



Spring 2023

# NEWSLETTER

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## A MESSAGE FROM THE DEAN, JOHN KATERS

As we celebrate another outstanding academic year in the College of Science, Engineering, and Technology (CSET) and move toward summer, many assume that activity slows down in the college. However, nothing could be further from the truth, as we have nearly doubled our summer course offerings and enrollments over the last several years. In addition, this is an important time for faculty and students to conduct research on campus and in the field. This issue highlights many of the research projects that have been completed, presented, and published over the last year in Human Biology, Natural and Applied Sciences, and the Resch School of Engineering. You will also see from our many alumni honored this year that the research opportunities they had while attending UW-Green Bay paved the way for their successful careers in healthcare, environmental and water resources, and technology. Have a great summer as CSET continues to prepare our talented students for their future careers.



# Welcome New Faculty!



**Elie Atallah**

Assistant  
Professor  
Electrical  
Engineering  
Ph.D, University of  
Central Florida



**Elizabeth León**

Assistant  
Professor  
Athletic Training  
Ph.D, University  
of Nevada—Las  
Vegas



**Sayeda Farzana  
Aktar**

Assistant  
Professor  
Computer Science  
Ph.D, Marquette  
University



**Md Assad-Uz-  
Zaman**

Assistant  
Professor  
Mechanical  
Engineering  
Ph.D, University  
of Wisconsin-  
Milwaukee



**Amani  
Altarawneh**

Assistant  
Professor  
Computer  
Science  
Ph.D, University  
of Tennessee at  
Chattanooga



**Prakash  
Duraisamy**

Assistant  
Professor  
Computer  
Science  
Ph.D, University  
of North Texas

## Abler and Hein Present Research at Phosphorus Conference



Professors Rebecca Abler and Richard Hein, Natural and Applied Sciences, were invited to present their research at a conference entitled “Phosphorus: Lessons from 10+ Years of Numeric Standards for Wisconsin’s Waters” on February 7, 2023 in Madison. Their poster, entitled “Differential Land Use Impacts Stream Phosphorus Loading in City and Agricultural Watersheds” presents the results of their 2021 and 2022 data comparing phosphorus inputs to Centerville Creek and the Little Manitowoc River and the effect of land use in these watersheds.

## Forsythe Receives Multiple Grants for Juvenile Lake Sturgeon Research

Professor Patrick Forsythe is the recipient of three grant awards (a total of \$528k) funded by the Great Lakes Fish and Wildlife Restoration Act sponsored by the United States Fish and Wildlife Service, the Mitigation and Enhancement Fund sponsored by WE Energies and the Freshwater Collaborative of Wisconsin.

Dr. Forsythe’s research will evaluate the behavioral ecology of juvenile lake sturgeon within the lower Menominee River and downstream passage through the Park Mill and Menominee Dams. His team will investigate the interaction of juvenile sturgeon with downstream passage opportunities in place at both dams, quantify the number of tagged fish that pass each dam, and examine the proportion that survive downstream passage using a combination of passive and active tracking technologies. Dr. Forsythe is a proud member of Natural and Applied Sciences.



# Students Share Research at Annual Fox Watershed Symposium

Nearly one hundred students and teachers from participating Northeastern Wisconsin high schools spent Thursday, March 16 on the UW-Green Bay campus for the 16th annual Watershed Symposium.

The symposium brought together the high schoolers and UW-Green Bay faculty researchers who partnered on monitoring the health of the Fox River basin through an initiative known as the Lower Fox River Watershed Monitoring Program.

Research done through the Lower Fox River Watershed Monitoring program gives students an opportunity to do real science in their community and learn more about the importance of water. The Lower Fox River Watershed Monitoring Program celebrates 20 years of data collection this year, making it one of, if not the longest baseline data set for the tributaries of the Fox River. This is important to the community because it shows where possible nutrients are entering the water system and gives communities information that can make more informed decisions about nutrient containment, riparian buffers, and sources of runoff.

Partner schools involved in the Lower Fox River Watershed Monitoring Program are Green Bay West High School, Green Bay Southwest High School, Green Bay East High School, West De Pere High School, Weyauwega-Fremont High School, Appleton East High School, Oshkosh Lourdes Academy, Etude High School, Neenah High School, and Aldo Leopold Community School.

Both the symposium and Lower Fox River Watershed Monitoring Program are supported by Freshwater Collaborative of Wisconsin, NEW Water, Windward Prospects Ltd. (formerly Ario Wiggins Appleton Ltd.), Cellcom Green Gifts, and the sponsorship of the UW-Green Bay Department of Natural and Applied Sciences and the Cofrin Center for Biodiversity.



