

AGS General Studies Physical Sciences

Courses Descriptions

PHYS 100 PHYSICAL SCIENCE I - [LCCN: CPHY 1023, PHYSICAL SCIENCE I] – This course is a survey of concepts in physics and physical sciences with emphasis on methods of science and concepts relating to mechanics, states of matter, waves, heat, electricity, light, atomic structure and basic chemistry. Topics are developed with a minimum of mathematical presentation. *Prerequisite:* MATH 133 or higher. (3-0-3)

PHYS 101 PHYSICAL SCIENCE II - [LCCN: CPHY 1033, PHYSICAL SCIENCE II] - This course presents applications of concepts learned in Physical Science I, which may include physics, chemistry, geology, astronomy, oceanography, etc. Emphasis is on chemical reactions, acids, bases and salts, chemistry of life, rock, geological eras, erosion and sedimentation, earth processes (above and below the surface), and the solar system. Topics are developed with a minimum of mathematical presentation. Open to students who are enrolled in or have college credit in Physics. *Prerequisite:* MATH 133 or higher. (3-0-3)

PHYS 105 TECHNICAL PHYSICS - Introduction to basic principles of physics, including properties of matter, mechanics, vibration, wave motion, heat, sound, electricity, magnetism and optics. Includes laboratory experience involving students in the active exploration of topics introduced in lecture. (3-0-3)

PHYS 221 GENERAL PHYSICS LECTURE & LABORATORY I- [LCCN: CPHY 2114, PHYSICS I (CALCULUS BASED) LEC] - Calculus-based physics lecture and laboratory. This course focuses on vectors, kinematics, Newton's Laws, momentum, work & energy, rotations, oscillations, elasticity & equilibrium; thermodynamics. This course is intended for engineering majors. *Prerequisites:* MATH 140 and MATH 264. (3-4-5)

PHYS 222 GENERAL PHYSICS LECTURE & LABORATORY II - [LCCN: CPHY 2124, PHYSICS II (CALCULUS BASED) LEC] - Calculus-based physics lecture and laboratory. This course is a continuation of Physics 221. This course focuses on gravitational fields; waves; electrostatics; circuits; magnetism; and light. This course is intended for engineering majors. *Prerequisite:* PHYS 221, Math 140 and Math 264. (3-4-5)