

PHYSICS (PHY)

PHY101 / Introduction to Physics

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

A survey of physics emphasizing applications of physics to modern life. Prerequisites: A grade of C or better in MAT090, or higher level mathematics course, or eligibility for MAT120 or higher as indicated by appropriate placement. Course Notes: Students may receive credit for only one of the following: PHY101 or PHY101AA.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

PHY111 / General Physics I

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

Includes motion, energy, and properties of matter. Prerequisites: A grade of C or better in MAT182 or MAT187 or MAT188 or MAT220 or MAT221 or eligibility for MAT220 as indicated by appropriate placement or one year high school Trigonometry with a grade of C or better or permission of Department or Division. Course Notes: PHY111 is recommended for preprofessional and suggested for certain other majors. Students may receive credit for only one of the following: PHY111 or PHY111AA.

 SUN# PHY 1111

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

PHY112 / General Physics II

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

Includes electricity, electromagnetism, and modern physics.

Prerequisites: A grade of C or better in PHY111.

 SUN# PHY 1112

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

PHY121 / University Physics I: Mechanics

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

Kinematics, Newton's laws, work, energy, momentum, conservation laws, dynamics of particles, solids, fluids, mechanical waves, and sound. Prerequisites: A grade of C or better in MAT220 or MAT221 or permission of Department or Division. One year of High School physics or PHY111 and PHY112 suggested but not required.

 SUN# PHY 1121

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

PHY131 / University Physics II: Electricity and Magnetism

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. Prerequisites: A grade of C or better in MAT230 or MAT231 or permission of Department or Division and PHY121.

Corequisites: MAT241 or permission of Department or Division.

 SUN# PHY 1131

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

PHY241 / University Physics III: Thermodynamics, Optics, and Wave Phenomena

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

Heat, entropy, and laws of thermodynamics; wave propagation; geometrical and physical optics; introduction to special relativity.

Prerequisites: A grade of C or better in PHY116 or PHY131 or permission of Instructor.

Division: Physical Sciences and Engineering