MAXED OUT

Researchers Lower the Bar On High Altitude Exercise

From Mexico City to Denver’s Mile High Stadium there’s been lots of talk about how high elevation affects athletes. But researchers at CSUS say declines in exercise performance can hit even closer to home — as low 1,900 feet. That’s 500 feet below Colfax.

Kinesiology and health science professor Daryl Parker, who conducted the study with colleague Roberto Quintana, says, “Decreases in exercise performance happen at much lower levels than had been thought. Previously, endurance experts believed there was no change in endurance until 5,000 feet or higher. The lowest altitude where we saw change was 1,900 feet.”

Their discovery is a first for American researchers and confirms a recent finding by an Australian who came up with similar data, using different methodology. It also has applications beyond the athletic arena. Parker says the decrease in blood oxygen experienced by people at high elevations is similar to what pulmonary patients and people with heart disease experience. By studying how people respond to altitude, it may be possible to better understand how diseases process work.

Besides turning conventional wisdom upside down on performance and altitude, the researchers are challenging another long-held theory — that a person’s fitness level alone determines how they will perform at a high elevation.

It is widely accepted that the amount of decrease in performance depends on a person’s cardiorespiratory fitness. And, though it may surprise some non-athletes, the expectation hasn’t been that the fitter the person the better they’ll fare. Instead, the research has demonstrated the higher the fitness level, the more capacity the person loses. But Parker and Quintana believe that another factor may be involved.

“There are two markers for endurance: VO2 max, which is the maximum amount of oxygen a person can consume in exercise, and lactate threshold, the highest steady state intensity a person can maintain for a long time,” Parker says. Generally, Parker says, the more oxygen that a person consumes — meaning a high VO2 max — the larger the decrease in their exercise capacity at altitude. But people who can maintain a high steady state intensity for a long time — those with a high lactate threshold — seem to have less decline in exercise capacity at altitude.

The finding is big, Parker says, since it overturns a previously held belief among athletes that high fitness was a liability to high altitude performance because of the resulting increases in VO2 max. “They used to say, ‘Why train if I’m going to compete at altitude?’,” he says. “Now..."}

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Students Getting Lessons in Service

Seventy percent of CSUS students say they’re interested in taking courses that offer experience in the community, whether for job preparation, an opportunity to serve their community, or to practice skills from class.

“That explains why there are more than 100 service-learning courses at CSUS, a number that continues to increase,” says Kathy Martinez, a professor of communications.

Nearly 50 professors at CSUS have integrated service-learning projects into their courses. In them, students take what they’ve learned in the classroom and apply it to a real-world setting.

“When time changes many things, and the best way for students to see this is by experiencing it,” says Charlotte Cook, coordinator of the Office of Community Collaboration.

“Experiential education is the key,” says Kady Martinez, a professor of recreation and leisure studies.

“Students are benefiting by altruism and it also allows information taught in classrooms to make more sense to them.”

Martinez is very supportive of the service-learning concept. She has extended community service projects to her general education courses, although they are short programs. “As little as one day can be a valuable and enlightening experience for students,” she says.

Since 1998, the Office of Community Collaboration has worked with organizations throughout the Capital Region to build the service-learning program.

Heather Carling-Smith, a professor of physical therapy, wants her students to have exposure to patients with neurological disabilities to make more sense of what they’re learning.

“They see their clients as people in real-life settings rather than as patients,” says Carling-Smith. This semester, one of the organizations her students volunteer for is the Ride-to-Walk Program, which helps children with disabilities ride horses as therapy.

Biological sciences professor Susanne Lindgren plans to give her students the opportunity to work with the service-learning program soon.

Her students will work with Public Health Services and Mercy Hospital’s clinical health lab and administration to help develop screening systems for infectious diseases.

Nearly 1,000 students enrolled in a service-learning course last year, and as many as 20 courses will be added next year. Throughout the CSU system, students contribute... Continuing on page four

ELEVATED EFFORT – Kinesiology and health science major Alex Amaro experiences high elevation exercise as professor Daryl Parker monitors his status. Equipment in the exercise physiology lab in Solano Hall can replicate conditions at 14,000 feet.

— Photo by Laurie Hall

Fair Helps Students Spring into Careers

More than 130 businesses will be on force on campus recruiting future employees at the annual Spring Career Fair, April 4 – 5. Representatives from local county, city and state government agencies, as well as national and international businesses, will set up shop in the University Union Ballroom in hopes of hiring some of Sacramento’s hottest young talent – CSUS students.

