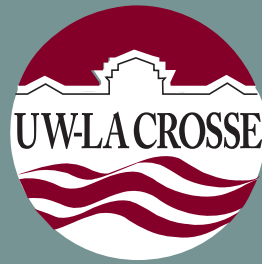


# Science & Health

# NEWS



UNIVERSITY OF WISCONSIN-LA CROSSE COLLEGE OF SCIENCE AND HEALTH NEWSLETTER

VOLUME 11, NUMBER 2

SUMMER 2016



## A *healthy* solution

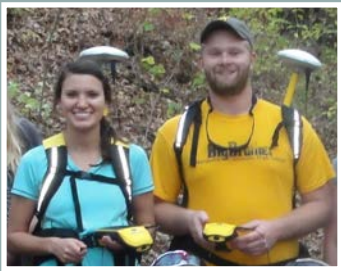
Department works to help people get more healthy

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## 8. 'Sole Sisters'

Two years ago, physical therapy student Stacey Wenker became a "running buddy" with an individual with a disability. Find out what happened when they met in person.



## 14. Take it Outside

Faculty, students discover the great outdoors offer a great value in an age of increasing technology and online opportunities.



## 16. Mexican journey

Discover why Assistant Professor John Kelly, Geography and Earth Science, returns to a tropical rain forest to finish what he started 16 years ago.



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Find out what physical therapy students find out when they travel to Guatemala for service and learning.

UNIVERSITY OF WISCONSIN-LA CROSSE  
COLLEGE OF SCIENCE AND HEALTH NEWSLETTER  
Summer 2016  
Vol. 11, No. 2

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### CLASS NOTES POLICY

Update your address and provide a class note for the Lantern at [www.uwlalumni.org](http://www.uwlalumni.org).

**COVER IMAGE:** Whitney Sanjari, '11, community health educator in the Community Outreach Department at Tomah Memorial Hospital, leads children in programming at Winnebago Park in Tomah. Sanjari works with the Parenting Place for the "Winnebago Wednesday" event that encourages children to have fun while learning. Sangari graduated with a bachelor's in community health education and minor in Spanish.





# A healthy solution

Department works to help  
people get more healthy

Healthier people participating and learning to live in healthier communities through our continued leadership in the development of competent, empowered, and collaborative health education/health promotion professionals and citizens enhancing the health of all individuals, schools, and communities, locally, nationally, and globally.

That's the vision of UWL's Department of Health Education and Health Promotion. With two undergraduate degree programs (a Bachelor of Science in Public Health and Community Health Education and a Bachelor of Science in School Health Education), and three graduate degree programs (Master of Science in Community Health Education, a Master's of Public Health Community Health Education and a Master of Science in School Health Education), the department prepares over 250 students annually to fulfill its vision.

Rooted in school health education, the department has a rich tradition of preparing quality pre-K-12 educators, most of whom serve Wisconsin's schools. With obesity, substance use, stress and other health concerns facing today's youth, the need for comprehensive school health education has never been greater.

School of health education students receive a well-rounded educational experience in the program. In addition to student teaching, they practice their teaching skills through a variety of venues such as the Boys and Girls Club, the YMCA Teen's Center, and local schools.

School of health education graduates have a strong record of employment. Recent cities they have been hired include:

- Austin, Minnesota.
- White Bear Lake, Minnesota.
- La Crosse, Wisconsin.
- Rhinelander, Wisconsin.
- Sparta, Wisconsin.
- Hong Kong, China.

The school of health education program is nationally recognized for its renowned faculty and talented students. In fact, program graduates consistently score higher on the

Above: Kasey Bloom, a 2008 community health education graduate, does sit-ups with a participant in the Winnebago Wednesday program in Tomah. Bloom is an education coordinator with Tomah Memorial Hospital.

national Teacher Performance Assessment (edTPA) than students from peer programs nationwide.

Program faculty also regularly collaborate with students on scholarship activities. Among them are presentations at Wisconsin Health and Physical Education conferences and Society of Health and Physical Educators conferences.

## AN EARLY, STRONG BEGINNING IN COMMUNITY HEALTH

Not only does the Department of Health Education and Health Promotion have a rich history in school health education, it also has nationally recognized programs in community health education and public health. In fact, the Bachelor of Science degree in Community Health Education (CHE) was the first of its kind to be accredited by

*Continued on next page.*

# A healthy solution

*Continued from previous page.*

the Council on Education for Public Health (CEPH) in 2006.

Since then, the program has grown exponentially and has continued to be recognized by CEPH as a program of distinction. In fact, the council recently re-accredited the CHE and MPH-CHE programs.

During the spring 2016 semester the program changed its name to reflect the grounding in public health to public health and community health education. UWL became the first institution in Wisconsin to offer an undergraduate degree in public health.

The culminating learning experience for the B.S.-CHE, M.S.-CHE, and MPH-CHE programs is the preceptorship. The experience provides numerous opportunities for students to engage in the activities and competencies of the community health education specialist.

Often, preceptorships serve as an impetus for networking and employment opportunities. Undergraduate and graduate CHE and PH candidates complete preceptorships throughout the world. Recent graduates and their corresponding degrees and preceptorship sites include:

- Sierra Leone.
- Beaver Dam Community Hospital.
- Kitega Community Centre, Uganda.
- Children's Health Education Center, Milwaukee.
- AIDS Resource Center of Wisconsin.
- Natural Health Center of the Rockies.
- Community Action, Duluth.
- American Diabetes Association, Twin Cities.
- West Allis County Health Department.

The CHE and PH programs have a broad network of alumni doing great things in their communities. One example at the national level: Lindsay Engh and Ahmed Elhindi, recent graduates of the MPH-CHE program, are working with the Centers for Disease Control and Prevention in Atlanta.

## FACULTY LEADING THE WAY

Faculty in the Department of Health Education and Health Promotion continue to be leaders at the local, state, national, and international levels regarding scholarship, service and the preparation of entry-level and Advanced I community health education specialist.

The Community Health Education program has implemented significant changes to the curriculum placing greater emphasis on the competencies deemed critical to successful practice. Numerous faculty serve professional organizations such as the American Public Health Association, the Society of Public Health Education, and the American School Health Association in a variety of ways. Moreover the Department has representation on the National Council on Linkages between Academia and Public Health Practice and the Wisconsin Public Health Council.

On the global front, Assistant Professor Robert Jecklin recently completed a six-month Fulbright experience in Azerbaijan. He currently serves as president of the Seven Rivers Fulbright Chapter.

In addition to leadership activities, department faculty have been involved in a variety of important scholarship and research-related activities. Numerous manuscripts and books were published



Paula Silha, '85, has worked with the La Crosse County Health Department for 27 years, the past two-and-a-half as the Health Education Manager. Of the 10 who work in the department, eight hold community health education degrees from UWL. Silha, who earned a bachelor's in community health education, has also earned a Master's Certified Health Education Specialist.

this year by faculty. In addition, faculty and staff presented many papers at local, state, regional and national meeting and conferences.

