboratory equipment.
- Understand lab safety principles and observe safety regulations.
- Use the constructivist, activity based learning model to learn physical science concepts.

**Competency**

Scientific Reasoning