

"See" STEM Quarterly Newsletter

FALL 2025

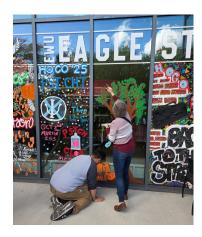


Happy Fall, CSTEM! Read ahead for celebrations, photos, and sharing of all the amazing things our community does for STEM and education. Caution: bloody splatter, spooky events, and student research ahead!

Celebrating a sporty Fall! CSTEM celebrated with EWU athletics during homecoming and Fall sporting events! Thank you to those who attended football, tailgating, volleyball, and soccer!







SPOOKY SCIENCE

Thank you to everyone who assisted and helped with a successful Spooky Science 2025!





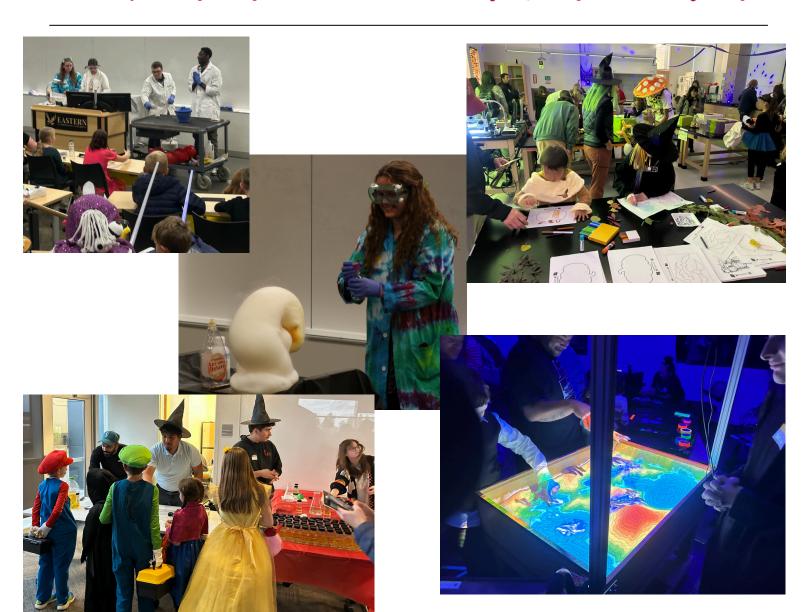








SPOOKY SCIENCE



Not an exhaustive list, but the team includes Biology: Joanna Matos, Gracie Rosenbaum, Hallie Morris, Vincent Evangelist, Sam Kennel, Grace Barthelmess, Charlotte Milling, Andrea Castillo, Jenifer Walke, Savini Upara Thrikawala, Grace Ogle, Alejandro Torres-Gonzales, Hailee Lembach-Maus, and Mark Paluch, Chemistry: Ashley Lamm (and lead students), Geosciences: Nigel Davies, Mathematics: Viktoria Taroudaki, Dale Garraway, Physics: Vivian Pearce and students, CSTEM: Melissa Graham and Kai Valentine, MESA students, Michael Bushyeager, EWU Design students, Maria Reyna, from Orientation and Family Programs, and Mandy Downing and the Visitor Center Eagle Ambassadors



Speakers and Events

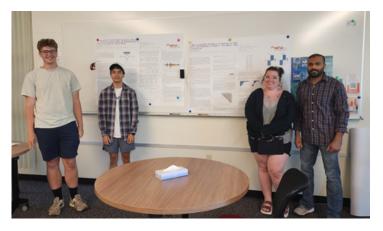
Five teams of scholars participated in a summer research program for EWU MESA students. Each team worked on a research project with a faculty lead over four weeks during the summer, culminating in a mini symposium. The research topics were: Human-Centered App Development, Real-World Data, Secret Lives of Bacteria, Assistive Tech for Gardening, and Building an Immersive Experience with Apple Vision Pro. Student feedback on the summer research groups was overwhelmingly positive, with many students appreciating the opportunity to engage with students in other STEM disciplines and getting to see what research with a faculty member was like in a welcoming environment.







