

### INSIGHTS AND INNOVATION

## Fall 2024

### A New Era for the School of Sciences and Health

Welcome to the inaugural newsletter of Elizabethtown College's School of Sciences and Health (SSH)! Since my start in the Dean's office on July 1, 2024, I have been thoroughly impressed with our faculty's dedication and individual attention to our SSH students. With immense pride and excitement, I share this initial update with our external Advisory Board members, faculty, staff, and students, who drive our mission forward as we embark on this new chapter.

The SSH is the largest School on the Etown campus with 723 students. The SSH consists of 44 out of 110 of Etown's full-time faculty. Our School is built on a foundation of academic rigor, hands-on clinical experience, faculty-mentored student research, and community-minded service, encompassing a spectrum of programs—from Biology, Chemistry, Psychology, and Occupational Therapy to our newest clinical programs in Physician Assistant Studies and Exercise Science. Together, these programs educate and shape future clinicians, researchers, and leaders who will have an impact far beyond our campus. The Department of Labor and Statistics projects that healthcare occupations will grow approximately 18% from 2016-2026, creating approximately 2.3 million new jobs. Etown's School of Sciences and Health is well-positioned to contribute to the current and future healthcare and science needs of the immediate future for our students and country.

In each area—research, teaching, and service, the basic sciences serve as the bedrock of our School's purpose and vision. A deep understanding of these sciences is essential for students on the path to clinical careers. Our students develop critical-thinking skills and scientific knowledge and experience to make discoveries and ask questions, enabling them to become compassionate, empathetic, and effective healthcare providers. For our faculty and student researchers, scientific breakthroughs in the fields of healthcare and science are often the first steps toward impactful discoveries that can change lives. Through impactful service, our students, faculty, and staff apply their knowledge to meet community needs, embodying the College's Educate for Service motto.

Thank you for your support, dedication, and shared commitment to our mission in the SSH. As we grow together, I look forward to seeing how you will continue to contribute to the life-changing work occurring within our academic walls and beyond. Together, we are shaping the future of healthcare and the sciences.

In Health,

**Alan Utter**, Ph.D., M.P.H.  
Dean, School of Sciences and Health  
Elizabethtown College



# BIOLOGICAL & ENVIRONMENTAL SCIENCES



## Wohl Awarded Polanowski Prize

Congratulations to **Dr. Debra L. Wohl**, Professor of Biology, on being awarded the 2023-2024 Polanowski Prize for Excellence in Faculty-Student Advising and Mentorship. Each year, the Polanowski Prize for Excellence in Faculty-Student Advising and Mentorship is presented to a current Elizabethtown College faculty member to commend and celebrate excellence in advising and mentoring students toward successful graduate school placement and/or careers.

Wohl is a compassionate mentor who goes beyond her role as faculty to help students achieve important goals. Achieving this involves mentoring strategies that foster positive self-reflection to cultivate students' self-esteem and equip them with the tools to succeed. Her ongoing relationship with alumni and dedication to mentoring historically marginalized groups are commended. Wohl is also Chair of the Health Professions Advising Committee (HPAC), a role that guides current students and prospects on a career path in the medical field. She approaches each student empathically and with individualized advice based on their goals and current academic standing. Her individualized mentoring style has prepared many students for academic success in Ph.D. and other professional programs.

## Accomplishments & Accolades

- **John Flesher** joined the Department of Biological and Environmental Sciences as an Assistant Teaching Professor of Anatomy and Physiology. Professor Flesher joins us after a successful 25-year career as a physician assistant, specializing in cardiology.
- **Dr. Robert Northington** co-authored a publication, *Earlier Ice Melt Increases Hypolimnetic Oxygen Despite Regional Warming in Small Arctic Lakes*, in the journal *Limnology & Oceanographic Letters*.
- **Sarah Noveral**, Assistant Teaching Professor and Lab Coordinator for Biology, and five undergraduate teaching assistants participated in the Association for Biology Laboratory Education (ABLE) national conference at the University of Maryland.
- **Dr. Elizabeth Newell**'s collaboration with the Museum of Copenhagen was recognized for advancing the understanding of Copenhagen's history by studying the skeletons of its original inhabitants.
- **Dr. David Bowne** published an essay, *The Secret to a Meaningful Start: Miss Your Mark*, in *Inside Higher Ed*.
- After a 31-year career at the College, **Dr. Jane Cavender** announced her retirement, effective at the end of this academic year.
- Environmental Science major, **Angelymarie Pacheco '26**, was selected by the Ecological Society of America's Strategies for Ecology Education, Diversity, and Sustainability (SEEDS) International Field Trip to Barrier Lake Field Station, Alberta Canada. SEEDS, of which Angelymarie is a member of Elizabethtown College's local chapter, aims to increase diversity and perspectives in ecological science.



