

COURSES

GEOLOGY (Geol)**1. Physical Geology (4)**

Processes and materials which together produce the different topographic and geologic features of the earth. Plate tectonic theory (including continental drift) as the unifying model to explain geologic phenomena. Effects of geology on man. (3 lecture, 3 lab hours)

2. Evolution of Life and Continents (3)

Prerequisite: Geol 1. Origin and evolution of the earth as revealed by the rock record and by fossil remains. Special emphasis on the evolution of life and on the physical development of North America. May include field trips.

2L. Evolution of Life and Continents Laboratory (1)

Prerequisite: Geol 1, 2 (concurrently) or permission of instructor. Introductory laboratory study of geologic time, geologic maps, regional geology and regional geologic history. (3 lab hours)

3. Introductory Field Studies (1)

Prerequisite: Geol 1 (concurrently) or permission of instructor. Weekend supervised field trips to areas such as Yosemite, Sequoia, San Joaquin Valley and the Coast Ranges.

12. Mineralogy (3)

Geol 13 concurrent in the geology major. Prerequisite: high school chemistry. Properties, relationships, origin of minerals; determination of common minerals by chemical and other tests. May include field trips. (2 lecture, 3 lab hours)

13. Crystallography (2)

Prerequisite: high school chemistry, trigonometry. Form and structure of crystals. (1 lecture, 3 lab hours)

15. The Earth and its History (5)

Portion of *Man and the Natural Environment* Cluster (see p. 287). Physical and historical geology, including man's use of the earth and the impact of that use on the earth. Lecture, lab, and field work.

100. Optical Mineralogy (3)

Prerequisite: Geol 13 or permission of instructor. Optical properties of minerals; identification of selected minerals by optical methods. Manipulation and use of petrographic microscope. (2 lecture, 3 lab hours)

101. Petrology (4)

Prerequisite: Geol 1, 12, 13, 100 (or concurrently with permission of instructor). Common rock-forming minerals; origin, classification, textures, and structures of igneous, sedimentary, and metamorphic rocks; examination of rocks in hand specimen and thin section. (3 lecture, 3 lab hours)

104. Scientific Writing (1)

Organization of the scientific paper, involving concise and logical presentation of data. Topics include analyses of abstract writing, bibliographical format; and scientific styles regarding punctuation and footnotes, preparation of illustrations. (3 lab hours)

105. Geomorphology (3)

Prerequisite: Geol 1, or permission of instructor. Land forms, climates, geologic processes and their interrelation in shaping the earth's surface today and in the geologic past. Interpretation of topographic maps and aerial photographs. May include field trips. (2 lecture, 3 lab hours)