

COURSE INFORMATION

NATURAL SCIENCE COURSES

NS 101 INTRODUCTION TO PHYSICAL SCIENCE

AS REQUIRED

3 credit hours

This is a survey course in Astronomy, Physics and Science Measurements. It consists of three hours of lecture per week. The lab, NS101L, **MUST** be taken concurrently.

Prerequisite: MA085 a-b or MA089 or equivalent.

Corequisite: NS101L.

NS 101L INTRODUCTION TO PHYSICAL SCIENCE LABORATORY

AS REQUIRED

1 credit hour

NS101L is the laboratory portion of NS101 and **MUST** be taken concurrently. The course consists of one three-hour laboratory per week. Corequisite: NS101.

NS 102 INTRODUCTION TO PHYSICAL SCIENCE

AS REQUIRED

3 credit hours

This is a survey course in Geology, Chemistry, and Special Topics in Science. It consists of three hours of lecture per week. The lab, NS102L, **MUST** be taken concurrently.

Prerequisite: MA085 a-b or MA089 or equivalent.

Corequisite: NS102L.

NS 102L INTRODUCTION TO PHYSICAL SCIENCE LABORATORY

AS REQUIRED

1 credit hour

NS102L is the laboratory portion of NS102 and **MUST** be taken concurrently. The course consists of one three-hour laboratory per week. Corequisite: NS102.

NS 110 INTRODUCTION TO THE EARTH

AS REQUIRED

3 credit hours

This course is a basic study of the earth's minerals, rocks and natural resources and the processes, which have shaped the earth's surface such as sedimentation, mountain building, and erosion by water, wind, ice and downslope movements. Major focus is placed on the roles of volcanism, earthquakes, sea-floor spreading and paleomagnetism in explaining plate tectonic theory. The importance of geological hazards to man's activities is investigated. It consists of three hours of lecture per week. The lab, NS110L, **MUST** be taken concurrently. Corequisite: NS110L.

NS 110L INTRODUCTION TO THE EARTH LABORATORY

AS REQUIRED

1 credit hour

NS110L is the laboratory portion of NS110 and **MUST** be taken concurrently. The lab includes mineral and rock identification, modeling of Earth structures, interpretation of field sites, and map interpretation. The course consists of one three-hour lab/field trip per week. Corequisite: NS110.

NS 112 HISTORY OF THE EARTH

AS REQUIRED

3 credit hours

This course offers a fundamental view of the geologic history of the earth, including its origin, physical development, and evolution of life as revealed in the fossil record. Interrelationships between physical and biological events are stressed. Emphasis is placed on the principles and methods used by geologists to unravel earth history. The geologic history of the Mariana Arc and the western Pacific, associated with field trips on Guam, is included. It consists of three hours of lecture per week. The lab, NS112L, MUST be taken concurrently. Prerequisites: EN110. NS110-110L Introduction to the Earth is recommended. Corequisite: NS112L.

NS 112L HISTORY OF THE EARTH LABORATORY

AS REQUIRED

1 credit hour

NS112L is the laboratory portion of NS112 and MUST be taken concurrently. The lab includes analysis of sedimentary environments, fossil identification, interpretation of field sites, and geologic map interpretation. The course consists of one three-hour lab/field trip per week. Corequisite: NS112.

NS 230 INTRODUCTION TO ASTRONOMY

AS REQUIRED

3 credit hours

This introduction to astronomy covers topics relating to the solar system, the galaxy, stellar evolution, and cosmology. It consists of three hours of lecture per week. The lab, NS230L, MUST be taken concurrently. Prerequisite: MA110.

NS 230L INTRODUCTION TO ASTRONOMY LABORATORY

AS REQUIRED

1 credit hour

NS230L is the laboratory portion of NS230 and MUST be taken concurrently. The course consists of one three-hour laboratory period per week. Corequisite: NS230.

NS 330 METEOROLOGY

AS REQUIRED

3 credit hours

This is a course in atmospheric phenomena, methods and investigation, some of the methods of obtaining data and predictive weather, and an introduction to possible means of weather control. It consists of three hours of lecture per week. The lab, NS330L, MUST be taken concurrently. Prerequisite: One year of university level physical science drawn from courses in chemistry and/or physics or consent of instructor. Corequisite: NS330L.

NS 330L METEOROLOGY LABORATORY

AS REQUIRED

1 credit hour

NS330L is the laboratory portion of NS330 and MUST be taken concurrently. The course consists of one three-hour laboratory period per week. Corequisite: NS330.

NS 355 TOPICS IN GEOLOGY

AS REQUIRED

3 credit hours

This course offers studies of selected topics in advanced geology, such as environmental geology, structures and plate tectonics, mineralogy, petrology, hydrology etc. With different subject matter, this course may be repeated for credit. The course involves three hours of classroom study per week. The lab, NS355L, MUST be taken concurrently for some topics, to be specified. Prerequisites: NS110-110L or NS112-112L or consent of instructor. Corequisite: NS355L (for some topics).

NS 355L TOPICS IN GEOLOGY LABORATORY

AS REQUIRED

1 credit hour

NS355L is the laboratory portion of NS355 and MUST be taken concurrently for some topics. The course consists of one three-hour laboratory/field trip per week. Corequisite: NS355.



NS 380 PRINCIPLES OF SOIL SCIENCE

FALL ONLY/ALL YEARS

3 credit hours

This course delves into the basic principles of the fundamentals of the chemical, physical, and biological properties of soils; their formation, fertility, and management, and the effects of inorganic and organic chemicals on soil processes and properties as they relate to environmental pollution. Two hours of lecture, one-hour recitation and three hours laboratory weekly. Prerequisites: MA115 or higher and any two chemistry courses.

NS 380L PRINCIPLES OF SOIL SCIENCE LABORATORY

FALL ONLY/ALL YEARS

1 credit hour

This course is a corequisite of AL/NS380 and must be taken concurrently. The course meets for three hours of laboratory weekly. Prerequisites: MA115 or higher and any two chemistry courses.

NS 392 LABORATORY TEACHING AND ASSISTING

AS REQUIRED

1 - 3 credit hours

This course provides for practical educational experience in undergraduate course laboratories. It may be taken more than once for credit. Prerequisites: Completion of the course in which the laboratory is offered, or of an equivalent course and consent of instructor.

NS 491 SEMINAR

AS REQUIRED

1 credit hour

This course is based on discussion of current problems, discoveries, and trends in the physical sciences, based primarily on student reviews of pertinent literature. May be taken more than once for credit with consent of program faculty. Prerequisite: Upper division standing and consent of program faculty.

NS 495 SENIOR THESIS

AS REQUIRED

3 credit hours

This course offers preparation of a thesis based on field and/or laboratory investigation of a subject chosen by the student from the physical sciences and approved by the Physical Science faculty. Although the thesis shall emphasize physical science, it may be interdisciplinary and involve engineering, biology, geography, etc. It is generally undertaken in the senior year but may be started in the junior year. Eligibility for this course is based on consultation with the faculty advisor. An oral presentation by the student is also required.