A number of faculty mentoring both undergraduate and graduate students had collaborative research published and presented. Over the past decade there has been a significant increase in the number of graduate and undergraduate students who engage in research and end up publishing or present their work.

The Department of Health Education and Health Promotion prides itself in its exceptional students. The community health education program has a significantly higher average and passing percentage on the CHES exam when compared to the national average.

The following examples represent the tip of the iceberg in relation to students' professional activities and accolades:

- The UWL chapter of Eta Sigma Gamma, a national health education honorary, was named the 2016 Chapter-of-the-Year.
- Carrie Glauser, Shannon Malchine, Morgan Drexler, Justine Baumann and Kiersten Souerbry accepted the honor at the annual SOPHE meeting, in Charlotte, North Carolina.
- Stephanie Fassbender and Carly Jerry were recipients of the CHE and SHE Major-of-the-Year Awards.
- Sixteen HEHP students participated in the 2016 Wisconsin Advocacy Summit in Madison.
- UWL's Department of Health Education and Health Promotion, Scenic Rivers

AHEC, Gundersen Health Systems and La Crosse Health Science Academy worked collaboratively developing an overnight camp for Pine Ridge Reservation students ages 14-18. Students explored public health, toured the ER and MedLink at Gundersen Health System. Students were also trained in first aid, participated in a Health Education Expo and investigated a variety of health professions. The camp provided cultural experiences for the students while engaging interactively with the Health Science Academy High School students, UWL School and Community Health Education Majors, and health professional in the La Crosse community.

- Kristen Wanta, Sam Havrilla and Kelli Heeringa represented HEHP in the case study competition held at the SOPHE meeting in Charlotte, North Carolina.

## HEALTHY FUTURE IS STILL THE GOAL

As the health concerns, issues, and needs evolve, change and grow the mission of the Department of Health Education and Health Promotion — to prepare leaders in school and community health education through the bridging of competency and standards-

based education, scholarship, research, and service-related endeavors, thereby contributing to healthier people and healthier communities — becomes increasingly critical and necessary.

For all to be healthy individuals, healthy families, healthy communities and a healthy nation and in order for the department to pursue this mission, department faculty, staff, students and others are collaborating to:

- advocate for the advancement of the profession.
- provide the highest quality of professional preparation.
- prepare students, professionals, and academic programs for credentialing processes.
- provide innovative, professional development opportunities.
- offer authentic, life-enhancing service-learning opportunities.
- strengthen health-related community capacity through collaboration and service within our world.
- aim to cultivate motivated, self-directed, continuous life-long learners.

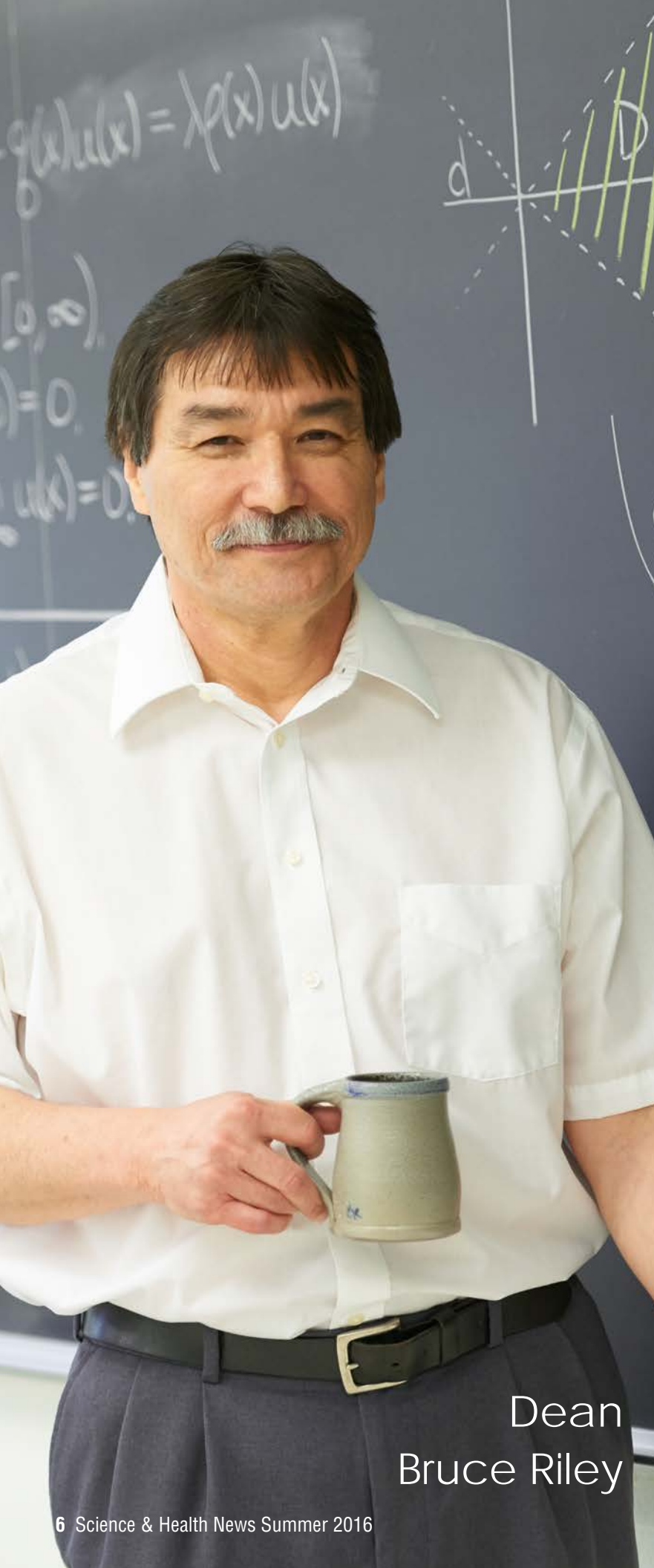


by Dan Duquette,  
Professor of Health  
Education and Health  
Promotion



by Michele Pettit  
Associate Professor of  
Health Education and  
Health Promotion





Dean  
Bruce Riley

# Ardent administ

## Dean Bruce Riley retires

Bruce Riley leads the same way he teaches. He listens. He shares stories. He facilitates conversations that motivate and inspire collaboration. It's a grass roots, ground-up philosophy that has helped students and faculty in the College of Science and Health find success and transition through complex times.

Riley, dean of the UWL's College of Science and Health, retired June 30 after 31 years on campus.

"I think it is important for a leader to have some vested interest in the university and the people it is serving, and it's easy to see that is true for him," says Anne Galbraith, associate professor of biology and the committee chair who hired Riley as dean.

### A CALM, PASSIONATE LEADER

Colleagues describe Riley as calm, collected and quiet, yet extremely passionate about students and the future of the university.

"He makes us cry at every single college meeting because he is so passionate," says Professor Jennifer Kosiak, Mathematics. "He shares stories about former students and others that motivate faculty to understand that on this campus students should be the No. 1 priority. We are here to improve student learning."

Riley is always thinking about students, adds Biology Professor Roger Haro.

"That is what you want to see in a dean — you help your faculty help the students, and that is what Bruce is all about," says Haro.

