PHYSICS (PHYS)

PHYS1800 | Physics I with Lab | Lecture/Laboratory (4 Credits)
Introduction to mechanics using differential calculus as a foundation. Topics include kinematics and dynamics of linear motion, static equilibrium, the conservation of energy and momentum, mechanics of solids and fluids, and thermodynamics. The laboratory portion incorporates experimentation, instrumentation, and graphical tools to verify calculations in motion, mechanics and thermodynamics.
Prerequisite(s): MATH1810 Or MATH1811
General Education: Physical Sciences with Lab

PHYS1801 | Physics I Lab | Laboratory (1 Credit)
This course is a physics laboratory completion intended for students requiring laboratory credit. The laboratory incorporates experimentation, instrumentation, and graphical tools to verify calculations in motion, mechanics, and thermodynamics.
General Education: Physical Sciences with Lab

PHYS1810 | Calculus-Based Physics | Lecture (3 Credits)
Introduction to mechanics using calculus, vectors and graphs to describe motion, and to analyze it in terms of forces and conservation laws. Applications include projectiles, orbits, oscillations and fluids.
Prerequisite(s): MATH1810 Or MATH1811
General Education: Natural Sciences

PHYS1820 | Physics II with Lab | Lecture/Laboratory (4 Credits)
An introductory calculus-based course in electromagnetic fields and their applications. Topics include: Coulomb's and Gauss' Law, electric fields and potentials, electrical and magnetic properties of matter, Ampere's and Faraday's laws, elementary DC and AC circuits, Maxwell's equations, and electromagnetic waves.
Prerequisite(s): MATH1821, Or MATH1820, And PHYS1800
General Education: Physical Sciences with Lab