ETOWN
ELIZABETHTOWN COLLEGE

SCHOOL OF SCIENCES & HEALTH

INSIGHTS AND INNOVATION

Fall 2025

As we move into the Spring 2026 semester, I am pleased to reflect on the continued momentum, growth, and excellence across the School of Sciences and Health (SSH) at Elizabethtown College. This past year has further affirmed what makes our SSH so student-focused and distinctive: a deep commitment to student success, faculty mentorship, scholarly engagement, and service-driven learning that prepares our graduates to lead in healthcare, science, and research-intensive professions.

This edition of our newsletter highlights the extraordinary breadth of work taking place across our departments: Biological & Environmental Sciences, Chemistry & Biochemistry, Exercise Science, Occupational Therapy, Physician Assistant Studies, and Psychology. You will read about faculty leadership at national and international conferences, significant external grant funding, impactful undergraduate research through programs such as our Summer Creative Arts and Research Program (SCARP), and innovative collaborations that span disciplines and global boundaries—from Greenland and Denmark to South Africa. Our students continue to distinguish themselves through research presentations, professional engagement, service learning, and advocacy efforts that reflect both academic rigor and Etown's mission to Educate for Service.

I am also excited by the strategic investments and growth within the SSH, including new faculty and staff appointments, enhanced laboratory and instructional resources, and expanded experiential learning opportunities. These developments strengthen our ability to deliver high-impact, hands-on education while responding to the evolving needs of the health and science workforce. The generosity of our partners and alumni through gifts, mentorship, and advisory engagement plays a vital role in sustaining this progress.

Finally, I want to express my sincere appreciation to our faculty, staff, students, alumni, SSH Advisory Board, and external partners for their dedication and collaboration. Together, we are building innovative programs at Etown that are academically strong, professionally relevant, and grounded in compassion and service. I hope you enjoy learning more about the remarkable achievements featured in this newsletter and join me in celebrating the people and work that make the School of Sciences and Health such a vibrant and forward-looking community.

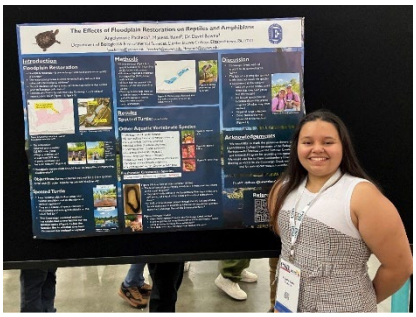
In Health,
Alan Utter, Ph.D., M.P.H.
Dean, School of Sciences and Health (SSH)
Elizabethtown College

BIOLOGICAL & ENVIRONMENTAL SCIENCES

- Dr. Bowne ran two symposia at the Ecological Society of America's annual meeting in Baltimore. One session focused on floodplain wetland restoration, and the other was on creative writing in ecology.
- Dr. David Bowne had his creative nonfiction essay, Winning While Losing, published in The Bangalore Review.
- Dr. David Bowne was elected President of the Ecological Research as Education Network (EREN) for a three-year term. With a membership of more than 400 people, EREN fosters collaborative research and teaching among ecologists at undergraduate institutions across the country.
- From June 9 through July 3, three students — Callie Asper '26, Kira Koutsouftikis '25, and Nicholas Kuhn '25 — conducted research with Dr. Diane Bridge as part of the SCARP program. Callie's project addressed the influence of the microbiome of the invertebrate Hydra vulgaris on the cell death process of ferroptosis. Kira's research focused on the effects of low aquatic oxygen levels on ferroptosis in Hydra. Nick investigated the role of protein axin in regeneration in Hydra vulgaris. All three students presented their results at the 16th Annual Landmark Conference Summer Research Symposium, held at Elizabethtown College on July 10.