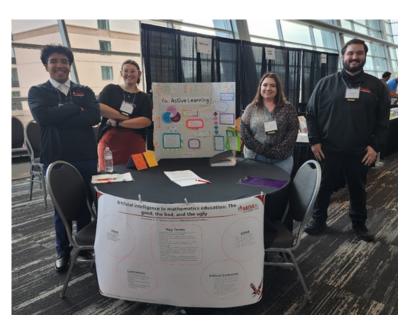






Speakers and Events

A group of four EWU MESA students (Alejandro Sanchez Zuniga, Aaliyah-Chae Boeckel, Jamie Brightwell, and Andrew Austin) planning to teach STEM attended Northwest the Mathematics Conference where they interacted with practicing mathematics teachers and attended sessions about mathematics and pedagogy. They also research with shared current participants through the Recent Research Roundtable session.







EWU Biology alumni Jon Eckhart and Kyle Arrington returned to EWU to connect with students in the EWU MESA Center. Jon and Kyle work for the City of Spokane and gave an engaging presentation about city wastewater infrastructure, current challenges and research opportunities, as well as internship opportunities and tips about getting hired by the city.

Eagle Startup Center CEB 123

TCA Companies that Kicked Off

We're excited to highlight the newest cohort of companies launching this term through the Eagle Startup Center (ESC) and its partner program, the Commercialization Academy (CA). These student-led ventures are now actively developing their ideas, forming teams, refining customer discovery, and preparing for initial prototypes or market tests. ESC's hands-on program guides them through the full process of launching a business.

Success of Previous Teams

Past teams from ESC have achieved notable accomplishments. For example, the team Universal Extrusion Solutions placed 3rd out of 174 teams in the 2025 Dempsey Startup Competition. <u>Eastern</u> Washington University



Astria, Ultropia, and Universal Extrusion Solutions (UES) exemplify the innovation emerging from Eastern's Eagle Startup Center. Astria, founded by CSTEM students, turned a creative idea for custom, non-toxic 3D-printed press-on nails into a first-place startup, now moving toward production. Ultropia, an engineering-driven venture, developed an ultrasound-powered washer-dryer and went on to win national recognition at major innovation competitions. UES, blending materials science and entrepreneurship, earned third place out of 174 teams at the Dempsey Startup Competition with their sustainable "PolyForgeTM" filament extrusion technology. Together, these teams show how CSTEM students are transforming lab work and classroom concepts into real, competitive companies.

Eagle Startup Center CEB 123

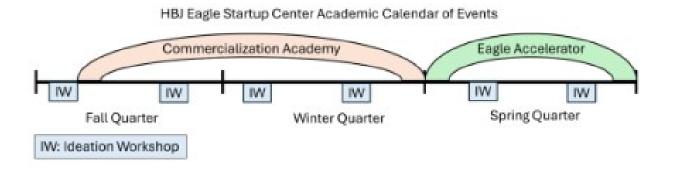
Fun Projects Completed This Year



The Eagle Startup Center (ESC) is a hands-on program designed to take students through the entire process of launching a business. Whether you have a business idea of your own or want to contribute your valuable talents and abilities in other ways, we have a place for you in the ESC.

This year in CSTEM and ESC, several fun and meaningful projects wrapped up:

- Student teams built prototypes and went through the customer discovery phase as part of their startup experience.
- Lab-based experiments and design projects advanced with ESC support.
- A few interdisciplinary teams completed proof-of-concept work and prepared for next-step testing.
- These activities reflect ESC's mission to engage students in the full process of launching a business idea. <u>Inside EWU</u>



Eagle Startup Center

CEB 123

New Toys in the Lab

We've also expanded our lab capabilities. New equipment and tools have been acquired to support prototyping, testing, and startup team work. These new "toys" in the lab will enable higher-fidelity builds, faster iteration, and deeper integration of CSTEM coursework with real-world startup processes. (We'll share more details and photos in the next edition.)