## Undergraduate Research Takes Center Stage at State Capitol



When Wisconsin legislative officials and UW System leaders gathered last month at the annual Research in the Rotunda exhibit, 15 UW-Green Bay students – the most from any UW system school – were invited to present their research findings to help shape policy and our state's future. The event put front and center the hallmark of a UW-Green Bay education: empowering students to forge their own successes, with real-life outcomes that can benefit not just region, but all of Wisconsin. The students who represented CSET were:

*Development of simple sequence repeats for wild rice conservation genetics by Jennifer James Boush (Mentor: Lisa Grubisha)*

*The effects of restoration projects on phosphorus concentrations throughout Manitowoc County streams and Lake Michigan by Tiffany Paalman (with Natalie Ford, Christopher Santiago, Lee Watson, Sam Frauenfeld, and Ian Leiker) (Mentors: Rick Hein and Becky Abler)*

*Development of an unknown Barbier organozinc lab for organic chemistry by Colleen Yeske (Mentor: James Kabhrel)*

*Freshwater Fellow: Community science analysis of river mouths along the Western Lake Michigan shoreline by Sarah Baughman (Mentors: Erin Giese, Robert Howe, and Keir Wefferling)*

*Freshwater Fellow: Characterizing nutrient release and relative storage times in an unconfined karst aquifer in northeastern Wisconsin by Kyle Chaudoir (Mentor: Kelly Deuerling and Emily Tyner)*



# Computer Science Students Publish Article at Conference

UW-Green Bay students Ethan Preu and Mark Jackson, and Assistant Professor Nazim Choudhury recently co-published an article in '2022 IEEE 13th Annual Ubiquitous Computing, Electronics & Mobile Communication Conference.' The article entitled "Perception vs. Reality: Understanding and Evaluating the Impact of Synthetic Image Deepfakes over College Students" focuses on deepfake technology.

## Alumni Spotlight: Tina Sauerhammer, M.D.

A phoenix, by definition, rises. Reaching among the highest heights of UW-Green Bay achievers is Tina Sauerhammer, M.D. Today, 20 years after a meteoric rise as a student, physician, celebrity and surgeon, Dr. Sauerhammer has turned her focus to the people and places she again calls home. She is setting her sights on impacting the overall health of Green Bay and the northeast Wisconsin region by investing in the brainpower of people in under-served communities.

In her leadership position on the UW-Green Bay Council of Trustees, she works with other community leaders to advise University leadership on how to best serve the region. "I've been on the council for almost ten years. Now there are a lot of other issues in our community that have become more prominent," she remarks. "We advocate for issues like social justice and mental health awareness."

"I think the world's changed though, too, after the pandemic," she notes. "You really have to be able to shift direction depending on circumstances. Like making higher education available to under-served communities where attending college is rarely thought of as an option."

"I wouldn't be where I am today without education," Dr. Sauerhammer reflects. "I was a first-generation college graduate, just like 50% of our current students."

Her career is the stuff of legends—youngest graduate ever at both UW-Green Bay and the University of Wisconsin Medical School. Then on to prestigious fellowships and residencies—while also finding time to compete and win Miss Wisconsin and finish 2nd runner-up in the Miss America competition. She was a member of the medical team that performed the first successful full-face transplant. She traveled the world to provide restorative and reconstructive pediatric surgeries to children in need *and was named* co-director of burn services with Children's National Medical Center in Washington, DC. All before the age of 35.

Today, in her medical practice, Dr. Sauerhammer helps women recovering from breast cancer and children with disabilities as one of few female private practice plastic surgeons in Northeast Wisconsin and the area's first fellowship-trained pediatric plastic reconstructive surgeon. "Breast reconstruction after surgery is a very big part of my practice," she said. "And pediatric plastic surgery is still a small part of my practice."

"I've always known I wanted to be a physician since I was two years old. I don't know why."

What Dr. Sauerhammer did have was a goal, a vision, and a turbo-charged abundance of ambition. As she puts it—"When I set a goal, I do everything possible to achieve it." And today her goal is to help empower all those other young dreamers out there with big visions in search of a plan.



# CSET Alumni Honored at Alumni Awards Dinner

The University of Wisconsin-Green Bay recognized a number of outstanding alumni and one honorary alumna at the 2023 Alumni Awards Dinner on Thursday, April 20, 2023.

