

Mathematics 16A, 16B or Mathematics 17A, 17B or Mathematics 21A, 21B	6-8
Plant Sciences 21	3
Plant Sciences 120	4
Soil Science 100	5
Plant Sciences 101 or Environmental Science and Policy 1	3-4

Breadth/General Education 16-24

See General Education requirement.

Depth Subject Matter 63-78

Environmental Horticulture 160, 160L	4
Plant Biology 146 or Soil Science 105 or 111 or 112 or 118	3-5
Two courses chosen from Environmental Science and Policy 155, Plant Biology 117, 131, 144, 147, Wildlife, Fish, and Conservation Biology 156, 157	6-8
Evolution and Ecology 100 or Plant Biology 102 or 108 or 116	4-5
Plant Biology 152 or Environmental Horticulture 150	3-4
Three courses chosen from Plant Sciences 130, 135, 150, Environmental Science and Policy 127, 155L, Wildlife, Fish, and Conservation Biology 154, 155	8-10
Plant Biology 176	4
Geology 35 or Hydrology 143	3
Plant Biology 171 or Environmental Horticulture 120	3-4
Plant Biology 158 or Soil Science 109	4-5
Hydrology 110 or 124	3-4
Environmental and Resource Science 141	4
Plant Sciences 135 or Entomology 107 or Soil Science 112 or Plant Biology 141 ..	3-5
Landscape Architecture 180F	3
Environmental Horticulture 102 or Plant Biology 111 or 157 or 158	4
Environmental Science and Policy 160 or 161 or 171 or 172 or 179 and 179L	3-5
Internship; Plant Sciences 192	2

Unrestricted Electives..... 9-49**Total Units for the Major 180****Major Adviser.** T. P. Young**Advising Center** for the major, including peer advising, is located in 1220 Plant and Environmental Sciences (530) 752-1715.

Ecology (A Graduate Group)

M.W. Schwartz, Ph.D., Chairperson of the Group

Group Office. 2148 Wickson Hall
(530) 752-6752; <http://ecology.ucdavis.edu>**Faculty**

Daniel W. Anderson, Ph.D., Professor
(*Wildlife, Fish, and Conservation Biology*)
Robert L. Bettinger, Ph.D., Professor (*Anthropology*)
Caroline Bledsoe, Ph.D., Professor
(*Land, Air, and Water Resources*)
Monique Bergerhoff Mulder, Ph.D., Professor
(*Anthropology*)
Louis W. Botsford, Ph.D., Professor
(*Wildlife, Fish, and Conservation Biology*)
Walter M. Boyce, Ph.D., Professor (*Pathology,
Microbiology, and Immunology*)
Patrick H. Brown, Ph.D. Professor (*Plant Sciences*)
Stephen Brush, Ph.D., Professor
(*Human and Community Development*)
Mary Cadenasso, Ph.D., Assistant Professor
(*Plant Sciences*)
Tim Caro, Ph.D., Professor
(*Wildlife, Fish, and Conservation Biology*)