The annual Spring Career Fair is such a popular event that attendees assemble outside the ballroom well before the 10 a.m. kick-off time.

“Recruiters check in and set up by 9:45,” says Carol Leigh Billing, CSUS career events specialist. “By that time, students are already lined up to get in. By 10:15, the event is so packed it’s not easy to move around the aisles of recruiters.”

The most exciting aspect of the career fair is watching CSUS students strategize options for their futures, according to Billing.

“You can watch the recruiters talking to students and it’s just amazing to see the students making decisions and laying the groundwork for their future right there,” Billing says.

For a list of the businesses that will participate in this year’s event see www.csus.edu/news.

For more information about the Spring Career Fair call 278-6872.

Reception for Support Staff

President Gerth and the executive staff will host a reception in honor of CSUS support staff from 9 to 10:30 a.m. Friday, April 20 in the University Union Ballroom. Staff are invited to stop by, visit with colleagues and accept a small token of appreciation.

April 2 - April 15, 2001
Kall Loper
Serendipity seems to find Kall Loper. The new professor in crimi- nal justice has a history of being in the right place at the right time.
A graduate school job as a computer system administrator inspired his dissertation topic of computer crime. A chance meeting with former department chair Susan Meier triggered a CSUS job inter- view. And even though he’s a brand- new faculty member, his expertise in cyber crime let him leap right into a new branch of the criminal justice curriculum.
“I get to teach what I’m inter- ested in,” Loper says. “These things don’t happen to a junior professor.” He’s also enjoying developing much of the course content from scratch. “I like that I learn as much putting a class together as doing research,” he says.
Though he spends a lot of his time these days analyzing “hacker” behavior, Loper’s background is actually in corrections and his original post-graduate plans in- cluded working in corrections in a state capital. Five years ago he started watching for openings in Sacramento. Though he’s not working in corrections he says he’s available to “pinch-hit” on the topic whenever the department needs him.
After earning his undergraduate degree in sociology and criminology at Texas Christian University, Loper went to Michigan State University for a combined master’s and doctorate program. While in Michigan, luck struck again when he went to work for a corrections facility where he learned many facets of the operation. “It was an unusual opportunity. I got to work in a lot of areas,” he says.
The experience taught him a valuable lesson that he puts to use in his dealings with hackers. He doesn’t hide who he is and what he’s doing, going so far as to hand out his busi- ness card.
“In my prison work, I learned that as soon as a person could figure me out, when they knew where I stood, they had no problem with me,” he says.
That credibility has been essential in Loper’s ability to gain access to the hacker world. Having a technical background helps, too, he says. The criminal justice program has reaped the benefits of that expertise as well. Loper recently completed a redesign of the division’s website.
Who better to transform trash into treasure than the university’s new recycling coordinator – Roger Guzowski?
A couple years of experience as a student custodian at university residence halls in Massachusetts, Guzowski discovered that he enjoyed the relationship between custodial services and recycling. While a student at UMASS, Guzowski took a resource studies class for which the “lab” was picking up recyclable newspapers, and discovered a goldmine of recycling possibilities.
Guzowski advanced quickly in the world of recycling and now works less with pizza boxes and soda cans, and more with long-term waste management on campus and with nationwide recycling issues. He recently returned from the Environ- mental Protection Agency Satellite Forum, where he was one of four recycling coordinators in the nation selected as a guest speaker to talk about campus recycling issues.
His passion for environmental and recycling issues began early in life. Guzowski jokes about trips with his dad to the dump and coming home with more than they left with.
Before joining CSUS, Guzowski spent seven years as the recycling coordinator for Five Colleges, Inc., a consortium of schools that included Amherst College, Hampshire College, Mount Holyoke College, Smith College and the University of Massachusetts at Amherst. Under Guzowski’s direction, Five Colleges won the 1999 National Recycling Coalition Outstanding School Award.
Eager to escape New England winters, Guzowski decided to relocate to the West.
“My job requires a little bit of everything, from picking up cardboard to raising money for long-term plans,” he says. “I try to teach people to look at recycling as a part of their everyday life, not as a separate subject, or chore.
“In the past year, we set up a cardboard and scrap metal recycling program within facilities manage- ment. Next year we’ll be expanding the cardboard recycling program across campus and placing desk-side recycling storage bins in each faculty and staff office and each student room in the residence halls.
Practicing what he preaches, Guzowski bikes or takes the Hornet Shuttle to work every day.
“I want people to realize that as cities grow and develop, our land is disappearing. If we continue to generate so much trash, we will run out of room to store it. The energy crisis is bad enough, California doesn’t need another kind of wake- up call,” Guzowski says.
Additional information about the University’s recycling programs can be found at www.csus.edu/fmgt/recycling.
Stars Take the Stage at Observatory Events

Amateur stargazers and dedicated space aficionados of all ages can join CSUS professors for an informative look at the night sky this spring. Three of the popular “Public Nights” events are scheduled in the coming months. The events all begin with a lively 45-minute lecture and end with a session at the CSUS Observatory atop Amador Hall.

