

## Descriptions - FORESTRY

of

### Courses

999. **Doctoral Dissertation Research**  
Fall, Winter, Spring, Summer.  
Variable credit. Approval of department.

## FRENCH

See Romance and Classical Languages.

## GENETICS

## GEN

### College of Natural Science

800. **Genetics Seminar**  
Fall, Winter, Spring, 1(1-0) May  
reenroll for a maximum of 12 credits. Approval  
of director.

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.

804. **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.

805. **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.

806. **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.

890. **Selected Topics in Genetics**  
Fall, Winter, Spring, Summer, 2 to 5  
credits. May reenroll for a maximum of 9  
credits. ZOL 441 and approval of instructor.

Topics will be selected from molecular genetics, physiological genetics, population genetics, quantitative genetics, evolution, radiology and mutagenesis, microbial genetics, somatic cell genetics, behavioral genetics, and human genetics.

A-92

999. **Doctoral Dissertation Research**  
Fall, Winter, Spring, Summer, 3 to 12  
credits. Majors.  
Research for the doctoral dissertation in genetics.

## GEOGRAPHY

## GEO

### College of Social Science

Courses are classified as follows:

Cultural—170, 201, 801, 901.  
Economic—213, 409, 412, 413, 435, 454, 806,  
809, 835, 906.6, 818, 899, 918, 999.  
Medical—470, 870, 970.  
Physical—206, 206L, 429, 430, 431, 432, 451,  
834, 902.  
Political—170, 416, 908.  
Population—215, 320, 836, 934.  
Quantitative Methods—427, 428, 811.  
Regional—204, 300, 315, 316, 319, 321, 322,  
340, 342, 350, 360, 361, 362, 363, 364, 812, 912.  
Recreational and Environmental—100, 307,  
309, 828.  
Theory and Philosophy—150, 280, 425, 480,  
825, 826, 827.  
Urban—318, 401, 402, 403, 466, 805.  
Visual Media and Techniques—122, 223, 224,  
424, 426, 446.

100. **Man, Location and Environment**  
Fall, Winter, Spring, 3(3-0)  
Concepts, theory, and methods of modern  
Geography.

122. **The World of Maps**  
Fall, Spring, 3(3-0)  
Discussion of types, practical applications, and  
sources of maps.

150. **Geography of Selected Current Problems**  
Fall, Winter, Spring, 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.

170. **Future Worlds (S)**  
Fall, Spring, Summer, 3(3-0)  
Geographical approach to environmental,  
biological, economic, social and political  
problems facing mankind between now and year  
2000.

- IDC. **Resource Ecology and Man**  
For course description, see  
Interdisciplinary Courses.

201. **Geography of Culture**  
Fall, Winter, Spring, Summer, 4(3-0)  
A systematic discussion of cultural geography,  
stressing cultural processes and relationships.

204. **World Regional Geography (S)**  
Fall, Winter, Spring, Summer, 4(4-0)  
Man's relationship with natural and cultural  
environments.

206. **Physical Geography**  
Fall, Winter, Spring, Summer, 4(4-0)  
Analysis of weather, climate, landforms, soils,  
water and biotic factors of man's environment,  
including their spatial, genetic, and functional  
interrelationships.

- 206L. **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 I**  
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, fuel 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.

224. **Remote Sensing: Airphoto Interpretation**  
Fall, Winter, 4(2-4) Sophomores.  
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.

- IDC. **Continuing Revolution in China: Problems and Approaches**  
For course description, see  
Interdisciplinary Courses.

280. **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) Sophomores 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.