Edward P. Caswell-Chen, Ph.D., Professor
(*Nematology*)
Ernest S. Chang, Ph.D., Professor
(*Bodega Marine Laboratory*)
Howard V. Cornell, Ph.D., Professor
(*Environmental Science and Policy*)
Richard G. Coss, Ph.D., Professor (*Psychology*)
Randy A. Dahlgren, Ph.D., Professor
(*Land, Air, and Water Resources*)
Christyann M. Darwent, Ph.D., Assistant Professor
(*Anthropology*)
Holly Doremus, Ph.D., Acting Professor of Law
(*School of Law*)
Serge I. Doroshov, Ph.D., Professor (*Animal Science*)
John M. Eadie, Ph.D., Professor
(*Wildlife, Fish, and Conservation Biology*)
Deborah L. Elliott-Fisk, Ph.D., Professor
(*Wildlife, Fish, and Conservation Biology*)
Holly Ernest DVM Ph.D.
(*VM: Population Health and Reproduction*)
Valerie Y. Eviner, Ph.D., Assistant Professor
(*Plant Sciences*)
Y. Hossein Farzin, Ph.D., Professor
(*Agricultural and Resource Economics*)
Howard Ferris, Ph.D., Professor (*Psychology*)
Albert Fischer, Ph.D., Associate Professor
(*Plant Sciences*)
Theodore C. Foin, Ph.D., Professor (*Plant Sciences*)
Janet E. Foley, Ph.D., Associate Professor
(*VM: Epidemiology*)
Brian Gaylord, Ph.D., Assistant Professor
(*Evolution and Ecology*)
Shu Geng, Ph.D., Professor (*Plant Sciences*)
Paul Gepts, Ph.D., Professor (*Plant Sciences*)
Charles R. Goldman, Ph.D., Professor
(*Environmental Science and Policy*) *Distinguished
Graduate Mentoring Award*
Steven E. Greco, Ph.D., Assistant Professor
(*Environmental Design*)
Richard K. Grosberg, Ph.D., Professor
(*Evolution and Ecology*)
Susan L. Handy, Ph.D., Professor
(*Environmental Science and Policy*)
Alexander H. Harcourt, Ph.D., Professor
(*Anthropology*)
Susan Harrison, Ph.D., Professor
(*Environmental Science and Policy*)
Alan Hastings, Ph.D., Professor
(*Environmental Science and Policy*)
Tessa Hill, Ph.D., Assistant Professor (*Geology*)
Marcel Holyoak, Ph.D., Professor
(*Environmental Science and Policy*)
William Horwath, Ph.D., Professor
(*Land, Air, and Water Resources*)
Benjamin Z. Houlton, Ph.D., Assistant Professor
(*Land, Air, and Water Resources*)
Silas S. O. Hung, Ph.D., Professor (*Animal Science*)
Louise E. Jackson, Ph.D., Professor (*Plant Sciences*)
Marie A. Jasieniuk, Ph.D., Assistant Professor
(*Plant Sciences*)
Richard Karban, Ph.D., Professor (*Entomology*)
Douglas A. Kelt, Ph.D., Professor
(*Wildlife, Fish, and Conservation Biology*)
Dielmar Kuehlz, Ph.D., Associate Professor
(*Animal Science*)
Emilio A. Laca, Ph.D., Associate Professor
(*Plant Sciences*)
John Largier, Ph.D., Professor
(*Environmental Science and Policy*)
Sharon P. Lawler, Ph.D., Associate Professor
(*Entomology*)
Edwin E. Lewis, Ph.D., Associate Professor
(*Nematology*)
C. Y. Cynthia Lin, Ph.D. Assistant Professor
(*Agricultural and Resource Economics*)
Mark Lubell, Ph.D., Associate Professor
(*Environmental Science and Policy*)
Jay R. Lund, Ph.D., Professor
(*Civil and Environmental Engineering*)
Andrew Marshall, Ph.D., Assistant Professor
(*Anthropology*)
Richard L. McElreath, Ph.D. Assistant Professor
(*Anthropology*)
Steven G. Morgan, Ph.D., Professor
(*Bodega Marine Laboratory*)

