Dr. David Estrada is building his research program in the areas of emergent semiconductor nanomaterials and bionanotechnology.
A Navy electronics warfare technician stationed in Japan at the time, Estrada traveled to the war-torn country as part of a United Nations humanitarian mission to rebuild schools. The conditions he encountered were appalling. Estrada, who had left Eastern Michigan University to enlist, found himself rethinking his life. “I realized I had taken our education system for granted,” he remembered. “I thought, ‘Wow, I really blew it.’” Estrada vowed to finish college. After completing six years in the Navy, he enrolled at Boise State, majoring in electrical and computer engineering. He distinguished himself as a McNair Scholar, a federal program that prepares talented first-generation and underrepresented students for doctoral studies through involvement in research, and he also received a number of other scholarships and awards.

Estrada graduated from Boise State in 2007 and was admitted to a prestigious graduate program in electrical engineering at the University of Illinois, Urbana-Champaign, where he received numerous honors. He received his doctorate in 2013.

Now the Nampa, Idaho, native is back at Boise State as an assistant professor of materials science and engineering. He competed for a pool of nearly 500 applicants for the position. “My dream was to come back to Boise State,” he said. “I’m thrilled to be here.” Estrada is among a number of top faculty recruits who recently have joined Boise State. They bring life experiences, scholarly acumen, worldwide professional contacts and unbounded enthusiasm to their new positions — a potent combination that is helping advance the university and its programs.

“Boise State’s growing reputation as a research university and the strength of its longtime faculty are attracting top applicants, many with impressive research credentials,” said Dr. Martin Schimpf, provost and vice president for academic affairs. At the same time, the university’s increasing stature is encouraging academically talented students from across the country to enroll, he noted.

“Together this increasingly talented faculty and student body are advancing the university’s research mission and overall excellence,” Schimpf said.

Boise State’s growing emphasis on doctoral education, the opportunity to build new programs, the university’s collaborative culture and Boise’s high quality of life were plusses new faculty also cited as contributing to their decisions to accept positions here.

Meet a few more of Boise State’s newest tenure-track faculty on the following pages.
MARK SIEMON
Nursing, Ph.D.

From a stint in the Peace Corps in West Africa to working for Central District Health in Idaho and helping to establish a locally administered health department for an American Indian tribal community in New Mexico, Siemon brings a wealth of experience to his new position.

He earned a bachelor’s degree in nursing at Boise State in 1993, worked in the field and then went on to earn two master’s degrees and a doctorate at the University of New Mexico. Siemon’s dissertation research looked at how nurses and community health workers work together as part of community health care teams.

“I’ve always been interested in public health because of its emphasis on primary prevention and population health,” Siemon said. His research focuses on understanding how to prevent chronic disease, especially obesity and diabetes, and how nurses can help communities change policies and local environments to increase healthy lifestyles.

“Childhood obesity isn’t a medical problem, it’s a social problem and a poverty problem,” said Siemon. “Understanding how to encourage healthy lifestyle choices, such as regular physical activity, is key to effectively addressing this issue.”

JESÚS TRESPALACIOS
Educational Technology, Ph.D.

Trespalacios’ research involves understanding how video games can be used to enhance learning. “This is my passion – to figure out how we can design educational environments using mini-games and multimedia animations that motivate and support students to understand and apply new concepts,” he said.

Inside an EdTech computer lab, Trespalacios demonstrates by clicking on a video game that features animated divers and pearls. The game is both action-filled and fun – yet it also is carefully structured to support student learning about basic number concepts.

One of five new tenure-track faculty in the Department of Educational Technology, Trespalacios earned his doctorate at Virginia Tech. His dissertation research involved designing and evaluating how different instructional activities involving virtual manipulatives helped students understand meanings related to rational numbers. He was a faculty member at New Mexico State University for several years before coming to Boise State.
As an undergraduate at the University of California, Los Angeles, Demps set her sights on becoming an astrophysicist. That changed after she took an introductory class in anthropology as a break from studying advanced calculus. “It really sparked my imagination to consider all things from an evolutionary context,” she said.