## Etown Launches Transformative Anatomy and Physiology Classroom and Laboratory

On November 7, Elizabethtown College dedicated the new Anatomy and Physiology (A&P) Classroom and Laboratory. The collaborative active-learning space, located in the Lyet Wing of the Masters Center for Science, Mathematics and Engineering, occupies the College's in-demand, health-related programs that enroll more than 500 students each year.



The space was funded, in part, through a \$1.375 million grant from Pennsylvania's Redevelopment and Capital Assistance Program (RACP) for Health-Related Learning Spaces. The new space was also made possible thanks to 16 generous donors who raised more than \$1.5 million. In recognition of contributions to the College and its legacy, **Joseph J. Schultz '83** and Anne M. Schultz named the Anatomy Research Room in honor of Etown retiree, **Dr. James Dively**.

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## HPAC Happenings

This year, the Health Professions Advising Committee (HPAC) includes six individuals serving as secondary advisors to students interested in health professions. Committee members include **Dr. James MacKay** and **Dr. Amy Defnet** (Chemistry and Biochemistry), **Ms. Dionna Rookey** (Physician Assistant), **Dr. Jennifer Wittmeyer** (Psychology), and **Dr. Anya Goldina** and **Dr. Debra Wohl** (Biological and Environmental Sciences).

With many students interested in pursuing health professions, this summer/fall, the committee helped 35 students and alumni apply to medical school, dental school, physician assistant programs, veterinary medicine, physical therapy, and nursing. In our first-year class, we welcomed four students with conditional acceptance to medical schools; three of them are with our primary care early assurance program with PSU College of Medicine, and one student is with Lake Erie's Osteopathic College of Medicine.

It is always wonderful reconnecting with alumni. **Laura Critchfield** (PA-C) and **Dr. Miriam Balasundrum** presented seminars this fall at the Biological & Environmental Sciences seminar series.

Interested in connecting with HPAC or with current Etown students? Please let us know at [hpac@etown.edu](mailto:hpac@etown.edu).

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## CHEMISTRY & BIOCHEMISTRY

### Keeping Up With Chemistry

The Department of Chemistry and Biochemistry had an exciting and productive past year.

- This fall, we welcomed a new class of 17 prospective majors: 15 first-year students and two transfers.
- In March, fourteen students presented their research at the ACS National Meeting in New Orleans. The ACS Student Affiliates were recognized nationally by the ACS as a Commendable Chapter for their high level of activity and community engagement throughout the past academic year.



- Seniors **Tristan Mabee '24** and **Kyla DeWittie '24** were recognized with awards for their research presentations at the Intercollegiate Student Chemists Convention, held at Lincoln University in April.
- **Jennah Hoke '25** was recognized by the Southeastern Pennsylvania Section of the American Chemical Society as the 2024 recipient of the Dr. Judith Bond Scholarship Award, a top recognition given annually by the local section of the ACS to a standout student in the junior year.
- Eight students remained on campus for the summer to work on research projects with the faculty and presented their work at the annual Landmark Conference Summer Research Meeting. We appreciate the generosity of several alumni donors who helped make this work possible.
- Outreach to high school students has increased. The Department hosted its first Chem-a-thon event in April and a home-school student event in October; nearly 80 high school students came to campus to experience lab experiments, a quiz bowl competition, and a tour of our facilities.
- The department plans to return a forensic chemistry course to the curriculum to support a growing number of Criminal Justice students on campus.
- **Dr. Kristi Kneas** and **Dr. Jeffrey Rood** are also working to build a new Medical Laboratory Science program. Faculty research remains very active.
- **Dr. James MacKay** wrapped up work funded by the NSF that led to three publications in international journals and the mentoring of Etown's first teaching and research post-doctoral fellow, **Dr. Grant Walby**. Walby secured a tenure-track position at Ohio Wesleyan. Recently, MacKay learned that a new NSF grant has been funded so that he might continue this work, and he will look to bring a second post-doc to campus.
- Other faculty are currently working on grant proposals. **Dr. Jeffrey Rood** and **Dr. Desmond Yengi** are each looking to submit to NSF, and **Dr. Amy Defnet** will submit a grant proposal to NIH.
- Finally, the Chemistry Department has settled into the newly renovated labs in Musser Hall and looks forward to continuing high-impact work with the students.

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## EXERCISE SCIENCE

### Achievements & Aspirations

- Future athletic trainers are now required to earn an M.S. in Athletic Training, due to the number of clinical skills required; therefore, Elizabethtown College's Exercise Science Department now offers a Pre-Athletic Training concentration. This concentration provides all the prerequisites for graduate school. Strength & Conditioning Coaching, which requires a specific certification and degree, will soon require graduation from a CASCE-accredited program to earn certification (CSCS) and work in the field, so the Exercise Department started the new Strength & Conditioning concentration in preparation for the accreditation process.
- **Taylor Saba '25** is working on an honors thesis, *Correlation Between Jump Height and Maximum Sprint Speed/Acceleration During Top Sprint Speed*. Using the Hawkins Dynamics Force Plates for vertical jump height and the Brower Timing Gates TCi system for 40-meter sprint times, Saba is looking to determine if having a high vertical jump relates to sprint speed regarding power output.



