relationship to a shared biological, physical, and social environment, their intercultural relations, and their relationships to the American popular and elite culture and folk traditions. GE credit: ArtHum or SocSci, Div, Wrt | ACCH, AH or SS, DD, WE. — W. (W.)

152. The Lives of Children in America (4)
Lecture—2 hours; discussion—2 hours. Experience of childhood and adolescence in American culture, as understood through historical, literary, artistic, and social scientific approaches. GE credit: ArtHum or SocSci, Div, Wrt | ACCH, AH or SS, DD, WE. — W. (S.) Smooldin

153. The Individual and Community in America (4)
Lecture—2 hours; discussion—2 hours. Interdisciplinary examination of past and present tensions between the individual and the community in American experience, as those tensions are expressed in such cultural systems as folklore, popular ritual, popular entertainment, literature, fine arts, architecture, and social thought. GE credit: ArtHum or SocSci, Div, Wrt | ACCH, AH or SS, DD, WE. — W. (W.)

154. The Lives of Men in America (4)
Lecture—2 hours; discussion—2 hours. Interdisciplinary examination of the lives of boys and men in America, toward understanding cultural definitions of masculinity, the ways individuals have accepted or resisted these definitions, and the broader consequences of the social construction of gender. Offered irregularly. GE credit: ArtHum or SocSci, Div, Wrt | ACCH, AH or SS, DD, WE. — W. (S.) Bildekoff

155. Eating in America (4)
Lecture—3 hours; fieldwork. Prerequisite: course 1. Interdisciplinary examination of the culture of food in America. Exploration of eating as a richly symbolic event integral to how Americans express and negotiate values, politics and identity. Offered irregularly. GE credit: ArtHum or SocSci, Div, Wrt | ACCH, AH or SS, DD, WE. — W. (W.)

156. Race, Culture and Society in the United States (4)
Lecture—2 hours; discussion—2 hours. Interdisciplinary examination of the significance of race in the making of America; how race shapes culture, identities and social processes in the United States; the interweaving of race with gender, class and nationhood in self and community. Offered irregularly. GE credit: ArtHum or SocSci, Div, Wrt | ACCH, AH or SS, DD, WE. — W. (W.)

157. Animals in American Culture (4)
Lecture—3 hours; discussion—1 hour. Animals as symbols in American thought, as found in folklore, popular culture, literature, and art; customs and stories around human-animal interactions, including hunting, religion, foodways, pets, zoos, circuses, rodeos, and scientific research on animals. Offered in alternate years. GE credit: ArtHum or SocSci, Div, Wrt | ACCH, AH or SS, DD, WE. — W. (W.)

158. Technology and the Modern American Body (4)
Lecture/discussion—3 hours; term paper. Prerequisite: Technocultural Studies 1 and either course 1A or 5. The history and analysis of the relationships between human technologies and modern society. Dominant and eccentric examples of how human bodies and technologies influence one another and reveal underlying cultural assumptions. [Same course as Technocultural Studies 15B.] GE credit: GE credit: GE credit: ArtHum or SocSci, Div, Wrt | ACCH, AH, WE. — W. (W.)

160. Undergraduate Seminar in American Studies (4)
Seminar—3 hours; term paper. Prerequisite: open to junior or senior American Studies majors only: Limited enrollment. Intensive reading, discussion, research, and writing by small groups in selected topics of American Studies scholarship; emphasis on theory and its application to American material. May be repeated one time for credit when content differs. — F. (F.)

190A. Senior Thesis Research Seminar (4)
Seminar—2 hours; extensive writing. Research and prospectus writing for senior thesis. — F. (F.)

190B. Senior Thesis (4)
Independent study—12 hours. Prerequisite: course 190A; consent of instructor. In consultation with adviser, student writes an extended research paper on a topic proposed in course 190A. — F, W, S. (F, W, S.)

192. Internship in American Institutions (1-12)
Internship—1-12 hours. Prerequisite: enrollment dependent on availability of intern positions, with priority to American Studies majors. Supervised internship and study within and about key organizations in American civilization at archives, museums, schools, historical societies, governmental and social agencies, etc., with attention to the techniques of participant observation and the collection of ethnographical data. May be repeated for credit for a total of 12 units. [P/NP grading only.]