It was that vested interest in students' future that motivated Riley to continuously step into leadership positions — sometimes during challenging times.

He was chair of the Faculty Senate when one of UWL's four colleges was eliminated in 2005, The College of Education, Exercise Science, Health and Recreation (EESHR). This led to a difficult time for the College of Science and Health as three new departments were added and the college needed to redefine itself. Riley accepted

# Facilitator for students, faculty

## after 31 years

the interim dean position just a few years later as the college worked through the transition.

“The college was starting to fracture. He decided he might be a good candidate to help us rebuild,” says Kosiak. “And he did it through guiding the faculty and being a facilitator, not a dictator.”

UWL has many talented and bright people with great ideas, notes Riley. “My purpose has been to help them focus on where they can be successful — really make an impact — and use their resources to reach those goals.”

Colleagues say Riley has been a huge advocate for teacher education, new faculty, underrepresented students and collaborations between diverse departments. His foresight in these areas and others have made a difference.

### SAH FINDING SUCCESS

The college is looking strong. Departments and faculty have won many statewide awards for teaching, scholarship and service. Strong collaboration has resulted in talented new hires, new grants, new conferences, new programs and powerhouse partnerships between faculty in diverse disciplines.

UWL’s pool of teacher education candidates in math and science is growing in contrast with many programs across the state. UWL now leads the state in terms of the number of faculty who have been hired as content educators in math and science, says Kosiak.

“I don’t think math and science education would be where it is at now if not for Bruce,” says Kosiak. “He has made us very visible in Wisconsin.”

But Riley says his best work was as a mathematics teacher. He came to UWL in 1985 because of the university’s attractive blend of teaching and scholarship.

“We want to train students, but we also want to discover things,” he says. “When students participate in that discovery process, it gives more meaning to their education.”

Kosiak remembers Riley in the classroom — sharing stories, having conversations and working through problems in a collaborative way. Facilitating learning was what he loved to do. And it’s exactly what he’s done as a leader.

“It is sad for the university that he is retiring, but he has mentored faculty who will be able to step up in his role and lead — not necessarily the way Bruce leads, but he has mentored them so they will also be great leaders,” says Kosiak.



Bruce Riley, left, retired as College of Science and Health dean June 30. Biology Professor Mark Sandheinrich, right, has accepted a two-year appointment as interim dean. Riley joined UWL as a mathematics assistant professor in 1985, became associate professor in 1990 and professor in '93. He was named SAH dean in 2009 and dean in 2012. Sandheinrich joined the faculty in 1988, and has served most recently as chair of Biology.





The “Sole Sisters” on their first amazing run together around Shelby’s high school track.



# 'Sole Sisters'

They run for each other



Their shirts say it all: "I Run 4 Shelby" and "Stacey Runs 4 Me."



Stacey Wenker and her "Running Buddy," Shelby, meet in person for the first time after two years of communicating over the computer and phone.

Two years ago I was introduced to "I Run 4 Michael," an organization that matches an individual with a disability with a runner. The runner donates the miles they run to their "running buddy." I instantly fell in love with the idea of this group, the positive energy it portrayed, and the community of support it created.

I was matched with the most amazing, kind-hearted and caring person, Shelby, a 15-year-old girl from California. She has cerebral palsy and uses an electric wheelchair for mobility.

For two years Shelby and I have communicated over the computer and phone, creating an amazing relationship as "Sole Sisters." Together we motivate each other to work toward our goals and achieve more than we ever thought possible.

This past February we were finally able to meet in person. To say we were ecstatic is an understatement. We spent the day getting to know each other better, highlighted by taking our first run together. Shelby kept saying that I was her role model and that this was the best day of her life.

This was also one of the best days in my life. I was able to meet the individual who has inspired me to continue to work toward bettering myself every day.

This organization has been a continuous reminder to me that in order to make a difference in somebody's life, all you have to do is care.

#### **Editor's note:**

***This article was written by Stacey Wenker, a physical therapy student, class of 2017.***

# COMMON GROUND

## Programs discover benefits of working together

Kala Lindley, center with black shirt, is a School Health Education teacher candidate leading healthy-skill behaviors. Tutoring program staff member Taylor Gut says students such as Lindley are learning much from the program. “I think Kala is on a great path to becoming an excellent educator,” says Gut. “She also knows how to read her audience and cater to the needs of the children with her activities.”



The UWL School Health Education and Pre-College Tutoring programs are collaborating to help students succeed.

Teacher candidates in the School Health Education (SHE) program enroll in an introductory class to help develop instructional techniques and skills for delivering effective health practices to become a best-practice health teacher. SHE has collaborated with the UWL pre-college tutoring program over the past three semesters to work together to put teaching skills into practice, and work with learners who will benefit from gaining health instruction and skill sets outside the school day.

The Office of Multicultural Student Services, which is committed to supporting ethnic communities and low-income families in the La Crosse area, sponsors the Pre-College Tutoring Program. The program is directed by Monica Yang who along with university students and staff serve as role models and mentors for the youth enrolled in the program.

The SHE teacher candidates prepare skill-based health education lessons to share with children and youth enrolled in the after-school, pre-college tutoring program. School health educators work to make a difference in the quality of health and the life of starting children off strong.

The teacher candidates collaborate with Yang to identify health topic areas to bolster and enrich children in the mentoring program.

Then, they teach skill-based health lessons weekly over the course of the semester to the children enrolled in the program.

The collaboration of the two programs allows for instructional planning and the teaching of life skills to young learners. These 21st century skills are essential for children and adolescents to be successful. Partnerships forged through the two programs offer students a way to achieve academically, socially, emotionally, vocationally and physically. The benefits are many — for both the teacher candidates and the students.



by Gail McCormick,  
Lecturer of Health  
Education and Health  
Promotion



# Extra special extracurriculars

La Crosse area high school athletes with disabilities featured in book



The benefits of participation in extracurricular activities are recognized for all students.

Interscholastic sport comprises a large amount of these school-sponsored extracurriculars. Benefits of participation include increased physical activity, the development of leadership and social skills, and a sense of belonging to the school community.

These positive aspects are also derived by students with disabilities (SWD). In fact, the importance of extracurricular and nonacademic activities is so recognized for these students that it is part of the definition of special education in the Individuals with Disabilities Education Act (IDEA), the major federal special education law for PK-12 school-aged children.

Athletics have become a very common type of extracurricular for SWDs. Based on the disability, participation could be on teams with their nondisabled peers, or in more specialized programs for students who cannot safely or successfully participate in general programs.

Numerous state and national programs exist, such as state adapted sport leagues, highly competitive paralympics and Special Olympic

Quenten Fisher, right, a UWL adapted physical education student from Watertown, works on a fitness exercise with community client Danny Alderman. The two are taking part of the on-campus, adapted physical education teacher preparation program.

Unified teams. Whichever adapted sport model or option is available, equal opportunity is the key element that should occur in public schools. All students can benefit from school-sponsored extracurricular sport.

