Much of the innovative research in animal context for interpretation of molecular, aspects of organismal biology is a critical systems. Understanding of the multifaceted wild animals and animal management sys -pline-based studies of domesticated and Animal biology encompasses the disci -bises. Research areas include: behavioral ecology of nonhuman primates, biolog -ical anthropology, evolution of primate and human behavior, human evolution, molecular anthropology, archaeologi -cal theory, hunter-gatherers, and North American prehistory.


2. Sociocultural Anthropology—with specialties in critical theory, experimental ethnography, politics, globalization, political economy, religion, science technology and society, urban space, environmental politics, and cultures of visual anthropology.

ANIMAL BEHAVIOR
(530) 752-2981
anb.ucdavis.edu
Ph.D., M.S.
Although an M.S. degree may be obtained while pursuing a Ph.D. degree, only Ph.D. applications will be accepted.

The animal behavior graduate group is tar-
ged toward students who are interested in understanding the adaptive and evolution-
yory bases of animal behavior. Students are
trained for teaching and research in a variety of disciplines, including animal science, anthropology, ecology, entomol-
yogy, neurobiology, psychology, physiology, veterinary science, wildlife biology and zoology. Students and faculty in the pro-
gram conduct research using many different species—and many different perspec-
tives. Research areas include: behavioral ecology and sociobiology; animal commu-
nication; animal management and welfare; physiology and behavior; behavior and conservation; primate behavior; modeling of behavior; and behavioral development. All students take a yearlong core course sequence designed to provide a breadth of knowledge about animal behavior. The remainder of the program is then individ-
ually tailored to provide in-depth study relevant to each student’s interests.

AVIAN SCIENCES
(530) 752-2382
aviansciences.ucdavis.edu
M.S.
The program offers specialized advanced work in several disciplinary areas, such as nutrition, physiology, reproduction, pathology, toxicology, immunology, food science, management, ecology, genetics, incubation, environmental physiology and developmental biology. A variety of wild and domesticated birds are used as experimental animals, including psittacine, raptor, passerine, aquatic and poultry species.

BIOCHEMISTRY, MOLECULAR, CELLULAR AND DEVELOPMENTAL BIOLOGY
(530) 752-9091
bmcdb.ucdavis.edu
Ph.D., M.S.
Although an M.S. degree may be obtained while pursuing a Ph.D. degree, only Ph.D. applications will be accepted.

The biochemistry, molecular, cellular and developmental biology graduate program is targeted toward students who are interested in understanding biology at its most fundamental level. Members of the group offer research opportunities in cell division and the cytoskeleton; chromosome dynamics and nuclear function; gene regulation and signal transduction; genomics and proteomics; metabolism and molecular physiology; molecular medicine; molecular neurobiology; morphogenesis and differentiation; organelle dynamics; plant biochemistry and molecular biology; and structural and mechanistic biochemistry, to name a few. The program incorpo-
rates the research programs of more
than 153 faculty members in 40 departments in both basic and applied sciences. UC Davis is unique in the vast diversity of biological sciences found on a single campus.

**BIOLOGICAL SYSTEMS ENGINEERING**

(530) 752-0102
engineering.ucdavis.edu/graduate/bse
Ph.D., M.S., M.Eng., D.Eng.

The program stresses the use of engineering to efficiently produce, distribute and process biological products for energy, food, feed and fiber while conserving natural resources, preserving environmental quality, and ensuring the health and safety of people. Programs of study include: aquacultural engineering, bioproces engineering, ecological systems engineering, energy systems engineering, environmental engineering, food engineering, forest and fiber engineering, health and safety engineering, machine systems engineering, postharvest engineering, sensor and control engineering, and soil and water engineering.

**BIOMEDICAL ENGINEERING**

(530) 752-2611
engineering.ucdavis.edu/graduate/bme
Ph.D., M.S.

Biomedical engineering graduate students engage in a rich spectrum of advanced research at the molecular, cellular, tissue, systems and organism levels, as well as in clinical practice. They benefit from the highly ranked UC Davis life sciences research environment that incorporates the work of more than 70 faculty members in departments across campus, including biomedical engineering; mechanical engineering; radiology; neurobiology; physiology and behavior; chemical engineering and materials science; orthopaedics; bioinformatics; and mathematics. Approximately 35 percent of faculty members are within the schools of Medicine and Veterinary Medicine. The breadth of activity represented in this highly collaborative environment allows students to find the best match between their research interests and those of the faculty. The graduate program’s culture is characterized by a personal mentoring style, small collaborative teams and multidisciplinary laboratories, all fostering a dynamic medium for research, learning and success.

