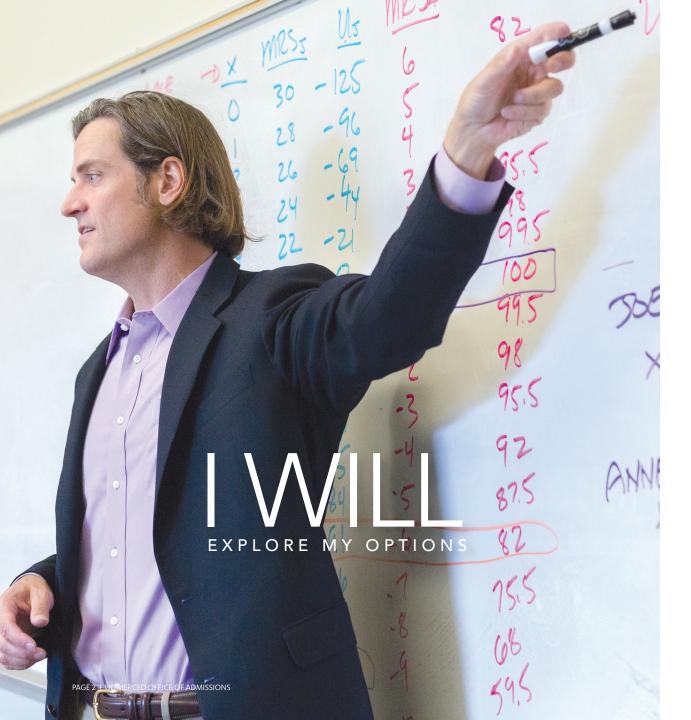
UNIVERSITY OF CALIFORNIA MERCED

# UNDECLARED



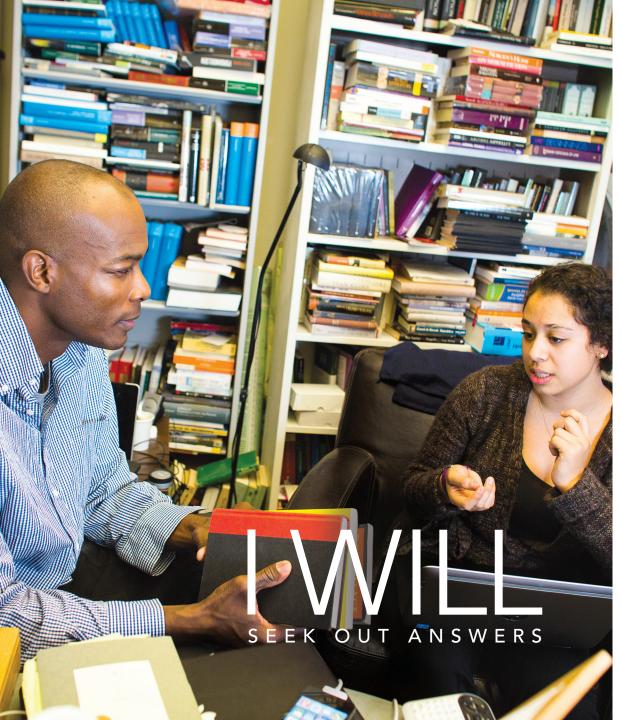


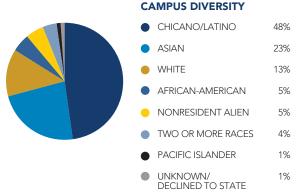
UC Merced seeks to introduce undergraduates to the wonders of research and discovery through innovative majors and academic programs. If you are one of the nearly one-third of first year students entering UC Merced without declaring a major, you've made a decision that has the potential to promote both personal passion and your academic success. Often, students who find the greatest success are those who choose majors based on their strengths and interests. Guided by dedicated academic advisors, being "undeclared" at UC Merced provides a safe and open space to explore one or more fields of study.

As a student at the first American research university of the 21st century, you will be exposed to a learning environment with relatively small classrooms, engaged instructors and a highly interdisciplinary atmosphere. With fewer than 7,000 undergraduate students, UC Merced provides a rare opportunity to have the advantages of a world-class public research university with the atmosphere of a small private college.