A recently published textbook, "Sports, Fitness, and Motor Activities for Children with Disabilities: A Comprehensive Guide for Parents and Educators," contains a chapter co-authored by Garth Tymeson, UWL Department of Exercise and Sport Science, that highlights area high school SWDs.

The purpose of the chapter is to assist parents to receive these services for their children with disabilities. Two area athletes are highlighted via case studies about their participation in interscholastic sports. Each has earned varsity letters, participated on teams and benefitted from extracurriculars like all other students. Their stories are presented in the book so more parents can advocate for their children.

The chapter includes a story of an athlete on the autism spectrum who has been on middle and high school cross country teams for several years. He has progressed from needing a great deal of assistance to where he independently completes high school meets.

The chapter discusses how his parents and school officials obtained a waiver from the

Wisconsin Interscholastic Athletic Association for him to run with assistance in official meets. This participation is part of his required special education individualized education program (IEP).

Another case focuses on a student with a cognitive disability who is in a specialized adapted sport league for special education students. This is part of a new and growing program in the Mississippi Valley Conference (MVC), including the La Crosse, Holmen and Onalaska school districts. West Salem joined in fall 2016.

This separate, school-sponsored league allows many SWD who would not be able to participate in the general sport program to benefit from extracurricular activities via adapted sport teams in soccer, floor hockey and baseball.

These sport opportunities benefit SWD. In addition, UWL students in the adapted physical education teacher preparation programs are involved as coaches, referees and player assistants. It's a win-win situation for all.

For more information about adapted sport for students with disabilities contact Garth Tymeson at [gtymeson@uwlax.edu](mailto:gtymeson@uwlax.edu) or 608.785.5415.

# *\$1.25 million*

UWL receives grant to continue adapted physical education teacher preparation



A UWL adapted physical education student assists child from the community during a class in Mitchell Hall. UWL has received a \$1.25 million competitive grant to continue its nationally recognized work preparing adapted physical education teachers for schools across the country.



UWL has received a \$1.25 million competitive grant to continue its nationally recognized work preparing adapted physical education teachers for schools across the country.

The U.S. Department of Education Office of Special Education and Rehabilitative Services grant provides fellowships and professional development for graduate and undergraduate students pursuing teaching and leadership careers in adapted physical education.

Professor Garth Tymeson, grant director from the Department of Exercise and Sport Science, says the project will fund full-time graduate and undergraduate students, as well as current teachers returning to campus for adapted physical education professional development during the summer.

Abbie Lee, a lecturer in the Department of Exercise and Sport Science and coordinator of the new award, says the project continues the work of another grant that ends in June.

“The grant will assist many future teachers to achieve state licensure in adapted physical education and assist school districts throughout the country who need effective teachers to serve students with disabilities in both inclusive and specialized education settings,” she says.

The five-year award is one of the largest grants UWL has received. Students experience adapted physical education and sport programs sponsored by UWL’s Center on Disability Health and Adapted Physical Activity in the Department of Exercise and Sport Science.

### ABOUT THE UWL ADAPTED PHYSICAL EDUCATION TEACHER PREPARATION PROGRAM

UWL adapted physical education alumni are hired throughout the country. In the last eight years, they have received teaching positions in Alaska, Georgia, Illinois, Maryland, Minnesota, New York, North Carolina, Utah, Virginia, Washington and Wisconsin.

As many as 12 graduates in the past six years have been employed in Virginia’s Fairfax County, the 13th largest school district in the country.

Wisconsin is one of only 13 states with an add-on teaching license for adapted physical education specialists.

School districts actively pursue UWL adapted physical education teachers to meet their staff needs. Some alumni pursue doctorates to teach in higher education. Graduate students in the program come from throughout the country.

Adapted physical education is one of many highly regarded teacher education programs in the UWL School of Education that prepares future professionals to meet the needs of students with disabilities in PK-12 schools. UWL offers both undergraduate and graduate study in adapted physical education. Current enrollment includes about 40 undergraduates and 10 graduate students.

For more information about the grant, contact Garth Tymeson at 608.785.5415 or [gtymeson@uwlax.edu](mailto:gtymeson@uwlax.edu), or Abbie Lee, at 608.785.8691 or [alee2@uwlax.edu](mailto:alee2@uwlax.edu).



by Garth Tymeson,  
Professor of Exercise  
and Sport Science



by Abbie Lee, Lecturer  
of Exercise and Sport  
Science



Students in UWL’s nationally recognized adapted physical education program work with children from the community as part of their studies. The \$1.25 million U.S. Department of Education Office of Special Education and Rehabilitative Services grant provides fellowships and professional development for graduate and undergraduate students pursuing teaching and leadership careers in adapted physical education.



# TAKE IT OUTSIDE

## Students benefit from out-of-the-classroom

In an age of increasing technology and online educational opportunities, students still find great value in immersing in the natural world.

In the College of Science and Health, there are a number of opportunities for students to get their hands dirty. Biology, Chemistry, Exercise and Sport Science, Geography and Earth Science, Health Education, Microbiology, and Recreation Management all offer classes that require students to go outside and to interact with nature.

The added value of field studies to student learning is rarely debated by educators. However, field instruction often carries with it financial, time and curricular costs that in many cases limit the feasibility of maintaining field offerings long-term.

Associated program costs can also limit the inclusiveness of these opportunities, making them only available to students who can afford to participate. Biology faculty member Gretchen Gerrish recently participated in a National Science Foundation working group titled ‘Decline in Field Studies’ hosted at Prescott College in Arizona to discuss strategies for perpetuating field studies into the future. See more at [https://sites.google.com/a/prescott.edu/decline\\_in\\_field\\_studies\\_workshop1/home](https://sites.google.com/a/prescott.edu/decline_in_field_studies_workshop1/home).

Gerrish was most excited to explore assessing and demonstrating value-added experiences students have while studying in the field.

“During the workshop, we identified a series of educational outcomes associated with field studies,” Gerrish says. “Benefits for students include improved self-reliance, community and collaboration, along with an understanding of the link between self and the world around them. I was motivated to think about how these goals fit within the broader UWL mission.”

UWL field courses are utilizing the outdoor classroom — through outdoor labs, immersive weekend field trips or extended international field courses — to reach some of these value-added goals for students.

While there are course offerings that provide these opportunities to students, there are still many tracks in the college that students can take for which they are never required to step outside, notes Gerrish. “How are we creating global citizens if they leave UWL without some form of connection with the natural world?” she asks.

With tightening purse strings and ever-increasing risk management concerns at universities nationwide, Gerrish says there is concern that field courses are declining and will continue to decline. “If UWL can support existing programs and continue to build new value-added field opportunities for our students, we can do our part to overcome the national decline in field studies,” she says.

### OUTDOOR LABS NEAR LA CROSSE

— by Colin Belby, Geography and Earth Science

Each fall 16 students enrolled in Geographic Field Methods spend Tuesday afternoons collecting data for projects that range from mapping recreational trails in the bluffs to surveying local streams. Students work collaboratively utilizing cutting-edge technology to study real-world issues while refining skills that are critical for the job market or graduate school.



