



• University of Colorado at Boulder •

the  
*Just* Facts  
2009

Colorado  
University of Colorado at Boulder



# REDEFINING

## OUR IDEAS OF ART

Steve Lekson, Associate Professor of Anthropology

Rare Navajo weavings from what is considered one of the finest Southwest textile collections in the world are on display at the CU-Boulder Museum of Natural History.

Titled "Navajo Weaving: Diamonds, Dreams, Landscapes," the exhibit will showcase approximately 100 pieces from the museum's Joe Ben Wheat Southwest Textile Collection. The textiles will be presented in four-month installations until May 30, 2010.

Named in honor of Joe Ben Wheat, PhD, curator of anthropology from 1953 to 1987, the collection contains 900 textile pieces, including rugs, sashes, and blankets from the late 1700s to the present. During his career, Wheat earned an international reputation as a preeminent authority on Southwestern prehistory.

"The last major exhibit of this collection was almost 20 years ago, and many of the pieces in the current exhibit have never been displayed," said Steve Lekson, associate professor of anthropology and the museum's anthropology curator. "This is one of the best collections of textiles anywhere."





Stephanie Bosco  
Recent CU-Boulder  
School of Education  
graduate Stephanie  
Bosco is surrounded  
by the first graders  
she student taught  
at Rolling Hills  
Elementary School  
in Aurora.

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*Serving Colorado. Engaged in the World.*

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# Serving Colorado. Engaged in the World.

At CU-Boulder, we are creating a new kind of university, redefining learning and discovery for the benefit of Colorado, the nation, and the world.

## Redefining “university”

Today’s challenges call for a new kind of university, one that welcomes new methods, embraces new ideas, and finds new ways to collaborate with the communities it serves.

## Redefining “sustainability”

Who knew you could be “green” at a CU Buffs football game? At CU-Boulder, we’re continuing nearly six decades of sustainability leadership by striving for zero waste at all home games—the only BCS (Bowl Championship Series) university to do so.

## Redefining “the college experience”

At CU-Boulder, you can choose a unique path toward your goals. We offer a tightly knit community, world-class degree programs, and hundreds of life-changing learning experiences—both here in Colorado and around the world.

## Redefining “medicine”

At CU-Boulder, we’re revolutionizing medical care. Attacking cancer. Creating a gel that grows knee cartilage. Searching for an end to chronic pain. As Colorado’s comprehensive research university, we work on world-changing discoveries like these every day.

## Redefining “athlete”

At CU-Boulder, we’re proud of our student-athletes—especially the student part. Excelling on the field of play might be incredible, but it’s nothing compared to excelling in the classroom, the community, and the world.

## Redefining “energy”

CU-Boulder is leading the way in energy innovation, from our Renewable and Sustainable Energy Institute to our collaborative efforts to grow Colorado’s “green” economy.

## Redefining “homework”

CU-Boulder students do amazing things outside of class—like inventing mobile phone applications for people with disabilities. CU-Boulder is one of only three schools to win the 2007 Presidential Award for General Community Service.

## Redefining “laboratory”

CU-Boulder professors perform research in some far-out places. We go around the world, inside the atom, into space, and up the highest peaks—often right here in Colorado—to improve the quality of life.

## Redefining “student”

CU-Boulder offers many ways to take advantage of lifelong learning, with a variety of classes and flexible graduate programs to help students of all ages and walks of life learn new skills or earn a world-class degree.

## Redefining “humanity”

CU-Boulder anthropology professor Dennis Van Gerven (pictured) uses unique teaching methods—including in-class mummies and even a 13-hour public lecture—to shed light on race, human adaptability, and the study of ancient peoples.



## FLAGSHIP 2030, A BOLD VISION

By the year 2030, CU-Boulder will be one of the nation's top public research universities and a leading model of the "new flagship university" of the 21st century. The bold and visionary initiatives of *Flagship 2030* lay a strong foundation for the university as we redefi-  
ne learning and discovery in a dynamic global context and set new standards in education.

Guided by *Flagship 2030*, CU-Boulder is creating a new kind of national comprehensive research university by:

- Delivering an unrivaled student experience
- Transforming how we teach, discover, and share knowledge
- Building a 21st-century learning environment
- Promoting diverse backgrounds, perspectives, and intellectual endeavors
- Collaborating on solutions to our greatest challenges
- Pursuing knowledge in service to Colorado, the nation, and the world
- Forging new partnerships with government, community, and business

*Flagship 2030's* bold approach offers a unique opportunity for the university to inspire imagination, creativity, and discovery; become a global force for expanding frontiers of knowledge; exemplify the power of diversity; promote Colorado as a global crossroads of ideas and discovery; and prepare students to realize their full potential.

Read the full plan at [www.colorado.edu/flagship2030](http://www.colorado.edu/flagship2030).



Dennis Van Gerven  
Professor, Department of Anthropology

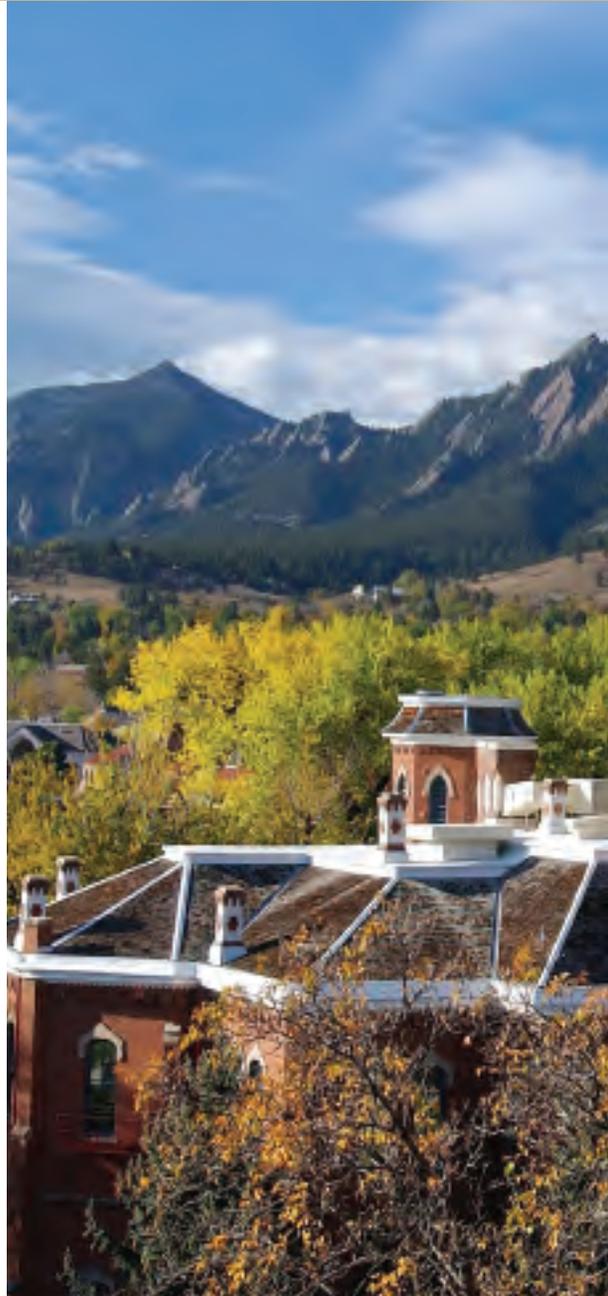
**CU-Boulder at a glance.** The University of Colorado at Boulder has a 133-year history of educating students from Colorado, the nation, and the world. As members of one of the leading comprehensive research universities in the Rocky Mountain region, CU-Boulder students, faculty, staff, and alumni have built a global reputation for high-quality teaching, research, and service to society.

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### CU-Boulder by the numbers . . .

- 3,400 courses in 150 fields of study in architecture, arts and sciences, business, education, engineering, journalism, law, and music
- 80 majors at the bachelor's level, 70 at the master's level, and 52 at the doctoral level
- 23 NCAA championships
- One of only 34 U.S. public research universities in the prestigious Association of American Universities
- 17 astronaut alumni who have flown in space
- Notable alumni include: Academy Award-winning actor and director Robert Redford; U.S. Supreme Court Justice Byron White; Big Band trombonist Glenn Miller; South Park creators Trey Parker and Matt Stone; World-class runner Kara Grgas-Wheeler Goucher; Opera singer Cynthia Lawrence; Astronauts Scott Carpenter, Marsha Ivins, and Kalpana Chawla; Christine Arguello, U.S. District Court judge for the District of Colorado; Marlene Yu, pioneer in the environmental green movement in art
- 52 distinct master's degree programs and 49 doctoral degree programs pursued by nearly 5,000 enrolled graduate students in fall 2009
- Over 2,100 alumni Peace Corps volunteers since the program's founding in 1961, including the second-most among all colleges and universities in the 2009 rankings
- Over 4,400 students from minority and under-represented backgrounds
- More than 30,000 enrolled students in fall 2009
- Over 230,000 Coloradans served each year through an array of CU-Boulder community and faculty outreach programs
- Nearly \$340 million in sponsored research funding in fiscal year 2009
- Four Nobel laureates, including three since 2001



*Founded in 1876 in the foothills of the*



Students at the University Memorial Center



- Four National Medal of Science winners
- Home to the Graduate Teacher Program—a national model for future faculty preparation
- Awards more than a third of all the PhDs earned in Colorado
- An average of more than \$10 million generated in annual licensed intellectual property revenues and new business development as a result of faculty and student discoveries between 2003 and 2008
- About 90 research centers, institutes, and laboratories focusing on subjects from entrepreneurship to natural hazards.
- Ranked first among the 25 “smartest cities in America” for the second year in a row, according to *Forbes*. The magazine listed Boulder at the top of its list of smartest cities based on data compiled from the largest metropolitan areas in the country that the magazine ranked based on percentage of population age 25 and older with at least a bachelor’s degree.
- One of the largest employers in Boulder County, providing 6,730 full-time and part-time jobs in 2009, excluding student employees.
- Includes the CU Research Park, with several tenants such as Quantum Corp., BEA Systems Inc., Montalvo Systems, and CDM Optics Inc.; and the University of Colorado’s Laboratory for Atmospheric and Space Physics (LASP) and Center for Astrophysics and Space Astronomy (CASA). The CU Research Park also will be home to a planned \$180 million biotechnology research and teaching facility as part of CU’s Colorado Initiative in Molecular Biotechnology.
- Includes about 200 classic rural Italian-style buildings and complexes built of Colorado sandstone with red tile roofs, often recognized as one of the most beautiful college campuses in the United States.
- The first campus established in Colorado and first of the three-campus University of Colorado System, which also includes:

University of Colorado Denver (includes Downtown Denver Campus and Anschutz Medical Campus)  
University of Colorado at Colorado Springs

# Rocky Mountains

Miranda Mesloh ('08)  
Department of Aerospace Engineering  
Sciences' lunar lander prototype



## CU-Boulder includes nine colleges and schools:

### Colleges

College of Architecture and Planning, Dean Mark Gelernter

College of Arts and Sciences, Dean Todd Gleeson

College of Engineering and Applied Science, Dean Robert H. Davis

College of Music, Dean Daniel Sher

### Schools

Graduate School, Interim Dean John Stevenson

Leeds School of Business, Interim Dean Manuel Laguna

School of Education, Dean Lorrie Shepard

School of Journalism and Mass Communication, Dean Paul Voakes

School of Law, Dean David Getches

### Night and Summer Courses

Division of Continuing Education and Professional Studies, Dean Anne Heinz

Summer Session, Director Carol Drake

### Library Resources

University Libraries, Dean James F. Williams II

Stephanie Golmon and Noah Ledford  
Aerospace engineering students at NREL



**The Students.** CU-Boulder is committed to providing students with a foundation of knowledge that will help them reach their full potential. In addition to rigorous coursework, we prepare students for a complex global society with a broad understanding of the world, critical thinking and problem-solving skills, a sense of responsibility to others, leadership skills, and recognition of the importance of lifelong learning.