“One of our strongest assets as a university is our alumni,” said UW-Green Bay Chancellor Michael Alexander. “UW-Green Bay graduates make a difference every day in communities across our region, state, nation, and the world. We need their insights and experience to help UW-Green Bay continue to grow and influence the next generation of graduates. We are honored to recognize these alumni for their career achievements and the impact they have made in our community and throughout the world.”

**Neil Jacobstein '76** (Environmental Sciences) is the Chair of the Artificial Intelligence and Robotics Track at Singularity University. He is a founding Singularity Expert, and past President of Singularity. Neil was a MediaX Distinguished Visiting Scholar at Stanford University from 2007-2022, where his work focused on augmented decision systems. He was CEO of Teknowledge Corp, a pioneering AI company that did successful AI application work but was too early for the mass adoption we see today. Neil has practical and strategic AI/ML system building and R&D consulting experience with a long list of industrial and governmental partners, including: Deloitte, E&Y, PWC, Boeing, GM, Ford, BMW, GE, Applied Materials, Texas Medical Center, NASA, Defense Advanced Research Projects Agency, National Science Foundation, NIH, EPA, DOE, the U.S. Army, the U.S. Air Force, GM, Ford, Boeing, Applied Materials, Xero, National Institute of Standards and Technology, and more. Neil served at the National Academy of Sciences, Engineering, and Medicine Division of Earth and Life Sciences 2015-2020, and the Academy's Strategic Planning Committee 2020-2021. He wrote the founding white paper for the Queenstown Machine Learning Institute in New Zealand. Neil provides public speaking and interdisciplinary technical consulting services to corporations, venture capital, and government organizations worldwide.



Neil received his B.S. in Environmental Science, Summa Cum Laude in 1976 at the University of Wisconsin's Green Bay Environmental Campus. He earned his M.S. in Human Ecology, under a US Public Health Service Scholarship, University of Texas School of Public Health and the NASA Johnson Space Center, Environmental Physiology Simulation Program. He spent four years doing environmental systems research as a Research Associate at the Center for the Biology of Natural Systems at Washington University and the Research Foundation of CUNY. He completed the Stanford University Advanced Management College Executive Program and the Aspen Institute Crown Fellows Program.

**Laurie Lindborg Parsons '80** (Environmental Sciences/Chemistry) is the U.S. Water Resources Division Lead with Ramboll. Her career began with the Wisconsin Department of Natural Resources in water quality planning and policy development prior to attaining her Master's Degree. After receiving her M.S., she launched her consulting career at Warzyn Engineering, Inc where she worked both in water resources and environmental engineering capacities. After seven years Laurie was offered an opportunity to establish engineering services for then-startup company Natural Resource Technology, Inc. Thirteen years later she took on an ownership role with partners, and led NRT as president and CEO, doubling the size of the firm, expanding services, and adding offices in Illinois and Michigan. Having achieved national recognition for work in the environmental consulting sector with specialized expertise in cleanup and restoration of contaminated waterways, NRT attracted the attention of larger firms. After 10 years leading the firm, Laurie and the NRT team joined forces with a mid-size east coast engineering firm, O'Brien and Gere, expanding their Midwest footprint. She then served in various leadership roles, and was a member of the company's board of directors until 2019 when O'Brien and Gere became part of Ramboll, a 17,000-person engineering and consulting firm headquartered in Denmark. In her current role at Ramboll, Laurie leads the US Water Resources Division, serves in leadership roles on the Americas merger and acquisition team, and the firm's



equity, diversity, and inclusion council. All with a mission of being a partner for sustainable change in in the firm's water, energy and environmental services. *Continued on next page*

### Alumni story continued

As a recipient of the Milwaukee area “STEM Forward Engineer of the Year” award for 2015, that was endorsed by the American Society of Civil Engineers, Laurie is committed to public service, including her regular participation in events that expose young people to careers in science, technology, engineering and math. Through these events, Laurie has become a prominent role model, especially for girls and women. Presently she is Chair of the UW-Madison, Civil and Environmental Engineering visiting board and is recipient of the College of Engineering 2020 Distinguished Achievement Award.

Laurie graduated from UW-Green Bay with a B.S. in Environmental Science/Chemistry in 1980 and received her M.S. in Civil and Environmental Engineering from UW-Madison in 1987.

**Rita Owino '97** (Human Biology) is a healthcare executive with more than a decade of leadership experience and is currently a healthcare consultant. In this capacity, she collaborates with a variety of clients, from startups to multinationals, to implement transformation initiatives by leveraging innovation to design new care delivery and business models aimed at improving access, quality of care, and outcomes for health systems and patients in emerging markets.

