PHYSICS (PH)

PH 188 Special Studies: Physics (1-4 Credits)
Explores topics of current interest in the physics discipline.

PH 199 Selected Topics: Physics (1-5 Credits)
Provides a learning experience in physics not currently available; this course is in development to be proposed as a permanent course.

PH 201 General Physics I (5 Credits)
Recommended to be taken with: MTH 111.
Studies Newtonian Mechanics beginning with basic math concepts and continuing into kinematics, dynamics, uniform circular motion, energy, momentum, and rotational equivalents of some of these topics. Lab addresses experiments and applied settings of Newtonian Mechanics along with explorations of diverse methods for analyzing and interpreting scientific data. Meets the basic requirements for many pre-health and life science programs. Should be taken in sequence.

PH 202 General Physics II (5 Credits)
Recommended to be taken with: MTH 112.
Studies basic electrostatic and magnetic interactions. Builds on concepts from PH 201 and continues into electrostatic forces, electric field concepts, electric potential, basic DC circuit concepts, magnetic interactions and forces, sources of magnetic fields and Faraday's Law. Lab addresses concepts and measurements in thermal physics and continues to explore the processes by which science seeks answers to questions. Meets the basic requirements for many pre-health and life science programs. Should be taken in sequence.

PH 203 General Physics III (5 Credits)
Studies periodic behavior and topics from modern physics. Builds on concepts from previous terms and considers the physics of periodic motion, mechanical waves, wave interference, standing waves, acoustic waves, electromagnetic waves, geometric optics, diffractions and topics from special relativity to quantum mechanics. Lab includes basic optical experiences along with a long-term project to affirm student abilities to integrate investigative lab concepts from previous terms. Meets the basic requirements for many pre-health and life science programs. Should be taken in sequence.

PH 211 General Physics I (5 Credits)
Recommended preparation: MTH 251.
Studies Newtonian Mechanics beginning with basic math concepts and continuing into kinematics, dynamics, uniform circular motion, energy, momentum, and rotational equivalents of some of these topics. At all stages, applications of calculus to the solving of problems will be explored. Lab addresses experiments and applied settings of Newtonian Mechanics along with explorations of diverse methods for analyzing and interpreting scientific data. Required for engineering students and most students planning programs in the physical sciences. Should be taken in sequence.

PH 212 General Physics II (5 Credits)
Recommended preparation: MTH 252 and PH 211.
Studies basic electrostatic and magnetic interactions. Builds on concepts from PH 211 and continues into electrostatic forces, electric field concepts, electric potential, basic DC circuit concepts, magnetic interactions and forces, sources of magnetic fields and Faraday's Law. At all stages, applications of calculus to the solving of problems will be explored. Lab addresses concepts and measurements in thermal physics and continues to explore the processes by which science seeks answers to questions. Required for engineering students and most students planning programs in the physical sciences. Should be taken in sequence.

PH 213 General Physics III (5 Credits)
Recommended preparation: MTH 253 and PH 212. Recommended to be taken with: MTH 256.
Studies periodic behavior and topics from modern physics. Builds on concepts from previous terms and considers the physics of periodic motion, mechanical waves, wave interference, standing waves, acoustic waves, electromagnetic waves, geometric optics, diffractions and topics from special relativity to quantum mechanics. At all stages, applications of calculus to the solving of problems will be explored. Lab includes basic optical experiences along with a long-term project to affirm student abilities to integrate investigative lab concepts from previous terms. Required for engineering students and most students planning programs in the physical sciences. Should be taken in sequence.

PH 288 Special Studies: Physics (1-4 Credits)
Explores topics of current interest in the physics discipline.

PH 298 Independent Study: Physics (1-4 Credits)
Prerequisites: Instructor approval required.
Recommended preparation: Prior coursework in the discipline.
Individualized, advanced study in [insert subject] to focus on outcomes not addressed in existing courses or of special interest to a student. P/NP grading.

PH 299 Selected Topics: Physics (1-5 Credits)
This course is in development.