PHYSICS

PHY 1020, Basic Concepts of Physics Basic Concepts of Physics

3 hrs., 3 crs.,

(Offered fall and spring). This is a basic overview course presenting physics concepts with a minimum emphasis on mathematics. As a conceptual course, it is designed to help students develop a clear and logical understanding of the fundamental physics principles to include motion, gravity, vectors, momentum, energy, vibrations, waves, heat and thermodynamics. Further, it will include practical examples that demonstrate the role of physics in other disciplines.

PHY 1023, Survey of General Physics Survey of General Physics

3 hrs., 3 crs.,

(Offered fall, spring, and summer). Prerequisite: MAC1140, MAC1114. A conceptual approach to physics with emphasis on problem solving. This course is designed for students who plan to take PHY 2048 and have had no previous physics course.

PHY 1023H, Honors Survey of General Physics Honors Survey of General Physics

3 hrs., 3 crs.,

(Offered fall, spring, and summer). Prerequisite: MAC1140, MAC1114. A conceptual approach to physics with emphasis on problem solving. This course is designed for students who plan to take PHY2048 and have had no previous physics course.

PHY 2048, University Physics I University Physics I

4 hrs., 4 crs.,

(Offered fall and spring). Prerequisites: MAC2311, PHY1023 or equivalent. Corequisites: MAC2312, PHY2048L. This calculus-based course serves as the first in a two-part series, covering topics like kinematics, dynamics, energy, momentum, rotational motion, fluid dynamics, oscillatory motion, and waves. Designed for science and engineering majors, the course integrates critical thinking, analytical skills, and real-world applications.

PHY 2048H, Honors University Physics I Honors University Physics I

4 hrs., 4 crs.,

(Offered fall and spring). Prerequisites: MAC2311, PHY1023 or equivalent. Corequisites: MAC2312, PHY2048L. This calculus-based course serves as the first in a two-part series, covering topics like kinematics, dynamics, energy, momentum, rotational motion, fluid dynamics, oscillatory motion, and waves. Designed for science and engineering majors, the course integrates critical thinking, analytical skills, and real-world applications.

PHY 2048L, University Physics I Laboratory University Physics I Laboratory

3 hrs., 1 cr.,

\$5.00 lab fee. (Offered fall and spring). Corequisite: PHY2048 or consent of instructor. Investigation of lecture-related materials with an emphasis on the relationship of theoretical concepts to realistic measurements.

PHY 2049, University Physics II University Physics II

4 hrs., 4 crs.,

(Offered fall and spring). Prerequisites: PHY2048, MAC2312. Corequisite: PHY2049L. A continuation of PHY2048 involving selected topics from sound, thermodynamics, optics, electricity, and magnetism.

PHY 2049L, University Physics II Laboratory University Physics II Laboratory

3 hrs., 1 cr.,

\$5.00 lab fee. (Offered fall and spring). Corequisite: PHY2049 or consent of instructor. A continuation of PHY2048L.

PHY 2053, College Physics I College Physics I

3 hrs., 3 crs.,

(Offered fall). Prerequisite: MAC1140, MAC1114. Corequisite: PHY2053L. This course is the first in a two-part series intended for non-physics majors, offering an algebra and trigonometry approach to topics such as kinematics, dynamics, energy, momentum, rotational motion, fluid dynamics, oscillatory motion, and waves. The course fosters analytical and critical thinking skills to promote a scientific understanding of the real world.

PHY 2053L, College Physics I Laboratory College Physics I Laboratory

2 hrs., 1 cr.,

\$5.00 lab fee. (Offered fall). Corequisite: PHY2053 or consent of instructor. Laboratory work involves investigation of lecture-related materials and alternative approaches to problem solving.

PHY 2054, College Physics II College Physics II

3 hrs., 3 crs.,

(Offered spring). Prerequisite: PHY2053. Corequisite: PHY2054L. A continuation of PHY2053 involving selected topics from mechanics, wave motion, sound, optics, electricity, magnetism, and atomic physics.

PHY 2054L, College Physics II Laboratory College Physics II Laboratory

2 hrs., 1 cr.,

\$5.00 lab fee (Offered spring). Corequisite: PHY2054 or consent of instructor. A continuation of PHY2053L.

PHY 2949, COOP/Work Experience/Physics COOP/Work Experience/Physics 1 hr., 1 cr.,

1-3 crs. Cooperative Education courses may be taken toward completion of most of the Associate in Arts and Associate in Science degree programs. A maximum of six credit hours may be used in meeting the A.A. degree requirements. Prerequisite: Minimum of 2.0 GPA, meet with the co-op coordinator, and availability of co-op work experience slot. Supervised, practical work experience that seeks to combine theories and apply practical skills to projects in the student?s major field of study. Requirements include online weekly, mid-term, and end-of-term reflection assignments.