BELBY

This is among my favorite courses because I witness the comradery that develops among the students. The hierarchical division that so often exists between faculty and students in the traditional classroom fades away. Relationships formed permeate through the curriculum and lead to improved teaching and learning experiences.

My students will never forget — and they regularly remind me — how on a cool October day while surveying a local shallow stream a misplaced step caused me to become soaked from head to toe. The concern on my students’ faces rapidly transitioned to laughter after





# Immersion experiences

helping me out of the river and seeing the big grin on my face. Lesson learned: this is why we wear personal flotation devices and always bring dry clothing!

## IMMERSIVE FIELD WEEKEND IN THE NORTH WOODS

— by Tim Gerber and Eric Strauss, Biology

For decades, Biology Department faculty have included weekend (Friday-Sunday) field trips to northern Wisconsin and the Upper Peninsula of Michigan in fall semester field courses. Most of those field trips were spent at Pigeon Lake Field Station near Drummond, Wisconsin, which unfortunately closed. Currently we use the facilities at the University of Notre Dame Environmental Research Center (UNDERC) East Campus in the Upper Peninsula Michigan to provide a valuable field experience to undergraduate students interested in the aquatic sciences or plant biology.

Over two weekends in early to mid September, UWL faculty bring approximately 60 students (30 each weekend) to UNDERC to participate in a series of field-based exercises to enhance lecture content taught back on campus. The field trip provides the chance to sample wetland, terrestrial and true aquatic habitats in forests different from the ones in southern Wisconsin.

We run the trip early in the semester because it allows the students and faculty to spend a concentrated period of time together, building bonds that carry through the semester. Through this trip, we expand the lens through which students view these ecosystems, developing

an understanding of processes taking place beneath the water surface and making connections between the terrestrial and aquatic landscapes.

The extended weekend provides the samples and specimens that are used all semester in lab. Students have great personal investment in analyzing samples they helped to collect and a deeper understanding of the data because they have seen the systems first hand.

## EXTENDED INTERNATIONAL FIELD COURSE IN BELIZE

— Gretchen Gerrish, Biology

During a two-week, immersive natural history and research class in marine symbioses in Belize, Central America, students are exposed to new cultural and natural environments.

This year, as we swam in from our night snorkel, Alexa Aguirre, a junior, was quietly sitting next to me. She had been very quiet the whole time and I was concerned she was frightened or cold from the snorkel out to the reef.

When I asked what was wrong Alexa said “Working in the lab, I have heard about these organisms, seen videos, and studied them under the microscope for hours but I never imagined this. It is so beautiful and overwhelming to feel a part of it.”

All I could think was, “why can’t I share this experience with more students?”

It was not just the awesome biology of bioluminescence courtship in crustaceans that evoked emotion in Alexa (as much as I would like to think it was). It was the weightless immersion in a dark ocean with stars overhead and the sound of snapping shrimp and croaking toadfish below that created a sensory experience that will stay with Alexa forever.



GERBER



STRAUSS



GERRISH

# Mexican journey

## Faculty member returns to tropical rain forest

This summer, Assistant Professor John Kelly, Department of Geography and Earth Science, will finally get to finish what he started 16 years ago.

From 1997 to 2000, Kelly lived for months at a time in the Calakmul region of Mexico, one of only three major tropical forest areas left largely intact in the country. (The other two are the Chimalapas and the Lacandón regions.)

At the time, Kelly was working with conservation-and-sustainable-development NGOs (non-government organizations), principally Pronatura Península de Yucatán, a homegrown Mexican group loosely affiliated with The Nature Conservancy. While the northern half of the Yucatan Peninsula has been continuously settled for over 2000 years with farms and villages since the earliest Maya times, the southern Yucatan location of Calakmul – where the forest continues southward deep into Guatemala – was nearly depopulated during the long decline of Maya civilization after 1000 AD.

The villages of today's Calakmul forest are among the newest populated places in all of rural Mexico; nearly all of them were founded since 1980, mainly along the two long roads which cross the vast area. Few of these new residents are indigenous, Maya or otherwise.



Young residents in the Calakmul region in Mexico draw water from an artificial pond in a village-scale reserve.

Many of Calakmul's villages are defined by two overlapping property and territorial systems. Each village is an ejido, a township-sized land grant legally owned collectively by all the households of the village. It's a system known as "social property," developed after the Mexican Revolution around 1920 and still intact in nearly half of the country's land area despite its gradual dismantling since the 1990s.

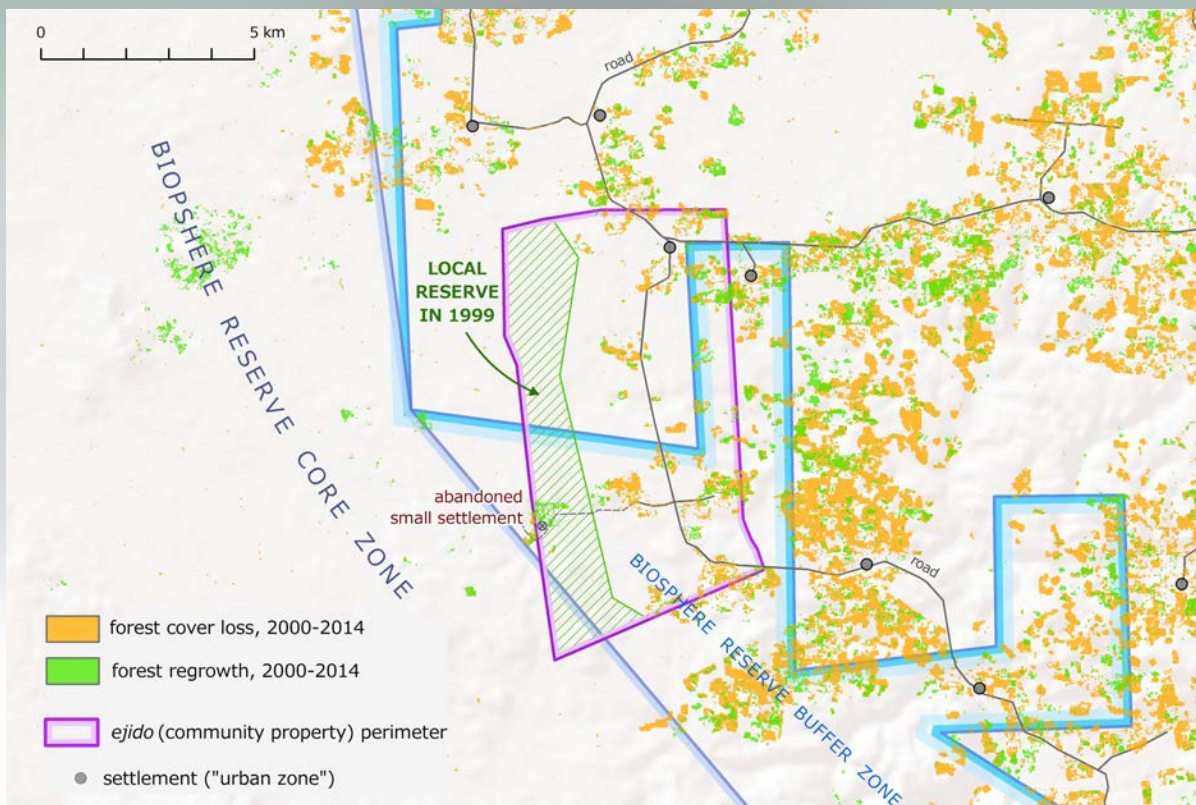
At the same time, many of the villages lie within the "buffer zone" of the Calakmul Biosphere Reserve. Biosphere reserves, an idea born in the 1970s through the United Nations affiliate UNESCO, comprise a global network of nearly 700 places which together ostensibly represent the world's biodiversity.