Peter B. Moyle, Ph.D., Professor
(*Wildlife, Fish, and Conservation Biology*)
Steven A. Nadler, Ph.D., Professor (*Nematology*)
Gabrielle Nevitt, Ph.D., Professor
(*Neurobiology, Physiology, Behavior*)
Debbie A. Niemeier, Ph.D., Professor
(*Civil and Environmental Engineering*)
Benjamin S. Orlove, Ph.D., Professor
(*Environmental Science and Policy*)
Gail L. Patricelli, Ph.D., Assistant Professor
(*Evolution and Ecology*)
Kyaw Tha Paw U, Ph.D., Professor
(*Land, Air, and Water Resources*)
Richard E. Plant, Ph.D., Professor (*Plant Sciences*)
Dan Potter, Ph.D., Professor
(*Plant Sciences*)
James F. Quinn, Ph.D., Professor
(*Environmental Science and Policy*)
Marcel Rejmankov, Ph.D., Professor
(*Evolution and Ecology*)
Eliska Rejmankova, Ph.D., Professor
(*Environmental Science and Policy*)
Kevin J. Rice, Ph.D., Professor (*Plant Sciences*)
James H. Richards, Ph.D., Professor
(*Land, Air, and Water Resources*)
Peter J. Richerson, Ph.D., Professor
(*Environmental Science and Policy*)
David Rizzo, Ph.D., Professor
(*Plant Pathology*)
Jay A. Rosenheim, Ph.D., Professor (*Entomology*)
Paul A. Sabatier, Ph.D., Professor
(*Environmental Science and Policy*)
James N. Sanchirico, Ph.D., Associate Professor
(*Environmental Science and Policy*)
Eric D. Sanford, Ph.D., Assistant Professor
(*Evolution and Ecology*)
Thomas W. Schoener, Ph.D., Professor
(*Evolution and Ecology*)
Sebastian Schreiber, Ph.D. Professor
(*Evolution and Ecology*)
Mark W. Schwartz, Ph.D., Professor
(*Environmental Science and Policy*)
S.G. Schladow, Ph.D., Professor
(*Civil and Environmental Engineering*)
Kate M. Scow, Ph.D., Professor
(*Land, Air, and Water Resources*)
Kenneth A. Shackel, Ph.D., Professor (*Plant Sciences*)
H. Bradley Shaffer, Ph.D., Professor
(*Evolution and Ecology*)
Arthur M. Shapiro, Ph.D., Professor
(*Evolution and Ecology*)
Andrew Sih, Ph.D., Professor
(*Environmental Science and Policy*)
Johan Six, Ph.D., Assistant Professor (*Plant Sciences*)
David R. Smart, Ph.D., Associate Professor
(*Viticulture and Enology*)
Jay Stachowicz, Ph.D., Associate Professor
(*Evolution and Ecology*)
Maureen Stanton, Ph.D. Professor
(*Evolution and Ecology*)
Sharon Y. Strauss, Ph.D., Professor
(*Evolution and Ecology*)
Donald Strong, Ph.D., Professor
(*Evolution and Ecology*)
Ron Tjeerdema, Ph.D., Professor
(*Environmental Toxicology*)
Catherine A. Toft, Ph.D., Professor
(*Evolution and Ecology*)
Thomas P. Tomich, Ph.D., Professor
(*Environmental Science and Policy, Human and
Community Development*)
Susan L. Ustin, Ph.D., Professor
(*Land, Air, and Water Resources*)
Chris Van Kessel, Ph.D., Professor (*Plant Sciences*)
Dirk Van Vuren, Ph.D., Professor
(*Wildlife, Fish, and Conservation Biology*)
Geraat J. Vermeij, Ph.D., Professor (*Geology*)
Peter C. Wainwright, Ph.D., Professor
(*Evolution and Ecology*)
Wesley W. Weathers, Ph.D., Professor
(*Avian Sciences*)
Susan L. Williams, Ph.D., Professor
(*Evolution and Ecology*)
Bruce Winterhalter, Ph.D. Professor (*Anthropology*)
Truman P. Young, Ph.D., Professor (*Plant Sciences*)

Quarter Offered: I=Fall, II=Winter, III=Spring, IV=Summer; 2009-2010 offering in parentheses**General Education (GE) credit:** ArtHum=Arts and Humanities; SciEng=Science and Engineering; SocSci=Social Sciences; Div=Social-Cultural Diversity; Wrt=Writing Experience