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Wolf Law Atrium

- In fall 2009, 30,196 on-campus degree-seeking students were enrolled at CU-Boulder. Another 2,555 included students on study abroad, faculty/staff on tuition waivers, non-degree-seeking students, students enrolled in the CU-Boulder evening program or in correspondence courses, and students from other CU campuses taking courses at CU-Boulder.
- Of the 30,196 regular on-campus degree-seeking students, 47 percent (14,143) are women, 53 percent (16,053) are men; 84 percent (25,408) are undergraduates, 16 percent (4,788) are graduate students; 66 percent (19,999) are Colorado residents, 34 percent (10,197) are nonresidents; and 14 percent (4,362) are minorities.
- For the fall 2009 semester, 19,501 prospective freshmen applied for admission and 5,519 enrolled. Eighty-two percent of Colorado resident applicants were offered admission.
- Test scores for the middle 50 percent of all enrolled freshmen ranged from 24 to 29 on the ACT, from 530 to 630 on the SAT verbal section, and from 550 to 650 on the SAT math section.
- CU-Boulder granted 6,526 degrees during the 2008–09 academic year.
- In fall 2009, the top five most popular undergraduate majors were psychology, integrative physiology, international affairs, English, and economics
- International student enrollment in fall 2009 was 1,228. CU-Boulder's international students represent more than 80 countries.
- About 6,000 students, primarily freshmen, live in 22 campus residence halls.
- 59 percent of the student body, or 19,254 students, received some form of aid—scholarships, grants, loans, or work-study employment. The total financial aid awarded during the 2008–09 academic year was \$278 million.
- Since 1905, 19 CU-Boulder graduates have been named Rhodes Scholars.
- Six CU-Boulder students have received the prestigious British Marshall Scholarship.

- CU-Boulder attracted 12 of the 40 students who received prestigious all-expense-paid Boettcher Foundation Scholarships in 2009. CU-Boulder is consistently a top choice for Colorado high school seniors who receive the scholarship.

## Undergraduate Students

- The Chancellor's Achievement Scholarship awards \$15,000 over four years to students whose academic qualifications place them in the top 25 percent of nonresident admitted students. Presidential Scholars are a select group of students in the top 1 to 3 percent who receive a \$10,000 annual tuition reduction for four years, totaling \$40,000.
- The CU-LEAD (Leadership, Excellence, Achievement, and Diversity) Alliance and scholarship program builds multidisciplinary academic neighborhoods that provide academic enrichment, leadership activities, small classes, and community service opportunities for students from diverse backgrounds. The program serves more than 1,200 students annually through scholarships and a network of support.
- The CU Promise Program guarantees that eligible Colorado residents from low-income families will be able to afford the academic costs of a CU education without going into debt. CU-Boulder offers eligible resident students a financial aid award package that includes a combination of grants, scholarships, and a work-study award sufficient to fund the student's share of tuition, fees, and estimated book expenses.
- CU-Boulder's Undergraduate Research Opportunities Program (UROP) gives undergraduates the opportunity to work with a faculty member to conduct real-world research ranging from traditional scientific experimentation to the creation of new artistic works.
- Summer research internships through CU-Boulder's Summer Multicultural Access to Research Training (SMART) provide hands-on experience. SMART interns conduct research projects in science, math, and engineering.
- The Norlin Scholars Program accepts 20 to 30 academically outstanding undergraduates annually. The program offers a \$3,000-per-year scholarship, special courses, research opportunities, advising, mentoring, and internships. Norlin scholars enrich and customize their undergraduate experiences through close interaction with faculty and peers.
- Nearly 1,000 CU-Boulder students each year participate in 260 study abroad programs in 70 countries around the world. The study abroad program was launched in 1963. Now, CU-Boulder is consistently ranked among the top 10 large public institutions sending students abroad for a semester in the annual Open Doors report issued by the Institute of International Education.
- Reserve Officer Training Corps, or ROTC, programs are offered at CU-Boulder. The U.S. Air Force, Army, and Navy provide undergraduate and select graduate students with the opportunity to combine academic study with a military officer's educational program. The three services conduct courses in their respective areas leading to a regular or reserve commission upon graduation. The Navy also offers a program leading to a regular or reserve commission in the U.S. Marine Corps.
- Residential Academic Programs (RAPs) and Living and Learning Communities (LLCs) provide undergraduates with shared learning and living experiences. Programs include *B3 (business)*, *Baker (environmental science)*, *Quadrangle (engineering)*, *Farrand (humanities and service learning)*, *Hallett (diversity)*, *Kittredge (honors)*, *Libby (arts)*, *Sewall (American West)*, *Global Studies (international)*, *Spectrum (gay, lesbian, bisexual, transgender)*, *Substance-free living*, and *Williams Village (Chancellor's Leadership RAP)*.



2008 College of Engineering & Applied Science Annual Egg Drop Contest

# REDEFINING INTERNATIONAL STUDY

Lauren Rhoades, Iguaza Falls—Argentina



Four CU-Boulder undergraduate students were awarded a David L. Boren Scholarship, one of the most competitive and coveted national scholarships for undergraduate international study.

As Boren recipients, Jacob Burton, an international affairs and computer science engineering major; Alex Cooper, a Chinese and environmental studies major; Alexi Douvas, a business and Chinese major; and Lauren Rhoades, an English, political science, and Spanish and Portuguese major, receive up to \$10,000 for a semester abroad and up to \$20,000 for a year abroad. In return they commit to working for the federal government for at least one year upon graduation.

While fewer than 15 percent of applicants received awards at the national level, 50 percent of the CU applicants received awards for the 2009–10 year. Burton will

spend a year studying in Muscat, Oman. He will take part in two different programs there, one focusing on political culture and development in the region and the other focusing on energy development and diversification with a concentration in economics.

Cooper will spend a year studying in Taipei, Taiwan, where he will participate in a Mandarin internship, specifically working with the Taiwanese environmental protection department, as well as taking environmental studies classes.

Douvas will spend a semester in an intensive Chinese language program in Beijing.

Rhoades will spend a year studying in Buenos Aires, Argentina. She will take courses in political science and Spanish.



Scot Douglass, Associate Professor and Director, Engineering Honors Program



- A \$200,000 Xcel Energy sponsorship enabled CU-Boulder's 2007 International Solar Decathlon team to defend the university's two championships (2002 and 2005) in the U.S. Department of Energy and National Renewable Energy Laboratory-sponsored competition between teams of architecture and engineering students to design and build a zero-energy home that educates the public about solar power.
- The Honors Program provides special educational opportunities, including a freshman residential program for highly motivated undergraduate students. The program, consisting of more than 80 honors courses, offers a wide ranging liberal arts curriculum, advising, close contact with faculty, and the opportunity to write an honors thesis.
- Each year, the Presidents Leadership Class selects 50 of CU-Boulder's top freshmen to receive a \$2,000 to \$12,000 merit-based scholarship and four years of extensive leadership training. Students develop leadership skills through academic coursework, group projects, community service, internships, and lectures given by business and community leaders.

- Each semester, about 60 undergraduate "learning assistants" work with their professors to improve introductory math and science classes through a program called CU Teach. The program also strives to recruit and train future K-12 science teachers.

### Student Diversity

- The NIH/HHMI Scholars Program for Diversity in the Biosciences broadens access to underserved students seeking a graduate education in the bio-science fields. Jointly funded by the National Institutes of Health and the Howard Hughes Medical Institute, the NIH/HHMI Scholars Program provides partial tuition scholarships and an hourly wage to participate in a comprehensive, multi-year research program.
- Former CU President Hank Brown created the Blue Ribbon Commission on Diversity in 2006 to study the effectiveness of campus diversity programs at all CU campuses. The commission included community and corporate leaders and students. In 2006, CU-Boulder issued an action plan responding to the commission's recommendations. In the plan, CU-Boulder pledged increases in scholarship awards, diversity training for students and top administrators, and more support for the highly successful Pre-Collegiate Development Program.

Student Diversity Fall 2009 Minority Enrollment (degree-seeking only)		
	New Freshmen	Total Enrollment
American Indian	59	263
Asian American	361	1,789
African American	89	488
Hispanic/Latino	380	1,822
<b>Total</b>	<b>889</b>	<b>4,362</b>

## Student Conduct

- CU-Boulder has a student-created honor code to encourage all individuals to take responsibility for and recognize their individual academic and personal achievements. CU students also created and launched the Colorado Creed to promote exemplary behavior among students.
- The University of Colorado Student Union (UCSU), one of the largest and most active student governments in the nation, manages a budget of \$36.5 million annually. Student fees fund 54 percent of the UCSU budget, and the rest comes from self-generated revenue.
- The Office of Judicial Affairs establishes and administers the “Student Conduct Policies and Procedures” for the CU-Boulder campus. The university strives to make the campus community a place of study, work, and residence where people are treated, and treat one another, with respect and courtesy.
- When questions arise about whether the Student Code of Conduct has been violated, existing campus judicial processes allow for an investigation to take place. The Restorative Justice Program allows participants to focus on understanding the harm that has occurred to relationships and to the community and to decide how to best repair it.

## Alcohol Education

- CU-Boulder’s approach to addressing the public health challenge of alcohol abuse follows a community-health model. CU encourages parents to address alcohol-related issues by talking with their children about alcohol and other drug use. Campus administrators work to improve the social environment on and off campus; provide alternative social and recreational opportunities; offer education, prevention, and treatment programs; support several student-led initiatives; and encourage students to become involved in the community.
- The university complies with all federal, state, and local laws and offers a range of educational interventions, including an alcohol awareness class (Focus on Alcohol Concerns); the ability to partici-

pate in a municipal court diversion program and an intense 15-week program named STARS (Striving to Achieve Real Success) for students struggling with alcohol abuse.

- The Alcohol Strategies Group is a campus–community coalition that advises the vice chancellor for student affairs on what current alcohol policies, programs, and practices seem to be doing (or not doing) for the campus. Participants include representatives from student government (UCSU), Residence Hall Association, and sororities—along with faculty members, staff, and community members.
- In response to the death of CU-Boulder student Gordon Bailey, students developed Guidelines and Objectives of Responsible Drinking (GORD) to promote alcohol awareness.
- Additional information is available about alcohol and other drug resources, policies, the student code of conduct, and ways to get involved by visiting [www.colorado.edu/alcohol](http://www.colorado.edu/alcohol).

## Student Resources and Activities

- The Student Academic Services Center provides qualified and trained tutors in a variety of subjects to eligible students. The referral service provides lists of qualified tutors in various subjects.
- Counseling and Psychological Services offers an array of services to CU-Boulder students, from individual counseling and group sessions to crisis intervention and residence hall counseling. The staff includes masters-level counselors, doctoral-level psychologists, and other counseling professionals.
- CU-Boulder offers a variety of ways for students to find their place on campus, including on- and off-campus housing programs and over 300 active student-sponsored organizations, major-specific clubs, honor societies, ethnic clubs, recreational activities, and Greek societies, ranging from the Coalition for Creative Music and Black Student Alliance to Habitat for Humanity and the Russian Club.
- Approximately 1,500 students participate in 34 club sports ranging from fly fishing to snowboarding.