Each lecture begins at 8 p.m. in Mendocino Hall 1015. Viewing at the Observatory is from 9 to 10:30 p.m., weather permitting.

Dates are:
• Friday, April 6: “A New Window on the Universe: An Overview of Gamma-ray Astronomy,” with Clay Bratton.
• Friday, April 27: “From Pickering’s Harem to Heidi Hammel: The Role of Women in Astronomy,” with Donald Hall.
• Friday, May 11: “The Birth, Life and Death of Stars,” with Randy Phelps.

Parking is free from one hour prior to and one hour after the event in the student section of the parking structure. After 5 p.m. on the night of the event, information on the likelihood that weather will allow viewing will be on a recording at 278-6268. Lectures will be given regardless of weather.

More information is available by contacting the CSUS physics and astronomy department at 278-6518.

River City Days Open House

The River City Days planning committee is seeking campus department and groups to participate in the annual River City Days Open House. This year, the event will be on Friday, April 27. It will last from approximately 10 a.m. to 2 p.m. Academic departments have traditionally partnered with related student organizations to put on events related to their area. There are also advising tables, booths by student groups and sessions focused on providing information about department programs and careers.

Signups and additional information are available by contacting the student activities office at 278-6595 or by visiting www.csus.edu/rivercitydays.

Weightlifting Legend to Visit

Tommy Kono, considered one of the best Olympic weightlifters in U.S. history, will give a free seminar from 6 to 8 p.m., Thursday, April 12 in Solano 102.

Kono, a Sacramento native who now lives in Hawaii, is a three-time Olympic medalist. He won a gold in 1952 in Helsinki, a gold in 1956 in Melbourne and a silver in 1960 in Rome. His first gold came not long after he had been held at the Tule Lake internment camp during World War II.

More information is available by contacting Bill Kutzer at 278-6298.

Awards Recognize Service

Nomination forms are now being accepted for the Administration and Business Affairs Recognition and Awards Program, which recognizes administration and business affairs employees for customer service, team work and other exemplary efforts.

Nomination forms are available from Sarah Whyte, 278-7450 or whites@csus.edu. The deadline for submitting nominations is Friday, April 6.

Student Research Conference

CSUS will host the 25th annual Student Research Conference, sponsored by the CSU system’s Social Science Research and Instructional Council, on Friday, May 4. Papers from all social science disciplines are welcome. Both undergraduate and graduate students may participate and prizes will be awarded for the best papers.

Details: 278-6925.

Research Scholars Reception

Phi Beta Delta will host a reception for visiting international research scholars from 3 - 5 p.m., Friday, April 6. The event will be held in the University Union Redwood Room titled “Afro-Asian Arts Dialogue: Building Alliances in an Age of Divide and Conquer.” Through performance, the duo hopes to engage the audience in a discussion about political, cultural and historical commonalities between Asian Americans and African Americans.

Details: 278-6101.

Molly Brown Myth Dispelled

CSU San Jose professor and author Kristen Iversen will read excerpts from her latest novel, Molly Brown: Unraveling the Myth, from 3:30 - 4:30 p.m., Wednesday, April 4, Mendocino 1003.

Iversen is a recent winner of the Colorado Book Award for Biography, the Biennial Barbara Sudler Award for best book written on a Western American subject and a finalist for the WILLA Award for Nonfiction.

Details: 278-6925.

Diversity Through Art

At noon, Tuesday, April 3, saxophonist Fred Ho and performance poet Kalamu ya Salaam will perform a concert in the University Union Redwood Room titled “Afro-Asian Arts Dialogue: Building Alliances in an Age of Divide and Conquer.”

Through performance, the duo hopes to engage the audience in a discussion about political, cultural and historical commonalities between Asian Americans and African Americans.

Details: 278-6101.

IN DEMAND – Cici Mattucci from the College of Engineering and Computer Science presents a workshop on salary negotiations. For all the talk about a slowing economy, students in the College remain in high demand. In fact, CSUS is now the top college source for new employees at technology giant Hewlett-Packard.

