

PHYSICS COURSES (PHYS)

PHYS 141-142 **COLLEGE PHYSICS (4, 4)** Each semester: Three hours lecture and two hours laboratory. This intensive algebra and trigonometry based physics course sequence is for students majoring in the natural sciences. The course is designed to meet the needs of students preparing for MCATs. Content of the course includes mechanics, properties of matter, thermodynamics, waves and sound, electricity and magnetism, optics, quantum physics, and nuclear physics. One laboratory per week.

PHYS 161 **PHYSICS I (4)** *Prerequisite: MATH 103 or concurrent enrollment in MATH 103.* Three hours lecture and two hours laboratory. This course is a calculus-based survey of classical physics, providing a background for persons who intend to use physics as a base for the physics major or for other science disciplines. The first semester introduces the student to Newton's laws including their application to statics and dynamics; to momentum and energy and their respective conservation principles; to rotational and angular quantities; and, if time allows, to the basic ideas of heat and thermodynamics.

PHYS 162 **PHYSICS II (4)** *Prerequisites: PHYS 141 or 161, MATH 103, MATH 104 (or concurrent enrollment in MATH 104).* Three hours lecture and two hours laboratory. This continuation of a calculus based survey of classical physics introduces students to the physics of waves, including sound, to basic electromagnetic theory and optics.

PHYS 181 **SOLAR SYSTEM ASTRONOMY (4)** Three hours lecture and two hours lab. Basic overview of the properties of the planets, satellites, and minor members of the solar system. No prior experience in astronomy is required. Course meets the general education laboratory science requirement.

PHYS 182 **STELLAR ASTRONOMY (4)** Three hours lecture and two hours lab. Basic overview of current knowledge about the universe beyond the solar system. No prior experience in astronomy is required; course meets the general education laboratory science requirement.

