Graduate Studies in Applied Mathematics at UCM

In applied mathematics at UC Merced, we explore the applications of mathematics in the development of natural sciences, engineering and social sciences. Graduate study in applied mathematics at UC Merced offers an interdisciplinary research and training program for Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) students. We offer opportunities for students interested in multidisciplinary mathematics projects at the interface with life sciences, physical sciences, engineering and social sciences.

For more information, please contact Prof. Michael Sprague

Below is some specific information about graduate studies in applied mathematics.

- Description
- Application information
- Degree requirements
- Courses
- Preliminary examinations
- Policies and Procedures
- Graduate students
- Faculty

Welcome

WELCOME to the **Biological Engineering and Small-scale Technologies (BEST)** graduate program at the Merced campus of the University of California.

The engineering sciences are undergoing a vast and fundamental metamorphosis from isolated disciplines to more integrative and multidisciplinary topics. The BEST Graduate Program offers graduate degrees (Master of Science and Doctor of Philosophy) in synergistic areas of **Biological Engineering and Materials Engineering** with specializations in diverse tracks. Research projects are available on topics ranging from fundamental characterization of materials to tissue engineering, and coursework will provide a background in the tools of biologics and integration of modern materials.

Our faculty and staff take pride in combining exceptional teaching with state-of-the-art research to advance the education and research of this rapidly maturing discipline. Our researchers are actively participating both within and beyond the university community to apply biotechnology principles to the solutions of essential medical, technological, and societal challenges.

Kara McCloskey, Program Chair

kmccloskey@ucmerced.edu

EECS - Electrical Engineering and Computer Science at UC Merced

Welcome to the Electrical Engineering and Computer Science website at UC Merced.

We currently offer a Bachelor of Science degree in Computer Science and Engineering. Degrees in Electrical Engineering will soon be added.

Graduate study in Electrical Engineering and Computer Science at UC Merced offers an interdisciplinary research and training program for Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) students. We offer opportunities for students interested in multidisciplinary engineering projects in cutting edge research areas.

Our fast-growing faculty pursues research in various areas, including, but not limited to, artificial intelligence, computational neuroscience, animation, graphics, computer networks, computer vision, distributed systems, embedded networked sensor systems, machine learning, operating systems, robotics, speech processing, and wireless communication.

Together with UC Berkeley, UC Davis and UC Santa Cruz, UC Merced is part of CITRIS, the Center for Information Technology Research in the Interest of Society. The EECS faculty is involved in various activities and research projects supported by CITRIS.

Mechanical Engineering and Applied Mechanics

Change your life and the world around you as a graduate student in MEAM at UC Merced

Research in MEAM impacts society through the development of innovative technologies and methods that cover a variety of fields of knowledge. Graduate studies in Mechanical Engineering will enhance your understanding of physical phenomena and will provide you with modern analytical tools for the design and synthesis of mechanical components and systems. Mechanical Engineering and Applied Mechanics is rich field of discovery and an evolving discipline that continuously adapts to tackle current and challenging problems. Some of the current areas of research include advanced and sustainable energy systems, mathematical and computational modeling, complex and free surface flows, aeroelasticity and hydroelasticity, autonomous vehicles, biomechanics and biosensors, controls, robotics, nano/micro-technology, polymer physics, design optimization, and complex systems.

The faculty of the MEAM program at UC Merced is committed to creating an exciting environment for discovery and innovation through the application of mathematical, physical and engineering fundamentals to the improvement of our quality of life and of our understanding of Nature.

For more information about MEAM, or to arrange a visit, e-mail participating faculty below:

- Francois Blanchette, Assistant Professor of Natural Sciences (Applied Math, Fluids, Sedimentation)
- Stefano Carpin, Assistant Professor of Engineering (Robotics, Artificial Intelligence)
- Carlos Coimbra, Associate Professor of Engineering (Memory-Intense Mechanical Systems, Fluids)
- Gerardo Diaz, Assistant Professor of Engineering (Thermal Systems, Energy, Controls)
- Ajay Gopinathan, Assistant Professor of Natural Sciences (Polymer Physics, Biophysics)
- Marcelo Kallman, Assistant Professor of Engineering (Motion Planning, Geometric Modeling)
- Michael Sprague, Assistant Professor of Natural Sciences (Applied Math, Hydroelasticity)
- Jian Q. Sun, Professor of Engineering (Vibrations and Controls, Mechanical Systems)
- Roland Winston, Professor of Engineering and Natural Sciences (Solar Energy, Particle Physics)

Physics and Chemistry Graduate Group

UCMERCED

Welcome to the UC Merced Physics and Chemistry Graduate Group

We are a group of researchers with research interests spanning major traditional disciplines in physics and chemistry as well as interdisciplinary areas such as materials, nanoscale science and biological physics. The expertise and perspectives required for the solutions to many present day science and technological challenges, from renewable energy, advanced computation, to cures of diseases, are not confined to single disciplines. Under the unique academic structure of UC Merced, the physics and chemistry graduate group is uniquely positioned to take on the challenges by assembling a group of researchers with diverse and interconnected research interests.