- Dr. Elizabeth Newell spent June 2025 in Denmark, continuing her collaborative research with the Museum of Copenhagen. This work involves analyzing individuals from a Medieval cemetery to estimate biological profiles (sex, age at death, stature), identify dental or skeletal pathologies, and describe any ante- or perimortem trauma. This will provide a comparative context in which to examine the changing health status of Copenhagen's inhabitants as the locale grew from a small fishing port to a large urban center.
- Dr. Robert Northington co-led an expedition from June 21 to July 9 to Kangerlussuaq, Greenland, to study the biological and chemical nature of lakes in the vicinity of the Greenland Ice Sheet. This research contributes to a long-term dataset on how lakes are influenced by their watersheds and was done in collaboration with faculty and students from the USA, the UK, and the Netherlands.
- Dr. Robert Northington took part in the Macrosystems Ecology for All (MEFA) annual meeting at Ohio Wesleyan University, held July 28-31, which brings together scientists from small schools to collaborate on small research projects. Dr. Northington's Aquatic-Terrestrial Linkages (ATL) group will investigate how changes in stream chemistry in small watersheds are influenced by precipitation and temperature patterns across the entire continent.
- Beginning in January 2026, Dr. Robert Northington and his colleagues will be funded by the National Science Foundation for three years to investigate water quality and quantity for farmers in southern Greenland. This research will involve researchers from multiple institutions and will include funding for at least one Elizabethtown College undergraduate to complete a research project.
- In July, Professor Sarah Noveral attended a week-long education professional development conference as part of the Howard Hughes Medical Research Institute's Biointeractive Ambassador Academy, in which she will be participating for the next three years. She was able to network and collaborate with about 100 other high school and college biology teachers from across the country.

- Angelymarie Pacheco ‘26, Environmental Science major, presented a poster at the Ecological Society of America national meeting in Baltimore on her 2024 SCARP research on biodiversity in wetlands. Environmental Science major Makenzi Reed ‘26 and Dr. David Bowne were co-authors.



- In May 2025, Nicholas Kuhn ‘25 and Ahsa Sadhukhan ‘25, along with Dr. Anya Goldina, attended the Human Anatomy and Physiology Annual Conference at the University of Pittsburgh, where they presented their research, evaluating the role of humanities and social determinants of health in science education. Their presentation was titled, “Development of novel case studies to teach the intersection between social determinants of health and health outcomes in the physiology classroom.” Another presentation by Ahsa E. Sadhukhan (along with Dr. Anya Goldina) was titled, “Bringing humanity into undergraduate science education: creating a generation of socially conscious physicians.” Ahsa and Nick also participated in a workshop with Dr. Anya Goldina and Dr. Jon Wisco, Boston University, titled “Getting to know you: Tips to help you help your students with their professional school interviews.”

- Erin Colfax ‘00 has received the 26th Annual Governor’s Environmental Excellence Award, recognizing outstanding environmental achievements, programs, and projects in New Jersey Schools. Colfax received this honor in the category of Environmental Education, a testament to her exceptional leadership in bringing sustainability and climate-focused learning. The award highlights the profound impact of Colfax’s work as she helps shape the next generation of environmental thinkers and problem-solvers. Working with students in grades K–8, Colfax has transformed science learning through hands-on, inquiry-based instruction that connects children directly with the natural world. Her approach blends rigorous academic exploration with authentic, real-world experiences that empower students to understand ecological systems, analyze environmental challenges, and engage as active stewards of their community and planet. Her leadership has resulted in the creation of a thriving rain garden on campus and the expansion of rewilded areas that restore native habitats, support pollinators, and reduce stormwater runoff. These vibrant outdoor learning spaces act as living laboratories where students investigate ecosystems, plant biology, climate resilience, and sustainable land practices while seeing firsthand how thoughtful human choices impact the environment. Colfax also spearheaded the transformation of the school’s lower field into a living classroom, offering students daily opportunities to observe, explore, and solve problems in nature.

CHEMISTRY & BIOCHEMISTRY

- Elizabethtown College’s Chemistry & Biochemistry Department welcomed Dr. Cameron Gettel ‘11, M.D., MHS, back to campus at Homecoming as the 2025 O.F. Stambaugh Outstanding Alumni Award. Dr. Gettel is an emergency medicine physician and researcher at Yale University School of Medicine. His work is primarily focused on improving the quality-of-care transitions for older adults after an emergency department visit, especially for those with dementia.

- Dr. Kristi Kneas continues to build capacity for collaborative research projects with area industrial partners. This fall, students Drew Bridges ‘26 and David Bray ‘28 worked on a project for Matthews Aurora Funeral Solutions. Dr. Kneas will be bringing in new projects in partnership with Carlisle Construction Materials to provide more opportunities for students.
- Dr. Kristi Kneas organized our chemistry seminar course and hosted Dr. Pamela Higgins, Ph.D., Bureau Director, PA Department of Environmental Protection Bureau of Laboratories, and Dr. Christopher Kochansky ‘98, Ph.D., Director of Drug Metabolism and Pharmacokinetics, Exelixis.
- Dr. James MacKay organized and hosted 14 students from Anchor Christian Academy for a chemistry field trip. Students and chaperones visited campus for the day, toured our labs, and participated in lab experiments using several laboratory instruments.
- Dr. Amy Defnet was named to the editorial board of the journal Biochemistry and Molecular Biology Education (BAMBEd). Produced by the International Union of Biochemistry and Molecular Biology (IUBMB), this journal publishes educational research in the field of Biochemistry and Molecular Biology to communicate innovative techniques in teaching, learning, and research. She and Dr. Jennifer Wittmeyer, Psychology Department, also led a group of Etown students to the Women in STEM Summit hosted in Harrisburg by the STEM-UP Network.