Rita’s professional career spans 20+ years and is marked by roles of progressively increasing scope and responsibility with Fortune 100 companies in the United States and Africa. Her background is in medical and digital technologies at GE Healthcare, “big 4” management consulting at KPMG, and managed care at UnitedHealth Group.

At GE Healthcare she worked with the global health community to design and implement innovative primary healthcare delivery models that improved access to care and health outcomes for patients in Africa, Asia, and the Middle East. She was awarded a GE Healthcare Hero Award by GE Healthcare’s global President and CEO in recognition of her work, contributions, and impact delivered both to communities served and the organization. As a healthcare advisor at KPMG, she advised a wide range of healthcare clients on strategy, care system redesign, and operations optimization. And in managed care, she worked across the healthcare value chain to manage the total cost of care related to quality improvement and cost reduction by implementing various managed care techniques.



A life-long learner committed to both personal and professional growth and development, Rita is currently pursuing her MBA at Boston University’s Questrom School of Business.

## Students Present Research at the National Conference of Undergraduate Research

Ethan Preu, a 2022 graduate, presented his research entitled “Perception vs. Reality: Understanding and Evaluating the Impact of Synthetic Image Deepfakes Over College Students” at the National Conference of Undergraduate Research in Eau Claire, Wisconsin. His research focused on testing college students to see if they were able to detect if an image had been deepfaked (generated via AI) or if the image was real. “With the advent of these technologies that can easily create these believable images, it is important to be individually knowledgeable on their existence and potential impact. This research helps those working on detection methods.” Preu also had a paper published at an IEEE conference on this title earlier this year. You can read his article [here](#).



Emma Loucks '23, presented her research on low-cost filter media for the removal of Phosphorus in agricultural runoff. Emma and her colleagues, who are under the direction of Associate Professor Mike Holly, are finding inexpensive filter media, as well as removing phosphorus through edge of field treatment before it enters water ways, preventing the growth of algae blooms. “At the conference I was able to meet and discuss with fellow researchers from around the country on different research topics. I was also able to share my research and compare with people who had similar experiences.”



# Alumnus David Freedman honored at the Earth Caretaker Awards

Celebrating the university's continued commitment to sustainability and honoring the community's current and future problem-solvers, a number of students, faculty and staff were honored on Wednesday, April 19 at the Earth Caretaker Awards ceremony.

Highlighting the event was the presentation of the University of Wisconsin-Green Bay Environmental Management and Business Institute (EMBI)'s 13th annual Earth Caretaker Award to UW-Green Bay alumnus David L. Freedman. David's academic journey started at UW-Green Bay in 1973, when he made the move from his hometown of Worcester, Massachusetts to Green Bay to join many other undergraduates from across the U.S. who shared a deep concern for the fate of the planet. David went on to earn a B.S. degree in Science and Environmental Change in 1978. A comprehensive list of accomplishments can be found in [this post](#).

At Wednesday's event, he spoke about how UW-Green Bay offered the 'most innovative curriculum,' with regard to the environment. Freedman shared that all of his classes fueled his desire to impact positive change in the environment. In his literature classes he learned about Aldo Leopold, considered by many to be the 'father of wildlife ecology.' A writing class focused on writing environmental policy. His statistics class taught him research methods that he still uses to this day. Freedman spoke about the research he was able to be involved in – as an undergrad – on local farms that was years ahead of its time. His time here was truly unique. He is now dedicated to educating the next generation of scientists and engineers who will have impact on the environment as Professor and Chair of the Department of Environmental Engineering and Earth Science at Clemson University.

In addition to the staff and faculty awards, students from all four campuses were also honored for their commitment to sustainability. In fact, the university's new residential composting program, spearheaded by students, has saved more than 600 pounds of food waste from landfills.



# UW-Green Bay Alumni Honored at the 2023 Golden Apple Awards

Rising to the top of their field, three UW-Green Bay alumni were recognized at the 29th annual Golden Apple Awards last week. Rylee Schmitt, Hope Smeester, and Michael Smits were honored along with seven other local educators.

The Greater Green Bay Chamber's Golden Apple Awards program annually recognizes high-quality educators in Greater Green Bay in areas of professionalism, leadership, and innovation. The award program works to improve awareness and the importance of quality education within the community. Quality education is instrumental in the success of Greater Green Bay and this recognition has created an avenue that celebrates those within the educational field who contribute exceptional work towards educational attainment.



