UNDERGRADUATE COURSES OF STUDY

PHYSICS

PHYS 101.SURVEY OF INTRODUCTORY PHYSICS

This course provides an overview of concepts in physics for non-science majors examining topics such as classical mechanics, electromagnetic theory, thermodynamics, wave theory, and modern physics. Three hours lecture weekly, three hours lab weekly. (General Education – Scientific and Mathematical Reasoning) ***Four credit hours.***

PHYS 105.CONCEPTUAL PHYSICS

This course provides an overview of concepts in physics for non-science majors, examining topics such as classical mechanics, electromagnetic theory, thermodynamics, wave theory, and modern physics. Three hours lecture weekly. (General Education – Scientific and Mathematical Reasoning, non-laboratory science course) ***Three credit hours.***

PHYS 201.INTRODUCTORY PHYSICS I

Non-calculus coverage of the fundamental principles of physics and their applications. Topics include mechanics, energy, momentum, kinematics, and Newton's Laws. Three hours lecture, three hours laboratory weekly. Prerequisite: MATH 121, MATH 123, or MATH 141. (General Education – Scientific and Mathematical Reasoning) ***Four credit hours.***

PHYS 202.INTRODUCTORY PHYSICS II

Non-calculus coverage of the fundamental principles of physics and their applications. Topics include heat, waves, electricity, magnetism, and atomic and nuclear physics. Three hours lecture, three hours laboratory weekly. Prerequisite: "C" or better in PHYS 201. (General Education – Scientific and Mathematical Reasoning) ***Four credit hours.***

PHYS 203.ELECTRONICS

A study of impedance, admittance, resonance, circuit elements, integrated circuits, and mathematical models. Students build and analyze circuits involving these components in various applications, including amplifiers, oscillators, power supplies, counting and timing circuits, and digital circuits. Three hours lecture, three hours laboratory weekly. Prerequisite: MATH 114, MATH 121, MATH 141 or equivalent. (General Education – Scientific and Mathematical Reasoning) ***Four credit hours.***

PHYS 211.GENERAL PHYSICS I

An introductory calculus-based coverage of the fundamental principles of physics and their applications. Topics include mechanics, energy, momentum, kinematics, and Newton's Laws. Three hours lecture, three hours laboratory weekly. Prerequisite: MATH 142. (General Education – Scientific and Mathematical Reasoning) ***Four credit hours.***

PHYS 212.GENERAL PHYSICS II

An introductory calculus-based coverage of the fundamental principles of physics and their applications. Topics include heat, waves, electricity, magnetism, and atomic and nuclear physics. Three hours lecture, three hours laboratory weekly. Prerequisite: "C" or better in PHYS 211. (General Education – Scientific and Mathematical Reasoning) ***Four credit hours.***

PHYS 305.SPECIAL STUDIES

Studies in physics on special topics for juniors and seniors. Prerequisite: instructor permission. ***One to four credit hours***.

PHYS 314.FLUIDS AND HEAT TRANSFER

General principles of chemical engineering and the study of fluid flow, fluid transportation, and heat transmission. Special emphasis is placed on theory and its practical application to design. Three hours lecture, two hour laboratory weekly. Prerequisite: CHEM 351. ***Four credit hours.***