APPLIED MATHEMATICS
(530) 601-4444 ext. 1006
math.ucdavis.edu/grad/ggam
Ph.D., M.S.

The applied mathematics program is targeted for students who are attracted to mathematics but who also wish to apply mathematical ideas to advance our understanding of science and engineering. The program admits qualified students with a bachelor’s degree in mathematics, physics, chemistry, engineering, economics, the life sciences and related fields. The program allows graduate students to pursue research with any of 89 affiliated faculty members in more than 20 departments and programs including: mathematics; geology; physics; statistics; evolution and ecology; environmental science and policy; land, air and water resources; applied science; computer science; biomedical engineering; chemical engineering and material science; civil and environmental engineering; electrical and computer engineering; mechanical and aeronautical engineering; anesthesiology and pain medicine; neurobiology, physiology and behavior; and radiology. They approach scientific research from a mathematical perspective while providing an academic home securely anchored in the Department of Mathematics. The program is small enough to provide students with the personal attention necessary to meet his/her desired goal. And yet, they have all the options, opportunities and world-class facilities that come with being part of a large research university.

ATMOSPHERIC SCIENCE
(530) 752-1669
laur.ucdavis.edu/graduate_atm.htm
Ph.D., M.S.

Atmospheric science is the study of the physics, chemistry and dynamics of the atmosphere and its interrelationship with the hydrosphere and the biosphere. Major emphasis is placed on the following fields: air quality meteorology, atmospheric chemistry, micrometeorology, biometeorology, climate dynamics, mesoscale meteorology, large-scale dynamics and numerical weather prediction.

BIOLOGICAL SCIENCE

BIOMEDICAL ENGINEERING
(530) 752-2611
eengineering.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.

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

Chemistry is concerned with the structure and properties of atoms and molecules—the building blocks of matter. It is often regarded as the “central science” because it provides a link between physics and biology. Advances in chemistry have shaped the modern world, and brought about new drugs, fertilizers, plastics, and materials for energy conversion and information technology. The chemistry graduate program at UC Davis is world-renowned and represents the full breadth of the discipline, including analytical, biological, inorganic, organic, physical and theoretical chemistry.
Currently, over 40 graduate courses are being offered to over 250 graduate students. Students can choose among 40 faculty members to work on often highly collaborative and interdisciplinary research projects. Students are mentored in conducting research and writing scientific publications, and they are given the opportunity to participate in national and international conferences. Their work is supported with modern instrument facilities, and financially through research grants, teaching assistantships and student fellowships.

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-quality research, 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.

GEOGRAPHY
(530) 752-4119
geography.ucdavis.edu
Ph.D., M.A.
The geography graduate program emphasizes spatial interactions between humans and the biophysical environment. Faculty interests include: landscape change and sustainable resource management; human and physical geography of diverse world environments; domestication and geographical dispersal of plants and animals; biogeography and climate change; cultivation of indigenous peoples and immigrants; indigenous agrosystems, especially in tropical regions; women in development; and medical-nutritional geography. During the past several years, group faculty and graduate students have conducted research in the Caribbean; Central and South America; Western and Eastern Europe; Africa; Mediterranean lands and the Middle East; the former Soviet Union; East, Central, South and Southeastern Asia; and the American West and Southwest, especially California. Master’s students develop professional competence in a topical and a regional specialization and in geographical information system skills. Ph.D. students develop refined skills in the acquisition, analysis and synthesis of information. They specialize in one major region and one topical subfield.

GEOLOGY
(530) 752-9100
geology.ucdavis.edu/students/grad
Ph.D., M.S.
The geology program provides a dynamic interdisciplinary environment for studies of the Earth and planets, as well as the history of life on Earth, and applied and environmental geosciences. Included are: specialized studies in geophysics; geochemistry; planetary science; cosmochemistry; high-pressure experimental petrology and rock deformation; tectonics; structural geology; igneous, metamorphic and sedimentary petrology; surficial processes; fluvial geomorphology; stratigraphy; paleoecology; phylogenetic reconstruction; functional morphology and evolution; oceanography; paleo-climate studies; geothermal energy; and natural hazards. The department has outstanding analytical and computational facilities and provides opportunities for research and study around the world. The campus is well situated to provide access to field areas exhibiting diverse geologic and tectonic phenomena, and encourages interdisciplinary research through collaborations with the KeckCAVES, Center for Watershed Sciences, the Bodega Marine Laboratory, and other UC research stations. The program offers a diverse, collaborative and flexible research environment integrating field, laboratory and theoretical/computational approaches, and encourages highly individualized and interdisciplinary research.