Michael Smits '99 majored in Biology, minored in Human Biology and Secondary Education, teaches science at Parkview Middle School in Ashwaubenon. [Watch: Fox 11 highlight reel for nominee, Michael Smits](#)

# Digging Kayla

*Kayla Lass was the featured student speaker at the 2 p.m. commencement ceremony on May 13, 2023.*

Kayla Lass has always been a ‘libero’ at UW-Green Bay and proud of it. For those not fluent in Italian or volleyball, libero means “free” and denotes a back-row ball-control specialist. Libero also describes Lass’ style on the court. “I’m always just scrappy and fling my body places to get the ball.” Furthermore, she adds, “I’m really good at defense.”

What Lass, along with her entire team, have also been really good at is hitting the books— scoring in the top 10% of the NCAA Academic Progress Rate that recognizes top collegiate volleyball teams. Academic honors are not foreign territory to the women’s volleyball team, and Lass credits the coaching staff. “I honestly think Coach Abbey just really emphasizes being a student-athlete. You’re a student just as much as you’re an athlete.”

Lass has worked hard being both, earning Green Bay Volleyball’s Academic and Most Improved Athlete awards. For good measure, she’s graduating in four years with one of the University’s most demanding majors – Human Biology with an emphasis in Exercise Science. Nature and nurture have played a significant role in Lass’ college career. Her parents enjoyed successful high-school athletic careers (Dad a wrestler, Mom a golfer), and her sister excelled in softball. Additionally, both parents are teachers in the Stevens Point area. “I ended up having my mom as a math teacher,” Lass recalls. “It was really funny because I couldn’t call her mom. I had to call her Mrs. Lass, and all the kids knew that I was her daughter.”

Lass has been flinging her body around in team sports since junior high – competing in multiple sports including basketball, softball and volleyball. The results? Early recognition and more than the typical bumps and bruises. “I was playing volleyball in junior high, landed on somebody, and broke my left ankle. Then my first basketball game back, someone fell on me and then I broke my other ankle and had to have screws put in.”

Choosing exercise science as an emphasis may have been influenced by her own injuries, but it was experiencing the impact of helping others that transcended that decision as more than just a career choice. Particularly when she began “shadowing” in the hippotherapy program at Exceptional Equestrians. Hippotherapy uses horseback riding as physical therapy for kids with disabilities like cerebral palsy or MS. “I loved those kids!” Lass recalls. “When the kids asked me when I was coming back, I teared up. It just made my heart warm to know I had an impact.” She also assisted in conducting research at that facility as well.



Her potential for impact shows no sign of waning as Lass continues at the graduate and post-graduate levels in the University of Wisconsin La Crosse Doctor of Physical Therapy (DPT) program. As far as an ultimate professional focus, she’s keeping her options open. “I can go geriatrics, pediatrics, sports medicine, orthopedics, or neurology.” But if there’s one passion she will not abandon, it’s volleyball. “I know coaches in high schools and local clubs, so I will definitely be reaching out and saying, ‘Hey, if you need a hand, I would love to help out.’” Who knows? She may even discover a future UW-Green Bay libero in the making.



# 'Professions in Human Biology' Class is Igniting the Fire for Future Medical Professionals

As Chair of [UW-Green Bay's Human Biology](#) program, Professor Brian Merkel says he wants to hand his students "the keys to the kingdom." In other words, he wants them to end up so prepared through a new course, *Professions in Human Biology HUM BIOL 200* (offered for the first time in fall of 2022) that each will end up with a personal roadmap to navigate toward their end goal.

These students are ultimately preparing to be doctors, dentists, vets, physical therapists, biomedical researchers, physician assistants, etc.; and the path to completion, through no fault of their own, is often marred with obstacles and road bumps, especially for first-generation college students.

"The goal of the (one-credit) elective course is to empower students to achieve their career goals through stellar preparation, and by making key connections to faculty and heeding the sage advice of UW-Green Bay alumni (surrogate family members), already making their way in these high-achieving professions," Merkel said. "There is a huge advantage for those considering a medical career if you come from a family of medical professionals. They already walk into college with a personal roadmap. From the time they are very young, they are being modeled what it is like, and making key connections, finding shadowing experiences, building key relationships. UW-Green Bay has a high enrollment of first-generation students, without these advantages. We want this course to help get these students on a level-playing field."



Forty-five students elected to take the course in Fall of 2022, and most had a high degree of success. By the end of the semester the students were expected to be able to: (1) List employment opportunities and career options and identify educational requirements for human biology related professions (2) Develop necessary strategies for success as an undergraduate human biology student and practicing professional (3) Demonstrate an understanding of the importance and expectations of a professional in mentoring and collaborating with others.