Pumpkin Day!

Pumpkin Day celebrated hands-on seasonal fun: students, faculty, and staff gathered for carving, designing, and perhaps a friendly competition around pumpkin-based STEM or creative projects. It's a great way to blend community, creativity, and informal lab engagement.



Upcoming Events - Chair Restoration Day

Looking ahead: Mark your calendar for "Chair Restoration Day" (date forthcoming). This event invites CSTEM students and ESC participants to bring old chairs (lab, lounge, or even home-based) and restore them—sanding, painting, reupholstering or customizing. It's both a practical restoration project and a team-building activity that combines design, materials science, and hands-on fabrication.



Biology

Masters Student Grace Barthelmess celebrated their work with the Washington Department of Fish and Wildlife (WDFW).

"Beyond my master's thesis work looking at trophic interactions among mesopredators and waterfowl, I also have the immense privilege to be a part of the WDFW waterfowl banding team. Last summer I helped select banding sites and deployed new acoustic monitoring units and game cameras to sites around Turnbull National Wildlife Refuge. We banded easily over 200 ducks and geese, making our site among one of the most productive in all of WA this year. I also got to lead a banding event, teaching refuge staff and students how to band mallards and identify sex and age. I can't express enough just how much my experiences at EWU has opened doors, such as this, that I never even thought were possible for me!" - Grace









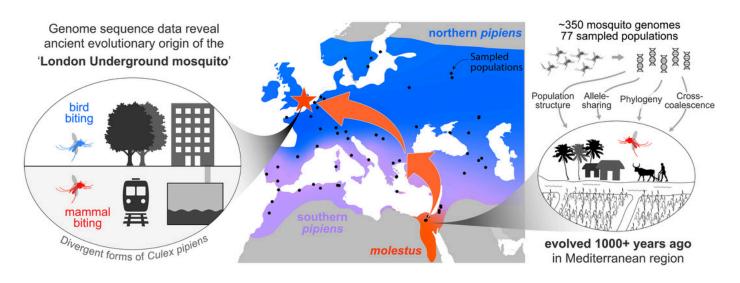
Biology

Congratulations to Dr. Krisztain Magori, who is a coauthor of a published article in Science! He is a member of the PipPop Consortium.

https://www.science.org/doi/10.1126/science.ady4515







Chemistry, Biochemistry, and Physics



Science Student Forensic Club took charge of their experiences and hosted mock crime scene! They displayed skills in fingerprinting and blood pattern analysis to find out what happened at the scene.











Computer Science & Electrical Engineering Good News



On September 15, 2025, the Department of Computer Science & Electrical Engineering hosted Secretary of State Steve Hobbs for an evening discussion with faculty and students. Secretary Hobbs discussed extensively the issue of elections and election security, the threats of disinformation and misinformation, involvement from foreign actors, and the role our students can take in helping to solve this problem. The session was very interactive, with students engaging in a lively Q&A session.

EWU Collaboration Publications

Bryan Snyder, Shamima Yasmin, and Erik Powell. Enhancing Literary Understanding in Secondary Education through Role Playing Games. (to be published) In Proceedings of the 2025 Annual Symposium on Computer-Human Interaction in Play (CHI PLAY '25), October 13-16, 2025, Pittsburgh, Pennsylvania.

EWU Alum Bryan Synder ('24) and research with Ferris High School involving English literature learning enhancement and software development to convert the epic literary poem "Beowulf" into a learning tool where students interactively learn the story and participate in quiz questions. The tool is currently in at Ferris High School. The article was accepted for publication and presentation at CHI PLAY (Computer-Human Interaction in Play) Conference in October 2025.