As an Undeclared student, you will have access to resources that allow you to explore the range of academic programs available. While satisfying degree requirements, enrollment in first year courses will provide an introduction to the breadth of UC Merced majors and engagement with our accessible and dedicated faculty. Programming offered through the Center for Career and Professional Advancement will allow you to explore your strengths and interests, and how those translate into an academic major and, eventually, a career.

Whether you're conflicted about deciding on a major, or open to the possibilities, UC Merced encourages you to explore your passion while completing a degree at the newest campus of the world-renowned University of California system.

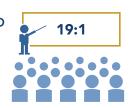




# UNDERGRADUATE ENROLLMENT BY SCHOOL TOTAL UNDECLARED ENROLLMENT: 586

SCHOOL OF SOCIAL SCIENCES, HUMANITIES AND ARTS	37%
SCHOOL OF NATURAL SCIENCES	29%
SCHOOL OF ENGINEERING	25%
UNDECLARED	9%

#### STUDENT-FACULTY RATIO



**SOURCE:** UC MERCED INSTITUTIONAL RESEARCH AND DECISION SUPPORT DIVISION, FALL 2016

# Academic Programs

#### **SCHOOL OF ENGINEERING**

Bioengineering, B.S.

Computer Science and Engineering, B.S.

Environmental Engineering, B.S.

Materials Sciences and Engineering, B.S.

Mechanical Engineering, B.S.

Undeclared School of Engineering

#### **SCHOOL OF NATURAL SCIENCES**

Applied Mathematical Sciences, B.S.

Biological Sciences, B.S.

Chemical Sciences, B.S.

Earth Systems Science, B.S.

Physics, B.S.

Undeclared School of Natural Sciences

#### SCHOOL OF SOCIAL SCIENCES. **HUMANITIES AND ARTS**

Anthropology, B.A.

Cognitive Science, B.A., B.S.

Economics, B.A.

English, B.A.

Global Arts Studies Program, B.A.

History, B.A.

Management and Business Economics, B.S.

Political Science, B.A. Subfield: Pre-law

Psychology, B.A.

Public Health, B.A.

Sociology, B.A.

Spanish, B.A.

Undeclared School of Social Sciences. Humanities and Arts

#### **UNDECLARED**

#### **MINORS**

**American Studies** 

Anthropology

**Applied Mathematics** 

Arts

Chemical Sciences

Chicano/a Studies

Cognitive Science

Community Research and Service

**Economics** 

English

**Environmental Science** and Sustainability

History

Interdisciplinary Public Health

Management and Business **Fconomics** 

Natural Sciences Education

Natural Sciences Education Minor with Teaching Credential

Philosophy

**Physics** 

Political Science

Psychology

Sociology

Spanish Writing

#### THREE-YEAR PATHWAY PROGRAM

Completion of a UC Merced degree provides undergraduates the opportunity to develop disciplinary and interdisciplinary skills, knowledge and attitudes that are essential for postgraduate success. In an effort to support the diverse academic and post-baccalaureate goals of our students, UC Merced has identified accelerated pathways to popular degrees. Learn more about three-year pathways to Natural Science degrees at ns-advising.ucmerced.edu/acceleratedplan.

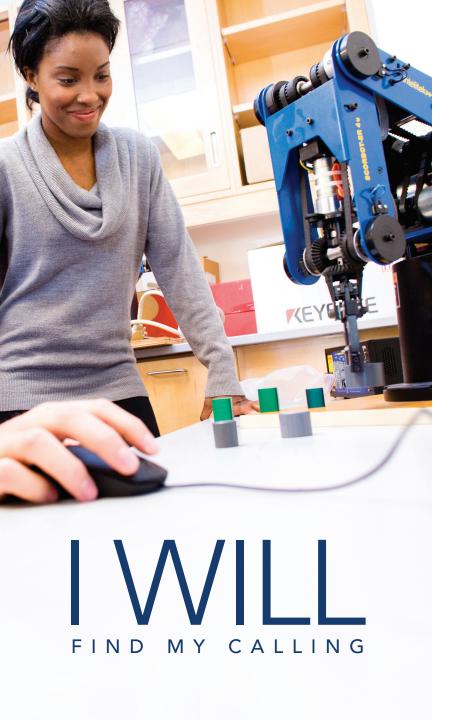


#### ONE OF THE BEST PUBLIC UNIVERSITIES IN THE NATION

UC Merced is by far the youngest university to appear in the U.S. News & World Report ranking of national universities



by the Carnegie Foundation



### ALWAYS SEEKING ANSWERS

Undergraduates at UC Merced are offered the unique opportunity to conduct research with some of the most highly regarded faculty members in their fields. This opportunity sparks curiosity in our students, some of whom develop their own research projects, and some who participate in work already being facilitated.