**BIOPHYSICS**

(530) 752-4863
bph.ucdavis.edu
Ph.D., M.S.

Although an M.S. degree may be obtained while pursuing a Ph.D. degree, only Ph.D. applications will be accepted.

Biophysics offers a graduate education program that focuses on the interface of biology, physics, chemistry, engineering and mathematics, and explores the physical laws governing the properties and interaction of biomolecules and cells. The program’s faculty members have diverse research interests, which include structural biology, membrane dynamics, ion transport, electron transfer, nucleic acid, applied optics, computational biology, theory, cellular regulation and imaging.

**BIOSTATISTICS**

(530) 692-5194
biostat.ucdavis.edu
Ph.D., M.S.

Biostatistics applies quantitative methods to study problems related to life sciences that arise in a broad array of fields. Biostatistics provides stochastic models and methods, algorithms and graphical tools for the analysis of data from genetics, bioinformatics, and the medical, biological, agricultural and environmental sciences. Faculty interests include survival analysis; statistical methods for genetics, bioinformatics, epidemiology and environmental research; longitudinal data analysis; analysis of biological shapes and trajectories; generalized linear models, estimating equations, model selection and bioassay; and design for biological and medical studies.

**CLINICAL RESEARCH**

(916) 703-9110
ucdmuc.ucdavis.edu/ome/mcrtp
M.A.S.

The clinical research graduate program provides a solid foundation in clinical/translational, patient-oriented research for junior faculty, clinical and pre-clinical fellows, and postdoctoral scholars. Scholars admitted to one of the seven mentored research and training programs administered by the Clinical and Translational Science Center are eligible to apply. The program centers around three core elements: didactic instruction, mentored research and special experiences.

**ECOLOGY**

(530) 752-6752
ecology.ucdavis.edu
Ph.D., M.S., Joint Ph.D. with San Diego State University

The graduate group in ecology is an interdisciplinary graduate program that offers students a combination of both basic and applied ecology within nine organized areas of emphasis, as well as a joint Ph.D. program working with faculty in the biology department at San Diego State University. With more than 100 faculty members, the GGE offers unparalleled diversity and depth in coursework and research opportunities in terrestrial, freshwater and marine systems. The GGE achieves excellence in graduate education. In the field of ecology/evolutionary biology, UC Davis has received the nation’s top ranking from U.S. News and World Report for research productivity, and a top five ranking from The National Research Council. The more than 1,000 GGE alumni include leaders in their fields in state and federal natural resource managing agencies, private conservation organizations, environmental consulting firms and biotech companies. In addition, GGE alumni are represented on the faculty of more than 85 universities worldwide.

**ENTOMOLOGY**

(530) 754-9506
entomology.ucdavis.edu/graduate
Ph.D., M.S.

The program emphasizes the integration of basic and applied aspects of entomology in solving problems in biology, agriculture, and the environment. Students can specialize in a diversity of areas such as biological control, economic entomology, pollination biology, insect chemical ecology, insect olfaction, insect demography, insect physiology, insect toxicology, integrated pest management, ecology and evolution, forensic entomology, medical entomology (human and animal health), and systematics.

**EPIDEMIOLOGY**

(530) 752-2657
epi.ucdavis.edu
Ph.D., M.S.

Epidemiology combines concepts and methods in biology, economics, mathematics and statistics with the goals of understanding the distribution and determinants of disease, injury and impaired productivity
in populations, and recommending actions for prevention or control. UC Davis offers a unique blend of research facilities in the schools of Medicine and Veterinary Medicine, the California Regional Primate Research Center, the Center for Health and the Environment, the College of Agricultural and Environmental Sciences, and the Division of Mathematical and Physical Sciences. Faculty research interests include: chronic and infectious disease; zoonoses and food-borne disease; nutritional, occupational, reproductive and wildlife epidemiology; and development of new epidemiologic and biostatistical methods.

**FOOD SCIENCE**

(530) 752-3250
foodscience.ucdavis.edu/graduate
Ph.D., M.S.

Students study the application of biological, chemical, physical and behavioral sciences to the processing, preservation, quality evaluation, public health aspects, and utilization of foods. For the M.S., there are four areas of specialization: chemistry-biochemistry, microbiology, processing and sensory sciences. Individually designed programs are also accepted. For the Ph.D., there are three areas of emphasis: biochemistry/chemistry, microbiology/fermentation and sensory sciences.