197T. Tutoring in American Studies (1-5)
Tutorial—1-3 hours. Prerequisite: consent of Chairperson of American Studies Program. Tutoring in lower division American Studies courses, usually in small discussion groups. Periodic meetings with the instructor in charge; reports and readings. May be repeated for credit when the tutoring is for a different course. [P/NP grading only.]

198. Directed Group Study (1-5)
Prerequisite: consent of instructor. [P/NP grading only.] 199. Special Study for Advanced Undergraduates (1-8)
Prerequisite: consent of instructor and chairperson of American Studies Program. [P/NP grading only.]

Graduate
220. American Folklore and Folklife (4)
Seminar—3 hours; term paper. Prerequisite: graduate standing or consent of instructor. Theory and methods for the study of the folklore and the folk customary behavior of Americans; contributions of folklore studies to scholarship in humanities and social science disciplines. — S. (J.) Turner

250. Cultural Study of Masculinities (4)
Seminar—3 hours; term paper. Prerequisite: graduate standing or consent of instructor. Interdisciplinary approaches to understanding the social and cultural construction of masculinities; attention to the effects of biology, gender, race, class, sexual and national identities; criticism of oral, printed, visual, and mass mediated texts, and of social relations and structures. [Same course as Women’s Studies 250.] — W. 255. Food in American Culture (4)
Seminar—3 hours; term paper. Prerequisite: graduate standing or consent of instructor. Interdisciplinary approaches to understanding the social and cultural construction of masculinities; attention to the effects of biology, gender, race, class, sexual and national identities; criticism of oral, printed, visual, and mass mediated texts, and of social relations and structures. [Same course as Women’s Studies 250.] — W. 298. Group Study (1-5)
[S/U grading only.]

299. Individual Study (1-12)
Prerequisite: consent of instructor. [S/U grading only.]

Professional
396. Teaching Assistant Training Practicum (1-4)
Prerequisite: graduate standing. May be repeated for credit. [S/U grading only.] — F, W, S. (F, W, S.)

Anatomy
See Anatomy, Physiology and Cell Biology, on page 159; and Courses in Cell Biology and Human Anatomy (CHA), on page 432.

Anatomy, Physiology and Cell Biology
See Medicine, School of, on page 427.

Anesthesiology and Pain Medicine
See Medicine, School of, on page 427.

Animal Behavior (A Graduate Group)
Andrew Sih, Ph.D., Chairperson of the Group
Group Office, 227D Life Sciences 530-752-2981; Fax 530-752-8822; animalbehavior@biostc.ucdavis.edu; http://anb.ucdavis.edu/
Faculty. The Group includes faculty from 12 departments in five schools and colleges.

Graduate Study. The Ph.D. program in Animal Behavior is an interdepartmental program focusing on the mechanisms underlying and evolution of behavior, and applications of animal behavior to current problems in conservation biology and animal welfare. The program trains students for teaching and research in a variety of areas, including anthropological, animal science, ecology, entomology, neuroscience, psychology, physiology, veterinary science, wildlife biology, and zoology. Resources available to students, in addition to various departmental facilities, include those of the California National Primate Research Center, Bodega Marine Laboratory, and the UC Natural Reserve System.

There is an application deadline of Dec 1 for fall quarter.

Preparation. Appropriate preparation is a bachelor’s or master’s degree in a discipline relevant to the biology of behavior. In addition, at least one course from each of the following areas must be taken before entering the program or before the end of the first year in the program.

Ecology: e.g., Evolution and Ecology 101, Environmental Science and Policy 100 Genetics: e.g., Biological Sciences 101 Statistics: e.g., Statistics 102 or Psychology 103 Evolution: e.g., Evolution and Ecology 100 Animal behavior: Neurobiology, Physiology, and Behavior 101 Physiology: e.g, Neurobiology, Physiology, and Behavior 101

Core Requirements. Students take two “breadth” courses, at least one course in statistics, a methodology and grant writing course, and a graduate seminar. Required courses: Fundamentals of Animal Behavior: Animal Behavior 218A and 218B Methodology and Grant Writing: Animal Behavior 201
Advanced Statistics: Psychology 204A, 204B, 204C, or 204D; Statistics 106, 108, 138, 205; Agronomy 204, 206
Graduate Seminars: Animal Behavior 290

Strongly recommended: at least one additional course in Biology 231 and Psychology 120.