Each is more or less like a national park. But this is where the local residents are, in theory, integral to the management of the landscapes, especially along its margins where conservation priorities are superseded, and yet supported by (ideally) sustainably productive landscapes.

During his last months in Calakmul in 2000, Kelly collaborated with Mexican environmental geographer Gerardo García Gil to begin documenting an interesting phenomenon: the boundaries of the biosphere reserve were almost completely unknown to the villagers living in and around its edges.

Nevertheless, many villagers were practicing active, territorially-defined conservation, but





Map of one village-scale reserve overlapping the vast Calakmul Biosphere Reserve



During a previous visit to the Mexican tropical rain forest, UWL Assistant Professor John Kelly witnessed the forest region's farmers use slash-and-burn methods to prepare their cornfields.

on their own terms: in the form of local, village-scale "reserves." How common are these local "parks"? Are they just leftover, difficult-to-access land, or are they deliberate creations? Are locally generated land use restrictions enforced? Are they considered common, public spaces? At some point, by analyzing satellite imagery and perhaps in collaboration with a UWL or Mexican biologist, Kelly will approach the question of their effectiveness as bio-conservation tools.

In the years since 2000, important developments have occurred: excellent research by Mexico's federal biodiversity commission, on local reserves in a nearby region; and, in 2008, Mexico's addition of a new official category of protected area: "voluntary conservation areas."

Kelly is still likely to discover surprises, in part because his primary methods – participatory mapping by communities and interviews – will surely lead the research in

unexpected directions. Eventually, Kelly plans to expand beyond the UWL Faculty Research Grant fieldwork, to compare Calakmul with other critical forest habitats with changing land tenure systems (collective and individual ownership), and evolving governance regimes.

The Muskitia region of Honduras also contains a 1980s-era biosphere reserve that has been essentially rejected in recent years by forest residents (indigenous Miskitun and others) in favor of county-scale, semi-autonomous territories. From 2011-15, Kelly worked with the Kansas-based multinational geographic research team Centroamérica Indígena in Honduras, and hopes to collaborate with them again in coming years.



by John Kelly, Assistant Professor of Geography and Earth Science





The UWL physical therapy team poses with some of the children they had the privilege of working with at a developmental disability clinic in Quezaltepeque, Guatemala.

# *They have heart*

## PT students, alumnus travel to Guatemala for service, learning

UWL alumnus Paul Yerhot, '15, and current doctor of physical therapy students Diane Kilgas, Natalie Pitsch, Emily Sobocinski and Lauren Strommen traveled to the Zacapa region of Guatemala in January.

The five partnered with Hearts in Motion, a non-profit organization that has been providing physical therapy and charitable services in Guatemala since 1990. The organization organizes medical teams of volunteers, as well as maintains several rehabilitation clinics, a school, and a children's nutrition center for young orphans and other children in the nearby community.

During the 10-day trip, the team evaluated and treated patients of all ages. The patients arrived with many types of orthopedic and neurological conditions such as low back pain, fractures, osteoarthritis, post-surgery, amputations, cerebral palsy, stroke and traumatic brain injury. Team members provided patients with braces, orthotics and

assistive devices, including a wheelchair to a man with an above-knee amputation. Three of the students also functioned as primary translators facilitating the desired treatment and education for the patients.

The UWL PT team members had the opportunity to impact the lives of people who had a much different background than their own and were privileged to partner with them during a time of great need. Even though there is much more progress to be made in Guatemala, UWL team members made a small step toward guiding their patients toward recovery and instilling hope through healing.

"It is true that service trips are just as beneficial for the volunteers as they are the recipients" says Yerhot. "They break down walls, expose misconceptions and open our eyes to the raw truth. We have just as much in common with our next door neighbor as we do with those across an ocean."



Doctor of physical therapy students assist a child with cerebral palsy with gait training during their service trip to Guatemala. The UWL team worked in collaboration with doctors and dentists as part of a travelling medical clinic.



# A health advocate

## Students, staff take healthy message to the state legislature

As health education specialists seek to lay claim to a unique professional role in health reform, upstream communication and advocacy for health and health education is becoming more of a priority.

Since it is sometimes difficult to reach higher levels of cognitive processing and develop skills in a traditional classroom setting, for the past two years, Community Health Education faculty have partnered with Eta Sigma Gamma to take students to Madison for a health advocacy experience. This year, 16 students and four faculty members traveled to the state capitol.

Over the course of three days, event organizers and community experts provided advocacy trainings on campus, as well as in Madison. Student teams collaborated to develop a brief advocacy presentation on a public health priority issue and met with staff of several elected officials. Students indicated that doing this work in small groups away from the classroom was extremely helpful in encouraging learning that went beyond memorization.



Health education students took a message about health to the state capitol in February.



The meetings also forced students to embrace their role as the educator. They reported a sense of empowerment associated with advocating on their issue and on behalf of their profession. They also testified to an increased appreciation for the interdependency of responsibilities of a health education specialist, and they showed a heightened awareness of how political priorities impact the health of the public.

The Health Education and Health Promotion Department plans to continue to incorporate advocacy in professional preparation of students. In addition to ongoing involvement with the state legislature, plans are also underway for UWL to participate this fall when the National Health Education Advocacy Summit in Washington, D.C., returns after a one-year hiatus.

Advocacy will also become more of a pronounced part of the undergraduate curriculum, with a dedicated advocacy class offered to students beginning fall 2016.

And, faculty will aim to take on a greater role with the La Crosse Area Public Health Legislative Gathering. The event takes place a few times each year and allows elected officials, public health organizations, educational institutions and others to discuss the public health in Wisconsin.



by Anders Cedergren,  
Assistant Professor of  
Health Education and  
Health Promotion

# A national audience

## Students present at SHAPE conference

Last spring Assistant Professor Lori Reichel, Health Education and Health Promotion, presented with two school health education students, Haley Anderson and Austin Reed, at the National Society of Health & Physical Education Conference in Minneapolis. They were given two hours to present, “Healthy Relationships 101: What Teens Really Need/Want to Learn About,” where they provided numerous student-centered teaching techniques to more than 100 conference participants. The presenters were asked about the experience.



### Why did you decide to present at a national conference?

**HALEY:** I knew it would be a great resume builder, as well as a great place to network. I am so excited about my majors (health and physical education), and I thought presenting would be a great way to show others my enthusiasm, as well as share lessons.

**AUSTIN:** I saw it as an opportunity to build skills as a health educator, meet with some of the great minds in the field, and begin to make connections with professionals who could help me in my career. After presenting at a state conference, this seemed like a really exciting challenge.

