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

PHY101AA / Introduction to Physics
5 Credits / 3.0 Periods for Laboratory, 4.0 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 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

PHY111AA / General Physics I
5 Credits / 3.0 Periods for Laboratory, 4.0 Periods for Lecture
Includes motion, energy, and properties of matter. Prerequisites: A grade of C or better in MAT182 or MAT187 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: Recommended for preprofessional and suggested for certain other majors. Students may receive credit for only one of the following: PHY111 or PHY111AA.
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

PHY115 / University Physics I
5 Credits / 3.0 Periods for Laboratory, 4.0 Periods for Lecture
General physics course using calculus to develop the principles of mechanics and thermodynamics. Recommended for majors in the sciences and mathematics. Required for Engineering majors. Prerequisites: A grade of C or better in MAT220 or MAT221 or permission of Department or Division. Corequisites: MAT230 or MAT231. One year High School physics or PHY111 and PHY112 is strongly recommended.
Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo
Division: Physical Sciences and Engineering

PHY116 / University Physics II
5 Credits / 3.0 Periods for Laboratory, 4.0 Periods for Lecture
Principles of electricity, magnetism, waves, and optics. Required for Engineering majors. A grade of C or better required in all Prerequisites. Prerequisites: (MAT230 or MAT231) and PHY115. Prerequisite or Corequisites: MAT240 or MAT241 or permission of Instructor.
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

PHY294AB / Special Topics in Physics
1 Credit / 1.0 Periods for Lecture
Conceptual, experimental, and computational aspects of a special topic in physics. Prerequisites: Permission of Department or Division. Course Notes: PHY294AB may be repeated for credit.
Division: Physical Sciences and Engineering