#### UNDERGRADUATE RESEARCH PROJECTS

- » Undergraduate mechanical engineering student Rebecca Quinte worked with Professor Andrea Joyce on a project that aims to shoo away leaf-footed bugs, insects that feed on the seeds of crops, research that could end up benefitting farmers in the Central Valley and beyond.
- » Physics Professor Ajay Gopinathan and student researchers in his lab investigated the transport that occurs in biological systems across different levels of organization and scales in complex settings, such as the crowded interior of cells.
- » Through the World Heritage Research Experience Scholars Program, students and faculty involved in a project titled "Bodie Digital Community Connect with Your Past" designed and developed an augmented reality mobile app that brought to life the town of Bodie, a California State Historic Park that is at risk of being lost due to wildfires and lack of funding for conservation.

Video: Explore the Digital Preservation of Historic Bodie



» A team of UC Merced engineering students mentored by Professor Anand Subramaniam made progress during their capstone class recently on developing prototypes of small, portable machines that can be used to diagnose diseases within 20 to 30 minutes of testing. The students won first place out of 24 teams and a \$5,000 prize at the Innovate to Grow Grand Challenge.

#### **INTERNSHIP OPPORTUNITIES**

Bristol-Myers Squibb, California State Assembly, Cedars Sinai Medical Center, Boeing, Chevron, E. & J. Gallo Winery, Gamma Scientific, General Electric, Genentech, Golden Valley Health Centers, Google, Hetch Hetchy Water and Power, JPMorgan Chase and Co., Juniper Networks, Kaiser Permanente, Lawrence Livermore National Laboratory, LEGO Robotics, Microsoft, Morgan Stanley Smith Barney, NASA Jet Propulsion Lab (JPL), National Park Service, National Science Foundation, Northrop Grumman, PayPal Holdings Inc., San Francisco Public Utilities Commission, Sandia National Laboratories, Siemens Corp., Stanford University Medical Center, Tesla Motors, Thermo Fisher Scientific, U.S. Attorney's Office, U.S. Department of Agriculture, U.S. House of Representatives

### FOSTERING RESEARCH

Special programs, institutes and state-of-the-art facilities in all three schools help facilitate real-world problem solving and understanding the world around us.

#### **SCHOOL OF ENGINEERING**

- » Innovate to Grow (Engineering Service Learning, Innovation Design Clinic and Mobile App Challenge)
- » Imaging and Microscopy Facility
- » Light Microscopy and Crystallography Modeling Center
- » Mechanical Test Laboratory
- » Sierra Nevada Research Institute Environmental Analytical Laboratory
- » Stem Cell Instrumentation Foundry

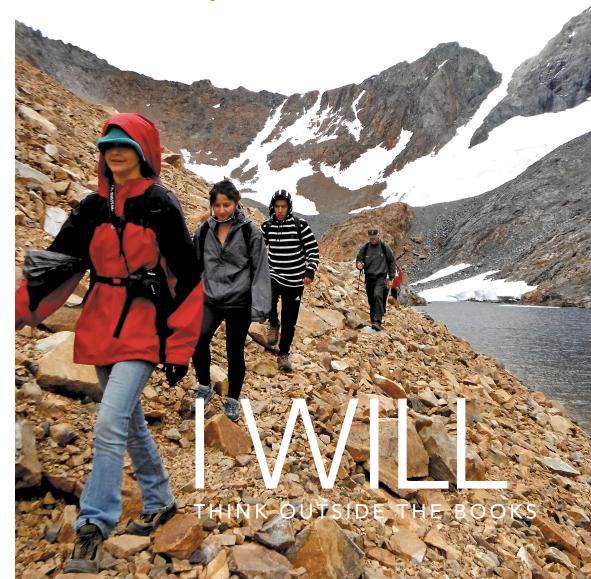
#### **SCHOOL OF NATURAL SCIENCES**

- » CalTeach/UC Science and Math Initiative
- » Center for Computational Biology
- » The Center of Excellence for the Study of Health Disparities
- » Merced Nanomaterials Center for Energy and Sensing
- » Health Sciences Research Institute
- » Sierra Nevada Research Institute