### Why did you choose the topic, “Healthy Relationships?”

**HALEY:** I want people to understand how important it is to teach about having healthy relationships because we are going to have relationships our entire lives -- with friends, romantic partners, colleagues, family and others. I personally feel teaching about relationships is lacking in schools, in which the school years are important for youth to learn about relationships. When students get to be of secondary age, many have changed, or will change, friendships, show interest in romantic relationships, and have had hormonal changes that can affect relationships.

**AUSTIN:** Everyone deals with relationships of some kind, and that is why learning how to create and maintain healthy relationships is important. In a K-12 setting, I believe there is a lack of this information being taught

which is frustrating because this is such a crucial time in their lives of developing relationships. In addition, this is a topic students enjoy discussing because it is so relatable. I think teaching about healthy relationships is one of the best preventative strategies for the future challenges that could arise in one's life.

### How did you prepare?

**HALEY:** Because I enjoyed the topic of my presentation, the preparation was hard work but exciting. Every little bit we got done felt like an accomplishment. Preparation time was also a great time to strengthen connections I had with the other presenters, including my professor.

**AUSTIN:** The preparation was a great experience. Although it is hard work and time consuming, this is when I really learned the most. I built some very beneficial skills that have already translated to my work in class.

### How did the presentation go?

**HALEY:** It went great, especially for it being my first one nationally! It flowed, we were knowledgeable on the topic and we had fun. The audience was engaged and I felt like the two hours flew by.

**AUSTIN:** I thought our presentation was very successful going into it. I had no idea how many people were attending. But we had great participation from our audience and we really flowed together as a team — it barely even felt like we were up there for two hours.



## What advice do you have for future student presenters?

**HALEY:** If it is something you are passionate about, do it. However, it is a lot of work and takes dedication. Procrastination won't help, and it is best to be timely so there is time to edit your presentation if needed.

**AUSTIN:** Any type of presentation is a great opportunity, but it is something you have to want to do. This is not something you can just go through the motions on because you will be losing so many benefits of this experience and it will be very frustrating.

## Questions for Assistant Professor Reichel

### How do you get to present at a conference?

**REICHEL:** Most conferences will announce for proposals months before the conference. To submit a proposal, you complete a form with how your presentation supports educational standards and what the objectives are, plus other information. After submitting a proposal, you wait to get accepted. For the conference Haley and Austin presented at, I submitted proposals last July (2015) and found out I had two acceptances in November.



Assistant Professor Lori Reichel, Health Education and Health Promotion, center, presented at a national conference with two school health education students, Haley Anderson, left, and Austin Reed,

## How can students present at a conference?

**REICHEL:** If students have an interest in a topic and want to present, I recommend they approach a professor/mentor they feel comfortable to work with. They must understand it will require time and hard work- both Haley and Austin had to do initial work (including answering questions supporting the Understanding by Design principles), before we jumped into what we were going to present. Students can also decide to present on their own or with their peers, yet to do the initial paperwork, I recommend they obtain guidance from someone who has presented before.

## How difficult is it to work with students?

**REICHEL:** Overall, I enjoy working with students a lot, yet I need to let them know I have high expectations and require timely communication with work to be completed. From doing past presentations, I have learned it is best to be prepared sooner than later. For this specific conference, after working with Haley and Austin for a state conference, I approached them knowing they had the ability to work diligently to prepare then present at a national conference. The most challenging part is to be the person who says "we need to strengthen this part..." and encourage the students to re-do specific sections, as needed.

## Why do you choose to work with students?

**REICHEL:** I believe that is my role to fulfill both as an educator and a person on this planet. I have taught K-12 students, as well as undergraduate and graduate students, and presented numerous times on teaching techniques and educational research. At this point, I need to share my skill set to help the future educators "fly" in their careers.

## What is your favorite part of doing presentations like this (with students)?

**REICHEL:** My favorite part is seeing their growth and excitement for what they are doing. Being an educator, particularly a health educator, requires "thinking outside the box," and presenting yourself as non-judgmental. Seeing students do this at a national conference is rewarding and motivates me to get others involved in presenting at conferences.

# FULBRIGHT MEANS FRIEND-MAKER

## Assistant Professor Jecklin travels to Baku



The Fulbright Program is “the flagship international exchange program sponsored by the U.S. government and is designed to increase mutual understanding between the people of the U.S. and the people of other countries.” That’s the Department of State’s definition on its website.

Assistant Professor of Health Education and Health Promotion Bob Jecklin, left, leads discussion as a guest at a family dinner in Baku while he served as a Fulbright scholar.







Azerbaijani students with their American Fulbright professor, Bob Jecklin, seated center.

The UWL College of Science and Health supported Bob Jecklin's successful application to become a Fulbright Teaching Scholar in Global Public Health. The application process involves a competitive peer review by American scholars in the applicant's field. An interactive process between U.S. diplomats and host countries match candidates to bilateral interests.

Institutions from Ukraine and Azerbaijan offered to host Jecklin. He accepted the offer from Baku, Azerbaijan, where he was hosted by Khazar University.

During the five months in Baku, Jecklin taught "Theories of Health Behavior" and "Public Health for the Educated Citizen," presented guest lectures on public health topics at Azerbaijan Medical University, and discussed public health and health care issues with leaders. He also learned about a country bounded by Russia, Iran and the Middle East.

"The simple idea of friendship as international diplomacy becomes both very real and very powerful," says Jecklin. "As you become friends over work or dinner, you easily identify and set aside misunderstandings on the two-way street of friendship."

Jecklin, '73, was a first-generation college student when he came to La Crosse in 1969 as an undergraduate studying school health education and history. He returned to teach in the Public Health and Community Health Education Department from 1979-84, and again since returning in 2006.

Jecklin supports international exchanges at all levels. He hopes to revisit friends in Baku this summer while teaching a group of UWL students in London.

Discover more about the Fulbright program: <http://eca.state.gov/fulbright>



by Bob Jecklin,  
Assistant Professor  
of Health Education  
and Health  
Promotion



Kristofer Rolfhus, UWL professor of chemistry and biochemistry, collects plankton for mercury analysis at Voyageurs National Park, in Minnesota.

# Sea Grant Institute funds UWL mercury pollution research in the Great Lakes

UW-La Crosse is among four colleges that received a \$478,000 grant that will shed a light on mercury contamination in a highly industrialized area of the Great Lakes.

When mercury is ingested by fish and passed on to humans through the food chain, it becomes not only a wildlife issue but also a human health issue linked to neurological problems and birth defects, explains Kristofer Rolfhus, UWL professor of chemistry and biochemistry.

Mercury contamination also has economic implications, says Sea Grant Director Jim

Hurley. A 2011 study found 1.5 million jobs are tied to the Great Lakes, with \$62 billion in annual wages.

The two-year grant from The University of Wisconsin Sea Grant Institute will allow Rolfhus, UWL Biology Professor Roger Haro, and a team of researchers from three other universities to take a closer look at high levels of mercury contamination in the St. Louis River Estuary. The area runs into the western arm of Lake Superior between Duluth, Minnesota, and Superior, Wisconsin.

