PHYS – Physics

PHYS 1111 – Introductory Physics I
3.000 Credits 3.000 Contact Hours
Prerequisites: ENGL 1101 with a minimum grade of C;
MATH 1112 or MATH 1113 with a minimum grade of C
Corequisites: PHYS 1111L
The first course of two algebra and trigonometry based courses in the
physics sequence. Topics include material from mechanics (kinematics,
dynamics, work and energy, momentum and collisions, rotational
motion, static equilibrium, elasticity theory, and simple harmonic
motion), mechanical waves, theory of heat and heat transfer, and
thermodynamics.

PHYS 1111L – Introductory Physics Lab I
1.000 Credits 3.000 Contact Hours
Prerequisites: ENGL 1101 with a minimum grade of C;
MATH 1112 or MATH 1113 with a minimum grade of C
Corequisites: PHYS 1111
Selected laboratory exercises paralleling the topics in PHYS 1111. The
laboratory exercises for this course include units of measurement,
Newton's laws, work energy and power, momentum and collisions,
one- and two-dimensional motion, circular motion and law of gravity,
rotational dynamics and static equilibrium, elasticity theory, harmonic
motion, theory of heat and heat transfer, thermodynamics, wave
motion, and sound.

PHYS 1112 – Introductory Physics II
3.000 Credits 3.000 Contact Hours
Prerequisites: PHYS 1111; PHYS 1111L
Corequisites: PHYS 1112L
The second of two algebra and trigonometry based courses in the
physics sequence. Topics include material from electricity and
magnetism (electric charge, electric forces and fields, electric potential
energy, electric potential, capacitance, magnetism, electric current,
resistance, basic electric circuits, alternating current circuits, and
electromagnetic waves), geometric optics (reflection and refraction),
and physical optics (interference and diffraction).

PHYS 1112L – Introductory Physics Lab II
1.000 Credits 3.000 Contact Hours
Prerequisites: PHYS 1111; PHYS 1111L
Corequisites: PHYS 1112
Selected laboratory exercises paralleling the topics in PHYS 1112. The
laboratory exercises for this course include material from electricity
and magnetism, geometric optics, and physical optics.