Strongly recommended: at least one additional course in statistics or modeling. In addition to the above listed courses, modeling courses include Population Biology 231 and Psychology 120.

Courses in Animal Behavior (ANB) Graduate

201. Scientific Approaches to Animal Behavior Research (3)
Lecture—3 hours. Prerequisite: consent of instructor. Philosophical issues, goals, strategies and tools in field and laboratory research. May be repeated for credit when topics differ. —S (J)

203. Advanced Animal Welfare (3)
Lecture—3 hours. Prerequisite: Animal Science 103 or equivalent or consent of instructor. Key concepts used when evaluating and understanding the welfare of animals kept by humans. Topics include animal pain, stress, cognition, motivation and emotions. Critical discussion of primary literature. May be repeated one time for credit. Offered in alternate years. —S (J) Tucker

210. History of Animal Behavior (1)
Discussion—1 hour. Prerequisite: consent of instructor. Classic, seminal papers in animal behavior. Discussion of readings and broader historical context in which papers were written. (S/U grading only.)

218A. Fundamentals of Animal Behavior (5)
Lecture/discussion—4 hours; discussion—1 hour. Prerequisite: consent of instructor: upper-division undergraduate introduction to the biology of behavior, such as Psychology 101, 122, 125, Neurobiology, Physiology, and Behavior 102, 150, 152, Wildlife, Fish, and Conservation Biology 141, Entomology 104, or Animal Science 105. Survey of the phenomena and theory of animal behavior from the perspectives of multiple biological disciplines, including evolution, ecology, psychology, genetics, neurobiology, endocrinology, and animal science. (Same course as Psychology 218A.)—F (F, W, S; So.)

218B. Fundamentals of Animal Behavior (5)
Lecture/discussion—4 hours; discussion—1 hour. Prerequisite: consent of instructor; course 218A or Psychology 218A. Survey of the phenomena and theory of animal behavior from the perspectives of multiple biological disciplines, including evolution, ecology, psychology, genetics, neurobiology, endocrinology, and animal science. (Same course as Psychology 218B.)—W, J, S: Hil

221. Animal Behavior, Ecology and Evolution (3)
Lecture—3 hours. Prerequisite: Neurobiology, Physiology, and Behavior 102, Evolution and Ecology 100, 101 or equivalent, graduate standing, and consent of instructor. Interface between animal behavior, ecology and evolution. New developments in behavioral ecology and evolution and testing of hypotheses in this discipline. (Same course as Animal Behavior 221.) Offered irregularly.

230A. Interdisciplinary Approaches to Animal Behavior (3)
Seminar—3 hours; term paper. Prerequisite: consent of instructor. Animal biology literature in behavior and an allied discipline or disciplines that offer the potential, in combination, to advance the understanding of a topic in animal behavior conceptually and empirically. Topics will vary from year to year.

230B. Interdisciplinary Approaches to Animal Behavior (5)
Workshops—3 days total, discussion—2 hours; term paper. Prerequisite: course 230A the previous quarter. Development of an empirical or theoretical interdisciplinary approach to research on a current topic in animal behavior.

270. Research Conference in Behavioral Ecology (1)
Conference—1 hour. Prerequisite: graduate standing and consent of instructor. Limited enrollment. Critical presentation and evaluation of current literature and ongoing research in behavioral ecology. May be repeated for credit. (S/U grading only.)

287. Advanced Animal Behavior (2)
Seminar—2 hours. Prerequisite: graduate standing and consent of instructor, courses in animal behavior (Neurobiology, Physiology, and Behavior 102 or the equivalent), and either evolution (Evolution and Ecology 100 or the equivalent) or ecology (Evolution and Ecology 101 or the equivalent). Reading, reports and discussion on current topics in animal behavior, with a focus on topics that lie at the interface between animal behavior, ecology and evolution. (Same course as Population Biology 287.) May be repeated twice for credit.