# OCCUPATIONAL THERAPY

## OT Notables



**Diane Martin, OTD, OTR/L**, Occupational Therapy Doctoral Capstone Coordinator, is partnering with SEEDS, an organization in the Conestoga Valley School District that focuses on health, housing, and education within the community as part of ongoing scholarship. This partnership features occupation-based early intervention playgroups that empower families to achieve their goals and thrive within the community. In the spring, Martin facilitated a six-week early intervention playgroup designed to promote school readiness, healthy play, and engagement in the community for immigrant families and those facing socioeconomic challenges. A group of Occupational Therapy graduate students actively participated in the play groups as a part of a scholarship project, gaining valuable hands-on experience within the profession. This partnership enriches student learning while underscoring Elizabethtown College's commitment to

Educate for Service. This community partnership with SEEDS will continue through the upcoming year and beyond, promoting occupational justice and addressing additional needs identified within the Conestoga Valley community.

**Sue Friguglietti, DHA, MA, OTR/L** presented the AOTA Fieldwork Educator's Certificate Program to 38 OT practitioners over four nights in September/October along with her co-presenter Donald Howard, MBA, MS, OTR/L, CLT. The program was sponsored by Messiah University. Sue and Donald have been credentialed FWECP trainers since its inception in 2009 and have presented more than 20 times (online and in person) to FW educators nationwide. The FWECP is a voluntary credentialing program that allows occupational therapy practitioners to expand their knowledge of their role as fieldwork educators. Participants learn effective strategies for student learning, supervision, education, and evaluation. Participants report on the improved quality of the student programming offered at their organizations after taking this course. The workshop provides 15 continuing education credits that can be used toward licensure renewal.

**Nancy Carlson, Ph.D.** published the article, *Bathroom Grab Bars Really Do Prevent Falls: What You Need to Know*, in *Positive Aging Community* on September 14.

This summer, students taking OT641 Acute Care and Rehabilitation, taught by **Daniel Panchik, D.Sc.**, had the opportunity to spend time at Smart Health Innovations Lab in Lancaster. The iLab is the only facility in Central Pennsylvania where technology innovators, an insurance company (Capital BlueCross), and a health system (Penn Medicine Lancaster General Health) offer an efficient path to test healthcare innovations and provide a place for education. Emphasis was placed on demonstrating an understanding of Safe Patient Handling and Mobility which involves using assistive devices to ensure that patients can be mobilized safely and that care providers avoid performing high-risk manual patient tasks. Using the devices reduces a care provider's risk of injury and improves the safety and quality of patient care.



**Hannah Weaver**, Occupational Therapist and Progressive Mobility Consultant/Safe Patient Handling Educator of Guldmann North America provided the opportunity to demonstrate an understanding of using the systems therapeutically. She also advanced the learners' clinical understanding through clinical cases.



Rebuilding Together is a volunteer non-profit organization that provides critical home repairs to low-income families, disabled and elderly homeowners, and war veterans. The objectives are to make homes safe, warm, and dry so homeowners can remain independent and age in place. According to **Dan Panchik**, Vice Chair of the local Rebuilding Together Chapter (Harrisburg), Occupational therapy students, this fall in OT505 under the direction of Gina Fox, have been busy doing home safety evaluations. Students also participated in Event Day by delivering lunches to house captains and volunteers providing construction and repairs. Many of the houses during Event Day were homes students had previously evaluated.

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## OT and PA Students Venture to Vietnam

From May 10 through 25, Occupational Therapy, Physician Assistant, and Social Work students traveled to Vietnam, led by **Mia Lynn Sahd**, executive director of Brittany's Hope; **Dan Panchik** and **Terri Dennehy**, Occupational Therapy Department; and **Dionna Rookey**, Physician Assistant Department. The Vietnam excursion is part of a class offered every other year at Elizabethtown College. The course and trip are in partnership with Brittany's Hope, a non-profit organization dedicated to empowering families and communities to make real and lasting changes in the lives of orphaned and at-risk children everywhere. The



group had the opportunity to partner with orphanages – Thi Nghe Orphanage, House of Love, and Ha Tinh Orphanage Village. The group also had a chance to assist with the construction of a home for a family in need of safe shelter, provide food relief to more than 200 families in need, deliver 60 bikes to children who walk nine miles to school, and take young adults with intellectual and physical disability to the beach from the Da Nang Vocational Training Center.