The GORD organization promotes alcohol awareness.



A man with a beard and curly hair, wearing a blue button-down shirt, stands in a wind tunnel. He is holding a yellow micro-aerial vehicle (MAV) in his left hand and a remote control in his right hand. The background is a brightly lit tunnel with blue and white lights.

# REDEFINING DATA COLLECTION

Jason Roadman, PhD Candidate

When PhD candidate Jason Roadman and his research group needed a working wind tunnel to test the micro aerial vehicles (MAVs) he'd been helping to engineer, he made one. He refurbished a defunct, stripped-down wind tunnel from the mechanical engineering department and developed the computer programs that reconfigured it into an operational test facility.

Roadman is pursuing a PhD as a National Science Foundation Graduate Research Fellow while finishing a master's degree in science.

Roadman, who has been working with Professor Kamran Mohseni on the MAV project, is designing a gust wind tunnel that accurately recreates the atmospheric turbulence that MAVs would experience when flying outside, but in a controlled and repeatable manner. He will then make recommendations for constructing another larger wind tunnel to test larger unmanned vehi-

cles, wind turbines, and other aerodynamic characterizations.

"We're trying to develop MAVs that are as stable and as reliable as possible and with a lot of payload capacity," said Roadman.

Swarms of these small vehicles can fly into a variety of environments to cooperatively collect and transmit scientific data. Three-dimensional monitoring of wildfires, tornadoes, hurricanes, and toxic plumes are accomplished more easily and safely than by using piloted planes. With a six-inch wingspan, however, MAVs are more susceptible to turbulence and gusty air disturbances than larger unmanned vehicles.

"In a wind tunnel we can test a vehicle in a controlled manner rather than taking it outside and tossing it into the air, which is what we're doing now," he said. "If you can fly them in a controlled engineering fashion in the tunnel, you can get a lot more data."

- The Student Recreation Center offers a wide variety of facilities for exercise and relaxation, including an ice arena, three pools and a diving well, two large general purpose gymnasiums with basketball courts, free weights, and fitness machine rooms. It also includes a 1/10th-mile indoor running track; an indoor rock climbing gym; tennis courts; martial arts and dance studios; courts for handball, racquetball, and squash; equipment to rent; and large locker rooms with saunas. Additionally, four program areas are offered—instruction, the outdoor program, intramurals, and club sports—which provide organized sports and classes.
- Colorado has 26 ski and snowboard resorts, many of which are within a three-hour drive from Boulder.
- Career Services offers CU-Boulder students an assortment of comprehensive services and programs to assist them in their professional development and job searches with the following tools and services:
  - Career counseling
  - Job & internship listings
  - Career & internship fairs
  - On-campus recruiting
  - Information resources
  - Test preparation
- In 2008, the CU-Boulder Alumni Association launched its new Forever Buffs program by discontinuing the dues program and welcoming all 230,000 alumni and 24,000 undergraduates as lifelong members. Forever Buffs seeks to foster lasting relationships between students and alumni, create stronger professional and social networks, develop a culture of giving, and engender a stronger sense of CU pride from the moment a student steps onto the campus, after graduation, through career and family development, and throughout retirement.
- The graduate specialty programs in the top 50 were mechanical engineering (32), computer engineering (33), and electrical engineering (36).
- Founded in 1990, the CU-Boulder United Government of Graduate Students (UGGS) provides a graduate student voice in decision-making and pursues issues including student fees, financial aid, graduate student employment, health care, and child care.
- The Graduate Teacher Program coordinates a community of scholars in which graduate students can explore and experience postsecondary teaching, research, academic service, and academic management; develop proficiency in communication, assessment, and diversity in the classroom; and explore professional career options.
- CU-Boulder offers 33 different concurrent bachelor's/master's degree programs. Students also can pursue dual master's degrees.
- More than one third of people with master's and PhDs residing in Colorado received their graduate degrees from CU-Boulder.
- The Graduate School at CU-Boulder awards a variety of fellowships to graduate students based on their academic promise or academic success. The Chancellor's Graduate Fellowship Program provides selected students a stipend of \$20,000 for two academic years and a full waiver of tuition and fees.

## Graduate Education

The Graduate School at the University of Colorado at Boulder strives to nurture ideas and the uses of knowledge; to prepare a new generation of scholars, professionals, and informed citizens; to promote interdisciplinary thinking and learning; and to encourage constructive engagement with the world.

- CU-Boulder awarded fellowships and assistantships to over 2,700 graduate students in 2008—almost two-thirds of our total graduate enrollment.
- Fifteen CU-Boulder Graduate School specialty programs were ranked in the top 50 in the nation, including four in the top 10 in *U.S. News & World Report's* 2010 America's Best Graduate Schools issue.
- The graduate specialty programs in the top 10 were atomic/molecular/optical physics (1), quantum physics (4), environmental law (6), and physical chemistry (10).
- The graduate specialty programs in the top 25 were business entrepreneurship (17), aerospace engineering (12), ceramics (14), geology (18), chemical engineering (19), environmental engineering (21), elementary education (22), and civil engineering (25).



Valentina Iturbe-LaGrave  
PhD Candidate

**Faculty Excellence.** Through their tireless devotion to teaching, research, and service, CU-Boulder faculty educate a professional workforce; train graduate students to become future professors and researchers; discover groundbreaking solutions to local, national, and global challenges; create new business enterprises that drive economic growth in Colorado and across the country; and enhance the culture and quality of life through outreach programs and creative works in the humanities and the arts.

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### Nobel Laureates

- Several CU-Boulder research faculty from the National Snow and Ice Data Center shared the 2007 Nobel Peace Prize with former Vice President Al Gore for their contributions to the international report of the Intergovernmental Panel on Climate Change. The CU-Boulder researchers, including Tingjun Zhang who was “chapter leader” for a section of the report on permafrost, joined co-authors from around the world on the groundbreaking report.
- Professor John Hall won the 2005 Nobel Prize in physics for his contributions to the development of laser-based precision spectroscopy, including the optical frequency comb technique.
- Distinguished Professor Carl Wieman and Professor Eric Cornell won the 2001 Nobel Prize in physics for creating a new form of matter called Bose-Einstein condensate, which may lead to the creation of precise measuring devices and lasers that could dispense beams of atoms for micro-assembly purposes.
- Distinguished Professor Thomas Cech won the 1989 Nobel Prize in chemistry for his discovery that RNA in living cells is not only a molecule of heredity but also can function as a biocatalyst.

### National Medal of Science

Four professors have been awarded the National Medal of Science, the nation’s highest scientific honor:

- Distinguished Professor Marvin Caruthers, chemistry and biochemistry, 2006
- The late Professor Gilbert White, geography, 2000
- Nobel Laureate and Distinguished Professor Thomas Cech, chemistry, 1995
- The late Professor Keith Porter, molecular, cellular, and developmental biology, 1976



*Ninety-eight faculty have been named*



Thomas Zeiler  
Professor, Department  
of History

Thomas Cech  
Distinguished Professor, Nobel Laureate



### National Academies

- 20 active or retired faculty are National Academy of Science members
- 19 active or retired faculty are American Academy of Arts and Sciences members
- 13 active or retired faculty are National Academy of Engineering members
- Five active or retired faculty are National Academy of Education members

### Fellows or Investigators

- 50 active or retired faculty are fellows of the American Association for the Advancement of Science
- Four faculty are Howard Hughes Medical Institute investigators
- Eight professors have received Packard Fellowships
- Ten professors have received fellowships from the National Endowment for the Humanities
- Ten professors have been awarded Guggenheim Memorial Foundation Fellowships

### Teaching Scholars

- Two faculty have won the National Science Foundation Director's Award for Distinguished Teaching Scholars

### Fulbright Scholars

- Ninety-eight faculty have been named Fulbright Scholars

### MacArthur Fellows

- Seven faculty have received MacArthur Fellowships, known as the "genius grant"

### Distinguished Professors

- Twenty-nine active or retired faculty members are University of Colorado Distinguished Professors

## Teaching Excellence Programs

- The Faculty Teaching Excellence Program (FTEP) offers a wealth of opportunities and resources to assist CU-Boulder faculty in refining their teaching skills in order to create more engaging interactive learning environments for CU students. Since good teaching is rarely instinctive, but is rather a learned skill, FTEP was founded on the principles that there is no one right way to teach and that faculty learn best from each other.

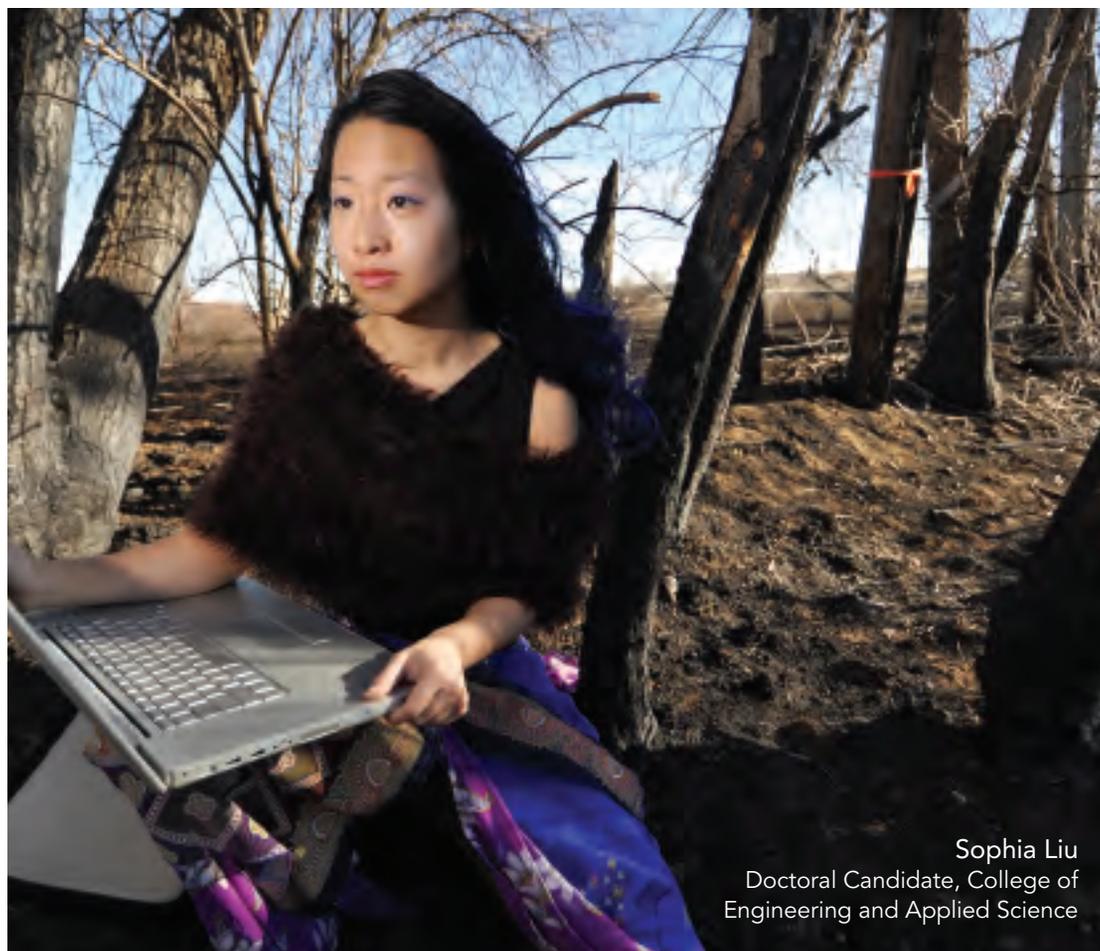
The benefits that FTEP provides include:

- A more qualified and productive workforce with useful thinking skills
- An enhanced value of degrees
- A higher caliber faculty and student body
- Better retention of faculty by creating an interactive environment
- Enhanced prestige for CU-Boulder
- The President's Teaching Scholars Program recognizes faculty from all three CU campuses for excellence in teaching, research, scholarship, and creative work. Each year, the university designates distinguished faculty members as President's Teaching Scholars. The teaching scholars seek to improve student learning and to enhance innovative teaching through a range of projects and initiatives that investigate how students best learn and how instructors can best teach, including Colorado Classroom Assessment Studies and the President's Teaching and Learning Collaborative.