HYDROLOGIC SCIENCES
(530) 752-1669
hydscigrad.ucdavis.edu
Ph.D., M.S.
The hydrologic sciences involve the physical, chemical, and biological processes that affect the circulation of water and solutes on Earth. The graduate group in hydrologic sciences offers numerous programs of study in hydrology, hydrogeology, vadose zone processes, hydrogeochemistry, river restoration, modeling, geographic information systems, water resources management, irrigation and drainage, and climate change, among others. Students with a background in hydrologic sciences, geology, geophysics, engineering, soil science, biology, chemistry, computer science, environmental science, fluid mechanics, mathematics and physics are strongly encouraged to apply for admission to the graduate program. Because of increasing demand for solutions to water and environmental problems such as water pollution and climate change, the job market for highly qualified hydrologic scientists is consistently strong in both the public and private sectors.

MATHEMATICS
(530) 601-4444 ext. 1006
math.ucdavis.edu/grad/gpc
Ph.D., M.A.
The graduate program offers a diverse set of research programs, including algebra, analysis, applied mathematics, combinatorics, differential geometry, geometric topology, harmonic analysis, mathematical biology, mathematical physics, numerical analysis, partial differential equations, optimization, probability, quantum computation and representation theory. Ample student support is available from a variety of sources. Nearly 90 percent of the faculty members have grant support from one or more federal agencies, including the National Science Foundation, the National Institutes of Health, and the departments of Defense and Energy. The program is small enough to provide students with the personal attention necessary to meet his/her desired goal. Yet, all the options, opportunities and world-class facilities that come with being part of a larger research university are available.

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.
PHYSICS
(530) 752-1501
physics.ucdavis.edu/academics/graduate-program
Ph.D., M.S.

The more than 40 faculty members of the physics program have a broad range of experimental and theoretical research interests. They have large efforts in condensed matter physics, cosmology and high energy/elementary particle physics, with smaller groups studying biophysics, complexity, gravitation, nuclear physics, and physics education. Students in this program often travel to national and international facilities for parts of their Ph.D. work. Nearly all of the Ph.D. students receive financial support through teaching, research positions or from external fellowships. Most continue on to physics jobs in industry, academia or at national labs. The program emphasizes a nurturing environment for students. As one example, senior students have the opportunity to act as primary instructor for a class. This has enabled several students to move directly to tenure-track jobs at teaching-oriented colleges.

SOILS AND BIOGEOCHEMISTRY
(530) 752-1669
soils.ucdavis.edu
Ph.D., M.S.

The soils and biogeochemistry graduate program focuses on the study of physical, chemical and biological processes that occur in the soils of different landforms and ecosystems. These studies assess the impacts and implications of natural processes and anthropogenic effects, such as climate change, on soil and ecosystem behavior and development. Topics include: pesticide and trace element adsorption on surfaces; mineral weathering; fate and transport of native and applied chemicals; soil microbial ecology; fate and emission of greenhouse gases; soil carbon sequestration; nutrient uptake and management; nutrient cycling through managed and wildland ecosystems; organic agriculture; bioavailability of toxic substances; soil erosion; conservation; ecosystem productivity and sustainability; and the study of soil evolution on the landscape. These studies are carried out within a framework of integrating applied chemical, physical, mathematical and biological sciences. The soils and biogeochemistry program offers a unique opportunity to learn about soil processes in the diverse regions of California, and their role in agricultural, forest, coastal, desert, wetland and urban ecosystems.

STATISTICS
(530) 692-5194
www.stat.ucdavis.edu/grad
Ph.D., M.S.

The M.S. program provides students with broad familiarity with the most widely used statistical methods and with solid background in statistical computing. The supervised statistical consulting required of all M.S. students has proven to be a valuable educational experience. The Ph.D. program combines advanced coursework in probability, theoretical, applied and computational statistics, balancing methodology, computing, and applications. Students acquire a solid background in probability and mathematical statistics and are trained in modern statistical methods, data analysis, applications and computational tools. The program offers the opportunity for in-depth concurrent study in an applied field for all graduate students, and Ph.D. students can elect a subspecialty in the area of biostatistics.

TEXTILES
(530) 752-3250
textiles.ucdavis.edu/graduate
M.S.

The graduate group in textiles offers a program of study and research leading to the M.S. degree. Students in the program can emphasize either the physical science, behavior aspects or the integrated studies of textiles and fibrous materials. Research areas include: chemical, physical, biochemical, and mechanical properties of fibers and polymers as well as fibrous assemblies, including composites, paper, and nonwovens; and psychological and sociological factors relating to perception and consumption of textiles and apparel. Extensive specialized fiber, polymer, and textiles research facilities and a behavioral research laboratory are available.