Affiliated Faculty

- William Bennett, Ph.D., Assistant Researcher Ecologist (*John Muir Institute of the Environment*)
Richard Y. Evans, Ph.D., Extension Specialist (*Plant Sciences*)
Edwin DeHaven Grasholz, Ph.D., Cooperative Extension Specialist (*Environmental Science and Policy*)
Michael L. Johnson, Ph.D., Associate Director (*Center for Watershed Sciences*)
Peter Klimley, Ph.D., Associate Research Biologist (*Bodega Marine Laboratory*)
Bernie May, Ph.D., Adjunct Professor (*Animal Science*)
Brenda McGowan, Ph.D., Associate Research Professor (*Veterinary Medicine Teaching and Research Center*)
A. Keith Miles, Ph.D., Wildlife Biologist (*Wildlife, Fish, and Conservation Biology*)
Malcolm North, Ph.D., Research Associate (*Plant Sciences*)
Kenneth W. Tate, Ph.D., Cooperative Extension Specialist (*Plant Sciences*)
Swee Teh, Ph.D., Associate Research Toxicologist (*Anatomy, Physiology and Cell Biology*)
Lisa C. Thompson, Ph.D., Assistant Specialist in Cooperative Extension (*Wildlife, Fish, and Conservation Biology*)
Inge Werner, Ph.D., Associate Adjunct Professor (*Anatomy, Physiology and Cell Biology*)
Heiko U Wittmer, Ph.D., Assistant Adjunct Professor (*Wildlife, Fish, and Conservation Biology*)
Minghua Zhang, Ph.D., Associate Adjunct Professor (*Land, Air, and Water Resources*)

Graduate Study. The Graduate Group in Ecology offers the M.S. and Ph.D. degrees in several areas of specialization within the spectrum of ecology. The Ecology program is one of the most diverse on the Davis campus. In order to accommodate varied student interests, the Group depends on close consultation between students and faculty for program development. Several curricular plans are now available in the following areas of emphasis: agricultural ecology, conservation ecology, ecosystems and landscape ecology, ecotoxicology, environmental policy analysis, human ecology, integrative ecology, marine ecology, physiological ecology, and restoration ecology. For further details, contact the Group office.

Preparation. Appropriate preparation is undergraduate work in any of the biological, social or behavioral, and physical sciences, mathematics or engineering. Applicants will normally be expected to have completed two courses each in introductory biology and general chemistry and physical science; one course each in calculus, an upper division ecology course and introductory statistics, are also required. Applicants in the human ecology area may substitute quantitative social science courses for up to two courses of chemistry. Each of the three broad areas requires certain advanced preparation appropriate to the option. Details can be found at the Group Web page.

Graduate Advisers. M.W. Schwartz, C. Toft, S. Greco (*Ecosystems and Landscape Ecology*), P. Moyle (*Conservation Ecology*), E. Rejmankova (*Conservation Ecology*), K. Rice (*Restoration Ecology*), J. Richards (*Integrative and Physiological Ecology*), P. Richerson (*Human Ecology*), P. Sabatier (*Environmental Policy Analysis*), E. Sanford (*Marine Ecology*), A. Shapiro (*Conservation Ecology*), J. Six (*Agricultural Ecology*), R. Tjeerdema (*Ecotoxicology*)

Courses in Ecology (ECL)**Graduate Courses****200A. Principles and Applications of Ecology (5)**

Lecture—4 hours; discussion—1 hour. Prerequisite: first course in Ecology (e.g., Environmental Science and Policy 100), Statistics 102, Mathematics 16A, 16B or consent of instructor; pass 1 open to graduate majors. Provides a broad background in the principles and applications of ecology, and serves as a foundation for advanced ecology courses. Top-

ics include ecophysiology, behavioral ecology, population ecology, genetics and evolution. Emphasis on historical developments, current understanding, and real world applications.—I. (I.) Holyoak, Rice

200B. Principles and Applications of Ecology (5)

Lecture—4 hours; discussion—1 hour. Prerequisite: course 200A; pass 1 open to graduate majors. Principles and applications of ecology, continuing topical coverage from ECL200A. The course covers principles of community structure and functioning, species diversity patterns, ecosystem ecology and biogeochemistry, landscape ecology, biogeography and phylogenetics.—II. (II.) Cornell

201. Ecosystems and Landscape Ecology (4)

Lecture—3 hours; discussion—1 hour. Prerequisite: course 200A and 200B. Overview of ecosystem and landscape principles (structure, energy, nutrient flow, species diversity, landscape heterogeneity, change and stability), building on ecological principles and theory. Introduction to analysis tools (remote sensing, geographic information systems, modeling) applied to landscape systems. Offered in alternate years.—(II.) Cadenasso, Eviner