- The Hazel Barnes Prize recognizes one outstanding CU-Boulder teacher who has made significant contributions in a field of study. Chemical and Biological Engineering Professor John Falcone received the \$20,000 award in 2008.
- Up to 12 Boulder Faculty Assembly excellence awards of \$3,000 each are given annually to faculty members in three categories: Teaching; Service; or Research, Scholarly, and Creative Work.
- CU-Boulder Law Professor Philip Weiser, associate dean for research, accepted an appointment as deputy assistant attorney general for international policy and appellate matters at the U.S. Department of Justice's Antitrust Division.



Shelby Wolf, Professor, School of Education



Sophia Liu  
Doctoral Candidate, College of  
Engineering and Applied Science



## REDEFINING CAREER GOALS

Joe Tanner, Former Astronaut, Senior Instructor

After successful careers with NASA, former astronauts Joe Tanner, John Grunsfeld and Jim Voss have set their sights on a new challenge: helping CU-Boulder students reach their academic goals.

Tanner launched a new career at CU-Boulder in fall 2008 to prepare students for their own aerospace careers. He joined the aerospace engineering sciences department as a senior instructor to share his government experience by coordinating and teaching a graduate projects curriculum. In addition to coordinating student projects, Tanner is introducing project management methods, such as the essentials of project management and systems engineering, while managing the design, development, and engineering of systems effectively and cost efficiently.

"I have two passions. One is space. The other is helping students succeed and achieve their goals," said Tanner.

Grunsfeld's NASA career includes five space shuttle flights and eight spacewalks, including his most recent NASA mission on board the space shuttle Atlantis to repair and refurbish the aging Hubble Space Telescope. On one of three spacewalks during the Hubble repair mis-

sion, he inserted a \$70 million instrument on the orbiting telescope designed by CU-Boulder.

Grunsfeld, who remains active at NASA, accepted a future appointment as adjunct professor in the astrophysical and planetary sciences department by e-mail from space in spring 2009. His research at CU-Boulder will include the development of the next-generation large optical and ultraviolet telescopes in space.

Voss was selected as an astronaut candidate in 1987. His first spaceflight came in 1991, and he flew again in 1992, 1995, 2000, and 2001. During 2001, he lived on board the International Space Station for 163 days as a member of the Expedition 2 crew. He was hired as a full-time scholar in residence and holds the Roubos Endowed Chair in Engineering. His assignment at CU-Boulder includes teaching classes in the area of human space flight and helping to develop the department's graduate program in bioastronautics.

"There are very few universities that have a focus area involving bioastronautics and human space flight, so CU is rather unique in this," said Voss.

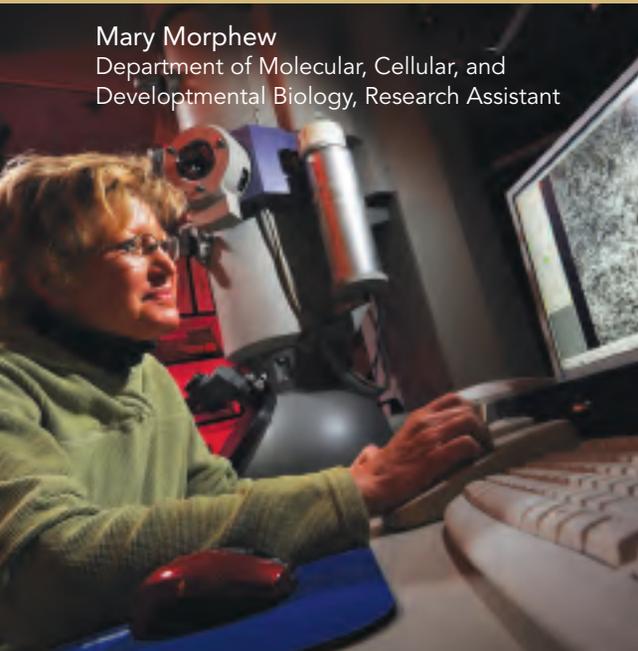
**Research and Achievements.** The scope of research at CU-Boulder is far ranging and world changing, from studying the birth of the universe and the evolution of the solar system to charting global climate change occurring on Earth, from defining the myth and reality of the American West to searching for ways to transform how energy is produced and utilized.

Questions researchers seek to answer rely on interdisciplinary collaborations that link basic and applied research in novel ways. The result of these efforts is evident in robust research productivity, influential publications, dynamic student involvement, and federal research support.

Just the Facts

University of Colorado at Boulder

Mary Morphew  
Department of Molecular, Cellular, and  
Developmental Biology, Research Assistant



become the world's leading center for research, education, and innovation involving integration of renewable energy sources into the chemical and fuels industries.

- The Center for Energy and Environmental Security at the University of Colorado Law School works to develop practical strategies and solutions for moving international society toward a global sustainable energy future.
- CU-Boulder, Colorado State University, the Colorado School of Mines, and the National Renewable Energy Laboratory established an unprecedented partnership to develop renewable energy technologies. The Colorado Renewable Energy Collaboratory members are studying solar, wind, and geothermal energy; biofuels produced from crops and forest products; and hydrogen fuel cells.
- Surging student interest in energy issues sparked the creation of a unique environmental studies graduate curriculum at CU-Boulder. The energy specialization within the environmental studies master's degree program includes core courses and electives in classes such as Solar Technology, Environmental Economics, and Renewable Energy Policy.

### Energy

- The Renewable and Sustainable Energy Institute (RASEI) is the next step in the evolution of CU-Boulder's Energy Initiative. RASEI will be an interdisciplinary research-and-development effort between CU-Boulder and the National Renewable Energy Laboratory. With the creation of RASEI, CU joins several other major private and public universities in advancing solutions aimed at producing energy economically from renewable sources, decreasing reliance on foreign oil, reducing greenhouse gas emissions, and using energy more efficiently.
- In 2007, CU-Boulder joined the National Renewable Energy Laboratory and two local universities in establishing the Colorado Center for Biorefining and Biofuels. Known as C2B2, its mission is to

### Biotechnology

- *Popular Science* magazine named CU-Boulder chemical and biological engineering Distinguished Professor Kristi Anseth as one of its "Brilliant 10" for 2008. She was cited for her innovative materials science research, including the creation of new biomaterials for medical applications.
- The Colorado Initiative in Molecular Biotechnology at CU-Boulder supports interdisciplinary research and collaborations between researchers at CU-Boulder and at the UC Denver Anschutz Medical Campus. CIMB's collaborative research teams provided significant seed money for biotech-



**David Noone**  
Climate scientist with the  
Cooperative Institute for Research  
in Environmental Sciences

nology research. This funding has led to many promising new treatments and the rapid growth of Colorado's biotech industry, helping to create 15 new companies based on CU-Boulder technology.

- The Center for Pharmaceutical Biotechnology at the University of Colorado received a five-year, \$1.4-million training grant (awarded in 2001) from the National Institutes of Health, which will support graduate education and 12 new fellowships. The center is a joint enterprise between CU-Boulder and the UC Denver Anschutz Medical Campus. Teaching and research in the center focus on developing new ways to make drugs more stable and better methods of delivering drugs to patients.

### Natural and Physical Science

- Gases rising from deep within the Earth are fueling the world's highest-known microbial ecosystems, which have been detected near the rim of the 19,850-foot-high Socompa volcano in the Andes by a CU-Boulder research team. The new study shows the emission of water, carbon dioxide, and methane from small volcanic vents near the summit of Socompa sustains complex microbial ecosystems new to science in the barren sky-high landscape.
- A research team led by Professor Bradley Olwin of CU-Boulder molecular, cellular, and developmental biology identified a type of skeletal muscle stem cell that contributes to the repair of damaged muscles in mice, which could have important implications in the treatment of injured, diseased, or aging muscle tissue in humans.
- A biochemical analysis of a rare Clovis-era stone tool cache unearthed in Boulder indicates that some of the implements were used to butcher ice-age camels and horses 13,000 years ago, according to a study led by CU-Boulder Professor Douglas Bamforth. The study is the first to identify protein

residue from extinct camels on North American stone tools and only the second to identify horse protein residue on a Clovis-age tool.

- Bob Sievers, a CU-Boulder professor of chemistry and biochemistry, developed an inhalable powdered measles vaccine for which he received a research impact award from Colorado Governor Bill Ritter.
- Resistance of the avian flu virus to a major class of antiviral drugs is increasing through positive evolutionary selections, with researchers documenting the trend in more than 30 percent of the samples tested, according to a study led by CU-Boulder doctoral student Andrew Hill.
- A group of CU-Boulder freshmen was selected to participate in a Howard Hughes Medical Institute program to research genomes of viruses. Each student will be isolating and characterizing bacteriophages from soil samples.
- CU-Boulder was featured in the 2009 book *The Guide to Service Learning Colleges and Universities* for its significant track record of integrating community service with academic study to enrich learning, teach civic responsibility, and strengthen communities.
- Rocky Mountain ski areas face dramatic changes this century as the climate warms, including best-case scenarios of shortened ski seasons and higher snowlines and worst-case scenarios of bare base areas and winter rains. The study indicates snow lines will continue to rise though this century, says CU-Boulder geography Professor Mark Williams.
- A CU-Boulder study indicates that not only do human hands harbor far higher numbers of bacteria species than previously believed, but also women have a significantly greater diversity of microbes on their palms than men, according to Assistant Professor Noah Fierer, lead study author.



Conference on World Affairs



Students working on satellite navigation technology

- An analysis of ancient Greenland ice suggests a spike in the greenhouse gas methane about 11,600 years ago originated from wetlands rather than the ocean floor or from permafrost, a finding that is good news according to Vasilii Petrenko, a CU-Boulder postdoctoral fellow and lead study author. Methane bound up in ocean sediments and permafrost has been a concern to scientists because of its huge volume and greenhouse gas potency.

### Aerospace

- A team of CU-Boulder students and professionals from CU-Boulder's Laboratory for Atmospheric and Space Physics (LASP) operated the Kepler spacecraft from the LASP Space Technology Building following Kepler's launch in March 2009 from Cape Canaveral, Florida, on a mission to hunt for Earth-like planets in other solar systems.