The students, faculty, and volunteers were thankful for the global perspective experienced throughout this journey. Special thanks to Occupational Therapists **Jana Poole** and **Rob Markley** and Physical Therapist **Denisha Kline**, who volunteered to assist the Blue Jays in Vietnam. The next trip to Vietnam is being planned for May 2026.

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## FACULTY PROMOTIONS



Congratulations to **Dr. David R. Bowne**, promoted to Professor of Biology; **Dr. Elizabeth A. Newell**, promoted to Professor of Biological Anthropology; **Dr. Lauren E. Toote**, tenured and promoted to Associate Professor of Chemistry; and **Dr. Terri R. Dennehy**, tenured and promoted to Associate Professor of Occupational Therapy.

# PHYSICIAN ASSISTANT

## PA Program Hosts Interprofessional Learning Experience



Educators of healthcare professions are required to provide interprofessional collaborative situations to increase student awareness and participation in interprofessional education (IPE). The pillars of IPE include values and ethics, roles and responsibilities, interprofessional communication, and teamwork. It is now well established in healthcare that IPE and interprofessional collaborative practice will play an important position in the future of health professions education and

healthcare delivery. There is an accreditation mandate for IPE for all practice-level degrees in the U.S., including but not limited to medicine, nursing, occupational therapy, pharmacy, physical therapy, physician assistance, speech therapy, and social work.

On October 18, Elizabethtown College's Physician Assistant program hosted an IPE learning experience for students majoring in Physician Assistant (PA), Occupational Therapy (OT), Social Work, and Psychology. The case centered around a patient who sustained a traumatic brain injury. Students from the disciplines were charged with the following tasks:

- Identify the role each discipline plays in the patient's care.
- Identify additional pieces to know/ask.
- Identify barriers that may hinder the team's ability to communicate, collaborate, and/or integrate with the patient as the center of care.
- Identify the patient's needs and work collaboratively to develop action plans to improve overall health and well-being.

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## PSYCHOLOGY

### Spotlight on Psych

- The number of students majoring and minoring in psychology continues to grow, and the first class of master's in counseling students graduated.
- Four students – **Ryder Pavela '25**, **Sara Colletti '25**, **Kathryn Mackey '25**, and **Delaney Peckham '25** – won SCARP awards and completed summer research projects.
- Eleven students presented research at the Eastern Psychological Association conference in Philadelphia.
- Seven students participated in the NextGen Women in STEM professional development conference.
- **Abbie Machmer '25** received a Campus Award for Service, and **Delaney Peckham '25** was honored with two Distinguished Student Awards for her class.

- **Dr. Elizabeth Dalton** won the Kreider Prize for Excellence in Teaching. She also published an article in the *International Journal of Behavioral Medicine*, titled *Emotional Eating in College Students: Associations with Coping and Healthy Eating Motivators and Barriers*.
- **Dr. T. Evan Smith** was granted the DEB Faculty Fellowship last year and was awarded a sabbatical this year, spending the fall semester in Prague.
- **Dr. Jennifer Legault Wittmeyer** co-authored an article, *Limited but Specific Engagement of the Mature Language Network during Linguistic Statistical Learning*, published in *Cerebral Cortex*.
- **Dr. Jean Pretz** was awarded a Disruptive Teaching Grant to develop creativity classroom activities.
- **Dr. Michael M. Roy** and Etown alumna **Emily Lamison** '21 published an article titled, *The Naturalness Bias in Sport*, in *Psychology of Sport & Exercise*.



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## More SSH News

### New School, New Dean, New Board

The newly founded external Advisory Board for the School of Sciences and Health (SSH) is a group of dedicated alumni and friends with a broad range of perspectives and expertise who have shown significant commitment to SSH's mission through their engagement and philanthropy. Board members will play a crucial role in enhancing SSH's educational and innovative initiatives by serving as advocates and connectors within the community. In addition to promoting engagement and philanthropic support for SSH, this new board will meet regularly with the dean and other personnel to provide strategic guidance, consult on specific academic areas of SSH, and leverage their expertise to advocate for programs, departments, and centers. This involvement will help position Elizabethtown College's School of Sciences and Health as a leading choice for students and partners.

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### Taking STEM on the Road

During the 2023-24 academic year, Elizabethtown College's Science in Motion (SIM) program provided approximately 15,000 students from 30 schools with science equipment, resources, teaching support, and professional development. Headed by STEM Education Outreach Director Wendy Martin, SIM



teams up with local districts to supplement their middle-school and high-school science programs. SIM provides access to and training on research-quality equipment used for hands-on, inquiry-based lab exercises in biology, biochemistry, biotechnology, environmental education, and robotics. In 2023-2024, a total of 191 teachers from 16 school districts borrowed 1,187 pieces of equipment for 236 hands-on lab activities.