UNIVERSITY OF CALIFORNIA

SCHOOL OF NATURAL SCIENCES

UC MERCED

LEARNING WITHOUT LIMITS

What is Special About the School of Natural Sciences?

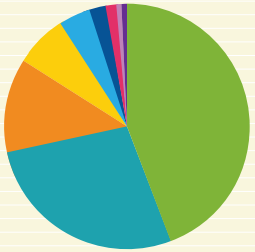
The School of Natural Sciences recognizes that it has a special responsibility to be innovative in its research, teaching and relationships with its partners and communities. The school is committed to developing distinctive multidisciplinary and interdisciplinary research and academic programs.

As a student at the first American research university of the 21st century, you will be exposed to a unique learning environment with relatively small classrooms and a highly interdisciplinary atmosphere. Our school is still small and informal, which provides a rare opportunity to have the advantages of a world-class public research university with the atmosphere of a private college.

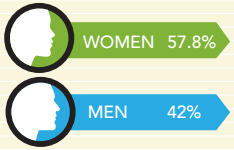
THE VISION FOR THE SCHOOL OF NATURAL SCIENCES IS TO:

- Develop multidisciplinary and inter-disciplinary research programs and innovative undergraduate curricula
- Distinguish itself among established science programs
- Provide the best possible preparation for its students as they address the many scientific challenges of the 21st century
- Address the needs of stakeholders in the region and the state of California

SCHOOL OF NATURAL SCIENCES DIVERSITY



CHICANO/LATINO	38.3%
ASIAN	32.2%
WHITE	15.1%
AFRICAN-AMERICAN	6.2%
TWO OR MORE RACES	4.0%
NONRESIDENT ALIEN	1.9%
UNKNOWN	1.1%
PACIFIC ISLANDER	0.8%
NATIVE AMERICAN	0.4%



ASK YOURSELF: WHO CAN I BECOME?

Why the School of Natural Sciences?

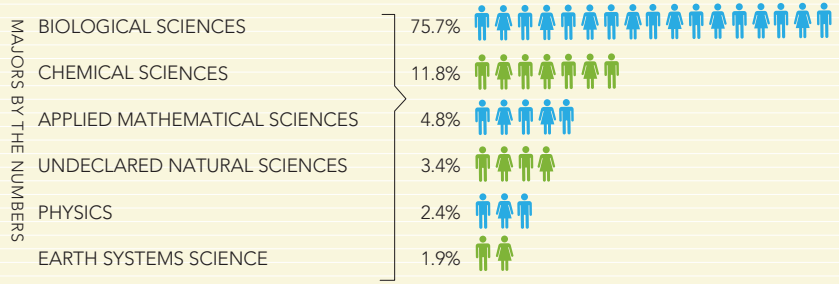
At any given moment, a student in the School of Natural Sciences could be studying climate change ... conducting biological research ... testing a mathematical theory ... preparing for a career ...

The School of Natural Sciences places a high priority on increasing students' scientific literacy. Top-tier programs form the foundation for continued success in recruiting the best faculty members and inspiring students. In the School of Natural Sciences, undergraduates have close interaction with world-renowned faculty members. Together they delve into such innovative topics as identifying mobile elements in bacteria, fighting disease, researching DNA sequencing and creating sustainable energy sources. Using the most technologically advanced equipment in state-of-the-art labs, students gain practical experience to match the foundation of theoretical knowledge amassed during their college careers.

SCHOOL OF NATURAL SCIENCES CURRENT ENROLLMENT

TOTAL ENROLLMENT 1,861

MAJORS BY THE NUMBERS



FIND YOUR CALLING

Majors

- Applied Mathematical Sciences (B.S.)
- Biological Sciences (B.S.)
- Chemical Sciences (B.S.)
- Earth Systems Science (B.S.)
- Physics (B.S.)

Minors

- Applied Mathematical Sciences
- Chemical Sciences
- Environmental Science and Sustainability
- Natural Sciences Education
- Physics

Special Programs

CALTEACH/UC SCIENCE AND MATH INITIATIVE

Work on your undergraduate degree at UC Merced while simultaneously earning your teaching credential from UC Berkeley through the CalTeach/ University of California Science and Math Initiative. The program aims to prepare and support students who are interested in becoming K-12 math and science teachers.