- CU-Boulder is the only research institution in the world to have designed and built space instruments for NASA that have been launched to every planet in the solar system.
- Making his second flight as an astronaut, CU-Boulder alumnus Steve Swanson was the lead spacewalker aboard the International Space Station after NASA's space shuttle Discovery launched from Cape Canaveral, Florida, in March 2009.
- In January 2009, CU-Boulder students won first place in a national competition for nanosatellite design, earning a rare opportunity to launch their winning satellite within the next two years. The winning satellite, called the Drag and Atmospheric Neutral Density Explorer, or DANDE, is designed to measure variations in the upper atmosphere that create drag on orbiting satellites.
- CU-Boulder's BioServe Space Technologies launched a payload of web-spinning spiders and butterfly larva to the International Space Station in November 2008. The project was designed to allow K–12 students to chart the behaviors of the creatures in the near-weightless environment of space.
- The Laboratory for Atmospheric and Space Physics, located in the CU Research Park on the East Campus, focuses on science; full-cycle space science programs; inclusion of students in research and mission operations; and building a reputation for outreach to schools, journalists, and the public. LASP's ability to blend space science with hardware design, development, and implementation while engaging university students in the process makes it particularly unique among university-based space centers. LASP has participated in planetary missions to each of the planets in the solar system. It is involved in more than a dozen programs in various stages of completion in all of its areas of expertise—planetary science, space physics, solar influences, and atmospheric study. In addition, LASP uses an extensive rocket program to calibrate instruments that are currently flying and to test new instruments.

- In 2009, NASA's Lunar Science Institute awarded CU-Boulder two grants totaling \$11 million to probe the cosmos from observatories on the moon and to conduct science and safety investigations on the dusty lunar surface and its atmosphere.

## Arts and Humanities

- Every April, CU-Boulder presents the Conference on World Affairs, which is free and open to the public. Launched in 1948, the popular annual gathering brings intellectuals, political pundits, journalists, artists, and others from all across the country to campus to discuss and debate a wide range of issues. The conference was created by the late Professor Howard Higman.
- Acclaimed film curators from both sides of the country came to CU-Boulder to help celebrate the Fifth Annual Stan Brakhage Symposium in March 2009. The symposium was created to honor the legacy of the late Professor Stan Brakhage, a non-narrative filmmaker who is considered to be one of the most important figures in 20th century experimental film. Brakhage taught at CU-Boulder from 1981 until his death in 2003.
- The Colorado Shakespeare Festival presents a selection of plays every summer in CU-Boulder's Mary Rippon Theatre. With 51 years of distinguished history, the festival features advanced students in the CU-Boulder theatre and dance department and also showcases professional artists, including past performers Val Kilmer and Annette Bening.
- Founded in 1997, the Center for Humanities and the Arts (CHA) serves as a focus for humanistic scholarship and artistic creation across the Boulder campus. Each year, CHA selects a theme around which to organize a year-long faculty and graduate student seminar, a lecture series, and a spring colloquium. CHA also supports innovative research and creative work through monthly "Work-in-

Progress" sessions and events with other units on campus and plays an important role in graduate education by granting approximately \$500,000 in graduate fellowships each year.

## Social Studies

- A study involving iPods and teenagers by CU-Boulder and Children's Hospital Boston indicates teenagers who receive pressure from their peers or others to turn down the volume of their iPods instead turn them up higher. The study also showed that teen boys listen louder than teen girls according to CU-Boulder audiologist and doctoral candidate Cory Portnuff, who headed up the study.
- Do people trust others more when they experience physical warmth? That's the theory of CU-Boulder Assistant Professor Lawrence Williams, who says simply handling a hot cup of coffee can change one's attitude toward a stranger. A paper published in *Science* details a study CU-Boulder Assistant Professor Lawrence Williams conducted with Yale University's John Bargh.
- CU-Boulder students will have the opportunity to immerse themselves in Chinese culture and language through a new study abroad program that provides support for an annual summer program for one faculty member and 12 students to study in China and neighboring countries.
- In a follow-up to a 2006 study, Associate Professor Geoffrey Cohen of CU-Boulder's psychology department and his fellow investigators found that an in-class writing assignment designed to reinforce students' sense of identity and personal integrity increased the grade-point averages of African American middle school students over a two-year period and reduced the rate at which these students were held back or placed in remediation.



Doug Bamforth  
Professor, Department of Anthropology

**Outreach Programs.** CU-Boulder students and faculty share a common commitment—putting their knowledge and discoveries to use for the greater good. Nearly 13,500 CU-Boulder students participate in some form of community service, and more than 3,500 are engaged in academic service learning, a teaching strategy that integrates meaningful community projects with classroom instruction.

Just the Facts

• University of Colorado at Boulder

Each year, more than 56,000 Colorado K–12 students and 2,400 teachers benefit from faculty outreach programs like CU Wizards, Science Discovery, the K–12 Engineering Initiative, Shakespeare Summer Partnerships, and others.

- In total, CU-Boulder professors and students touch 230,000 Coloradans in 37 counties with outreach programs ranging from K-12 education, to water quality studies, to on-campus mental health and legal assistance programs.
- CU-Boulder University Communications shares a myriad of CU events/programs and facilitates the university's engagement with a variety of Colorado communities.
- Colorado learners of all ages benefit from CU-Boulder's education outreach programs including Science Discovery, the Integrated Teaching and Learning Program's K–12 Engineering Initiative, Simply the Best, Shakespeare Summer Partnerships, the Philosophy Outreach Program of Colorado, and others.
- CU-Boulder faculty members present public education programs on campus geared to children and young adults, including CU Wizards, Fiske Planetarium "star shows," Saturday Physics Series, and CU Museum of Natural History programs.
- The CU4K12 website, an outreach and in-service program guide for Colorado's K–12 teachers, features more than 112 programs and 68 internet resources available through CU-Boulder.
- The Girls At the Museum Exploring Science (GAMES) program encourages interest and excitement about science in preadolescent girls with after-school visits to the CU Museum of Natural History.
- CU-Boulder was one of only three U.S. colleges and universities to receive the 2007 Presidential Award for General Community Service.



Maggie Schoonmaker  
Journalism student

*The CU-Boulder GAMES program encourages*

MBA students perform volunteer work by cutting down overgrown brush on Boulder County open space trails



CU Engineers Without Borders student volunteer with a Rwandan boy at a water pump

- The Colorado Math Circle, Dance Outreach Initiatives, and Saturday Physics Series are examples of the 24 faculty-directed outreach projects funded in 2008–09 by the CU-Boulder Outreach Committee.
- David Hinojosa is one of the many CU-Boulder students who are annually making a difference in their communities through civic engagement. One of Hinojosa's service projects is coordinating 125 volunteers in the Student Worker Alliance Program, which teaches free English classes to CU

service workers. He also is a certified emergency medical technician and volunteers with Student Emergency Medical Services, a group that helps monitor parties to prevent alcohol- and drug-related deaths and to educate freshmen about the dangers of binge drinking. Hinojosa is launching a masculinity think tank on campus to help prevent date rape and relationship violence. In March 2009, Hinojosa was among the winners of service awards from CU-Boulder's Institute for Civic and Ethical Engagement.

- About 85 CU-Boulder students spent their 2009 spring break vacations rebuilding homes ravaged by Hurricane Katrina, doing conservation work on Catalina Island, or taking part in projects around the country, such as traveling to Tennessee to be immersed in the Cherokee community, to Cincinnati to work on issues of hunger and homelessness, and to San Francisco to create awareness of HIV/AIDS. Students participated in trips organized by Alternative Breaks, a program of CU-Boulder's Volunteer Resource Center.
- Engineers Without Borders-USA, created in 2001 by CU-Boulder civil engineering Professor Bernard Amadei, has become a global engineering movement. EWB-USA is a volunteer-based organization that partners with villages in developing countries to improve their quality of life through environmentally and economically sustainable engineering projects.
- Students participating in CU GOLD (Gaining Opportunities through Leadership Development) learn leadership skills through participation in workshops, seminars, and a community service project.

*girls' interest in science.*

# Campus Innovations.

CU-Boulder continues to build a stronger campus community, increase teaching and research capacity, improve technology, and complete renovations to current facilities through a variety of initiatives.

