

PHYSICS (PHYS)

PHYS G110 3 Units (54 lecture hours)

Conceptual Physics

Grading Mode: Standard Letter, Pass/No Pass

Transfer Credit: CSU; UC: Credit Limitation: No credit for PHYS G110, PHYS G111 if taken after PHYS G120 or PHYS G185.

This course is designed for non-science majors and considers the everyday applications of physics. It covers the subjects of motion, energy, waves, music, electromagnetism, relativity, and nuclear energy. It takes a non-mathematical approach to these basic physics concepts. Graded or Pass/No Pass option.

PHYS G111 1 Unit (54 lab hours)

Conceptual Physics Lab

Grading Mode: Standard Letter, Pass/No Pass

Transfer Credit: CSU; UC: Credit Limitation: No credit for PHYS G110, PHYS G111 if taken after PHYS G120 or PHYS G185.

This course is designed to supplement PHYS G110. The student will do laboratory exercises which illustrate some of the phenomena discussed in PHYS G110. Graded or Pass/No Pass option.

PHYS G120 4 Units (54 lecture hours; 54 lab hours)

Algebra Based Physics: Mechanics

Prerequisite(s): MATH G120 or achieve qualifying score on Math Placement.

Grading Mode: Standard Letter

Transfer Credit: CSU; UC: Credit Limitation: PHYS G120, PHYS G125 and PHYS G185, PHYS G280, PHYS G285 combined: maximum credit, 1 series - deduct credit for duplication of topics.

This course is an algebra/trigonometry based study of mechanics, heat, and sound. Topics include force, motion, energy, heat transfer, effects of heat, and the nature and properties of waves. Graded. **C-ID:** PHYS 105, 100S.

PHYS G125 4 Units (54 lecture hours; 54 lab hours)

Algebra Based Physics: Electricity/Magnetism

Prerequisite(s): PHYS G120.

Grading Mode: Standard Letter

Transfer Credit: CSU; UC: Credit Limitation: PHYS G120, PHYS G125 and PHYS G185, PHYS G280, PHYS G285 combined: maximum credit, 1 series - deduct credit for duplication of topics

This course is an algebra/trigonometry based study of electricity, magnetism, light, and modern physics. Topics include electric charges and fields, DC circuits, magnetic fields, electromagnetic induction, reflection, refraction, interference of light, quantum theory, matter waves, radioactivity, and nuclear reactions. Graded. **C-ID:** PHYS 110, 100S.

PHYS G185 4 Units (54 lecture hours; 54 lab hours)

Calculus Based Physics: Mechanics

Prerequisite(s): MATH G180 or achieve qualifying score on Math Placement.

Advisory: MATH G185.

Grading Mode: Standard Letter

Transfer Credit: CSU; UC: Credit Limitation: PHYS G120, PHYS G125 and PHYS G185, PHYS G280, PHYS G285 combined: maximum credit, 1 series - deduct credit for duplication of topics.

This course is an introduction to physics using calculus. Topics studied include vectors, motion, forces, energy, momentum, oscillators, and the properties of waves. Graded. **C-ID:** PHYS 205.

PHYS G280 4 Units (54 lecture hours; 54 lab hours)

Calculus Based Physics: Electricity/Magnetism

Prerequisite(s): MATH G185 and PHYS G185.

Grading Mode: Standard Letter

Transfer Credit: CSU; UC: Credit Limitation: PHYS G120, PHYS G125 and PHYS G185, PHYS G280, PHYS G285 combined – maximum credit, 1 series.

This course in calculus-based physics covers the topics of electric charge, electric fields, potential dielectrics, DC circuits, magnetic fields, magnetic forces, electromagnetic induction, electromagnetic oscillators, and waves. Graded. Deduct credit for duplication of topics. **C-ID:** PHYS 210.

PHYS G285 4 Units (54 lecture hours; 54 lab hours)

Calculus Based Physics: Modern

Prerequisite(s): MATH G185 and PHYS G185.

Grading Mode: Standard Letter

Transfer Credit: CSU; UC: Credit Limitation: PHYS G120, PHYS G125 and PHYS G185, PHYS G280, PHYS G285 combined: maximum credit, 1 series - deduct credit for duplication of topics.

This is a calculus based physics course including the topics of measurement of heat and temperature, effects of heat, kinetic theory of gases, thermodynamics, propagation of light, reflection, refraction, interference, diffraction, relativity, quantum theory and matter waves. Graded. **C-ID:** PHYS 215.