Computer Science & Electrical Engineering Good News

August 2025 - Dr. Stu Steiner went to Limerick Ireland with Mayor Lisa Brown on a Sister City visit. Ireland has made cybersecurity a national priority. Part of the visit was to create relationships with Irish Universities, including the University of Limerick for study abroad and Technical University of Dublin.



Right: Dr. Stu Steiner and Spokane Mayor Lisa Brown at Spokane Walk in Limerick, Ireland, Spokane's Sister City

Dr. Stu Steiner presented at the NCW Tech Cyber Symposium on Oct 8, 2025 in Moses Lake at Big Bend Community College. The topic was how EWU is leading the way in Critical Infrastructure (Small Regional School Districts) and Small Business Assessments.

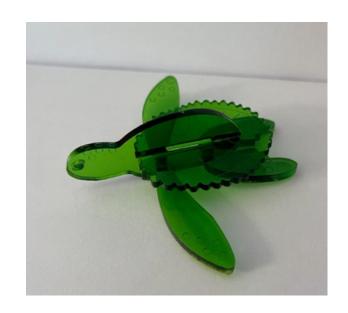


Design Roundup

Lecturer Meg Lybbert's Production Design class has been using the laser and vinyl cutter in the Catalyst Building "to make all kinds of things." Check some of them out!









Design Roundup



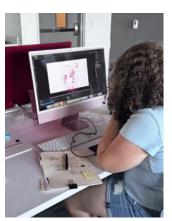
Assistant Professor Colin Manikoth was featured in an Inlander article about the appeal of "cozy" video games. Manikoth is the co-creator of the Department of Design's UX, Web, and Game Design minors. "In terms of how they look and feel," says Manikoth, "cozy games are more like a Pixar movie and less like your standard overaggressive male action movie." VCD students will take his Digital Game Design course in the spring.

 $\frac{https://www.inlander.com/healthandhome/lifestyle/cozy-games-which-prioritize-relaxation-over-combat-are-having-their-moment-and-even-reinventing-violent/article_9c9f3a23-7f6b-57ca-8fd8-059obe331139.html$

In July and August, the Department of Design hosted three week-long day-camps for middle schoolers. Lecturer Ariel Sopu, recent VCD graduate Quin Lawrence, and Design Technician Kirk Reinkens (along with 27 students) filled the summer days with bookmaking, animation, and board game design. According to the participants and their families, the camps were a smash hit!







Geosciences Happenings

EWU Hosts Geological Society of the Oregon Country "Deep Time" Field Trip in June 2025



About 30 participants from across the Pacific Northwest (including a few alumni) joined EWU Geosciences for a field conference to look at the 1.5 billion year old past of NE Washington ranging from downtown Spokane to Gardner Cave to Red Marble Quarry. This trip filled within a few hours and all the attendees enjoyed chatting with EWU students and faculty, highlighted at:

https://www.gsoc.org/news/2025/spokanefieldtrip-3n88e.

As a way of appreciation the Geologic Society of the Oregon Country donated \$500 to the GEOS undergraduate research fund:)

PFAS Sampling (KSPS)

June through July six EWU Geoscience students and community members assisted with sampling groundwater across the West Plains. This brought the number of EWU PFAS samples to 300 and with FAFB and EPA sampling in the West Plains to almost 1000 data points. EWU results for PFAS sampling were sent to homeowners that volunteered for no cost, normally a \$350 to \$400 lab fee would be associated.