- In Spring 2025, Dr. Amy Defnet taught an Honors section of general chemistry lab. Part of the semester was framed around a community-based research project at the Mount Gretna Playhouse to address water-quality issues with a newly installed bronze fountain on the site. Dr. Defnet and Dr. Rood took a group of 22 students to Mount Gretna to collect water samples and solid deposits that were clogging the water pump system. Students then analyzed the samples and provided recommendations to the Playhouse to improve the water system for the fountain.
- The summer of 2025 was a productive and busy time for undergraduate research in the Chemistry Department, with nine students staying on campus for SCARP. All students presented their work at the Landmark Conference Summer Research Symposium, which was held on our campus in July:
    - “Investigation of protein kinase allosteric sites for targeted therapeutics,” Spencer Mefford ‘26, Samantha Small ‘26, and Kellie Simon ‘26; mentor, Dr. Amy Defnet
    - “From aisle to apiary: Analyzing the chemical profiles of store-bought and local honey,” Ella Powers ‘27; mentor, Dr. Jeffrey Rood
    - “Preparation of novel peptide nucleic acid nucleobases aimed at improving PNA-RNA2 triplex stability for RNA containing pyrimidine interruptions,” Isabell Anderson ‘26, Arianna Lepratto ‘28, and Jacqueline Hammond ’28; mentor, Dr. James MacKay
    - “Hybrid luminescent MOFs: Bridging metal complexes and porous solids as routes to potential sensor applications,” Matthew Lamb ‘26 and Robert Lynch ‘27; mentor, Dr. Jeffrey Rood

EXERCISE SCIENCE

- In August 2025, Elizabethtown College hired a new Human Performance Lab Director and Adjunct Exercise Science Professor, Dr. Joel French. Dr. French received a Ph.D. in Applied Physiology from the University of Florida with post-doctoral training at the University of Minnesota, Department of Cardiology. He also holds an M.S. in Exercise Physiology from St. Cloud State University and B.S. degrees in both Exercise Science and Psychology from the University of Sioux Falls. Dr. French has worked in the medical, health, and fitness industries for 30 years as a professor, researcher, director, and practitioner for organizations such as Mayo Clinic, the U.S. Olympic Committee, United Health Group, Orangetheory Fitness, and the Universities of Florida, Minnesota, and Colorado.
- Exercise Science has a new Assistant Teaching Professor and Field Experience Coordinator, Jace Fuchs. For more than a decade, he has worked in the fitness industry as a personal trainer, strength coach, education content developer for the National Academy of Sports Medicine, and exercise science professor. Before his time as a fitness professional, Prof. Fuchs served in the Army as a member of the 25th Infantry Division at Fort Wainwright, Alaska. He earned a Master's in Kinesiology from A.T. Still University, a Bachelor's in Exercise Science from Arizona State University, and an Associate's in Applied Science in Health and Fitness Education from McHenry County College.
- Exercise Science Program Director Dr. Adam Swartzendruber's appointment as a Peer Reviewer of programs applying for or maintaining accreditation in Strength and Conditioning Coach preparation for the Council on Accreditation of Strength & Conditioning Education (CASCE) has been renewed.
- The Human Performance Lab has new lab equipment: two Hawkins Dynamics Force Plates and software; an InBody Scanner: Comprehensive medical-grade body composition analysis device with body water assessment; and an Anti-Gravity Treadmill: Uses an enclosed air pressure system to create a partial vacuum to reduce bodyweight, making it easier to move, which is useful for rehabilitation and reconditioning during injury recovery.
- The Exercise Science Program and the Human Performance Lab are collaborating with the Engineering Department for undergraduate biomechanics research for both majors.