UC Merced also boasts a collection of modern, state-of-the-art research facilities, equipment and other resources:

- Center for Computational Biology
- Center of Excellence for the Study of Health Disparities in Rural and Ethnic Underserved Populations
- Genome Center
- Health Sciences Research Institute
- Sierra Nevada Research Institute
- Lawrence Livermore National Laboratory collaboration

WE GET YOU READY FOR WHAT COMES NEXT

APPLIED MATHEMATICS CAREERS: Fluid dynamics expert, mathematical physicist, statistician, teacher or professor, actuary, financial analyst, theoretical mathematician, computer systems analyst, computer programmer, biostatistician

BIOLOGICAL SCIENCES CAREERS: Medical and health services manager, genetics counselor, physician's assistant, nurse practitioner, health educator, biochemist, botanist, animal health technologist, entomologist, food scientist, forensic scientist, marine biologist, toxicologist, wildlife rehabilitator

CHEMICAL SCIENCES CAREERS: Agricultural and food scientist, biochemist, chemical engineer, environmental chemist, forensic scientist, geneticist, polymer chemist, water conservation specialist, industrial hygienist, hydrologist, EPA chemist, petroleum industry chemist

EARTH SYSTEMS SCIENCE CAREERS: Urban ecology researcher, environmental analyst, natural resource manager, wildlife manager, air quality and assessment expert, meteorologist, environmental health and safety director, conservation consultant, ecologist, clean technology expert, endangered species researcher

PHYSICS CAREERS: Systems engineer, biophysicist, computational chemist, cryptographer, medical physicist, renewable energy manager, astrophysicist, pyrotechnician, radar project manager, gravity researcher, laser fusion scientist, solar energy physicist, particle physicist

GRADUATE AND PROFESSIONAL SCHOOLS, AND MORE ...

Please note: Some of these careers might require education beyond a bachelor's degree.