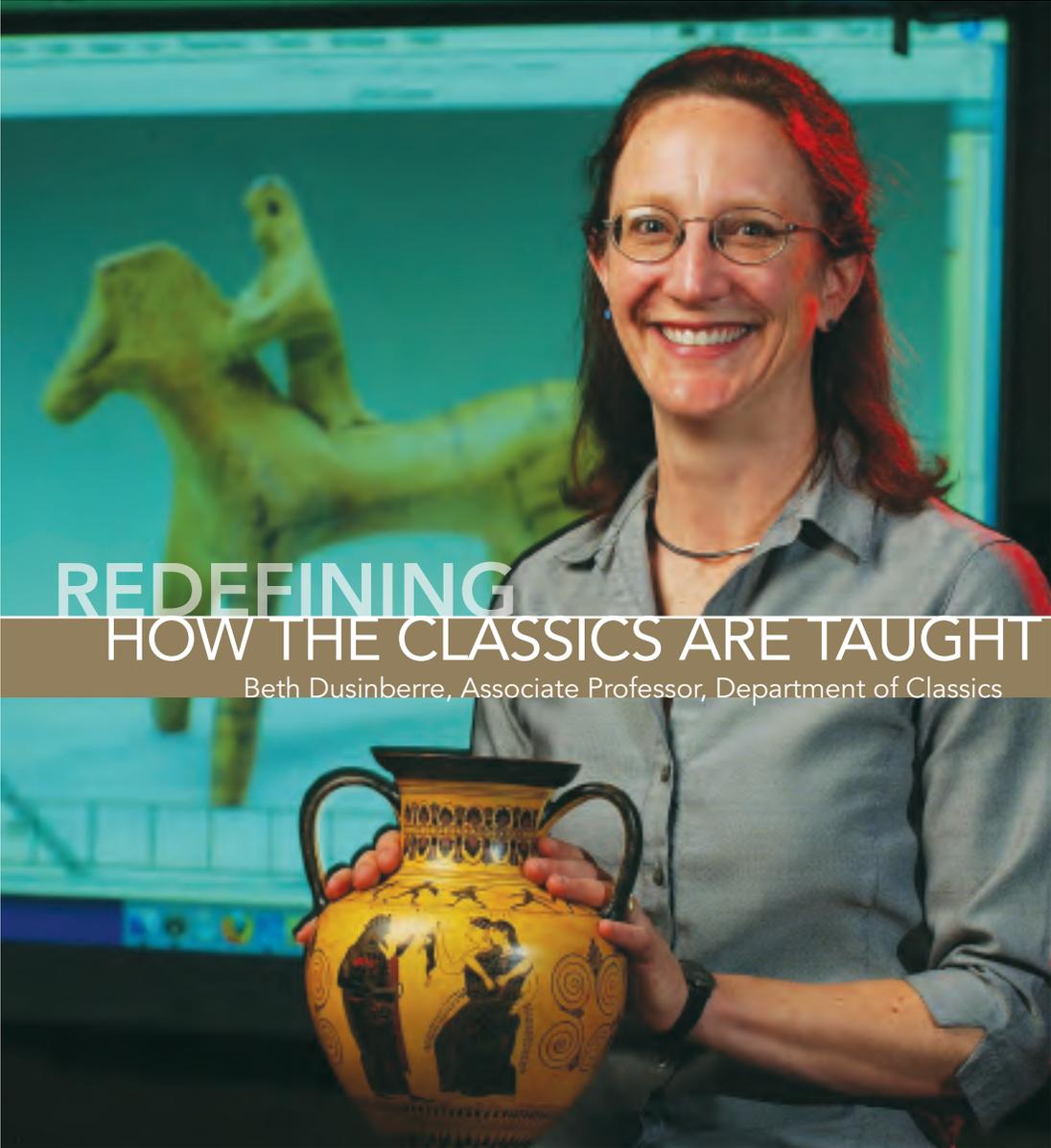
Just the Facts

University of Colorado at Boulder

Center for Community rendering



- When completed in fall 2010, the Center for Community will provide a central location housing a dozen vital student services and multicultural programs.
- When completed, the innovative Visual Arts Complex will be a “cultural gateway” to campus that houses the CU Art Museum and Department of Art and Art History programs.
- The university is transforming residence halls into dynamic residential colleges, where students live and learn in small residential communities and have greater interaction with professors through honors and other academic enrichment programs.
- CU-Boulder has six decades of environmental leadership. A few of the many efforts include creation of a conservation education major in 1951, the nation’s first student-led environmental center established in 1970, the nation’s first collegiate student-led recycling program, and nation’s first student-negotiated prepaid bus passes in 1991, among others.
- CU-Boulder has been named one of the top 15 campuses in the nation for sustainability by the Sustainable Endowment Institute. The campus received an overall grade of A- in the institute’s 2009 *College Sustainability Report Card*, due in part, to such innovations as a zero-waste football program and the nation’s first investment in local offsets as a means of cutting carbon emissions.
- In 2008, Folsom Field became the first major sports stadium in the nation to collect all materials in recycling or compost containers, eliminate trash cans, and transform its materials collections systems into a zero-waste process. Virtually all public food and beverage services in Folsom Field have been converted to recyclable or compostable materials and containers.
- The University of Colorado Student Union requires all student-funded food/dining events to be zero waste. CU Dining Services eliminated plastic bags from grab-and-go meals and distributes free reusable bags to incoming residence hall students.
- Nearly all CU-Boulder courses have an online presence, many of them through CULearn, the campus’s online learning management system. CULearn can be used to deliver learning content using a variety of web-based tools; facilitate student participation, communication, and collaboration; evaluate student work; and release grades, all in a secure online environment.
- Wireless internet access is available in nearly all classrooms and academic buildings and most administrative buildings on campus. All campus residence hall rooms are equipped with Ethernet connections, and most also have wireless access.
- Clickers—handheld polling devices—are used by students to provide feedback in order to increase the effectiveness of teaching. The system allows all students to participate actively in class and provide immediate feedback to the instructor about any misunderstandings in the material being covered.
- Launched in 2007, the Campus Alerts text messaging system enables campus officials to swiftly notify faculty, staff, and students via mobile phone in case of a campus emergency. Alerts also can be sent by e-mail.
- A growing number of buildings on campus meet the guidelines of the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED) certification, a nationally accepted benchmark for the design, construction, and operation of high-performance green buildings, including:
  - ATLAS building—gold certification
  - Wolf Law building—gold certification
  - Koelbel business building—gold certification
  - University Memorial Center—silver certification
  - Visual Arts Complex (slated to open in 2010) is designed to achieve a high LEED certification.
  - Arnett Hall—gold certification

A photograph of Beth Dusinger, an associate professor of classics at CU-Boulder. She is a woman with glasses and a grey button-down shirt, smiling warmly. She is holding a large, ornate yellow Greek vase with black figures and patterns. In the background, a museum display features a large, light-colored sculpture of a horse and rider. The lighting is soft, with a blueish tint in the background.

# REDEFINING HOW THE CLASSICS ARE TAUGHT

Beth Dusinger, Associate Professor, Department of Classics

"Classics seems like a very unapproachable field, when in fact, of all the disciplines I know, it's maybe the most interdisciplinary and most broad reaching," says Beth Dusinger, an associate professor of classics at CU-Boulder. "It incorporates the study of ancient language, ancient literature, ancient history, and ancient philosophy, as well as the rhetoric of art and of architecture. All of the things that are human are included in the field of classics, so for those who take a look at it, it has tremendous appeal."

Since arriving on the Boulder campus in 2000, Professor Dusinger has taken the appeal of classics and applied a novel approach to teaching it, using a variety of instructional techniques—including multimedia and the Internet—to bring the ancient world to life for her students.

Dusinger teaches courses on ancient Greece, ancient Rome, and the ancient

Near East and has incorporated web-based content, interactive multimedia, and even a video game designed and programmed by CU-Boulder computer science majors to challenge students to participate actively in their own learning. The video game, called Expedition: Osiris, enabled students to assume the role of archaeologist, asking them to plan their expedition, execute their plan, interpret their results, publish their findings, and apply for additional research funding.

"As a resource to allow humans to explore human endeavor, technology is ideally suited to classics," says Dusinger.

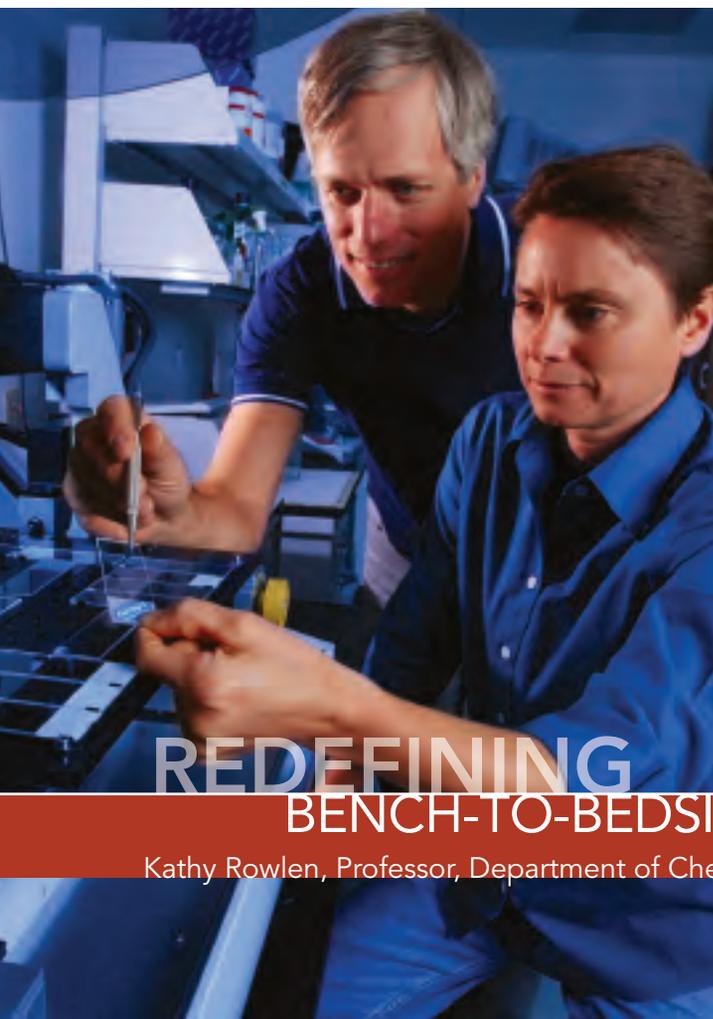
"Through a combination of creative lecturing, active learning projects, creative participation, and creative technology, my hope is that students will become involved in the approach and content in a way that will help to broaden their horizons just a little bit."

**Economic Impact.** CU-Boulder is one of Colorado's primary economic engines. We directly impact the state's professional workforce, new business development, federal research dollars, and overall financial outlook. We take great pride in our ability to train a highly skilled workforce.

Just the Facts

University of Colorado at Boulder

- CU-Boulder generated \$60 million in intellectual property revenues through our technology transfer operation between 2003 and 2008—with strong pipelines in biosciences, aerospace, renewable energy, and nanotechnology.
- CU-Boulder trains a highly skilled Colorado workforce, with well over 6,500 degrees awarded each year and more than a third of all the doctoral degrees earned in the state.
- CU-Boulder has a long history of successful collaboration with federal laboratories and agencies—like NASA, the National Renewable Energy Laboratory (NREL), the National Institute for Standards and Technology (NIST), the National Oceanic and Atmospheric Administration (NOAA), the National Center for Atmospheric Research (NCAR), and others—resulting in a research enterprise with sponsored research funding totaling nearly \$340 million in 2009.
- CU-Boulder has helped make Colorado's Front Range one of the nation's most successful regions for new business development through the Leeds School of Business Deming Center for Entrepreneurship and a strong technology transfer pipeline for business start-ups and venture capital investments.
- In the past five years, 27 new companies—from biotechnology to renewable energy—have been formed based on CU technologies.
- Colorado's estimated net economic benefit from university partnerships with federal laboratories located in the state was \$1.11 billion in 2007.



Most strains of influenza go undiagnosed or are identified in a lab days or weeks later. Fast and accurate flu tests are important when new strains of influenza emerge. A flu test invented at CU-Boulder in collaboration with the Centers for Disease Control and Prevention will allow medical practitioners quickly to determine the type of flu in an infected person—within an hour—using a handheld device the size of a cell phone.

The innovative FluChip, which received federal approval for marketing in April 2009, can detect swine-origin H1N1 influenza A virus and distinguish it from seasonal influenza viruses as well as the deadly avian A/H5N1 virus. Kathy Rowlen, PhD, former CU-Boulder chemistry professor, who led the project, now heads InDevR, the Boulder biotech company that will sell the chip.

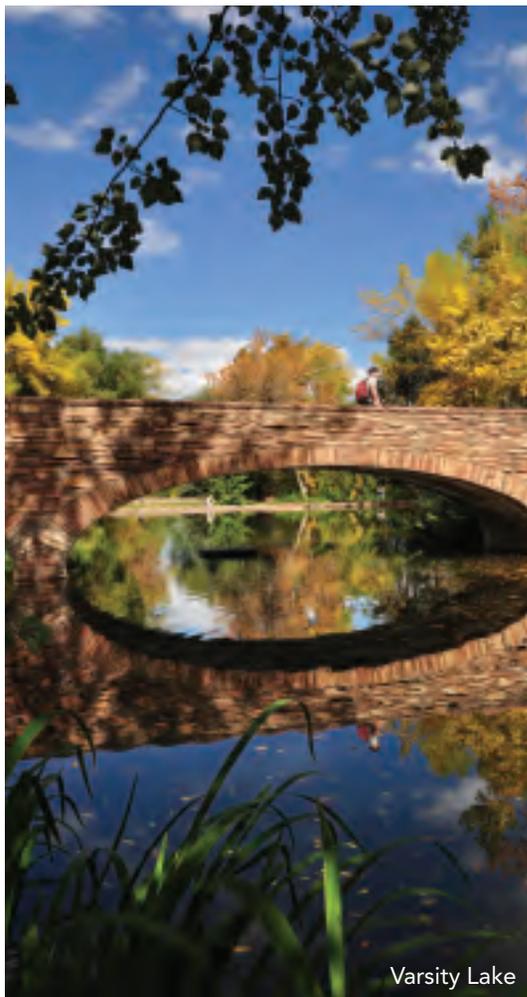
REDEFINING

BENCH-TO-BEDSIDE RESEARCH

Kathy Rowlen, Professor, Department of Chemistry and Biochemistry (1990-2008)

