

PHYSICS (PHY)

PHY-201: General Physics I (4 Credits)

Pre-requisite(s): MTH-191 or MTH-195 is required.

Co-requisite(s): PHY-201L is required.

This is the first course of a two-semester sequence. This calculus-based course is designed primarily for those majoring in the life sciences. This course is appropriate for preparation for the health professions. Topics include mechanics, waves, heat and thermodynamics using examples germane to the life sciences. Laboratory sessions illustrate principles studied and meaning of physical measurement.

Fulfills Core Requirement in Natural Sciences.

Theme: Engaging Creative, Aesthetic and Spiritual Experience.

Lab Fee: \$150.00

PHY-201L: General Physics I Lab (0 Credits)

Co-requisite(s): PHY-201 is required.

An integrated lecture/laboratory course designed to teach students fundamental laboratory techniques and measurements in Physics. Experiments include Determination of earth's gravitational acceleration, g, using an Incline, Projectile motion using photogates and projectile launchers, Verification of Newton's second law using the Atwood Machine, Studying the law of conservation of energy using the ballistic pendulum, Buoyancy and density of liquids, Understanding of Kepler's laws for planetary motion.

PHY-201R: General Physics I Recitation (0 Credits)

Co-requisite(s): PHY-201 and PHY-201L are required.

In all the chapters covered, ranging from Classical Mechanics to Electricity, Magnetism and Optics, there are review problems for every chapter that are posted in the course canvas page. These problems are discussed every week in small Peer led team learning (PLTL) groups during recitation class to foster a clear understanding of the course material.

PHY-202: General Physics II (4 Credits)

Pre-requisite(s): PHY-201 is required.

Co-requisite(s): PHY-202L is required.

This is the second course of a two-semester sequence. This calculus-based course is designed primarily for those majoring in the life sciences. This course is appropriate for preparation for the health professions. Topics include electricity and magnetism, optics, and a brief introduction to atomic and nuclear physics.

Fulfills Core Requirement in Natural Sciences.

Theme: Engaging Creative, Aesthetic and Spiritual Experience.

Course Fee: \$150.00

PHY-202L: General Physics II Lab (0 Credits)

Co-requisite(s): PHY-202 is required.

An integrated lecture/laboratory course designed to teach students fundamental laboratory techniques and measurements in Physics. Experiments include Verification of Ohm's law, Understanding DC circuits involving resistances in series and parallel connections, RC circuits: Charging and Discharging a capacitor, Measuring the magnetic field of Earth, Electromagnetic Induction, Lens and mirrors in optics, Understand Interference and Diffraction of light.

PHY-202R: General Physics II Recitation (0 Credits)

Co-requisite(s): PHY-202 and PHY-202L are required.

In all the chapters covered, ranging from Classical Mechanics to Electricity, Magnetism and Optics, there are review problems for every chapter that are posted in the course canvas page. These problems are discussed every week in small Peer led team learning (PLTL) groups during recitation class to foster a clear understanding of the course material.

PHY-205: Principles of Physics I (4 Credits)

Pre-requisite(s): MTH-195 and MTH-196 are required.

Co-requisite(s): PHY-205L and PHY-205R are required.

This is the first course of a two-semester sequence. It provides an introduction to physics using calculus throughout. Open to majors in science, mathematics and those prepared with both Calculus I and II. Required for Chemistry and Mathematics majors. This course is appropriate for preparation for the health professions. Topics include Newtonian mechanics, oscillations and waves, heat and thermodynamics. Laboratory sessions illustrate principles studied and meaning of physical measurement.

Fulfills Core Requirement in Natural Sciences.

Theme: Engaging Creative, Aesthetic and Spiritual Experience.

Lab Fee: \$150.00

PHY-205L: Principles of Physics I Lab (0 Credits)

Co-requisite(s): PHY-205 is required.

An integrated lecture/laboratory course designed to teach students fundamental laboratory techniques and measurements in Physics. Experiments include Determination of earth's gravitational acceleration, g, using an Incline, Projectile motion using photogates and projectile launchers, Verification of Newton's second law using the Atwood Machine, Studying the law of conservation of energy using the ballistic pendulum, Buoyancy and density of liquids, Understanding of Kepler's laws for planetary motion.

PHY-205R: Principles of Physics I Recitation (0 Credits)

Co-requisite(s): PHY-205 and PHY-205L are required.

In all the chapters covered, ranging from Classical Mechanics to Electricity, Magnetism and Optics, there are review problems for every chapter that are posted in the course canvas page. These problems are discussed every week in small Peer led team learning (PLTL) groups during recitation class to foster a clear understanding of the course material.

PHY-206: Principles of Physics II (4 Credits)

Pre-requisite(s): PHY-205 is required.

Co-requisite(s): PHY-206L and PHY-206R are required.

This is the second course of a two-semester sequence. It provides an introduction to physics using calculus throughout. Open to majors in any science, mathematics and those prepared with both Calculus I and II. Required for Chemistry and Mathematics majors. This course is appropriate for preparation for the health professions. Topics include electricity and magnetism, geometrical and physical optics, and a brief introduction to concepts of quantum, atomic and nuclear physics. Laboratory sessions illustrate principles studied and meaning of physical measurement.

Fulfills Core Requirement in Natural Sciences.

Theme: Engaging Creative, Aesthetic and Spiritual Experience.

Course Fee: \$150.00

PHY-206L: Principles of Physics II Lab (0 Credits)

Co-requisite(s): PHY-206 is required.

An integrated lecture/laboratory course designed to teach students fundamental laboratory techniques and measurements in Physics. Experiments include Verification of Ohm's law, Understanding DC circuits involving resistances in series and parallel connections, RC circuits: Charging and Discharging a capacitor, Measuring the magnetic field of Earth, Electromagnetic Induction, Lens and mirrors in optics, Understand Interference and Diffraction of light.

PHY-206R: Principles of Physics II Recitation (0 Credits)

Co-requisite(s): PHY-206 and PHY-206L are required.

In all the chapters covered, ranging from Classical Mechanics to Electricity, Magnetism and Optics, there are review problems for every chapter that are posted in the course canvas page. These problems are discussed every week in small Peer led team learning (PLTL) groups during recitation class to foster a clear understanding of the course material.