203. Physiological Ecology (3)

Lecture—3 hours. Prerequisite: Evolution and Ecology 101 or Environmental Studies 100; Neurobiology, Physiology, and Behavior 110 or Plant Biology 111 or Environmental Studies 129; elementary calculus. A comparative examination of several animal groups addressing fundamental physiological mechanisms that shape the ecology of each animal group. Offered in alternate years.—III. Wainwright

204. Population and Community Ecology (4)

Lecture—3 hours; discussion—1 hour. Prerequisite: Environmental Studies 100 or Evolution and Ecology 101, Mathematics 21A-21B or consent of instructor; Mathematics 22B recommended. Review of major concepts of population ecology and community ecology, with emphasis on the rationale of theory and use of theory as applied in the ecology of natural and managed systems. Offered in alternate years.

205. Community Ecology (4)

Lecture—2 hours; discussion—2 hours. Prerequisite: Environmental Studies 100, Evolution and Ecology 101, or Plant Biology 117. Introduction to literature and contemporary research into processes structuring ecological communities.—(II.) Karban, Lawler

206. Concepts and Methods in Plant Community Ecology (4)

Lecture—3 hours; laboratory—4 hours. Prerequisite: introductory courses in statistics and plant ecology; consent of instructor. Principles and techniques of vegetation analysis, including structure, composition, and dynamics. Emphasis given to sampling procedures, association analysis, ordination, processes and mechanisms of succession, and classification. Most techniques are demonstrated or conducted during field trips and laboratories.—I. (I.) Rejmanek

207. Plant Population Biology (3)

Lecture—2 hours; laboratory/discussion—1 hour. Prerequisite: advanced undergraduate ecology course (e.g., Environmental Science and Policy 100, Evolution and Ecology 101, Entomology 104 or Plant Biology 117), and advanced undergraduate course in genetics and/or evolution (e.g., Biological Sciences 101 or Evolution and Ecology 100). Introduction to theoretical and empirical research in plant population biology. Emphasis placed on linking ecological and genetic approaches to plant population biology. (Same course as Population Biology 207.) Offered in alternate years.—(II.) Rice

208. Issues in Conservation Biology (4)

Lecture—3 hours; discussion—1 hour. Prerequisite: one of Environmental Studies 100, Zoology 125, Botany 117, or Entomology 106. Graduate-level introduction to current research in conservation biology. Course will emphasize reading and discussing primary literature. Specific topics will reflect the research interests of UC Davis conservation biology faculty.—II. (II.) Harrison

210. Advanced Topics in Human Ecology (4)

Lecture—2 hours; discussion—2 hours. Prerequisite: graduate standing. Course stresses the commonalities that human ecologists have as social scientists who specialize in problems relating human populations and environmental variables. General epistemological issues and theoretical models are reviewed. Similarities and differences of human and biological ecology are examined. Offered in alternate years.—(II.) Richerson

211. Advanced Topics in Cultural Ecology (4)

Lecture/discussion—3 hours; term paper. Prerequisite: Environmental Science and Policy 133/Anthropology 133 and graduate standing in Ecology or Anthropology. Topics of current analytical and methodological importance in cultural ecology. Examination of general issues in cultural ecology through study of human response to and influences on climate. (Same course as Anthropology 211.) Offered in alternate years.—(I.) Orlove

212A. Environmental Policy Process (4)

Lecture—3 hours; discussion—1 hour. Prerequisite: course in public policy (e.g., Environmental Studies 160) or environmental law (e.g., Environmental Studies 161); course in bureaucratic theory (e.g., Political Science 187 or Environmental Studies 166); course in statistics (e.g., Sociology 106 or Agricultural and Resource Economics 106). Introduction to selected topics in the policy process, applications to the field of environmental policy. Develops critical reading skills, understanding of frameworks of the policy process and political behavior, and an ability to apply multiple frameworks to the same phenomena. Offered in alternate years. (Same course as Environmental Science and Policy 212A.)—III. Sabatier

212B. Environmental Policy Evaluation (4)

Lecture—1 hour; discussion—1 hour; seminar—2 hours. Prerequisite: intermediate microeconomics (e.g., Economics 100); Statistics 108 or Agricultural and Resource Economics 106; policy analysis (e.g., Environmental Studies 168A or the equivalent); Agricultural and Resource Economics 176. Methods and practices of policy analysis; philosophical and intellectual bases of policy analysis and the political role of policy analysis. (Same course as Environmental Science and Policy 212B.) Offered in alternate years.—II.

