GENETICS

College of Natural Science

804. Genetics Seminar
Fall, Winter, Spring. [1-0] May reenroll for a maximum of 12 credits. Approval of instructor.

Student seminar to cover genetics subjects not considered in formal courses. Course is also intended to give students experience in reviewing and organizing literature in a subject, and orally presenting and defending the analysis.

805. Gene Transmission
(801.) Fall. 3(3-0) ZOL 441 or approval of instructor.

Molecular and formal genetic studies of the replication, recombination, repair and segregation of genetic information in procaryotes and eucaryotes. Experimental design and methodology will be emphasized.

806. Genetic organization, Action and Regulation
(803.) Winter. 3(3-0) GEN 804.

Molecular and formal genetic studies of the organization, expression and regulation of gene activity in procaryotes and eucaryotes. Experimental design and methodology will be emphasized.

808. Population and Quantitative Genetics
(802.) Spring. 3(3-0) ZOL 441 or approval of instructor.

Genetics of quantitative characteristics in populations with special reference to polygenic variation and its interactions with environment, gene action and its measurement, mating systems, and selection.

880. Special Problems
Fall, Winter, Spring, Summer. 1 to 4 credits. May reenroll for a maximum of 12 credits. Approval of instructor.

Students with special interests and abilities may study published literature in a selected genetics topic or they may carry on research in the laboratory on a selected subject in collaboration with genetics faculty.

999. Research
Fall, Winter, Spring, Summer. 3 to 12 credits. Majors.

Research for the doctoral dissertation in genetics.

GEOPHYSICS

GEODESY

College of Social Science

Courses are classified as follows:

- Cultural—170, 201, 494, 801, 801.
- Field Techniques—415, 850.
- Geophysics Education—458, 858.
- Historical—319, 810, 910.
- Medical—470, 870, 970.
- Political—170, 415, 905.
- Population—215, 830, 836, 934.
- Quantitative Methods—427, 428, 811.
- Recreational and Environmental—100, 307, 309, 828.
- Theory and Philosophy—150, 290, 425, 480, 826, 827.
- Urban—318, 401, 402, 403, 466, 805.
- Winter, Spring, 3(3-0)

100. Man, Location and Environment
Winter, Spring, 3(3-0)

Concepts, theory, and methods of modern geography.

122. The World of Maps
(222.) Fall. 3(3-0)

Discussion of types, practical applications, and sources of maps.

150. Geography of Selected Current Problems
Winter, 2(2-0)

The geographic perspective is used to examine U.S. and world problems of major concern such as international conflicts, environment quality, spatial change, and economic development.

160. World Regional Geography
Fall, Winter, Spring, 4(4-0)

A systematic discussion of cultural geography, stressing cultural processes and relationships.

200L. Physical Geography Laboratory
Fall, Winter, Spring. 1(0-2) GEO 206 or concurrently.

Laboratory study of geographic aspects of map interpretation, aerial photographs, weather, climate, soils, landforms, and vegetation.

IDC. Introduction to Latin America
For course description, see Interdisciplinary Courses.

213. World Economic Geography
Fall, Winter, Spring, Summer. 4(4-0)

Emphasis on distribution of natural resources, industries and service activities, stressing factors of location and economic concepts of locational change.

215. World Food Issues
Spring, 3(3-0) Interdepartmental with Food Science.

Food resources as related to world distributions of population, soil, water, and minerals. Special attention to urbanization, irrigation, and future food needs and global constraints.

223. Introduction to Cartography
Fall, Winter, Spring, 4(2-4)

Principles and techniques of constructing maps and other graphic devices. Types of map reproduction.

227. Remote Sensing: Airphoto Interpretation
(324.) Fall, Winter, 4(2-4) Sophomore.

Use of aerial photographs in the identification and interpretation of physical and cultural features of the terrestrial environment. Includes principles of photogrammetry, and stresses application and practice.

250. Perspectives on Geography
Spring, 2(2-0)

Introduction to the profession of geography for majors.

300. North America
Fall, Winter, Summer. 4(3-0)

Human and physical geography of North America, north of the Mexican border.

307. Geography of Environmental Quality
Spring, 4(3-0) Sophomore or approval of department.

Identification of the physical, cultural and psychological factors which constitute human environments, and how they vary and may be modified or controlled.

309. Geography of Recreation
Winter, 3(3-0)

Natural and cultural factors influencing the use of space for recreation. Emphasis on recreation land use in the United States and current problems and conflicts.

313. Historical Geography of the United States
Spring, Summer, 4(2-0)

Reconstruction of geography of the United States as they existed in the past.

315. South America
(405.) Fall, Spring. 4(3-0) Sophomore or approval of department.

Regional geography of South America with special attention to contemporary geographic problems.