**FORENSIC SCIENCE**

(530) 747-3922
forensicscience.ucdavis.edu
M.S.

This comprehensive program incorporates a unique curriculum that balances breadth and depth of study. Through scholarly coursework and high-research quality, the program provides a strong foundation in science, together with an understanding of the logic and workings of the legal system. In-depth coursework covers the theoretical underpinnings of the biological and physical sciences as used in the collection, analysis and interpretation of evidence.

**HEALTH INFORMATICS**

(916) 734-8710
ucdmc.ucdavis.edu/informatics
M.S.

The explosion of medical and biological information has made it clear that innovative advances in storing, retrieving, and interpreting information are essential for health professionals and scientists. Health Informatics is the multidisciplinary area of study that integrates medical, computational and social sciences for this purpose. Areas of focused training include electronic health record systems, decision support systems, terminology, coding, and messaging standards in medicine, data modeling and database design, data acquisition, and scientific data management. Program faculty are members of UC Davis’ highly regarded School of Medicine, School of Veterinary Medicine, College of Engineering and state-of-the-art Genome Center, creating a rich environment that parallels the diversity found within this exciting field of study.

**IMMUNOLOGY**

(530) 754-0103
immunology.commped.ucdavis.edu
Ph.D., M.S.

The graduate group in immunology offers an interdisciplinary, flexible program in an exciting field of biomedical science that sits at a crossroad for many disciplines. Cutting-edge technologies, including genomics, mouse genetics and molecular biology, provide unprecedented opportunities to advance knowledge of fundamental immunology in disease pathogenesis and therapy. Faculty members are highly collaborative and have research interests in many areas of immunology. One focus of the program is infection and immunity, including host immune responses to bacteria, viruses and parasites, vaccine development and immune regulation. Other areas include nutrition and immunity, allergy, autoimmunity, cancer therapy, and the use of immune mediators for diagnosis and treatment. This diversity of research, together with a strong integrated curriculum, offers students the opportunity to develop skills and knowledge for research careers in many areas of contemporary immunology.

**INTEGRATIVE PATHOBIOLOGY**

Ph.D., M.S.

The graduate group in integrative pathology offers the M.S. and Ph.D. degrees for graduate study in disciplines concerned with disease processes. The group’s focus is the study of the causes and nature of disease processes in animals and humans, with major emphasis on the mechanisms responsible for the development of diseases at the level of organ systems, the cell, or subcellular mechanisms. The group brings a wide array of scientific knowledge to this study to accommodate students with divergent interests through programs designed for individual needs. Beyond core courses selected from disciplines such as anatomy, bacteriology, genetics, immunology, parasitology, pathology, physiology and virology, course programs are intentionally flexible.

**MASTER OF PREVENTIVE VETERINARY MEDICINE**

(530) 752-2657
vetmed.ucdavis.edu/mpvm
M.P.V.M.

Using state-of-the-art methods in epidemiology, the Master of Preventive Veterinary Medicine program prepares veterinarians to investigate and evaluate disease and production problems in animal populations and to design, evaluate and implement disease control or other veterinary services programs. Faculty in the School of Veterinary Medicine and other collaborating faculty carry out research on a wide variety of animal diseases, on microbial and parasitic zoonoses, veterinary public health, food and water-borne infections in humans, wildlife diseases and wildlife management,
animal health economics, animal production, biostatistics, veterinary medical data management and computer applications in veterinary medicine. The one-year program involves course work, a research project and a series of electives, which permit the student to select one of the areas of emphasis (population health, food safety, public health and zoonoses, wildlife disease and ecology, ecosystem health, international health, and independent study).

MATERNAL AND CHILD NUTRITION
(530) 757-8734
extension.ucdavis.edu/macnutrition
M.A.S.

During the last decade, the need for nutrition specialists in public health and maternal and child health programs has increased, along with the recognition that low birth weight, diabetes, and childhood overweight and obesity are important national health concerns. There is also an increasing demand for lactation specialists, as greater numbers of women choose to breast-feed their infants. In response, private and public health agencies have focused on improving the nutrition of mothers and children. The UC Davis Master of Advanced Study in Maternal and Child Nutrition Program is designed to provide a strong scientific background in these topics, and to train professionals to design, implement, and evaluate nutrition intervention programs for mothers and children from a wide variety of cultural, ethnic, and social backgrounds.

