PHYSICS (PHY)

PHY 105 | Conceptual Physics with Lab: GT-SC1
Lecture Credit: 3 Lab Credit: 1
Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1
Prerequisite: Demonstrated college readiness in English and math (CCD.edu/CollegeReady)

PHY 111 | Physics Algebra-Based I with Lab: GT-SC1
Lecture Credit: 4 Lab Credit: 1
Explores the physical world through reasoning, mathematics and experimentation. Examines kinematics, force, circular motion, energy, momentum, torque, rotational dynamics, simple harmonic motion, temperature, heat and thermodynamics. The concepts and theories presented are explored through demonstrations and hands-on experiments. It is a general physics course that is recommended for all of the health sciences and all other interested students. Students entering engineering or one of the advanced sciences should register for PHY 211. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1
Prerequisite: Grade of C or better in CCR 092 or ENG 060, or equivalent English and writing assessment score placements.
Corequisite: MAT 122 or MAT 166

PHY 112 | Physics Algebra-Based II with Lab: GT-SC1
Lecture Credit: 4 Lab Credit: 1
Expands upon PHY 111 and explores sound waves, electric fields, electric circuits, magnetic fields, light, optics, and modern physics. Explores the concepts and theories presented in class through demonstrations and hands-on experiments. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1
Prerequisite: PHY 111 and MAT 122 or MAT 166 with a grade of C or better

PHY 175 | Special Topics
Lecture Credit: 1-12
Provides students with a vehicle to pursue in depth exploration of special topics of interest.
Prerequisite: This course may require prerequisites or permission of instructor

PHY 211 | Physics Calculus Based I with Lab: GT-SC1
Lecture Credit: 4 Lab Credit: 1
Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics, and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1
Prerequisite: MAT 201 with a grade of C or better
Corequisite: MAT 202

PHY 212 | Physics Calculus-Based II with Lab: GT-SC1
Lecture Credit: 4 Lab Credit: 1
Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1
Prerequisite: PHY 211 and MAT 202 with a grade of C or better

PHY 213 | Physics III: Calculus Based Modern Physics
Lecture Credit: 3
Expands upon PHY 212 and explores twentieth century advances in physics. Topics may include special and general relativity, quantum theory, atomic physics, solid state physics, nuclear physics, semiconductor physics and cosmology.
Prerequisite: PHY 212 with a grade of C or better