While mercury is released naturally into the environment, the vast majority comes from human activities such as fossil

fuel combustion, mining and municipal waste, which are all inputs to this heavily industrialized region. The Environmental Protection Agency declared it an Area of Concern (AOC) — a geographic area where significant changes in the chemical, physical or biological integrity of the Great Lakes system is enough to cause issues such as fish tumors or deformities; degraded populations of wildlife; and restrictions on fish consumption; among other problems.

The grant-funded research aims to understand why fish have high mercury content in this area, as well as to identify where the mercury contamination hot spots are.



Rolfhus, Haro, and their UWL undergraduate researchers will receive about \$76,000 of the total funds to explore whether mercury hot spots translate to high levels of mercury and methylmercury in the organisms that live there. They'll collect water, snails, insects, and other "bio-indicating" creatures that live on top of the river sediment, and return to the lab to measure their concentrations.

Rolfhus initially became interested in studying mercury contamination as a UWL undergraduate student who graduated in 1991. A biology major and chemistry minor, he was helping now-retired UWL faculty members Ron Rada and James Wiener with research in some of the first comprehensive projects investigating mercury

contamination in the Upper Midwest. He loved that he could take scientific research into the great outdoors while working on problems that make a difference for society.

Rolfhus hopes his own students get as much out of their research experience as he did. In addition to field work and learning chemical laboratory skills, students learn how to take very exact measurements of mercury concentrations using non-contaminating "clean techniques" as environmental levels are typically exceedingly low. Such care for detail is widely applicable to students interested in medical fields or other careers, says Rolfhus.

UWL is collaborating with UW-Madison, University of Minnesota-Duluth and Gustavus Adolphus College in Minnesota on the project.

## SEA GRANT

Conceived in 1966, Sea Grant is a national network of 33 university-based programs of research, outreach, and education for enhancing the practical use and conservation of coastal, ocean and Great Lakes resources to create a sustainable economy and environment. The National Sea Grant Network is a partnership of participating coastal states, private industry, and the National Sea Grant College Program, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

# Challenge ... accepted!

## Grant challenge generates \$40K for research

Thanks to the generosity of Yvonne Datta, '82, her husband, Milt, and other donors, undergraduate research will continue to grow at UWL. The Dattas offered a \$20,000 challenge grant for undergraduate research. The challenge started in July 2015 and was met earlier this year.



[Click to watch](#)

# TOP TEACHERS

## Two from SAH earn excellence awards

UWL students have spoken. They've submitted nominations and six UWL faculty members have been selected for the 2016 Eagle Teaching Excellence Award. Previously called the Provost's Teaching Award, the honor recognizes excellence in teaching. Two of those cited were from SAH:



**Matthew Andre**, Exercise and Sport Science

**Years at UWL:** 2

**Teaches:** Primarily upper-level strength-and-conditioning and fitness classes, which involve discussion of scientific theory, as well as practical hands-on components.

**History:** Prior to UWL, Andre taught at the University of Kansas while working on a doctorate. Before that he taught at George Mason University while working on a master's degree. Over the past 13 years, he has also coached individual-sport athletes in addition to personal-training the general population for a variety of fitness/health goals.

**Favorite part of teaching:** "Instilling and cultivating hope and optimism in students. I meet many talented, wonderful students who are losing hope in their future, and it brings me great joy to see them gain hope, confidence and passion. They have the ability to increase their happiness and to increase their contributions to society regardless of what has previously happened or is currently happening around them, and it is exhilarating to see them start to realize their potential. This outstanding generation of students gives me great hope for the future."



**Nicholas McGrath**, Chemistry & Biochemistry

**Years at UWL:** 3

**Teaches:** Organic chemistry lectures and laboratories, general chemistry laboratory, and an advanced laboratory elective that he developed in synthetic organic chemistry.

**History:** McGrath earned an undergraduate degree in chemistry from the University of Minnesota–Duluth and a doctorate in chemistry from Cornell University in Ithaca, New York. After five years at Cornell, he began a post-doctorate at UW-Madison. He spent three years there before coming to UWL.

**Favorite part of teaching:** "My favorite thing about teaching is reaching that 'ah-ha' moment when you see an important concept or idea just 'click' in the student's head and you can tell that now they are on the same page and fully understand. I'm torn when it comes to deciding if I enjoy enthusiastically delivering a lecture to a group of 100 or the smaller 1-on-1 interactions in office hours. Both are very exciting and rewarding. I have absolutely loved my time here at UWL and look forward to a long career here working with our incredible students."



# CASTING AND MOLDING



UWL Assistant Professor of Biology Barrett Klein leads a session in casting and molding for UWL's annual Creative Imperatives.



[Click to watch](#)

More than 30 sessions on UWL's campus are showing off how art and science collide in this year's Creative Imperatives.

One of those was led by UWL Assistant Biology Barrett Klein, who worked with community members and students from the La Crosse School District to sculpt, mold and cast objects from nature — demonstrating how art can aid scientists in seeing and understanding the world around us.

# LASTING IMPACT

Scholarship honors Biology Professor David Howard



During the past 15 years, if you saw a professor in a bright Hawaiian shirt in Cowley Hall, it was probably David Howard. The beloved biology professor who died Feb. 19, 2016, after a long battle with renal cell carcinoma, will be remembered for his curriculum innovation and leadership.

Colleagues in the Biology Department in conjunction with his family have established a scholarship endowment to honor him and help keep the talented cell biologist and microscopist's spirit alive.

Biology Professor Jennifer A. Miskowski, a colleague and friend, says Howard was known for dropping everything for both students and colleagues.

"He had endless patience with students whether they were advisees, students in his courses, or research students in his own lab or the labs of others," she says.

Along with being the department's leading microscopist, Miskowski says Howard partnered with Biology colleagues and other College of Science and Health faculty on scholarly projects.

"I think multiple publications that list him as author have been submitted and/or accepted even since his passing, and these are all due to his collaborative nature," she notes.

Miskowski says one of Howard's biggest impacts on campus was acquiring more than \$1million in grants to purchase cutting-edge microscopes for the imaging center, along with many student-grade microscopes for teaching labs. The former department chair also revised the cell biology lecture and lab course, and designed and taught an upper-level microscopy course. He pioneered active learning endeavors to make his courses more exciting and understandable. Most recently, he led the department's assessment efforts.

The David R. Howard endowed scholarship is designed to recognize a student with promise. The award will not focus on the highest GPA, but rather reward a student who may have had a difficult semester and is working hard to succeed in his/her academic career. The recipient must meet the following criteria:

- be enrolled full-time at UWL with a major in science and preference to a biology major.
- be a sophomore or junior.
- have a cumulative GPA of less than 3.3.
- preference given to an applicant who is a child of an educator.



To contribute a one-time gift, send a check designated to the Howard Scholarship to the UWL Foundation Inc., P.O. Box 1148, La Crosse WI 54602-1148. To pledge for more than a year, contact the UWL Foundation at 608.782.6803.