— Photo by Frank Whittalch

Deadline Approaches for Fee Waivers, Reductions

Fee waiver and reduction applications are now available for summer and fall 2001. They are available in training and development in Sacramento 173 or faculty affairs in Sacramento 265. A separate form is needed for each semester.

New participants must complete an application for admission, a career development plan and the fee waiver form by Monday, April 16. The deadline for other fee waiver and reduction applications is Monday, April 30.

For eligibility requirements and application information e-mail Kim Harrington at harringt0n@csus.edu.

Catastrophic Leave

Catastrophic Leave has been approved for Susan Kirk, social work, and Ronald Morrison, facilities management.

CSUS employees can donate up to a maximum of 16 hours of vacation or sick leave per fiscal year to employees who have been approved for the Catastrophic Leave Donation Program. CSEA members may donate up to a maximum of 32 hours of sick or vacation leave credits per fiscal year. If employees are interested in donating time, donation forms are available in the benefits office in Sacramento Hall 253 or by calling 278-6213.
Exercise

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they may want to look at ways to train to increase lactate threshold in order to protect the amount of capacity they’ll lose.”

The types of training that increase lactate vary by fitness and activity type. Parker says, but could include intense intervals of hard exercise, long periods of easy exercise or both.

As for altitude training, “For the most part, it doesn’t work,” Parker says. “Don’t train at altitude if you want to do well at sea level.”

And unfortunately for new mountain dwellers, Parker says that even as they get more adjusted to the elevation, they will not be able to match what they were able to do at sea level. Their performance may get better, but their maximal exercise capacity won’t increase.

— Laurie Hall

Lessons in Service

Continued from page one

about 33.6 million hours of community service a year. Faculty can participate by attending service-learning project offered twice yearly. They will also receive a stipend to help fund their first semester of service-learning projects.

With support from Gov. Gray Davis, CSUS has $100,000 for each of the next three years to promote community service through the service-learning program. The campus plans to expand the program by at least 10 courses each year.

— Daun Nguyen

April 2 - April 15, 2001

Thursday, April 5

“Thinking Spatially and Still Making Conjecture,” seminar and workshop, Fred Ho, Kalama Tsala Sama, noon, University Union Hinde Auditorium. (916) 278-6104.

“Poetry Reading,” CSUS professors, Joshua McKinney and Mary Mackey, National Poetry Month, 2 p.m., library first floor. (916) 278-5867.


“Baseball vs. UC Davis, 6:30 p.m., Hornet Field. Tickets $5 general/$3 students, CSUS students free. Tickets available at event. (916) 766-6997.

“Softball vs. CSU Fullerton, noon, Shea Stadium. Tickets $5 general/$3 CSUS students free. Tickets available at event. (916) 766-6997.

Friday, April 6

“El Espíritu de México,” dance and live music, Raíces de Mi Tierra folkloric dance group, 8 p.m., Solano Hall 1010. Tickets $18 general/$12 students. Tickets at CSUS Ticket Office (916) 278-4323 or Tickets.com (916) 766-2277.

“Moving Pictures,” CSUS cinema, film series celebrating diversity, 11:30 a.m., library conference room. (916) 278-5154.

“Dream of a Common Language, drama on women and art by Heather McDonald, 8 p.m., University Theatre. Tickets $10 general/$7 students, alumni and seniors. Tickets at Ticket Office (916) 278-4323 or Tickets.com (916) 766-2277.

Tuesday, April 3


“Reaching Teachers Lecture Series, Dana Ferris, 7 p.m., University Union Delta Suite. (916) 278-5745.

“Developing Digital Literacy in Shasta Hall. Tickets $10 general/$7 students, alumni and seniors. Tickets at CSUS Ticket Office (916) 278-4323 or Tickets.com (916) 766-2277.

Monday, April 2

“Moving Pictures,” CSUS cinema, film series celebrating diversity, 11:30 a.m., library conference room. (916) 278-5154.

“Poetry Reading,” CSUS professors, Joshua McKinney and Mary Mackey, National Poetry Month, 2 p.m., library first floor. (916) 278-5867.


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“Softball vs. CSU Fullerton, noon, Shea Stadium. Tickets $5 general/$3 CSUS students free. Tickets available at event. (916) 766-6997.

Thursday, April 12

“Baseball vs. CSU Fullerton, 2 p.m., Hornet Field. Tickets $5 general/$3 CSUS students free. Tickets available at event. (916) 766-6997.