

PHYSICS (PHY)

PHY 101 – Survey of Physics (NS) (3 credits)

An introduction to the fundamental concepts of physics including historical developments and the basic laws and principles of physics as derived from both macroscopic and microscopic phenomena.

PHY 102 – Survey of Physics (NS) (3 credits)

An introduction to the fundamental concepts of physics including historical developments and the basic laws and principles of physics as derived from both macroscopic and microscopic phenomena.

PHY 108 – CSI NU: Physical Forensics (NS) (3 credits)

This course is an introduction to the principles of physics in the context of forensic science, the application of science to law. Application of logic and probability to analyze forensic evidence will also be discussed.

PHY 121 – General Physics (NS) (3 credits)

An intensive study of the principles of mechanics, wave motion, sound, and heat followed in the second semester by physics; vectors and calculus are used throughout. Must be accompanied by laboratory.

PHY 122 – General Physics (NS) (3 credits)

An intensive study of the principles of mechanics, wave motion, sound, and heat followed in the second semester by physics; vectors and calculus are used throughout. Must be accompanied by laboratory.

PHY 123L – General Physics (NS) (1 credits)

The course explores basic topics such as motion in 1 and 2 dimensions, Newton's Laws, kinematics, and momentum in a hands-on laboratory setting. The experiments are designed to illustrate and expand upon topics taught in PHY121.

PHY 124L – General Physics (NS) (1 credits)

The course explores topics in electrostatics, electrical circuits, Kirchoff's Laws, and some topics in modern physics. The experiments are designed to illustrate and expand upon topics taught in PHY122.

PHY 323 – Modern Physics I (NS) (3 credits)

*Prerequisite Must have taken PHY*121, PHY*122, PHY*123L, PHY*124L,*

In this introduction to quantum mechanics, we review the inadequacy of classical physics and the need for a probabilistic description of nature. Schrodinger's equation will be solved and statistical thermodynamics will be introduced. Time permitting this course will touch on electron spin and Feynman's sum over histories approach.

PHY 399 – Topics: (NS) (4.00 credits)

*Prerequisite take phy*121*

This special topics course will be an introduction to various applications of physics. For example, topics may include aspects of modern physics, the concepts of the Hamiltonian and Lagrangian, and the thermodynamics of gases and aerosols.