MICROBIOLOGY
(530) 752-0262
myhs.ucdmc.ucdavis.edu/web/microbiology-graduate-group
Ph.D., M.S.

Although an M.S. degree may be obtained while pursuing a Ph.D. degree, only Ph.D. applications will be accepted.

The microbiology graduate group offers interdisciplinary, interdepartmental training leading to the Ph.D. The program combines academic and experimental training in modern molecular approaches to microbiological problems. The group is composed of more than 60 faculty members from 24 departments. Areas of research span fundamental, applied, and pathogenic microbiology, including bacterial and viral pathogenesis, eukaryotic microbiology, microbial genomics and genetics, microbial physiology and development, microbial ecology and environmental microbiology, cancer biology, and bioengineering and bioremediation. During the first year, they complete core courses and a series of laboratory rotations, and then begin their dissertation research. Additional elective courses and seminars are part of the second year curriculum. All students receive financial support.

MOLECULAR, CELLULAR AND INTEGRATIVE PHYSIOLOGY
(530) 752-9092
mcip.ucdavis.edu
Ph.D., M.S.

The graduate group in molecular, cellular and integrative physiology offers a comprehensive program of courses and outstanding research opportunities studying biological function by linking observations from molecules to populations of individuals. The group is composed of more than 80 faculty members drawn from 26 departments encompassed in the School of Medicine, School of Veterinary Medicine, the College of Biological Sciences, and the College of Agricultural and Environmental Sciences. The campuswide nature of the group provides the program with exceptional diversity and opportunity for interdisciplinary collaborations that can accommodate students with a broad spectrum of interests. The intellectual freedom and breadth are reflected in the numerous areas of study available. These include general training in cellular/molecular physiology and systemic physiology, as well as more specialized fields such as cardiorespiratory physiology, comparative physiology, endocrinology, exercise physiology, neurophysiology and reproductive physiology. As students transcend disciplines they have the option of participating in designated emphasis programs for reproductive biology, biotechnology, biophotonics, organism-environment interactions or translational research.

NEUROSCIENCE
(530) 757-8845
neuroscience.ucdavis.edu/grad
Ph.D., M.S.

* M.S. offered only under special circumstances.*

The neuroscience graduate program is an exciting and highly interactive program that provides outstanding training in the neurosciences by a dedicated and internationally recognized faculty. Areas of research include: the cellular and molecular structure of neurons, mechanisms of synaptic plasticity, development of the nervous system, organization of brain systems for motor control and processing of visual and auditory information, structure and function of memory and attention systems, and the pathobiology of neurological disorders. Students complete core courses in neuroscience and carry out research rotations in several laboratories during their first year before beginning their doctoral dissertation research. All students receive financial support.

NURSING SCIENCE AND HEALTH-CARE LEADERSHIP
(916) 734-2145
nursing.ucdavis.edu
Ph.D., M.S.

The nursing science and health-care leadership graduate group prepares nurse leaders, researchers and faculty in a unique interdisciplinary and interprofessional environment. The graduate group is composed of faculty from across campus with expertise in nursing, medicine, health informatics, nutrition, biostatistics, public health and other fields. Nursing science and health-care leadership research and education emphasizes healthy systems and healthy people. Healthy systems involves improving health-care systems and designing policies to be effective, efficient and responsive. Research in healthy systems includes health policy, organizational change, informatics, implementation science and leadership. Healthy people pertains to promoting health for individuals, families and populations in partnership with communities, with an emphasis on aging, rural and diverse populations. Research for healthy people includes community health, public health, epidemiology, gerontology, rural health and health disparities. The doctoral program prepares graduates as leaders in health care, health policy, and nurse faculty and researchers at the university level. Master’s degree program graduates will be well prepared for health-care leadership roles in a variety of organizations and as nurse faculty at the community college and prelicensure levels.

NUTRITIONAL BIOLOGY
(530) 754-7684
ggnb.ucdavis.edu
Ph.D., M.S.

The great diversity of research interests represented by the faculty members allows students to choose from a wide variety of
themes: nutritional biochemistry, animal nutrition, nutrition and development, nutrient bioavailability, human/clinical nutrition, nutrition and behavior, nutritional energetics, community nutrition, maternal and child nutrition, nutrition and endocrinology, international nutrition, obesity/body composition, physiology of digestion, nutrition and chronic disease, culture and nutrition, nutrition and gene expression, nutrition and aging, food preferences, nutrition and immunity, diet and exercise, dietary assessment, protein and lipid metabolism, food intake regulation, and nutrition education.