Demps, who earned a master’s and doctorate in anthropology from the University of California, Davis, is fascinated with how cultural knowledge, skills and values are passed from generation to generation and what causes them to change, and sometimes disappear, over time. Her dissertation research took her to southern India, where she studied the honey-gathering Jenu Kuruba tribe and the challenges this small-scale society is facing in preserving its unique knowledge and skills in the modern world.

At Boise State, Demps is continuing her studies in human behavioral ecology and cultural evolution, an area that involves extensive theoretical modeling that taps into her strong background in mathematics. “I always wanted to be part of a university that emphasizes both research and teaching,” Demps said. “I believe that is one of Boise State’s strengths.”
Davis has worked around the world as a lighting designer for theater productions, including 10 years in New York City and on projects that took her to the Sydney Opera House in Australia and to the Thalia Theater in Hamburg, Germany. When a favorite New York-based director invited her to Boise to collaborate on a Boise Contemporary Theater premiere, her first reaction was surprise that the capital city of distant Idaho even had an arts scene. But after visiting Boise and its university, Davis was entranced. She decided that New York would always be an exciting place to work, but Boise would be home.

Davis uses light – its direction, quality, color and intensity – to create the composition that the audience sees on stage. Masterful lighting requires both artistry and technical skills. Davis, who has an MFA from New York University’s Tisch School of the Arts, has spent years honing both.

She shares her expertise with students in labs and classes, and serves as lighting designer and occasional scenic designer for university theater productions. Along with her colleagues, she also works on productions for the Idaho Shakespeare Festival, BCT and other groups. Davis continues to work as a freelance designer on a national and international scale, bringing her students with her on location whenever possible.

“I love seeing that ‘aha’ moment when my students understand something familiar, like light, in a completely new way,” she said.
For Ruffinengo, joining the faculty felt like coming home. He earned a master’s in criminal justice from Boise State, then headed to Arizona State University for his doctoral studies in criminology and criminal justice. “I knew how great this place was, and I was happy to come back,” he said.

Ruffinengo’s research interests are in personnel decisions for policing, such as how educational levels and other qualifications of hired police impact overall performance. He also does work in criminological theory and serves as a manuscript reviewer for Police Quarterly.

At Boise State, he teaches classes that range from a 100-level Introduction to Police course to a graduate-level seminar on Law and Social Control. Ruffinengo taught a number of courses while a doctoral student at ASU, an experience that helped him develop his own approach and skills to working with a diverse range of students. “I’ve always had a fascination with criminal justice,” said Ruffinengo. “The way our society is changing means that old dogma about qualifications for police officers and strategies of policing must be re-evaluated.”

He currently is finishing his dissertation, which focuses on a statewide examination of police misconduct in all Arizona police departments.

Sherman’s research focuses on software quality – developing techniques that help computer scientists determine how the software they build performs when it is executed. “Software needs to be as reliable as water and electricity, and people who develop it need the same level of accountability,” Sherman said. “That can be difficult because each software program is unique. Unlike building a bridge, there is no set of blueprints.”

Boise State’s vibrant research culture and the opportunity to be part of a young and growing department attracted Sherman to the university. She earned a master’s degree and doctorate in computer science from the University of Nebraska, and is among four new computer science faculty hired with funds from the statewide Idaho Global Entrepreneurial Mission, or IGEM, initiative approved by the Idaho Legislature.

A major strength of Boise State’s computer science program is its strong connections with the local high-tech sector, Sherman added. For example, in a senior design project class offered by the department, students are paired with industry mentors to develop software programs that address real issues. “It is uncommon for university researchers to collaborate with local software companies, but it is happening at Boise State,” she said. “This provides our students with a unique academic experience, helps educate and support industry and furthers our research programs.”