#### SCHOOL OF SOCIAL SCIENCES, HUMANITIES AND ARTS

- » Center for Human Adaptive Systems and Environments
- » Center for the Humanities
- » Foreign Languages Program
- » Media Arts Technique Program
- » Philosophy Program
- » World Heritage Research Experience Scholars Program







# JENNIFER LU

PROFESSOR, SCHOOL OF ENGINEERING Ph.D., University of Michigan

Professor Jennifer Lu is one of the first three faculty members to establish the Materials Science and Engineering discipline at UC Merced. Her research is focused on molecular design, rational synthesis, and performance characterization of the functional material enabled platform for energy conversion and storage as well as for biomedical applications.

Her research group is frequently published in high-impact journals. She is now serving as a NASA MIRO Center Director, Merced Nanomaterials Center for Energy and Sensing (MACES). Lu teaches popular undergraduate courses, including Introduction to Nanoscience, and Nanotechnology and Nanofabrication. She is a recipient of the Defense Advanced Research Projects Agency (DARPA) Young Investigator award. She was an invited participant in the Frontiers of Science and Engineering workshop cosponsored by the National Academy of Engineering and the National Academy of Science. Before joining UC Merced, she acquired a decade of industry experience at IBM and Agilent Technologies. She holds 18 patents related to semiconducting device fabrication and measurement-instrument design.

# FACULTY PROFILE MARIO SIFUENTEZ

PROFESSOR, SCHOOL OF SOCIAL SCIENCES, HUMANITIES AND ARTS Ph.D., Brown University

Professor Mario Sifuentez started as a first-generation college student from a farmworking background and earned his Ph.D. in American Studies. His first book, "Of Forests and Fields: Mexican Labor in the Pacific Northwest," was published in March 2016 and tells the story of Mexican immigrant workers in the agricultural and reforestation industries in the Pacific Northwest. Sifuentez teaches courses on food history, comic book history, public history, oral history, ethnic studies and workers in the United States and beyond. He currently is working on a book on farmworkers and water rights in the Central Valley.





# FACULTY PROFILE CAROLIN FRANK

PROFESSOR, SCHOOL OF NATURAL SCIENCES Ph.D., Uppsala University, Sweden

Professor Carolin Frank and her students work on bacteria called endophytes that live inside plants. Just like humans and other animals, plants are colonized by bacteria that are essential to plant health, but almost nothing is known about endophytic bacteria in natural ecosystems. Frank's students use DNA sequencing and genome analysis to study this endophytic "dark matter" in plants — particularly conifers — in the nearby Sierra Nevada and in other high-elevation ecosystems across the western United States. They have recently discovered what appears to be a previously unknown kind of symbiosis between pines and bacteria that fix atmospheric nitrogen. The research has the potential to radically change our perspective on how some plants acquire nitrogen, and also our understanding of the terrestrial nitrogen cycle.



# SENAIT MICAEL TEWOLDE

HOMETOWN: Santa Rosa, Calif.

**GRADUATED: 2014** 

DEGREE: B.S., Biological Sciences, with an emphasis in Molecular and Cell Biology

CURRENT LINE OF WORK: I work for the UCLA Health System in the Pathology Outreach Laboratory as a hospital laboratory technician.

ACTIVITIES/ORGANIZATIONS: I had the honor of serving as vice president for the UC Merced chapter of the National Society of Black Engineers (NSBE), internal vice president/co-founder of the African Student Union (ASU), a mentor for the UC Merced Police Mentor Program, and a member of Chi Alpha Campus Ministry. Through NSBE, I was able to develop professionally. Through ASU, I was able to turn my vision of establishing UC Merced's first annual African Culture Show into a reality. Through the mentor program, I was able to recognize the extent of internal fulfillment I receive teaching and providing guidance to young minds. Through Chi Alpha Campus Ministry, I discovered my true eternal identity in Jesus.

