PHYSICAL SCIENCE (PHS)

PHS 101
INTRODUCTION TO THE PHYSICAL SCIENCES
3 UNITS

Grade Only
Recommended Preparation: Elementary algebra proficiency, as determined through the Southwestern College Multiple Measures Process; RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Lecture 3 hours
Offered: FALL, SPRING
Introduces basic physics and chemistry with emphasis on the understanding and significance of accepted fundamental principles. Explores contemporary issues such as energy production versus environmental problems as well as the methods, limitations, and societal implications of scientific advancement. [D; CSU; UC]

PHS 101L
INTRODUCTION TO PHYSICAL SCIENCE LABORATORY
1 UNIT

Pass/No Pass or Grade is Allowed
Corequisite: PHS 101 (may be taken previously).
Laboratory 3 hours
Offered: ALL
Introduces basic physics and chemistry with an emphasis on the understanding and significance of accepted fundamental principles. Provides laboratory exercises to solidify concepts learned in the Introduction to Physical Sciences lecture course. [D; CSU; UC]

PHS 110
INTRODUCTION TO OCEANOGRAPHY
3 UNITS

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Lecture 3 hours
Offered: FALL, SPRING
Introduces the physical, chemical, biological, and geological foundations of the global ocean system. [D; CSU; UC] (Same as: GEOL 110;GEOG 110)

PHS 111
OCEANOGRAPHY LABORATORY
1 UNIT

Grade Only
Corequisite: PHS 110, GEOG 110, or GEOL 110 (may be taken previously).
Laboratory 3 hours
Offered: ALL
Provides a laboratory setting for students to become familiar with the physical, chemical, biological, and geological foundations of the oceanic environment. [D; CSU; UC]

PHS 154
INTRODUCTION TO REMOTE SENSING
3 UNITS

Pass/No Pass or Grade is Allowed
Recommended Preparation: Intermediate algebra proficiency, as determined through the Southwestern College Multiple Measures Process; RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Lecture 3 hours
Offered: FALL
Introduces fundamental concepts of electromagnetic radiation and its interactions with various media. Explores commonly used sensors and techniques of remote sensing. [D] (Same as: GEOG 154)

PHS 155
INTRODUCTION TO IMAGE ANALYSIS
3 UNITS

Pass/No Pass or Grade is Allowed
Lecture 3 hours
Offered: SPRING
Introduces principal concepts related to processing, analysis, enhancement, correction, and interpretation of images. Includes photogrammetry, information extraction, and scientific visualization. [D] (Same as: GEOG 155)

PHS 290
WORK EXPERIENCE IN PHYSICAL SCIENCES
2-4 UNITS

Grade Only
Recommended Concurrent Enrollment: Enrollment in one other class directly related to a major within the Physical Sciences Department in order to apply learned theory in a practical hands-on setting through an internship class.
Limitation on Enrollment: Declared major within the Physical Sciences Department or within a related Field of Study.
Laboratory 12 hours
Offered: ALL
Introduces principles and skills acquired in Physical Sciences majors to on-the-job assignments. One unit of credit is granted for every 54 hours of work experience. Credit may be accrued at the rate of 2 to 4 units per semester for a maximum of fourteen units. The job supervisor and instructor will evaluate each student's job performance. [D; CSU]

PHS 299
INDEPENDENT STUDY
1-3 UNITS

Pass/No Pass or Grade is Allowed
Limitation on Enrollment: Eligibility for independent study.
Lecture 3 hours
Offered: ALL
Individual study or research in some area of physical science of particular interest to the student and not included in regular courses of the college. [D; CSU]