

Physics (PHY) Courses

PHY1011 General Physics I

This course is the first in a two-part introductory physics course sequence using algebra-based approaches to analyze physical phenomena. Students are introduced to vector algebra and the basic principles of classical mechanics, applying the concepts of work, energy, linear momentum and angular momentum to physical phenomena. This course must be taken concurrently with General Physics I Laboratory.

Prerequisite(s): MATH1020 or math placement, Corequisite: PHY1016.

Offered at Charlotte, Online, Providence

3 Semester Credits

PHY1016 General Physics I Laboratory

This is an introductory algebra- and inquiry-based physics laboratory course coordinated with PHY1011 General Physics I. Small teams of students work together to solve practical Newtonian physics problems by conducting a sequence of observations and tests. Students are responsible for developing their own experiments and task assignments as they work within collaborative team structures, using the collected data to construct original models of physical phenomena. Students practice skills employed by professional engineers and scientists. The laboratory exercises reinforce theories discussed in class, including error analysis, vector algebra, kinematics, conservation of energy, momentum and rotational motion.

Prerequisite(s): MATH1020 or math placement, Corequisite: PHY1011.

Offered at Charlotte, Online, Providence

1 Semester Credit

PHY1022 General Physics II

This course is the second in a two-part introductory physics course sequence using algebra-based mathematical approaches to analyze physical phenomena. Students are introduced to heat, wave propagation, wave energy, reflection, refraction, electricity, magnetism, circuits and semiconductors. This course must be taken concurrently with General Physics II Laboratory.

Prerequisite(s): MATH1020, PHY1011, PHY1016, Corequisite: PHY1026.

Offered at Charlotte, Providence

3 Semester Credits

PHY1026 General Physics II Laboratory

This course is an introductory algebra- and inquiry-based physics laboratory coordinated with PHY1022 General Physics II. Small teams of students work together to solve practical Newtonian physics problems by conducting a sequence of observations and tests. Students are responsible for developing their own experiments and task assignments as they work within collaborative team structures, using the collected data to construct original models of physical phenomena. Students practice skills employed by professional engineers and scientists. The laboratory exercises reinforce theories discussed in class, including error analysis, heat transfer, electric and magnetic fields, circuits, digital instruments and optics.

Prerequisite(s): MATH1020, PHY1011, PHY1016, Corequisite: PHY1022.

Offered at Charlotte, Providence

1 Semester Credit