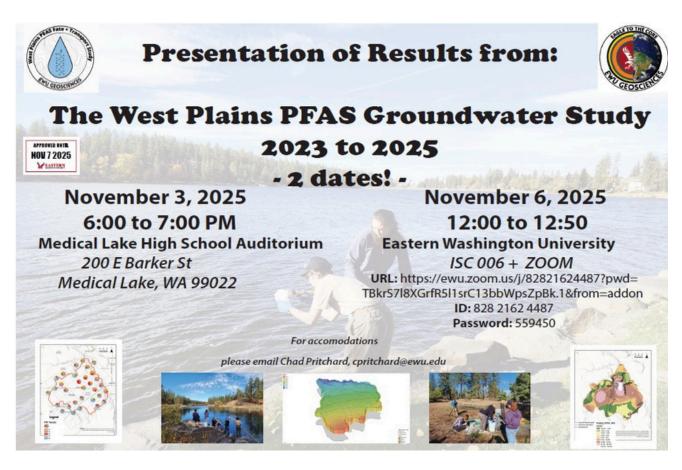


This research was highlighted during KXLY news casts and an @ Issue episode on PFAS in the West Plains https://www.youtube.com/watch?v=jBLqxgFWWVk

Geosciences Happenings

EWU Geosciences has representation on the Spokane County PFAS Response Task Force

Spokane County received 7.8 million dollars to respond to PFAS contamination in groundwater in the West Plains, outside of the FAFB study zone. An advisory committee to the Spokane County Commissioners. Dr. Chad Pritchard was appointed to the task force to help suggest ways to select households for filtration or increase groundwater sampling. https://www.spokanecounty.gov/5881/West-Plains-PFAS-Response-Task-Force



Final PFAS
Presentations on
November 3 and 6th

Results from the West Plains PFAS Fate and Transport Study will be presented at Medical Lake Middle School on November 3rd and at EWU on the 6th.

Geosciences Happenings

Geosciences joins History, Anthropology and Design for a service learning project on San Juan and Stuart Islands!



Left: Devil's Lake on the North Cascade Highway

An interdisciplinary trip to the San Juans was to gain historical and geologic information for interpretive signs for the San Juan County Parks Department. Grant funds awarded to Dr. Lawrence Cebula were used to cover costs of the trips and even give students per diem so that all students could attend this amazing event!



Above: Stuart Island



Above: San Juan County Park

Below: Lime Kiln State Park with tribal and community members



Mathematics

Congratulations Jessica Donor! Jessica, a Graduate Student in Applied Mathematics, presented the first of three professional development sessions she is leading for Liberty School District to support their faculty and staff learning on implementing the use of AI in the classroom!

Kingston Math Lab Facelift!

Kingston Math Lab enjoys new chairs, whiteboard tables, cozy study rooms, and free snacks and beverages, making it the best place to hang out in Kingston Hall! Everyone is invited to stop by and see the new vibe.





Another celebration - The math labs in Monroe, Kingston, Catalyst, and on Zoom combined had over 800 check-ins in the first 20 days of class, serving over 250 individual students. With an average 70 minutes per stay, students have already accessed over 930 hours of math help this quarter!

Mechanical Engineering and Technology



Over the summer, many classrooms and labs across campus received significant technology upgrades, made possible by special university funding. The work was carried out by IT and Facilities teams, in addition to their regular duties.

As a token of appreciation for their efforts, Carl Combs, Classroom/Labs Supervisor, distributed a custom challenge coin to recognize everyone who contributed to the project. The coins, designed by Dalton Frederick (IT HelpDesk student tech), were printed by the Ideation Lab, with costs shared between the lab and the Department of Mechanical Engineering & Technology (MENT).

MENT was proud to support this initiative, especially as much of the work took place in CEB. We are grateful for the upgraded technology and the hard work that made it all happen—most of it before classes even began.



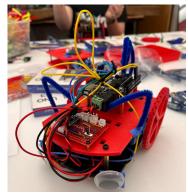


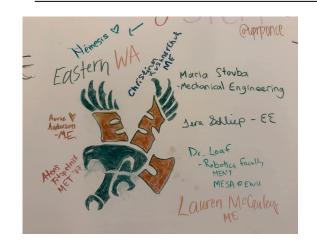
As a summer undergraduate research experience, Dr. Benjamin Parrish collaborated with MESA Students. The students conducted research and development of assistive technologies looking specifically at individuals that suffer from arm or hand injuries that want to perform gardening or yard activities. This project will include the research, development and prototype creation of a product along with presentation of this product to a group of peers. We were able to produce a prototype that is being tested by a few individuals. Several of the students are intending on using this product in the TCA this fall.