213. Population, Environment, and Social Structure (4)

Seminar—3 hours; term paper. Prerequisite: at least one course in population or human ecology, or in environment and resources. Relationships among population dynamics, resource scarcity and environmental problems, and social structure; focus on demographic content of global ecological models and simulations, ecological content of modern demographic theories, and debates about scarcity, inequality, and social conflict and change. Offered in alternate years.—III.

214. Marine Ecology: Concepts and Practice (3)

Lecture—1 hour; discussion—1.5 hours; fieldwork—1.5 hours. Prerequisite: graduate standing or one course in ecology, one course in evolution or genetics, consent of instructor; survey course in marine ecology recommended. Critical review and analysis of concepts and practices in modern marine ecology at the interface of several fields of study including oceanography, evolution, behavior, and physiology. Emphasis on critical thinking, problem solving, and hands-on study. Three field trips required. Offered in alternate years.—III. Morgan, Stachowicz

216. Ecology and Agriculture (3)

Lecture—3 hours. Prerequisite: Plant Biology 142 or consent of instructor. Ecological principles and relationships as applied to agriculture. Integration of ecological approaches into agricultural research to develop environmentally sound management practices. Topics include crop autoecology, biotic interactions among crops and pests, and crops systems

ecology. Not open for credit to students who have completed Vegetable Crops 216 (Former course Vegetable Crops 216).—I. (I.) Jackson

217. Conservation and Sustainable Development in Third World Nations (4)

Lecture/discussion—3 hours; fieldwork—2 hours. Prerequisite: at least one course from two of these three groups: (a) Environmental Studies 160, 161, 168A, 168B; (b) Environmental Studies 101, 133, International Agricultural Development 103, Geography 142; (c) Anthropology 126, 131, Geography 141, Sociology 144, 145A, 145B. Examination of the patterns of resource ownership, control and management in agricultural lands, extractive zones (fisheries, forests) and wildlands, with emphases on conservation and sustainability. Comparison of industrial democracies and poorer nations. (Same course as International Agricultural Development 217.) Offered in alternate years.—Orlove

219. Ecosystem Biogeochemistry (4)

Lecture—3 hours; laboratory/discussion—2 hours. Prerequisite: introductory courses in ecology/biology and soils are recommended; undergraduates accepted with consent of instructor. Multi-disciplinary analysis of energy and nutrient transfers within terrestrial ecosystems. Examination of processes and inter- and intra-system interactions between the atmosphere, biosphere, lithosphere, and hydrosphere. Laboratory section uses biogeochemical simulation models to examine case studies. (Same course as Soil Science 219.) Offered in alternate years.—III. Dahlgren

220. Spatio-Temporal Ecology (2)

Lecture/discussion—2 hours. Prerequisite: Population Biology 200B or course 204 or Evolution and Ecology 104 or Environmental Science and Policy 121 or consent of instructor. Spatio-temporal ecological theory focusing on population persistence and stability, predator-prey and host-parasitoid interactions, species coexistence and diversity maintenance, including effects of environmental variation, spatial and temporal scale, life-history traits and non-linear dynamics. Topics vary. (Same course as Population Biology 220.) May be repeated once for credit. (S/U grading only).—II.