"UC MERCED PROVIDED SMALLER CLASSROOM SIZES, which allowed me to build relationships with professors who were passionate for their fields. Needless to say, the passion was contagious! The campus broadened my ideas on what is possible. As a proud Bobcat, I proudly profess all of the school's accomplishments and the positive impact we had and will have on the world."

## JOSE MARCELINO GARCIA

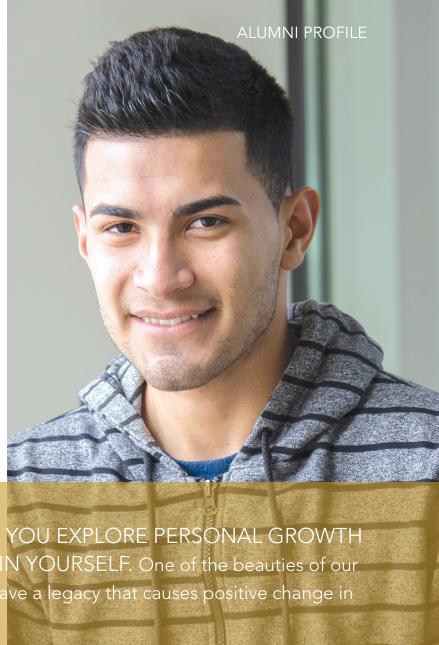
**HOMETOWN:** Santa Paula, Calif.

**GRADUATED: 2014** 

**DEGREE:** B.S., Mechanical Engineering

CURRENT LINE OF WORK: I am a diesel engine calibration engineer at General Motors. As an engine calibration engineer, my role is based on the control of vehicle emissions. A great portion of my work relies on supporting the calibrations of the controls of the after-treatment system responsible for reducing vehicular emissions and ensuring our vehicles meet government standards. A big percentage of the time is spent traveling across the country on development trips, where we aim to discover issues before vehicles reach the production stages. During these trips, we are given the opportunity to test the vehicles in real-world environments. When my group finalizes calibrations, the vehicles are ready to continue to their final development stage, which is manufacturing.

ACTIVITIES/ORGANIZATIONS: As a student, I was the founding president of Ingenieros Unidos – Society of Hispanic Professional Engineers Chapter. Today, I continue to be an active member of SHPE through the Detroit Professional Chapter, where I currently play an important role in the planning committee. At work, I have the privilege of being a member of GM's Candidate Care team under the Hispanic Partner Recruiting Team. As a member of this team, my role is to support the organizing and execution of events that aim to retain talent identified from campuses and organizations.



"UC MERCED IS THE TYPE OF CAMPUS THAT LETS YOU EXPLORE PERSONAL GROWTH IF YOU ARE WILLING TO DEMAND CHANGE WITHIN YOURSELF. One of the beauties of our campus is that it finds itself at a stage where we can easily leave a legacy that causes positive change in future students long after we are gone."

UC MERCED OFFICE OF ADMISSIONS | PAGE 11

### COME VISIT UC MERCED AND FIND OUT WHAT MAKES OUR CAMPUS SO SPECIAL.

Schedule a tour online at tours.ucmerced.edu, or call us to arrange a guided tour of the campus any weekday and on most Saturdays during the year. Visiting UC Merced will give you first-hand knowledge of our academic programs, housing and student life.



#### **School of Engineering**

TEL: 209-228-4411 | WEB: engineering.ucmerced.edu

#### **School of Natural Sciences**

TEL: 209-228-4309 | WEB: naturalsciences.ucmerced.edu

#### School of Social Sciences, **Humanities and Arts**

теь: 209-228-7742 | weв: ssha.ucmerced.edu

#### Office of Admissions

TEL: 209-228-7178

EMAIL: admissions@ucmerced.edu

WEB: admissions.ucmerced.edu

LOCATION: 5200 N. Lake Road | Merced, CA 95343











#### Tours

TEL: 209-228-6316

**EMAIL:** tours@ucmerced.edu

**WEB:** tours.ucmerced.edu

VIRTUAL TOUR: admissions.ucmerced.edu/virtualtour