PHARMACEUTICAL CHEMISTRY
(530) 752-0953
chemistry.ucdavis.edu/graduate
M.S.

The pharmaceutical chemistry program is intended for those students seeking employment at the M.S. level as research chemists in the pharmaceutical industry. The purpose of the program is to provide students with the enhanced technical depth and breadth in pharmaceutical chemistry that substantial research experience affords, so that their ability to make important contributions immediately and throughout their careers in these fields will be greatly enhanced. The program will incorporate the core disciplines of organic chemistry, biological chemistry and chemical biology.

PHARMACOLOGY AND TOXICOLOGY
(530) 752-4516
ptx.ucdavis.edu
Ph.D., M.S.

The pharmacology and toxicology graduate group is an interdisciplinary program that combines coursework and experimental training in modern approaches to pharmacological and toxicological problems. The group is comprised of more than 80 faculty members from the School of Veterinary Medicine, School of Medicine, College of Agricultural and Environmental Sciences, and the College of Biological Sciences. Areas of research span fundamental and translational research in a broad spectrum of areas within pharmacology and toxicology, including cardiovascular pharmacology, cancer therapeutics, neuropharmacology, drug discovery and design, neurotoxicology, pulmonary toxicology and environmental toxicology. Students complete core courses in pharmacology and toxicology and carry out research rotations during their first year of study. All Ph.D. students receive financial support.

PHYSICIAN ASSISTANT STUDIES
(916) 734-2145
nursing.ucdavis.edu
M.H.S.

The physician assistant studies program provides a solid foundation in modern health sciences combined with advanced clinical training that leads to the Master of Health Services degree. The didactic and clinical course work is designed to meet the state licensure, accreditation and national certification requirements for physician assistants. The Betty Irene Moore School of Nursing faculty will provide the majority of the academic coursework, and the clinical training will be delivered by School of Medicine faculty. Interprofessional educational training will be through the doctoring series, case studies, and special studies modules with nursing and medical students. Program faculty members are interprofessional and multidisciplinary with expertise in medicine, nursing, informatics, nutrition, sociology, health policy, research and business. Graduates of this program will have enhanced capability in working effectively within the health-care system to improve the delivery, provide the highest level of quality primary care to individual patients, and serve as leaders within their health-care setting.

PLANT PATHOLOGY
(530) 754-9506
plantpathology.ucdavis.edu/graduate_program
Ph.D., M.S.

The department offers study in plant pathology, including emphasis on diseases caused by viruses, bacteria, fungi, and nematodes. Graduate students may specialize in the physiology, biochemistry, and molecular biology of plant pathogens or host-pathogen interactions; the biology and ecology of plant pathogens; epidemiology and modeling of plant diseases; and the diagnosis and control of plant diseases, including chemical, biological and integrated methods of control.

POPULATION BIOLOGY
(530) 752-1274
eve.ucdavis.edu/eve/pbg
Ph.D., M.S.

Although an M.S. degree may be obtained while pursuing a Ph.D. degree, only Ph.D. applications will be accepted.

The program concentrates on population biology as the broad discipline that blends ecology, evolution, population genetics and systematics into a unified field. The course curriculum consists of first-year core courses, seminars, and advanced courses in population biology, mathematics and statistics, chosen in consultation with a guiding committee. Area specializations range from paleontology and systematics to community ecology, genomics and molecular population genetics.

PUBLIC HEALTH SCIENCES
(530) 754-4992
mph.ucdavis.edu
Ph.D.*, M.P.H.

* Pending approval

The public health sciences programs include instruction in epidemiology, biostatistics, environmental and occupational health, health services and administration, and social and behavioral science, and they prepare students for an expanding range of professional opportunities and roles in public health and medicine. The Master of Public Health program is designed for people interested in disease prevention and community health. The
program’s mission is to develop the public health leaders of the future by providing a high-quality master’s degree curriculum in partnership with the public health community. The Ph.D. in public health sciences is designed to create graduates who will be experts in generating and disseminating new knowledge about health and disease prevention and effective programs in public health. The doctoral students in this program will be educated in research design, implementation and analysis as well as public health practice. These programs promote a practical public health focus through a historically strong partnership with federal, state and local public health communities, including the California Department of Public Health.