# Rankings and Awards

- *U.S. News & World Report* ranked CU-Boulder 34th among the nation's top 50 public national universities offering doctoral programs in its 2010 America's Best Colleges issue. The rankings were based on factors such as academic reputation, student retention, faculty resources, alumni giving, graduation rate, and admissions selectivity.
- Aerospace engineering was ranked 16th, the entrepreneurship program in the Leeds School of Business was tied for 18th, and the environmental engineering program was ranked 18th among public undergraduate specialty programs in *U.S. News & World Report's* 2010 America's Best Colleges issue.
- Sixteen CU-Boulder graduate school specialty programs were ranked in the top 50 in the nation, including four in the top 10, in *U.S. News & World Report's* 2010 America's Best Graduate Schools issue.
- The graduate specialty programs in the top 10 were atomic/molecular/optical physics (1), quantum physics (4), environmental law (6), and physical chemistry (10).
- The graduate specialty programs in the top 25 were business entrepreneurship (17), aerospace engineering (12), ceramics (14), geology (18), chemical engineering (19), environmental engineering (21), elementary education (22), and civil engineering (25).
- The graduate specialty programs in the top 50 were mechanical engineering (32), computer engineering (33), and electrical engineering (36).
- Thirteen CU-Boulder schools, colleges, and areas of study were ranked in the top 50 and three others were in the top 60 nationally in *U.S. News & World Report's* 2010 Best Graduate Schools issue. They were physics (20), speech-language pathology (25), earth sciences (25), chemistry (28), psychology (29), biological sciences (33), education (38), computer science (39), political science (39), engineering (40), law (45), math (48), economics (50), history (52), sociology (57), and the fine arts master's degree (58).
- CU-Boulder ranks in the top five universities in the nation, excluding military academies, for astronaut alumni who have flown in space, with 17.
- CU-Boulder was ranked the "greenest" school in the nation by *Sierra* magazine in 2009, a move up from second place in 2008. CU-Boulder's leadership in sustainability spans nearly six decades, with rigorous academic offerings in the Environmental Studies Program as well as the integration of environmental studies into other fields including architecture and planning, business, law, journalism and others. CU-Boulder offers 14 degree programs, nine majors, and four certificate programs in or related to environmental studies.
- Nine CU-Boulder doctoral programs were ranked in the top 10 in the nation in a faculty productivity index featured in the *Chronicle of Higher Education* in January 2007. The ranking, which was produced by Academic Analytics, rated the scholarly output of faculty members at more than 7,000 doctoral programs across the country. The CU-Boulder programs were geography (2), physical oceanography (4), communication (6), cognitive science (7), atmospheric sciences (8), chemical engineering (8), biomedical engineering (9), civil and environmental engineering (9), and aeronautical and aerospace engineering (10).
- The Deming Center for Entrepreneurship at CU Boulder's Leeds School of Business was ranked in the top 20 business school programs by *U.S. News & World Report*. The Deming Center moved up three spots from last year to 17th place for its graduate school entrepreneurship program for the 2009–10 academic year. It has been ranked among the top 20 programs nationally for the last decade.
- CU-Boulder was one of only 14 U.S. public institutions ranked as a "Best Buy" in the 2009 edition of *The Fiske Guide to Colleges*.
- CU-Boulder's beloved costumed mascot, Chip, won the 2009 UCA Mascot National Championship administered by the Universal Cheerleader Association and the United Dance Association.



Varsity Lake

# Athletics

- The Colorado Buffaloes have won 23 national championships, including 17 in skiing (five in the current coed format), three in men's cross-country, two in women's cross country, and one in football.
- Almost every year, the overall athletics program ranks in the top 40 of the Director's Cup/NACDA competition. Top programs in 2008–09 included men's cross country (Big 12 champions) and women's soccer and men's golf (Big 12 runners-up).
- The Buffs have also had at least 10 teams nationally ranked in each of the last 13 years.
- CU-Boulder teams compete in the Big 12 conference, consistently one of the toughest and most competitive conferences in the country, and students turn out in large numbers to support their Buffs. CU allots 12,000 football season tickets for students, the fourth-largest number in the nation.
- CU-Boulder athletics venues include the 53,750-seat Folsom Stadium for home football games; the 10,985-seat Coors Events and Conference Center for men's and women's basketball and women's volleyball; and indoor and outdoor track and field areas. The women's tennis team practices on outdoor campus courts most of the year. The ski team, a perennial contender for the national championship, practices about 40 minutes west of campus at Eldora ski area. The golf teams call Colorado National Golf Club in Erie their home, with state-of-the-art practice facilities under construction.

## Athletics Department



Athletic Director: Mike Bohn

Basketball—Men  
Head Coach: Jeff Bzdelik

Basketball—Women  
Head Coach: Kathy McConnell-Miller

Football  
Head Coach: Dan Hawkins  
Contact Person: Chip Marks

Golf—Men  
Head Coach: Roy Edwards

Golf—Women  
Head Coach: Anne Kelly

Skiing (Coed; Alpine and Nordic)  
Head Coach: Richard Rokos  
Nordic Coach: Bruce Cranmer

Soccer—Women  
Head Coach: Bill Hemen

Tennis—Women  
Head Coach: Nicole Kenneally

Track/Cross Country—Men and Women  
Head Coach: Mark Wetmore

Volleyball—Women  
Head Coach: Liz Kritza

At CU-Boulder, we're continuing nearly 60 years of sustainability leadership by striving for zero waste at all home games—the only Bowl Championship Series university to do so.





## REDEFINING WHAT IT TAKES TO BE A STUDENT-ATHLETE

Jenny Barringer, Female Track Athlete of the Year

Add another win for CU-Boulder runner Jenny Barringer, who won her second USA Track and Field 3,000-meter steeplechase title in July 2009.

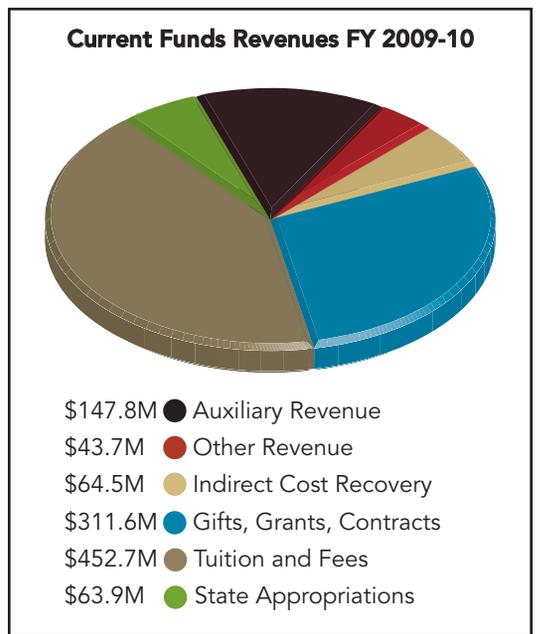
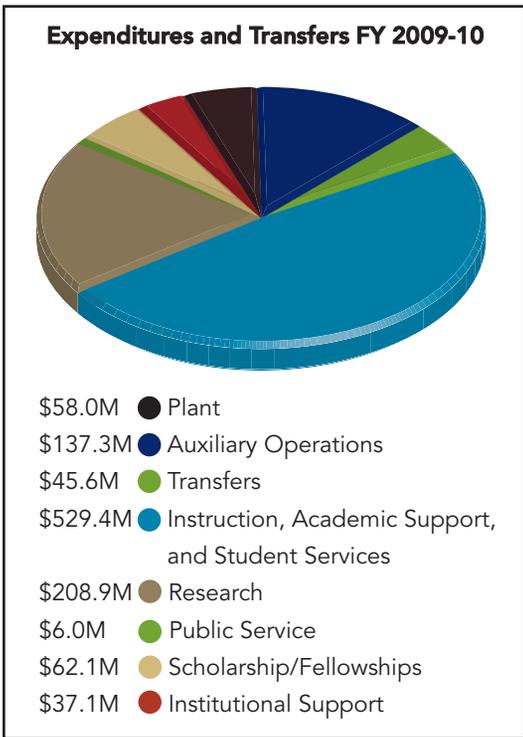
Barringer won the U.S. title in 2007 and placed third at the U.S. Olympic trials last year, and she is the American record holder (9:22.26) in the event. Barringer also set the record in the finals at the Olympics in August 2008, placing ninth overall.

Barringer went to the front of the pack from the gun and ran a race that looked effortless, easily winning in 9 minutes, 29.38 seconds. Her time was the ninth-best in the world and the seventh-best in her career.

It was a season to remember for the CU running star. She set six NCAA records and won a pair of NCAA and Big 12 titles. Barringer was named the U.S. Track and Field and Cross Country Coaches Association (USTFCCCA) Female Track Athlete of the Year (indoor and outdoor), won the Honda Sports Award for track and field, and was named a finalist for the Honda-Broderick Cup, which is given to the top female collegiate athlete. She excelled in the classroom as well as on the track and was named an Academic All-American for the second straight year in 2009.

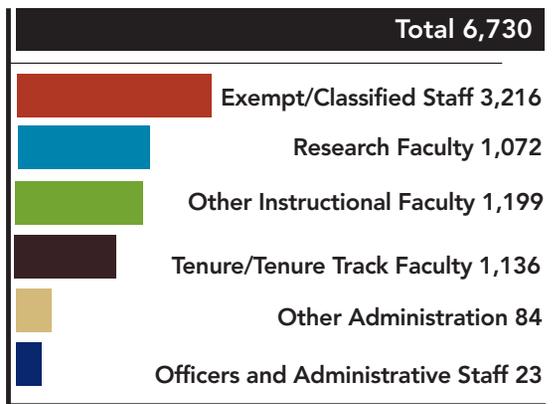
# Budget and Costs

CU-Boulder's 2009–10 total current funds operating budget is approximately \$1,084.3 million.



## CU-Boulder Employees

Boulder campus employees by job category and appointments, including full- and part-time employees. Excludes student employees and architecture and planning employees (rostered in Denver). More than 98 percent of tenure/tenure track faculty hold a doctorate or other terminal degree.



## Faculty and Staff Programs

- The Boulder Faculty Assembly (BFA) formulates policy and makes recommendations to administrators and the CU Board of Regents regarding matters of concern to the faculty. BFA officers for 2009–10 are Joe Rosse, chair; Ahmed White, vice-chair; Sheila Scanlon, secretary; Bill Emery, member-at-large; and Melinda Piket-May, member-at-large.
- The Department of Organizational and Employee Development provides opportunities for professional and personal growth through courses, seminars, and workshops.
- Staff Council, as part of campus shared governance, is comprised of a group of elected staff who are involved in issues of concern and importance to

campus staff. Officers for 2009–10 are Larry Hill, co-chair; Donna Maes, co-chair; Michael Roseberry, vice-chair; Greg Lundgren, secretary; Stephanie Weber, treasurer; and Dana Kusjanovic, parliamentarian.

- The Ombuds Office provides informal, impartial, and confidential dispute resolution services for faculty, staff, and students.
- The Faculty and Staff Assistance Program is a confidential counseling/consulting service designed to provide assistance to faculty and staff for personal or work-related concerns that may interfere with job performance.

