PHYSICS (PHYS)

PHYS 1000 - Conceptual Physics/Physical Science
(4 Credits)
This course is for students not majoring in science. Physical principles are presented with emphasis on non-quantitative, practical applications of these concepts. Note: This course satisfies one semester of the science requirement for the Associate in Arts degree.
Lecture: 3 hours, Lab: 2 hours

Course completes the following requirements:
Lab Science Requirement
Mathematics and Science
URI/RIC Transfer General Education Transfer Opportunity: Yes

PHYS 1030 - General Physics I
(4 Credits)
Mechanics and heat are studied as the basic topics of this course. One lecture hour is used as a help session.
Lecture: 3 hours, Lab: 3 hours, Other: 1 hour

Course completes the following requirements:
Lab Science Requirement
Mathematics and Science
URI/RIC Transfer General Education Transfer Opportunity: Yes

PHYS 1040 - General Physics II
(4 Credits)
Sound, electricity and magnetism, light, atomic and nuclear theories and their applications are studied in this course.
Lecture: 3 hours, Lab: 3 hours

Prerequisite(s): PHYS 1030

Course completes the following requirements:
Lab Science Requirement
Mathematics and Science
URI/RIC Transfer General Education Transfer Opportunity: Yes

PHYS 1070 - Introduction to Renewable Energy
(3 Credits)
This course will introduce renewable energy resources and their applied technologies to the student. Students will learn the physics of energy, as well as, the geology of energy. Topics covered will include, solar, geothermal, tidal, and wave energy, as well as, hydro-electric energy.
Lecture: 2 hours, Lab: 2 hours

Prerequisite(s): (MATH 0600 or MATH 0101 or Math Accuplacer) or (Bachelor Degree or higher)

PHYS 1110 - Radiographic Physics
(4 Credits)
This course covers the fundamentals of electrical and radiation physics. Student gain an understanding of the basic principles underlying the operation of X-ray equipment and auxiliary devices. Note: Open only to students currently enrolled in Radiography program.
Lecture: 3 hours, Lab: 2 hours

Course completes the following requirements:
Lab Science Requirement
Mathematics and Science

PHYS 1150 - University Physics I
(3 Credits)
This course introduces Newtonian mechanics; including kinematics and dynamics of a particle, rotation of rigid bodies, oscillatory motion, and conservation principles. (Note: Formerly part of PHYS 1100: Engineering Physics)
Lecture: 3 hours

Prerequisite(s): MATH 2141 (may be taken concurrently) or MATH 1910

Course completes the following requirements:
Mathematics and Science
URI/RIC Transfer General Education Transfer Opportunity: Yes

PHYS 1151 - University Physics I Laboratory
(1 Credit)
This course includes laboratory experiments in the fields of mechanics; including kinematics and dynamics of a particle, rotation of rigid bodies, oscillatory motion, and conservation principles, which are covered in PHYS 1100. (Note: Formerly part of PHYS 1100: Engineering Physics)
Lab: 3 hours, Other: 1 hour

Prerequisite(s): PHYS 1150 (may be taken concurrently) and (MATH 2141 (may be taken concurrently) or MATH 1910)

Course completes the following requirements:
Mathematics and Science
URI/RIC Transfer General Education Transfer Opportunity: Yes

PHYS 2110 - Topics in Acoustics, Optics and Thermodynamics
(3 Credits)
This course deals in the fundamentals of acoustics and optical phenomena and introduces topics of thermodynamics, kinetic theory and wave motion. Calculus is used. Note: Usually taken by engineering students in the first semester of the second year.
Lecture: 3 hours

Prerequisite(s): PHYS 1100

Course completes the following requirements:
Mathematics and Science

PHYS 2111 - Introduction to Acoustics and Optics Laboratory
(1 Credit)
This course deals with laboratory experiments in simple harmonic motion sound waves, reflection and refraction of light, lenses, prisms, diffraction of light, holography and some fiber optic systems.
Lab: 3 hours

Course completes the following requirements:
Mathematics and Science

PHYS 2500 - Applications in Science and Math
(1 Credit)
This capstone course is intended for students in their final semester of the Science program. It allows students an opportunity to demonstrate and integration of knowledge and abilities acquired in previous science and mathematics courses with added intent of developing new insights. Students read selected articles, such as those that come from scientific journals, in a variety of fields and then have the opportunity to collaborate with their peers honing writing, synthesis and presentation skills.
Lecture: 2 hours

Course completes the following requirements:
Mathematics and Science