PHYSICS (PHYS)

PHYS 1001 Physics for Today (3 Credits)
Students will gain a broad base of scientific knowledge and methodologies in the natural sciences. This will enable them to develop scientific literacy, the knowledge and understanding of scientific concepts and processes essential for personal decision making and understanding scientific issues.
Elective Code(s): Liberal Arts Elective (LART)
Previous: Legacy Equivalent(s): PHY* 101

PHYS 1009 Fundamentals of Applied Physics (4 Credits)
Students will gain a broad base of scientific knowledge and methodologies in the natural sciences. This will enable them to develop scientific literacy, the knowledge and understanding of scientific concepts and processes essential for personal decision making and understanding scientific issues.
Prerequisites: MATH 1002 or equivalent
General Education: Scientific Reasoning (SCRX)
Elective Code(s): Liberal Arts Elective (LART)
Additional fees may apply
Previous: Legacy Equivalent(s): PHY* 109

PHYS 1100 Introductory Physics (4 Credits)
An introductory laboratory science course intended for nonscience majors, or for students who need only one semester of physics. Students with credit for high school physics should elect PHYS 1201 or PHYS 2201. Topics include concepts in classical and modern physics, such as the physics of motion, heat, sound, electricity, magnetism, light, optics, and the theory of the atom.
General Education: Scientific Reasoning (SCRX)
Elective Code(s): Liberal Arts Elective (LART)
Additional fees may apply
Previous: Legacy Equivalent(s): PHY* 110

PHYS 1101 Physics for Life Sciences (4 Credits)
Applies the principles of physics to health science. Students will become familiar with science as a method of inquiry. Students will develop a habit of mind that uses quantitative skills to solve problems and make informed decisions.
Prerequisites: MATH 1010
Corequisite: MATH 1010
General Education: Scientific Reasoning (SCRX)
Elective Code(s): Liberal Arts Elective (LART)
Additional fees may apply
Previous: Legacy Equivalent(s): PHY* 111

PHYS 1104 Mechanics (4 Credits)
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion.
Prerequisites: MATH 1600 and ENG 1010
General Education: Scientific Reasoning (SCRX)
Elective Code(s): Liberal Arts Elective (LART)
Additional fees may apply
Previous: Legacy Equivalent(s): PHY* 114

PHYS 1105 Heat Sound Light (4 Credits)
This is the second course in the physics sequence and provides coverage in the three areas of heat, light and sound. Topics include thermal equilibrium, heat transfer, harmonic motion and wave properties of sound and light.
Prerequisites: PHYS 1104 with a "C" grade or higher.
General Education: Scientific Knowledge & Understanding (SCKX)
Elective Code(s): Liberal Arts Elective (LART)
Additional fees may apply
Previous: Legacy Equivalent(s): PHY* 115

PHYS 1201 General Physics I (4 Credits)
An algebra-based introduction to classical mechanics and heat. Topics include vectors, kinematics, Newton's laws, momentum, energy, rotational motion, fluids, heat and thermodynamics.
Prerequisites: MATH 1610 with a grade of C or higher
General Education: Scientific Reasoning (SCRX)
Elective Code(s): Liberal Arts Elective (LART)
Additional fees may apply
Previous: Legacy Equivalent(s): PHY* 121

PHYS 1202 General Physics II (4 Credits)
An algebra-based introduction to electricity, magnetism, and light. Topics include electrostatics, direct current circuits, magnetism, electromagnetic induction, electromagnetic waves, and properties of light.
Prerequisites: PHYS 1201 with a grade of C or higher
General Education: Scientific Knowledge & Understanding (SCKX)
Elective Code(s): Liberal Arts Elective (LART)
Additional fees may apply
Previous: Legacy Equivalent(s): PHY* 122

PHYS 2201 Calculus-Based Physics I (4 Credits)
A calculus-based introduction to classical mechanics. Topics include vectors, kinematics, Newton's laws, momentum, energy, rotational motion, and fluids.
Prerequisites: MATH 2600 with a grade of C or higher
Elective Code(s): Liberal Arts Elective (LART)
Additional fees may apply
Previous: Legacy Equivalent(s): PHY* 221

PHYS 2202 Calculus-Based Physics II (4 Credits)
A study of electricity, magnetism, waves, and optics. Topics include electric and magnetic fields, Gauss' Law, electric potential, capacitance, current, resistance, electrical circuits, electromagnetic induction, inductance, Maxwell's equations, electromagnetic waves, and optics.
Prerequisites: MATH 2610 and PHYS 2201, both with a grade of C or higher
Elective Code(s): Liberal Arts Elective (LART)
Additional fees may apply
Previous: Legacy Equivalent(s): PHY* 222