UW-Green Bay freshman Ramiro Cortez is aspiring to be a doctor and is considering a specialty in pediatrics, dermatology, or urgent care. He participated in the inaugural class and said it provided insight as to what was required to get into a medical school. "What surprised me most about this course was how helpful it was in expanding my resources," he said. "It taught me that getting into my post-graduate program is not all about school and grades but also about who I meet and the experience I will obtain. It helped open my eyes in what to expect in my journey through college."

During the course, students meet with all members of the Human Biology faculty and in subsequent weeks meet and interact with professional advisors and staff from the [Learning Center](#), staff from [Career Services](#) (and participate in the Job and Internship Fair and participate in Mock Interviews), and meet and interact with Human Biology alumni (often virtual). Toward the end of the course, they met with business faculty member Preston Cherry about [financial literacy](#) regarding transitioning from college to career. End-of-semester requirements included a team presentation on resources (standardized test prep, internships, job shadowing, patient contact experiences, research experiences, extracurricular experiences and pre-requisites needed to be successful for career paths with backup plans highlighted as appropriate for each career path). A final paper was required, outlining and describing the student's personal academic plan and those resources needed to achieve their individual career goals.

There are now a substantial number of UW-Green Bay Human Biology alumni in a wide range of medical fields that are willing to share experiences and provide thoughtful advice to current students. Recent UW-Green Bay graduate Isaias Jauregui is a second-year medical student at the Medical College of Wisconsin-Green Bay (MCW-Green Bay) and spent some time back at his alma mater sharing his journey. *Continued on next page*

## *Professions in Human Biology story continued*

He said a class such as Professions in Human Biology would have been beneficial.

"I believe this class would have been beneficial to better prepare me for the future rigors I would experience in applying to medical school," he said. "For example, I took the MCAT three times, and I wish somebody would've been there to tell me how to better prepare, what resources to use/avoid, and how to best strategize to do well in that exam." He says he typically talks to current students about recommended undergraduate courses, MCAT preparation, and medical school interview prep.

Alumnus Zach Holcomb had a different story to tell. His personal journey included a medical hardship that had him pivoting into a different career goal, but successful none-the-less. Holcomb was hired by ANI Pharmaceuticals in 2018 as an Analytical Chemist focusing on chromatographic method development and validation for the characterization and release of Corticotropin drug substance. He was promoted to senior scientist, focusing on independently orchestrating development, validation, implementation, and migration of highly complex analytical methods for characterization, release and stability of injectable drugs and active pharmaceutical ingredients. He is now a manager for the company, and responsible for the scientific oversight, financial management and daily operations of their injectable drug product center.

Holcomb shared his personal career journey, and discussed career management, course correction, and pivoting strategies with the Professions in Human Biology class.

"This course is of critical importance for students; without the ability to pivot I would not have achieved a fulfilling and meaningful career, where I have been able to achieve my goals and grow my career at a rapid pace," he said. "I think it is important for students to actively assess their career goals on a rolling basis; actively plan out their career path and take responsibility for the trajectory of their studies. These are critical steps to achieving those goals."

Alumna Amber Rasmussen also took an alternative route than first planned. Her plan was to attend medical school until just before her senior year at UW-Green Bay. "I knew I didn't want to take that career path any longer, and I loved to do lab work, but I didn't know what alternate career path to consider," she said. "I ended up taking a research fellowship position at the National Institutes of Health for two years while investigating career options. I then went on to graduate school and obtained a master's degree in Forensic Science. I applied to the Wisconsin State Crime Laboratory during my last year of graduate school and was hired shortly after graduation. She is now a DNA technical leader with the State Crime Lab."

She says she has no regrets.

"I don't think there is anything I would change. Even though I took an indirect route to find my career, each of those steps provided valuable experiences in my journey."

Another key component of the course was meeting with the Human Biology faculty. Merkel said that the first introduction to each faculty member in a more casual environment, helping "humanize" them. Prof. Merkel, who is also an instructor at MCW-Green Bay, tells his students that the faculty speak from experience, and often had the same questions and struggles.

"I tell the students, 'Look, I've done these things. I've made the mistakes. I want you to avoid the hard lessons!' So, we do things like provide them a copy of an online reference form for professional programs. This gives them the chance to see what questions are being asked of their references. Questions such as, Are they self-aware? How is their emotional stability? How do they react to constructive criticism? Are they empathetic? This course helps us walk them through the 'why' these characteristics are so important, and what they can do in the next few years to develop these traits, so they can prepare and gain admission to competitive programs. We want them to have the keys to the kingdom."

