

# PHYSICS (PHY)

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## PHY 105 - Physics of the World Around Us

**Credit Hours: 4, Contact Hours: 5**

Division: Science Math

This course is an introduction to the fundamental principles developed to describe the physical universe. In particular, the subjects of mechanics, heat, electricity and magnetism, waves, and light are surveyed. The development of conceptual understanding and critical-thinking skills is emphasized. Group 1 lab course. Quantitative Reasoning.

Required Prerequisites: MTH 23

Recommended Prerequisites: ENG 111

Corequisites: PHY 105L

## PHY 105L - Physics/World Around Us Lab

**Credit Hours: 0, Contact Hours: 0**

Division: Science Math

See PHY 105 for course description.

Corequisites: PHY 105

## PHY 121 - General Physics I

**Credit Hours: 4, Contact Hours: 6**

Division: Science Math

This is the first course in a two semester sequence in General Physics. Topics include kinematics, Newton's Laws, conservation of momentum, conservation of energy, rotational motion, oscillations, and fluids.

The laboratory covers the preceding topics in parallel with the lecture whenever possible. The development of conceptual understanding and problem solving skills is emphasized. Group 1 lab course. Quantitative Reasoning.

Required Prerequisites: MTH 122

Recommended Prerequisites: ENG 111

Corequisites: PHY 121L

## PHY 121L - General Physics I Lab

**Credit Hours: 0, Contact Hours: 0**

Division: Science Math

See PHY 121 for course description.

Corequisites: PHY 121

## PHY 122 - General Physics II

**Credit Hours: 4, Contact Hours: 6**

Division: Science Math

This course is a continuation of PHY 121. Topics include thermodynamics, waves, electricity, electric circuits, magnetism, and optics. The laboratory covers the preceding topics in parallel with the lecture whenever possible. The development of conceptual understanding and problem solving skills is emphasized. Group 1 lab course. Quantitative Reasoning.

Required Prerequisites: PHY 121, PHY 121L, MTH 122

Recommended Prerequisites: ENG 111

Corequisites: PHY 122L

## PHY 122L - General Physics II Lab

**Credit Hours: 0, Contact Hours: 0**

Division: Science Math

See PHY 122 for course description.

Corequisites: PHY 122

## PHY 221 - Problems & Princ. of Physics I

**Credit Hours: 4, Contact Hours: 5**

Division: Science Math

This course is the first semester of a two-semester course sequence primarily intended for those students preparing for engineering, science, or math careers. Topics include kinematics, Newton's Laws, conservation of momentum, conservation of energy, rotational motion, oscillations, and fluids. The development of conceptual understanding and problem-solving skills are emphasized. Computers are used for data acquisition and analysis. The laboratory covers the preceding topics in parallel with the lecture whenever possible. Group 1 lab course. Quantitative Reasoning.

Required Prerequisites: MTH 141, may be taken concurrently

Recommended Prerequisites: ENG 111

Corequisites: PHY 221L, PHY 221R

## PHY 221L - Prob./Prin. of Physics I Lab

**Credit Hours: 0, Contact Hours: 0**

Division: Science Math

See PHY 221 for course description.

Corequisites: PHY 221, PHY 221R

## PHY 221R - Prob.& Princ. of Physics I Rec

**Credit Hours: 1, Contact Hours: 2**

Division: Science Math

This course is a recitation to accompany lecture PHY 221. Group 1 course.

Corequisites: PHY 221, PHY 221L

## PHY 222 - Prob. & Princ. of Physics II

**Credit Hours: 4, Contact Hours: 5**

Division: Science Math

This course is a continuation of PHY 221. Topics include thermodynamics, waves, electricity, electric circuits, magnetism and optics. The laboratory covers the preceding topics in parallel with the lecture whenever possible. The development of conceptual understanding and problem solving skills is emphasized. Group 1 lab course. Quantitative Reasoning.

Required Prerequisites: PHY 221, PHY 221L, PHY 221R, MTH 141

Recommended Prerequisites: ENG 111

Corequisites: PHY 222L, PHY 222R

## PHY 222L - Prob./ Prin. of Physics II Lab

**Credit Hours: 0, Contact Hours: 0**

Division: Science Math

See PHY 221/222 for course description.

Corequisites: PHY 222, PHY 222R

## PHY 222R - Prob. & Princ. of Physics II R

**Credit Hours: 1, Contact Hours: 2**

Division: Science Math

This course is a recitation class to accompany PHY 222. Group 1 course.

Corequisites: PHY 222, PHY 222L