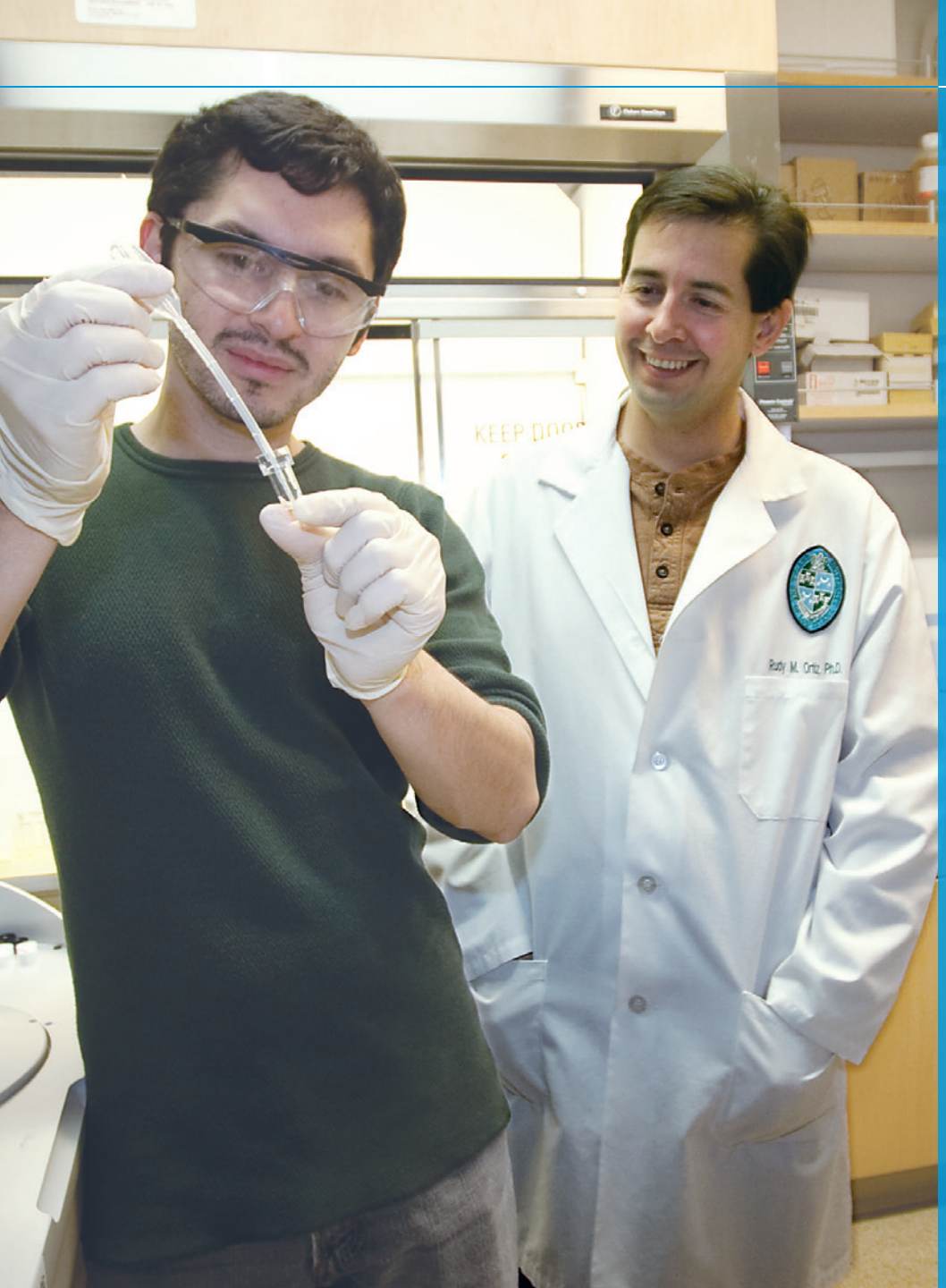
FACULTY PROFILE

LINDA S. HIRST

ASSOCIATE PROFESSOR

Ph.D., University of Manchester, England

Professor Linda Hirst's research interests focus on soft condensed matter, a branch of physics that looks at the structure and function of all kinds of soft materials including liquid crystals, complex fluids, polymers and biological materials. The lab uses mainly experimental techniques to investigate how structure at the molecular level in soft systems translates to macroscopic properties. Recently the lab has focused on developing nano-particle/liquid crystal composites for applications in information display and sensing. Hirst also has worked extensively in biophysics, publishing on lipid self-assembly (the molecules that form biological membranes) and biopolymer network formation. Hirst is a member of the board of directors of the International Liquid Crystal Society and author of the undergraduate text "Fundamentals of Soft Matter Science."



FACULTY PROFILE

RUDY M. ORTIZ

PROFESSOR

Ph.D., University of California, Santa Cruz

Professor Rudy Ortiz is a founding faculty member in the School of Natural Sciences at UC Merced. His research focuses on the impact of altered nutritional status on the development of cardiovascular and renal disease and other metabolic dysfunctions with a specific interest in insulin and angiotensin II signaling. Additionally, Ortiz's research includes an examination of the contribution of oxidant-antioxidant balance on impaired cellular signaling during the manifestation of insulin resistance in peripheral tissues. Ortiz was the recipient of UC Merced's Academic Senate Award for Distinction in Research among other awards from the American Physiological Society. He serves as a standing member of the National Institutes of Health's Atherosclerosis and Inflammation of the Cardiovascular System study section and is an elected member of the Council of the American Physiological Society. He also serves on the editorial review board of the American Journal of Physiology.

CAROLIN FRANK

PROFESSOR

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.


FOUR OUT OF FIVE
FRUIT FLIES
SURVEYED
PREFER
NALLE ZIN


UC MERCED

STUDENT PROFILE

MARIA SANCHEZ

HOMETOWN: Winton, Calif.

YEAR: Senior

MAJOR: Chemistry

PREVIOUS SCHOOL: Merced College

ACTIVITIES/ORGANIZATIONS:
I am involved in Ballet Folklorico at UC Merced. I also am a UC Merced peer mentor and adviser to transfer students, and work with the Transfer Initiative Program. While at Merced College, I fed dinners to the homeless. I also motivated children from low-income families to seek higher education by becoming their pen pal and telling them about how I got to college.