Mechanical Engineering and Technology

This past summer, Dr. Jennifer Leaf from the Mechanical Engineering and Technology department hosted a week-long engineering and robotics camp for high school students as part of the Women Elevate STEM program. The group visited Wagstaff and Pearson Packaging Systems to see robotics used in industrial and manufacturing settings. The students then spent the rest of the week building, soldering, and programming line following robot cars, and capped off the week with an industry panel with local engineers. The students loved the hands-on activities and their confidence grew throughout the week. Thank you to the Henry Luce Foundation for funding the WE STEM project, our industry tour hosts, and to our panelists, Shannon Kellam, Ashleigh Sanford, Lily Hong, and Catherine Kent.







Dr. Leaf also attended the Society of Women Engineers conference in New Orleans. EWU MESA students Avrie Anderson, Christina Kushnerchuk, Lauren McCauley, Tera Schliep, and Maria Stovba attended numerous sessions, met with many employers and graduate schools at the career fair, and networked with new professional contacts and friends. The group met up with alumna Alexis Fitzpatrick '07 to sign the conference attendee wall and show our Eagle pride. Thank you to EWU's MESA Center for sponsoring the trip.





Mechanical Engineering and Technology

On Oct 7, 2025, MENT participated in a tour of the Association of Washington Business (AWB).

https://www.awb.org/awb-manufacturing-week-rolls-through-spokane/

AWB Manufacturing Week rolls through Spokane

By Jacqueline Allison October 8, 2025

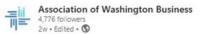


The AWB Manufacturing Week bus tour visits Premier Manufacturing, Inc., a precision sheet metal fabrication company based in Liberty Lake, east of Spokane. (Photo: Bria

"The day kicked off at Eastern Washington University, where students and faculty showed off the Mechanical Engineering and Technology program and hands-on labs. Students in the program gain a strong in foundation robotics. automation, thermodynamics, fluid mechanics and materials science - skills that are in high demand. 'We're trying to expand and help out our local industries, as well as teaching our students those techniques,' said Jennifer Leaf, a professor of robotics at EWU. AWB also met with EWU's Aerospace Club, who built a carbon fiber rocket and launched it 10,000

feet during an international competition in

Texas this summer."



Day 5 of the Manufacturing Week bus tour was all about Spokane -- from precision sheet metal to innovative carbon capture technology. We also saw how programs at Eastern Washington University and West Valley High School are training the next generation of manufacturing employees.

CarbonQuest Premier Manufacturing Northwest Steel Fab Inc Eastern Washington University

Read more in AWB News: https://lnkd.in/giqtn2k9

Thank you to our stop sponsors: STCU, Knife River Corporation, Premera Blue Cross and Ranner Rank



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SIAM Student Chapter Student Recognition!

Network | Access | Outreach | Lead

Recipients Named for Annual SIAM Student Chapter Certificates of Recognition

SIAM Student Chapter certificates of recognition were awarded to students who made outstanding contributions to their SIAM Student Chapters. This program recognizes the importance of student contributions in creating and sustaining exciting chapters, acknowledges students' efforts within the greater SIAM community, and provides a noteworthy commendation for students to add to their portfolio for career building.

SIAM congratulates all the recipients and thanks them for their contributions to the development and growth of the SIAM Student Chapters program.

https://www.siam.org/media/rosdicst/sn_june2025.pdf

Look to page 10 of the June SIAM news - EWU Alumni Cara Connelly is a recipient of the SIAM Student Chapter Certificate of Recognition!

Symetra

SIAM club hosted Symetra on Oct 8, 2025 to discuss internships. This annual event leads to students earning internships and experiences!