"We came up with the idea that students should meet the Human Biology faculty in the nicest possible way, so that students can see them as people; and perhaps get incentivized to meet with them during office hours. The faculty introduce themselves, discuss their passions and hobbies. I know this, the students that hang around the fourth floor of the Lab Sciences building (near faculty offices) are often the most successful because they are getting their needs met.

So why hasn't UW-Green Bay offered this type of course in the past? Merkel said that sometimes faculty get preoccupied in the pressing realities of the moment. "Being chair, I was able to come at it a bit differently. I thought "we have such a powerful resource in our alumni. We have so many e-mail exchanges with them, and they are clearly grateful for the experiences they have had and the letter of recommendations we have written, and they want to pay it forward. It's one thing for our students to hear it from us, but so much more powerful to hear from those with the recent and direct experience."



# STEM Innovation Center Hosts 2nd Annual STEM Family Day



The push to expose children to Science, Technology, Engineering, and Math or STEM was on full display on April 29 at UW-Green Bay.

It was the second annual STEM Family Day.

More than 35 different activities were available like science experiments, aerospace displays, and creating your own chemical reactions.

The three main organizers of the event are the Einstein Project, UW-Green Bay's Resch School of Engineering, and the Brown County Extension. "It's really intended to get young people and families out at the STEM Innovation Center on the UWGB campus to get their hands on STEM in a bunch of a different

ways," said Melinda Pollen of the Brown County Extension.



Many businesses looking for STEM-minded employees helped put on the event, including American Foods Group, JBS Foods, Foth, Sanimax, and Wisconsin Public Service.

## Cofrin Center for Biodiversity Announces Cofrin Student Grant Recipients

The Cofrin Center for Biodiversity would like to congratulate the following students on being selected as the 2023-24 Cofrin Student Grant recipients:

*A Bird Community Science Analysis of River Mouths Along the Western Lake Michigan Shoreline* by Sarah Baughman (Advisors: Erin Giese, Robert Howe, Keir Wefferling)

*The Assessment of Solidago Growth Patterns of Different Rhizome Lengths and the Comparison Between Natural and Early Restoration Habitats in Brown County, Wisconsin* by Annissa Derbique (Advisor: Karen Stahlheber)

*Macrofungi Diversity Study Associated with Oak Trees in Brown County, Wisconsin: A preliminary investigation and record of the fungal community* by Haillee Fritsch (Advisor: Lisa Grubisha)

*Fall and Winter Travel Patterns, Areas of High Use, and Diet Composition of Red Fox (*Vulpes vulpes*) Populations Within Brown County, Wisconsin* by Natalie Hannemann (Advisor: Daniel Meinhardt)

*The Reproductive Habits of Anuran Species at the University of Wisconsin –Green Bay Properties* by Marissa Helgesen (Advisor: Daniel Meinhardt)

*Changes in Breeding Birds in Door County, Wisconsin* by Tony Klingert (Advisor: Erin Giese)

*Lichen Used as a Bioindicator of Air Quality in Door County, Wisconsin* by Ellie Scott (Advisor: Keir Wefferling)

*Educational Booklet of Herpetofaunal Ecology within the Cofrin Memorial Arboretum* by Haley Spargur (Advisor: Daniel Meinhardt)

You can learn more about the Cofrin Student Grant program [here](#).



# Congratulations to the 2023-24 CSET Scholarship Recipients

Congratulations to the following students on receiving the 2023-24 CSET scholarships. As always, thank you to our donors for making this possible!

## Human Biology

*Sandmire Endowed Scholarship:* Elleigh Casper, Ramiro Cortez, Ryan Jacobs, Allie Mayhew, Kaity Meyer, Daisy Muro, Katelyn Nelson, Fatima Tabassum Tasin, and Kate Wagner

## Natural and Applied Science

*Barbara and Benjamin Cruz-Urbe Family Endowed Scholarship for the Study of Environmental Issues:* Caleigh Cleary

*Ganga and Elizabeth Nair Endowed Scholarship for Natural Sciences:* Haillee Fritsch

*Katie Hemauer Memorial Endowed Scholarship:* Tiffany Paalman

*Morgan/Macaluso Family Endowed Scholarship in Natural Sciences:* Griffin Geib, Marissa Helgesen, and Tiffany Paalman

*Nancy Sell Memorial Scholarship:* Adam McCabe

*Science and Math Scholarship:* Justice Saxby

## Students Honored at Inductee Ceremony and Awards



On May 4th, the TriBeta Biological Honors Society held their annual induction ceremony in the Christie Theater. The following students were inducted: Natalie Baumgardner, Elizabeth Bird, Jessica Bloise, Cecilia Clarke, Asael Cordova, Ramiro Cortez, Cynthia Goetz, Mackenzie Longdo, Adam McCabe, Katelyn Nelson, Samantha Saloun, Kendall Schara, Emily Schilling, Katherine Wagner, and Erica Werther.