290. Seminar in Animal Behavior (1-3)
Seminar—1-3 hours. Prerequisite: consent of instructor. Selected topics in animal behavior. (S/U grading only)—F, W, S (W, F, S)

294. Seminar in Evolutionary Ecology of Predators and Prey (3)
Seminar—2 hours. Prerequisite: graduate standing. Presentation and analysis of research papers on social and foraging behavior of predatory animals, antipredator strategies, co-evolution of predators and prey, and ecology of predator prey interactions. May be repeated twice for credit. (Same course as Wildlife, Fish, and Conservation Biology 294.) Offered in alternate years. —Caro

298. Group Study in Animal Behavior (1-5)
Prerequisite: graduate standing; consent of instructor. May be repeated for credit. —F, W, S, So. (F, W, S, So.)

299. Research (1-12)
Prerequisite: and consent of instructor. (S/U grading only)

Professional

396. Teaching Assistant Training Practicum (1-4)
Prerequisite: graduate standing. May be repeated for credit. (S/U grading only)

Animal Behavior

(College of Agricultural and Environmental Sciences)
Department of Entomology and Neurobiology.

Faculty
Edward P. Casswell-Chen, Ph.D., Professor
Joanna Chiu, Ph.D., Assistant Professor
Brian R. Johnson, Ph.D., Assistant Professor
Neal M. Williams, Ph.D., Associate Professor
Robert Kimsey, Ph.D., Lecturer

The Major Program

The Animal Biology major offers students training in the biological and natural sciences as they apply to animal behavior. Students in the Animal Biology major are encouraged to think conceptually and critically, in combination, to advance the understanding of a topic in animal behavior.

The major requires an understanding of animal biology from the molecular to the ecological and evolutionary levels of organization. After completing the core courses, students have the option of specializing in various interdisciplinary aspects of animal biology, and plan their chosen emphasis of study as part of a required discussion course and in consultation with their adviser. The Animal Biology major emphasizes courses on biological principles as opposed to courses on animal care and husbandry. This program includes a senior thesis, which each student designs to bridge the disciplines of the major.

Internships and Career Alternatives.

The program and interests of each student in solving societal problems guides him or her toward internship and career choices. On- and off-campus internship opportunities are available in research laboratories, in field situations, with governmental agencies, with private industry, and in international programs. A degree in Animal Biology prepares students for careers in research, teaching, governmental regulation, health or agriculture as each relates to the integrative biology or ecology of animals. Careers in veterinary medicine, animal husbandry and animal management are open to Animal Biology majors, however, other preparation may be required. Students in the major gain research experience and may choose to continue their studies in the graduate or professional level in a variety of biological disciplines.

B.S. Major Requirements:

Preparatory Subject Matter ...................... 68-74
Biology Sciences 2A, 2B, and 2C ............... 14
Chemistry 2A-2B-2C, and 8A-8B or 118A-118B ................................................. 21-23
Mathematics 16A-16B-16C or 17A-17B-17C or 21A-21B-21C ................................................. 9-12
Physics 7A-7B-7C ................................................. 12
One course from: Statistics 13 or 102 or Agricultural Management and Rangeland Resources 120 ................................................. 4
Animal Biology 50A, 50B, 50C ................................................. 8

Depth Subject Matter ............................... 29-38
Biology Sciences 101 ................................................. 4
Animal Biology 102 and 103 or Biological Sciences 102 and 103 ................................................. 6-10
One course from: Neurobiology, Physiology, and Behavior 101, 117; Entomology 102; Wildlife, Fish, and Conservation Biology 121 ................................................. 3-5
One course from: Anatomy, Physiology and Cell Biology 100; Entomology 101; Neurobiology, Physiology, and Behavior 123 ................................................. 3-4
Evolution and Ecology 100 ................................................. 4
One course from: Environmental Science and Policy 100, 121; Evolution and Ecology 101, 102 ................................................. 4
Animal Biology 187 ................................................. 2
Animal Biology 188 and 189 ................................................. 3-5

Restricted Electives ................................................. 25

Total Units for the Degree ......................... 122-137

Master Adviser. R. Kimsey

Major Adviser. E. Galvan Hack

Advising Center for the major, including peer advising, is located in 150 and 152 Hutchison Hall 5307/5477-277. abr advisering@ucladi.uc.edu.