222. Human Ecology of Agriculture (4)

Lecture—3 hours; discussion—1 hour. Prerequisite: upper division course work in environmental sciences, cultural anthropology, economics, international agricultural development or sociology, or consent of instructor. Social and cultural factors relating to agricultural adaptation and evolution. Ethnobiological knowledge systems, rules and customs of resource allocation, impact of population growth, technological change, states and markets. Social and cultural contexts of biological diversity and agricultural resource conservation.—I. Brush

225. Terrestrial Field Ecology (4)

Seminar—1 hour; field work—12 hours. Prerequisite: introductory ecology and introductory statistics or consent of instructor. A field course conducted over spring break and four weekends at Bodega Bay, emphasizing student projects. Ecological hypothesis testing, data gathering, analysis, and written and oral presentation of results will be stressed. (Same course as Entomology 225/Population Biology 225.)—III. (III.) Karban

231. Mathematical Methods in Population Biology (3)

Lecture—3 hours. Prerequisite: Mathematics 16C or 21C or the equivalent. Mathematical methods used in population biology. Linear and nonlinear difference equation and differential equation models are studied, using stability analysis and qualitative methods. Partial differential equation models are introduced. Applications to population biology models are stressed. (Same course as Population Biology 231.)—I. (I.) Hastings

232. Theoretical Ecology (3)

Lecture—3 hours. Prerequisite: course 204 or the equivalent, and Mathematics 16C or 21C; or one of courses 100 or 121 or Evolution and Ecology 101, and a strong mathematics background (Mathematics 22A-22B-22C or the equivalent). Examination of

major conceptual and methodological issues in theoretical ecology. Model formulation and development will be emphasized. Topics will vary from year to year. May be repeated for credit. Offered in alternate years.—(II.) Hastings

242. Ecological Genetics: Applied Genetics for Ecology, Health, and Conservation of Natural Populations (3)

Lecture—2 hours; discussion—0.5 hours; laboratory—0.5 hours. Prerequisite: undergraduate genetics and ecology/conservation biology courses recommended. Introduction to the field of applied ecological genetics to include applications in conservation ecology, population genetics, population biology, wildlife health and disease ecology. Limited enrollment. (Same course as Population Health and Reproduction 242.)—I. (I.) Ernest

280. Current Anthropology Journal Editorial Workshop (4)

Workshop—1 hour; independent study—3 hours. Students must enroll for all three quarters. Reading and offering workshop critiques of manuscripts submitted for publication, and reading and discussion of other relevant work in anthropology and human ecology. Track and edit published comments and authors' replies that accompany major features. Participation in the development of new sections for the electronic edition of the journal, including a "news and views" section and a debate section. (Same course as Anthropology 280.) May be repeated for 12 units of credit with consent of instructor. (S/U grading only).—I, II, III. Orlove

290. Seminar in Ecology (1-4)

Seminar—1-4 hours. Prerequisite: consent of instructor. Topics in biological, human, physical, and chemical ecology. Students are expected to present an oral seminar on a particular aspect of the general topic under consideration. (S/U grading only).—I, II, III. (I, II, III.)

296. Topics in Ecology and Evolution (1)

Seminar—1 hour. Prerequisite: graduate standing. Seminars presented by visiting lecturers, UC Davis faculty, and graduate students. May be repeated for credit. (Same course as Population Biology 292.) (S/U grading only).—I, II, III. (I, II, III.)

297T. Tutoring in Ecology (1-4)

Lecture—1 hour; discussion—1 hour. Prerequisite: graduate standing in ecology; consent of instructor. Teaching ecology including conducting discussion groups for regular departmental courses under direct guidance of staff. May be repeated for credit. (S/U grading only.)

298. Group Study (1-5)

(S/U grading only.)

299. Research (1-12)

Prerequisite: graduate standing. (S/U grading only.)

Economics

(College of Letters and Science)

Gregory Clark, Ph.D., Chairperson of the Department

Deborah Swenson, Ph.D., Vice Chairperson of the Department

Department Office. 1113 Social Sciences and Humanities Building
(530) 752-0741; <http://www.econ.ucdavis.edu>

Faculty

Paul Bergin, Ph.D., Associate Professor
Giacomo Bonanno, Ph.D., Professor
Colin Cameron, Ph.D., Professor
Scott E. Carrell, Ph.D., Assistant Professor
Gregory Clark, Ph.D., Professor
Timothy W. Cogley, Ph.D., Professor
Mitali Das, Ph.D., Associate Professor
Robert C. Feenstra, Ph.D., Professor
L. Jay Helms, Ph.D., Associate Professor
Hilary Hoynes, Ph.D., Professor
Oscar Jorda, Ph.D., Associate Professor