On May 4th, members of the Chemistry Department attended the Northeast Wisconsin American Chemical Society (ACS) Local Section Spring Awards Banquet to celebrate their students who received the Outstanding Graduating Students award: DiemTuyen Phan (Green Bay Campus), Kaylin Vang (Manitowoc Campus), and Brooke Hoffman (Sheboygan Campus).





# Lacey's Latest Contributions to International Nutrition



Karen Lacey, UW-Green Bay Senior Lecturer Emerita & Former UW-Green Bay Dietetics' Director, has recently contributed to multiple international nutrition collaborations.

Last month, Lacey was invited to join the C20 Integrated Holistic Health subgroup focusing on nutrition. This international 19-member work group is a team of motivated professionals, researchers, and advocates striving to increase awareness and develop a wider understanding of nutrition and health. Lacey's interest is primarily in food insecurity and hunger. The work group is tasked with completing a policy write up to be delivered to the G20 later this year.

Prof. Lacey's other recent international collaboration involved a webinar on January 20 with dietetic students in Kochi, India, where she provided information on the implementation of the Nutrition Care Process. She was also a guest speaker at the Philippine Dietetic Association on February 23 where she presented on the topic of "The Dietetic Code of Ethics and Scope of Practice: How to Add to a Toolbox to Promote Collaboration and Synergy with Physicians".

## Faculty Recognition/Achievements



Congratulations to **Riaz Ahmed** for serving as a Guest Editor for a special issue of the journal, *Energies*, entitled "Advanced Materials and Methods for Energy Conversion, Harvesting, and Storage."

Congratulations to **Nazim Choudhury** for his publication in *Applied Science* entitled "Evolutionary Features for Dynamic Link Prediction in Social Networks" and two chapters in the book entitled *Cybersecurity for Smart Cities: Practices and Challenges* (written by Nazim and his students).



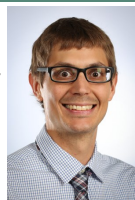
Congratulations to **Mandeep Singh Bakshi** for his publication in *ACS Sustainable Chemistry & Engineering* entitled "water-insoluble sustainable magnetic nanoparticles for green extractions of metallic pollutants from aqueous bulk: host-guest interactions at immiscible interfaces" and on being awarded \$2,500 from the Research Council for his project entitled "Surface active magnetic nanomaterials for water purification."



Congratulations to **Erin Berns-Herrboldt** on being awarded \$3,000 from the Research Council for her project entitled "Evaluating the rates and relative importance of trichloroethene transformation by reduced iron minerals formed by iron-reducing bacteria."

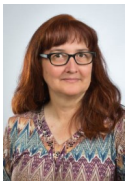


Congratulations to **Doug Brusich** on being awarded \$2,631 from the Research Council for his project entitled "Precise genetic mapping and identification of the bas1 mutant in *Drosophila melanogaster*."



Congratulations to **Jennifer Downard** on being awarded \$3,948 from the Research Council for her project entitled "Exploring alterations in intestinal permeability with estrogen deficiency: What is the role of MMP 9?"

Congratulations to **Patrick Forsythe** on being awarded \$4,000 from the Research Council for his project entitled "Integration of molecular sexting tools in evaluating juvenile lake sturgeon behavior."



Congratulations to **Lisa Grubisha** on being awarded \$4,758 from the Research Council for her project entitled "Microbial benthic community analysis of Lower Green Bay and the Fox River."

Congratulations to **Keir Wefferling** on being awarded \$4,000 from the Research Council for his project entitled "A wetland flora of Toft Point and the Ridges Sanctuary State Natural Areas, Door County, Wisconsin."



Congratulations to **Jian Zhang** on being awarded \$4,500 from the Research Council for his project entitled "Development of a hybrid photovoltaic/thermal (PV/T) system."



## Human Biology Faculty and Staff

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UW-Green Bay College of Science,  
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## Resch School of Engineering Faculty and Staff



## Natural and Applied Sciences Faculty and Staff