## Costs

<b>Annual Costs 2009–10</b> <i>(Full-time students in the College of Arts and Sciences)</i>			
Undergraduate		Graduate	
*Resident	\$ 6,446	<b>Tuition</b>	\$ 8,190
**Nonresident	\$ 26,700		\$ 23,346
Resident	\$ 1,486	<b>Fees</b>	\$ 1,495
Nonresident	\$ 1,486		\$ 1,495
Resident	\$ 7,932	<b>Total</b>	\$ 9,685
Nonresident	\$ 28,186		\$ 24,841

\*Tuition for resident undergraduate students who have applied for, and authorized, their College Opportunity Fund vouchers.

\*\*Tuition for nonresident undergraduate students first enrolled in summer 2009–spring 2010. The four-year tuition guarantee for out-of-state undergraduates, also known as flat tuition, guarantees a tuition-rate freeze for four years, providing cost certainty to families of nonresident students.

- Health insurance is additional, and some individual courses require fees for special materials or equipment.
- On-campus housing costs for 2009–10 are \$5,189 per semester per student for a double room, including 19 meals per week.
- For more information about tuition and fees visit [www.colorado.edu/bursar/now/tuitfeebill.html](http://www.colorado.edu/bursar/now/tuitfeebill.html).

## Key Offices

Academic Advising Center, 303-492-7885  
 Admissions, 303-492-6301  
 Alumni Association, 303-492-8484  
 Athletic Ticket Office, 303-492-8337  
 Boulder Faculty Assembly, 303-492-6271  
 Bursar's Office, 303-492-5381  
 CU Book Store, 303-492-6411  
 Development Office, 303-492-5687  
 Division of Continuing Education and Professional Studies, 303-492-5148  
 Faculty Affairs, 303-492-5491  
 Faculty and Staff Assistance Programs, 303-492-3020  
 Financial Aid Office, 303-492-5091  
 Housing Administration, 303-492-6871

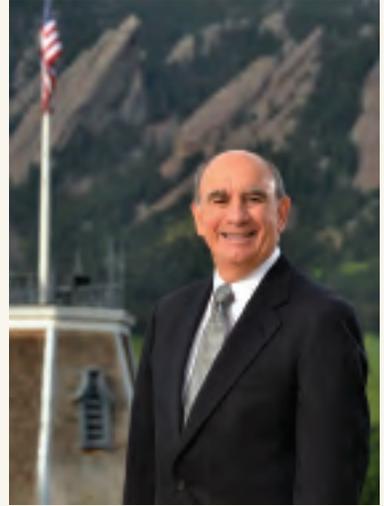
Human Resources, 303-492-6893  
 Office of Parent Relations, 303-492-1380  
 Ombuds Office, 303-492-5077  
 Organizational and Employee Development, 303-492-8103  
 Registrar's Office, 303-492-6970  
 Student Billing Information, 303-492-5381  
 Staff Council, 303-492-5473  
 University Communications, 303-492-7531  
 University of Colorado Student Union, 303-492-7473  
 University Police, 303-492-6666  
 Wardenburg Health Center, 303-492-5101

For a complete CU-Boulder directory listing, visit [www.colorado.edu/atoz](http://www.colorado.edu/atoz).

# Administration

Philip P. DiStefano became 11th chancellor of CU-Boulder on May 5, 2009, but he has served CU-Boulder for 35 years as an education professor, associate dean, dean, vice chancellor, provost, and as interim chancellor during pivotal periods in the university's history.

A first-generation college graduate, Chancellor DiStefano earned a bachelor's degree from Ohio State University and a master's degree in English education from West Virginia University. He holds a doctorate in humanities education from OSU, where he served as a teaching and research associate. He began his educational career as a high school English teacher in Ohio. Since then, he has authored and co-authored numerous books and articles on various topics in language arts and education.



"Together, we will achieve great things for CU-Boulder in an exciting new century, and we will fulfill the university's highest ambitions in research, teaching, and service," he said. "I am deeply honored to be a part of this important work."

## *Chancellor*

Philip P. DiStefano • 303-492-8908

## *Senior Vice Chancellor and Chief Financial Officer*

Ric Porreca • 303-492-8631

## *Vice Chancellor for Administration*

Frank Bruno • 303-492-7523

## *Vice Chancellor for Student Affairs*

Julie Wong • 303-492-8477

## *Interim Provost and Executive Vice Chancellor for Academic Affairs*

Stein Sture • 303-492-5537

## *Interim Vice Chancellor for Research*

Russ Moore • 303-492-2890

## *Vice Chancellor for Diversity, Equity, and Community Engagement*

Sallye McKee • 303-735-1332

# University of Colorado System

## *President*

Bruce Benson • 303-860-5600

## *University of Colorado Board of Regents*

Office • 303-860-5600

Tilman "Tillie" Bishop, R—Grand Junction

*Vice Chair; higher education administrator, former legislator* (term expires in January 2013)

Steve Bosley, R—Louisville

*Chair; retired bank president* (term expires in January 2011)

Michael Carrigan, D—Denver

*Attorney* (term expires in January 2011)

James Geddes, R—Sedalia

*Surgeon* (term expires in 2015)

Kyle Hybl, R—Colorado Springs

*Attorney and general counsel* (term expires in January 2013)

Thomas J. Lucero Jr., R—Johnstown

*Businessman* (term expires in January 2011)

Stephen Ludwig, D—Aurora

*Communications consultant* (term expires in January 2013)

Joseph Neguse, D—Boulder

*Law school graduate student* (term expires in 2015)

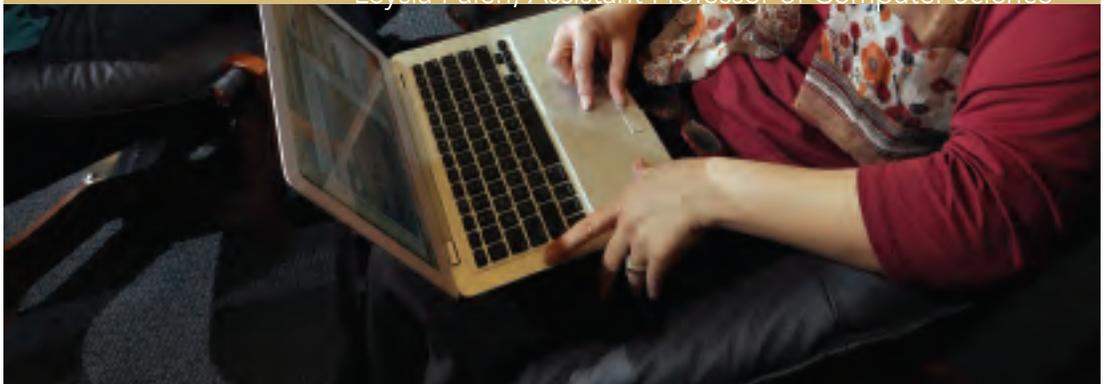
Monisha Merchant, D—Lakewood

*Communications company director* (term expires in 2015)



# REDEFINING COMMUNICATION DURING DISASTERS

Laysia Palen, Assistant Professor of Computer Science



Social media and technologies that support peer-to-peer communication are being used in increasingly creative ways in the aftermath of disasters by people who are either seeking or sharing information that is unavailable from more traditional sources, research at CU-Boulder has found.

CU-Boulder researchers have been looking at how social networking sites like MySpace, Facebook, and Twitter are challenging the age-old concept of "official sources" for providing information in the aftermath of disasters.

Laysia Palen, assistant professor in the computer science department and director of the ConnectivIT Lab, is leading projects on the use of technology in disasters and is halfway through a five-year National Science Foundation CAREER grant to study data dissemination in disasters. Palen and her colleagues have been examining disasters and large-scale emer-

gencies since Hurricane Katrina, looking at how those events have been discussed online and how that interaction has changed over time.

"My group's research has evolved because the rate of technological change is so rapid, and the number of people using it has increased immensely since Katrina," said Palen. "Across emergency situations, we continue to ask: What kind of information are people sharing, how do they adapt technology to their situation, and how do they coordinate with others on such a large scale?"

Her research will help introduce new tools that will allow for the automation of online data so public and emergency managers can make the most of online communication.

# Colorado

University of Colorado at Boulder  
University Communications  
584 UCB  
Boulder, CO 80309-0584

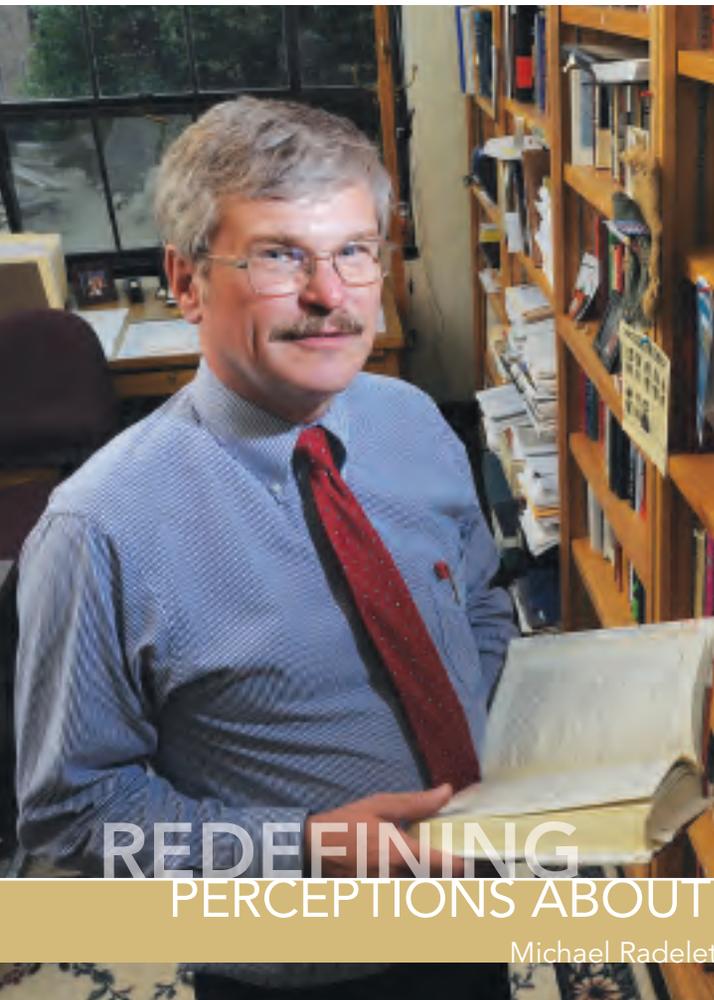
*Just the Facts* is a publication of CU-Boulder University Communications.

[www.colorado.edu/facts](http://www.colorado.edu/facts)



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*CU-Boulder is an equal opportunity/nondiscrimination institution.*



Eighty-eight percent of the country's top criminologists don't believe the death penalty acts as a deterrent to homicide, according to a study conducted by Professor Michael Radelet, chair of the sociology department at CU-Boulder, and Traci Lacock, an attorney and CU-Boulder graduate student in sociology.

The study undermines deterrence as a rationale for maintaining the punishment, said Radelet, one of the nation's leading experts on the death penalty.

The 77 respondents were not asked for their personal opinion about the wisdom of the death penalty, but instead to answer the questions only on the basis of their understandings of the empirical research available on the subject. Eighty-seven percent of the expert criminologists also believed that abolition of the death penalty would not have any significant effect on murder rates, Radelet said. And 75 percent agreed that, "debates about the death penalty distract Congress and state legislatures from focusing on real solutions to crime problems."

## REDEFINING PERCEPTIONS ABOUT HUMAN BEHAVIOR

Michael Radelet, Chair, Department of Sociology