Science and Engineering Building, in the backdrop of Sierra Nevada.

UC Merced>>

School of Natural Sciences>>

School of Engineering>>

Prospective Students>>

Employment Opportunities>>

UCMERCED

Quantitative and Systems Biology

Welcome to the Quantitative and Systems Biology graduate track at UC Merced

Quantitative and Systems Biology(QSB) is a multidisciplinary graduate group that offers an individually tailored program leading to M.S. and Ph.D. degrees in many research areas at the forefront of life sciences research. QSB currently involves faculty from the Schools of Natural Sciences and Engineering and has been accepting graduate students since Fall, 2003.

Apply Now For Grad School

Visit the UC Merced Graduate Division website to apply on line.

Social and Cognitive Sciences Graduate Group

The graduate program in Social and Cognitive Sciences offers students individualized training and the opportunity to help build a unique, interdisciplinary research community. Graduate study is currently organized as five tracks: anthropology, cognitive science, economics, political science, and psychology. In addition, there are individual faculty members with interests in public policy and sociology. There are future plans for additional areas, but applications are only considered in areas of current faculty research. Graduate study at UC Merced will involve working closely with one or more professors, so prospective applicants should carefully consult the faculty list for current research topics.

- **Anthropology**. This track explores contemporary and historical cultures and societies by studying the practices and processes that entwine the individual in social structures, social relations, and power dynamics. Areas of focus include health and nutritional status, migration, demography, identity, culture and citizenship, and globalization, with attention to the Americas. Faculty: DeLugan, Hull, Rebhun.
- **Cognitive science**. This track provides interdisciplinary training in computational modeling, high-level cognition, including reasoning, categorization and decision-making, psycholinguistics, cognitive linguistics, visual perception, cognitive engineering, artificial intelligence, computer vision, philosophy of mind, and cognitive neuroscience. Faculty: Dunham, Heit, Kallmann, Kello, Maglio, Matlock, Newsam, Noelle, Spivey, Yoshimi.
- **Economics**. This track provides training in such applied microeconomic fields as labor economics, public economics, law and economics, industrial organization and political economy. Faculty: Kantor, Neumann, Whalley, Winder.
- **Political Science**. This track provides training in quantitative approaches to American Political Behavior and Institutions. Faculty: Hansford, Monroe, Nicholson.
- **Psychological Sciences**. This track provides training in developmental psychology, health psychology and quantitative psychology. Areas of particular strength include experimental design, meta-analysis, health in children, adolescents and young adults, development of social stereotypes and prejudices, and language and cognitive development. Faculty: Chouinard, Dunham, Shadish, Song, Vevea, Wallander.

The Anthropology track explores contemporary and historical cultures and societies

World Cultures Graduate Group

A graduate program in World Culture studies has been formed to offer individualized, research-based courses of study. The program explores cultures in both their local manifestations (by focusing on the rich cultural and historical heritage of California , the San Joaquin Valley , and the Sierra Nevada), and in a global context. The program pays particular attention to world cultures in their historical, political, and literary manifestations, and to the effects of immigration and migration on society and cultural change.

Students will understand and use the methods by which historians, literary scholars, artists, philosophers, and other humanists and social scientists examine societies and cultures. The program will offer concentrations in History, Literatures and Cultures of the Spanish-speaking World, and Literatures and Cultures of the English-speaking world.

Concentrations include multidisciplinary and interdisciplinary courses, and the concentrations are conceived as mutually complementary. Since proximity to the Sierra and the other splendid natural features of California has significantly influenced the cultural and historical development of the state, students will also benefit from the intersections of interests between the World Cultures Institute (WCI) and the Sierra Nevada Research Institute (SNRI), particularly in the area of the cultural understanding of wilderness and the environment.

Graduate study at UC Merced involves working closely with one or more professors, so prospective applicants should carefully consult the faculty list for current research topics.