OCCUPATIONAL THERAPY

- Recently, Guldmann donated a GH3+ ceiling lift with Trainer Module to Elizabethtown College's School of Sciences and Health. This new system will enable students to practice safe patient handling techniques, supporting early mobilization and promoting faster rehabilitation outcomes. The GH3+ will be integrated into Etown's Occupational Therapy curriculum, allowing students to simulate realistic clinical environments such as intensive care units, patient rooms, and rehabilitation settings.
- Hannah Weaver '21, MS '22, returned to campus in the Summer 2025 to lead a hands-on training session for Dr. Daniel Panchik's acute care course. During the demonstration, students explored the system's therapeutic capabilities, which go beyond the standard patient transfers. The GH3+ combines traditional lifting functions with dynamic body-weight support,

enabling training in early mobility, gait rehabilitation, and functional activities of daily living (ADLs). Previously, Dr. Panchik and his students traveled off campus to the Center for Healthcare Innovation at Lancaster General Health for this type of practical training. Now, with the equipment located on campus, students can engage in transformative learning opportunities directly within their classroom. This donation has also sparked new discussions about the growing role of ceiling lift systems in healthcare, particularly in rehabilitation settings, where they are increasingly becoming the standard of care.

- In September 2025, the Elizabethtown College Teaching and Learning Design Studio recently named Dr. Laura Cunningham, Assistant Teaching Professor of Occupational Therapy, as a Learning Design Fellow for the 2025-26 academic year. Dr. Cunningham is working with the Studio to improve the experience of neurodiverse learners at Etown. Using her doctoral research on neurodiverse learners on Etown's campus, she created targeted training sessions and a comprehensive Canvas platform with resources for inclusive education. Her work helps address priorities identified by students in her research. Her work was the focal point of the Etown faculty and staff Instructional Development Day in early August. In collaboration with her coach, Assistant Director of the TLDS Studio Dr. Sharon Birch, the two created the day's content, which centered on identifying and providing solutions to the struggles that neurodiverse learners on campus face.
- On October 25-26, Elizabethtown College faculty and alumni presented at the Pennsylvania Occupational Therapy Association Conference.
    - "Original Accessible Storybook for Children with Low Vision." Elizabeth Petlick '25, B.S., OTS, and Laura Cunningham, OTD, OTR/L
    - "Accessible Menstrual Education for Adolescents with Intellectual Disabilities." Erin Wittenberg '24 M.S., OTR/L and Laura Cunningham, OTD, OTR/L
    - "Effects of Mother's Recorded Voice on Maternal Stress and Preterm Infants in the NICU." Erica Wentzel, OTD, OTR/L, Olivia Eason '24, M.S., OTR/L, and Alexandria Reid '24, M.S., OTR/L
    - "The Perspectives of Autistic Adults on Playground Inclusivity." Marla Davis, OTD, OTR/L
    - "The Power of Memories: Enhancing Older Adults' Well-Being." Isabella Kurpis '25, OTS and Terri Dennehy, D.Ed., OTR/L
    - "Bean Buzz." Terri Reichley Dennehy, D.Ed., OTR/L, et al.
    - "Training Higher Education Faculty for Neurodiverse Student Success." Laura Cunningham, OTD, OTR/L
    - "The Preparedness for the Occupation of Mothering Measure (POMM)." Gina Fox, OTD, OTR/L, BCPR
- Each Halloween, the Occupational Therapy Department chooses a costume theme and then has its students guess that year's theme. So, what do you think the theme was this year? Take a chance. Roll the dice.

PHYSICIAN ASSISTANT

- Daria Indeck, M.S.-PA, and faculty collaborators at Penn Medicine Lancaster General Health, recently published in the Journal of Clinical Medicine (2026): Critical Care after Thrombolytic Therapy in Acute Stroke: Who Really Needs the ICU?

PSYCHOLOGY

- Dr. Jennifer Legault Wittmeyer received an external grant from a non-profit organization called Project 8p Foundation to continue research towards categorizing neural effects of 8p chromosomal rearrangements and creation of a new brain atlas for these patients. This grant also included funding to support Neuroscience major Aleah Martin '25 to continue research on the project.
- Dr. Jennifer Legault Wittmeyer presented a lightning talk and a research poster at the Project 8p Scientific Symposium, held December 5–6, 2025, in Atlanta, Georgia.
- Psychology major Jonah McDonald '27 organized a successful concert fundraiser for ECHOS, a Lancaster-based organization addressing housing insecurity.
- Dr. Michael Roy is offering a "Social Issues in South Africa" course. This class involves a spring semester class where students learn about South Africa and apply social psychological theory to the history of the country. The class culminates in a 15-day trip to South Africa in May 2026.
- Dr. Michael Roy presented a paper entitled "Self and typicality in judgments of height and weight" at the Subjective Probability, Utility, and Decision-Making Conference in Lucca, Italy. This paper was co-authored by two Etown alumni, Jocelyn Kosik and Ryan Ramler.
- Dr. Amy Defnet (Chemistry) and Jennifer Legault Wittmeyer were co-facilitators of the 2025 NextGen Women in STEM Professional Development Day. They attended this valuable event with five SSH students on October 4.