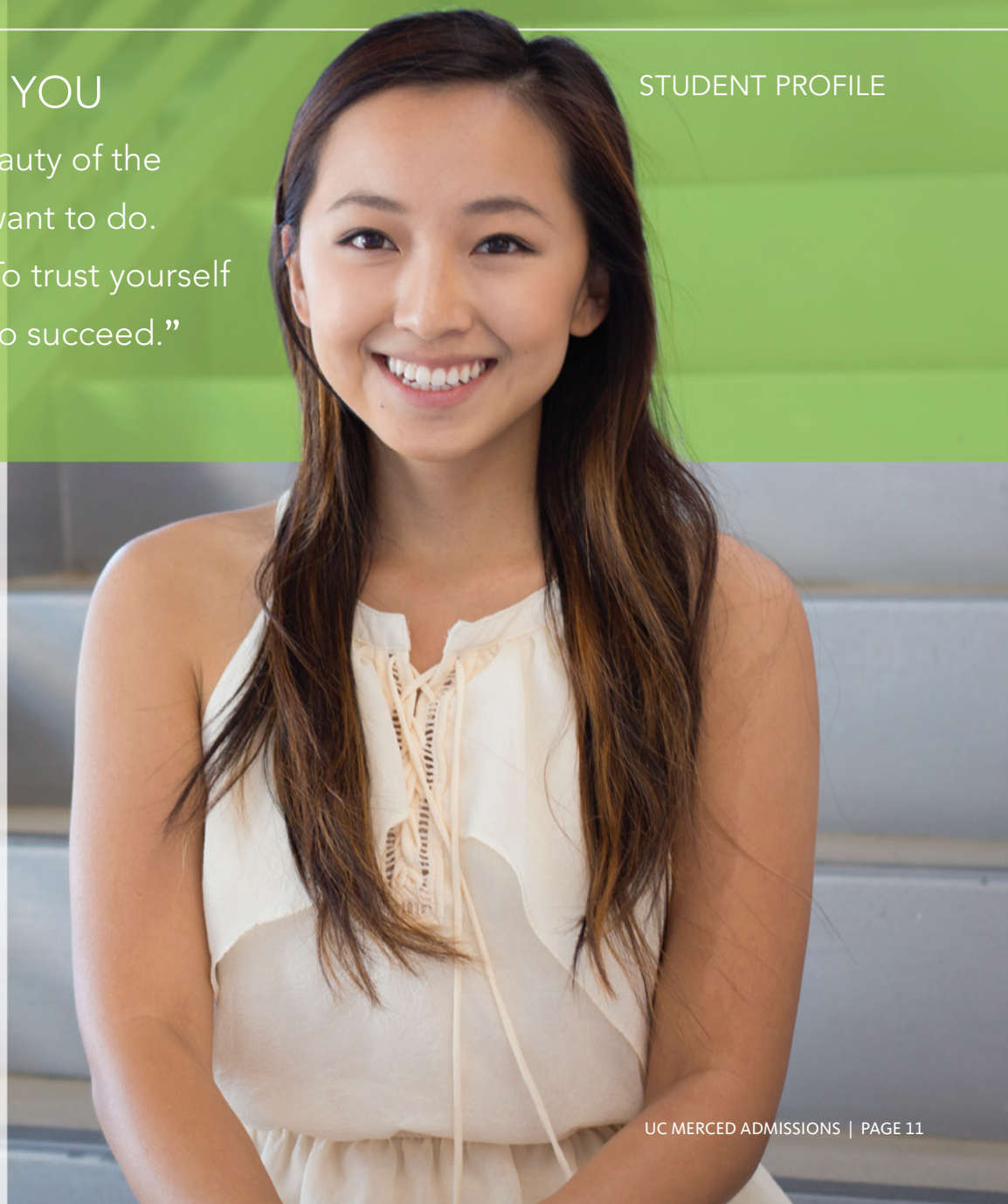
ACADEMIC ACCOLADES:
Member of the Honors Society for maintaining a grade-point average of 3.5 or higher and received a scholarship at Merced College for academic achievement

PLANS FOR AFTER GRADUATION:
Research or go to medical school.

"WHAT I LOVE ABOUT UC MERCED IS HOW NICE AND FRIENDLY EVERYONE IS. My course of study has taught me that getting a degree is not easy, but it is possible as long as you take advantage of the opportunities given to you."

"TO DREAM ANYTHING THAT YOU WANT TO DREAM. That is the beauty of the human mind. To do anything that you want to do. That is the strength of the human will. To trust yourself to test your limits. That is the courage to succeed."

– Bernard Edmonds, writer



NAMY HERR

HOMETOWN: Elk Grove, Calif.

YEAR: Junior

MAJOR: Biological Sciences

ACTIVITIES/ORGANIZATIONS:

Delta Gamma sorority, Project Prevention Coalition, Hmong Student Association, Pre-Optometry Club, Office of the Registrar, Professor Ricardo Cisneros' lab, American Medical Student Association, UC Merced Police Mentors

PLANS FOR AFTER GRADUATION:

I plan on attending pharmacy school and coming back to the Central Valley to provide education and assistance. My goal and aspiration with my Pharm.D. degree is to be able to travel to different countries and study their medicine. With the knowledge I gain, I want to incorporate it into Western medicine.

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

Schedule a tour online at **admissions.ucmerced.edu/tours**, 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 academics, housing and student life.

Tours

209-228-6316

tours@ucmerced.edu

Take a virtual tour at
admissions.ucmerced.edu/virtualtour

Admissions

209-228-7178

admissions@ucmerced.edu

admissions.ucmerced.edu

School of Natural Sciences

209-228-4309

naturalsciences.ucmerced.edu

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