Christopher R. Knittel, Ph.D., Associate Professor
Guido Kuersteiner, Ph.D., Associate Professor
Joonsuk Lee, Ph.D., Assistant Professor
Christopher M. Meissner, Ph.D. Associate Professor
Douglas Miller, Ph.D., Associate Professor
Klaus Nehring, Ph.D., Professor
Alan L. Olmstead, Ph.D., Professor
Marianne E. Page, Ph.D., Associate Professor
Giovanni Peri, Ph.D., Associate Professor
Martine Quinzii, Ph.D., Professor
Katheryn N. Russ, Ph.D., Assistant Professor
Kevin D. Salyer, Ph.D., Professor
Burkhard C. Schipper, Ph.D., Assistant Professor
Steven M. Sheffrin, Ph.D., Professor
Joaquim Silvestre, Ph.D., Professor
Ann Huff Stevens, Ph.D., Associate Professor
Deborah Swenson, Ph.D., Professor
Alan M. Taylor, Ph.D., Professor
Wing T. Woo, Ph.D., Professor

Emeriti Faculty

Andrzej Brzeski, Ph.D., Professor Emeritus
W. Eric Gustafson, Ph.D., Senior Lecturer Emeritus
Academic Senate Distinguished Teaching Award
Kevin D. Hoover, D.Phil., Professor Emeritus
Hiromitsu Kaneda, Ph.D., Professor Emeritus
Peter H. Lindert, Ph.D., Professor Emeritus
Academic Senate Distinguished Teaching Award
Louis Makowski, Ph.D., Professor Emeritus
Thomas Mayer, Ph.D., Professor Emeritus
T. Y. Shen, Professor Emeritus
Elias H. Tuma, Ph.D., Professor Emeritus
Gary M. Walton, Ph.D., Professor Emeritus
Leon L. Wegge, Ph.D., Professor Emeritus

Affiliated Faculty

Emanuel A. Frenkel, Ph.D., Lecturer
Bagher Modjtahedi, Ph.D., Lecturer

The Major Program

Economics is the study of how individuals, organizations, and societies choose among alternative uses of resources and how these resources are turned into the things people want.

The Program. Economics majors complete an introductory course sequence in economics, in addition to several courses in quantitative methods. Intermediate theory and economic history are taken on the upper division level and then students are free to concentrate the remainder of their units in various areas of interest, including more courses in economic theory or history, international economics, labor, industry, alternative economic systems, economic development, public finance, econometrics, or mathematical economics.

Internships and Career Alternatives. Internships for economics majors have been arranged at banks, brokerages, other business enterprises, and governmental units. The internships must complement the student's course work. A degree in economics is excellent preparation for students who want to go on to law school, business school, advanced work in economics, or graduate work in international relations. It is also a good background for careers in management and positions with the government.

A.B. Major Requirements:

UNITS

Preparatory Subject Matter 17-20

Economics 1A-1B..... 8
Statistics 13, 32, or 102 3-4
Mathematics 16A-16B or 21A-21B 6-8

Depth Subject Matter 44

Economics 100, 101 8
Economics 102 4
One course from Economics 110A, 110B, 111A, 111B 4
Select 16 units from Economics 103, 106, 116, 121A, 121B, 122, 130, 131, 132, 134 (or Agricultural and Resource Economics 171A), 135, 136, 137, 140 (or Agricultural and Resource Economics 106), 145, 151A, 151B, 152, 160A, 160B, 194HA, 194HB, Agricultural and Resource Economics 139, 156, 175, 176 16

Quarter Offered: I=Fall, II=Winter, III=Spring, IV=Summer; 2009-2010 offering in parentheses

General Education (GE) credit: ArtHum=Arts and Humanities; SciEng=Science and Engineering; SocSci=Social Sciences; Div=Social-Cultural Diversity; Wrt=Writing Experience