Next Steps

- Apply Online
 - https://www.symetra.com/careers/symetra-careers/internship-program/
 - Application window. Now until October 1
- Contact Directly

Spenser Allen (Actuarial): Spenser Allen@Symetra.con

Foundation News

Build Our Future: The Campaign for Eastern

The Build Our Future: The Campaign for Eastern is a historic effort for Eastern Washington University, seeking to raise \$100 million to transform the future of our students and the region. Thanks to the extraordinary generosity of our alumni and friends, we have raised a total of \$79,224,959, bringing us significantly closer to our ambitious goal.

This campaign is strategically aligned with the university's plan to position EWU as the region's polytechnic, focusing on core priorities like enhancing access and affordability through scholarships, bolstering hands-on learning experiences, building healthy communities, and achieving athletic excellence. Every gift to the campaign directly invests in the people, programs, and possibilities that define EWU, supporting the objectives in the university's strategic plan to promote student success and regional impact. We extend our deepest gratitude and thanks to all our donors for their unwavering commitment; your belief in our mission is what makes this historic progress possible.

Soaring to New Heights: CSTEM Celebrates Record-Breaking Donations!

The College of STEM program is absolutely thrilled to announce a wave of extraordinary generosity that is propelling our mission to new levels! Thanks to the commitment of our dedicated community, we've received an impressive series of donations that will have a profound and lasting impact on our students and programs.

This past quarter, we saw an outpouring of support, with contributions ranging from multi-thousand-dollar corporate and foundational gifts to generous personal commitments. These funds are more than just numbers; they are an investment in the future of science, technology, engineering, and mathematics education.

Foundation News

A Huge Thank You to Our Incredible Donors

We extend our deepest gratitude to every single donor. Your support ensures CSTEM can continue to provide cutting-edge resources, inspiring mentorship, and hands-on learning experiences that prepare students for success in tomorrow's workforce.

What These Gifts Will Accomplish

The funds raised will be strategically allocated to enhance key areas of the CSTEM programing, including:

- Expanding our outreach to underserved communities.
- Funding student scholarships and competition travel.
- Provide students with hands-on experiences to prepare them for exciting careers.
- Funding undergraduate research opportunities.

Your commitment allows us to not just maintain our programs, but to innovate and grow, creating a powerful pipeline of future innovators, engineers, and scientists.

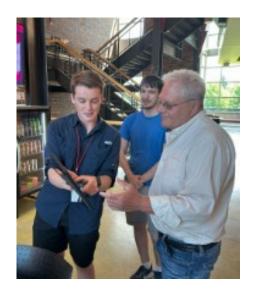


Foundation News Donor Spotlight

An Eagle's Return: How Todd Butler's Visit Sparked a Legacy

Todd Butler (EWU '88, Mechanical Engineering and Technology) knows the value of an EWU degree. Hailing from Othello, Washington, he and all three of his siblings followed a shared path through Eastern, preparing him for a rewarding 35-year career with Collins Aerospace (an RTX Business) in Foley, Alabama.

For decades, Todd was a loyal annual supporter, quietly contributing to the place that launched his career. But this past summer, a simple visit back to his alma mater turned that quiet support into a bold, new commitment.



Seeing the Future of Engineering

While visiting family in the area, Todd took the opportunity to return to the Cheney campus. Though he had a brief, personal exchange with President McMahan, the most powerful connection came when he met the Aerospace Club students, Eli and Collin, in the Computing and Engineering Building.

Todd was instantly invigorated. He learned firsthand about their ambitious, hands-on projects, including designing and building a rocket for the challenging IREC competition in Midland, Texas. Seeing the students' passion, hearing about their learning experiences, and watching them work on the very skills that defined his own career made the purpose of his giving instantly tangible.

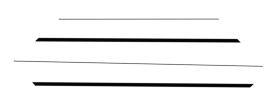
From Annual Gift to Enduring Scholarship

Inspired by the dedication of these students who are now following in his footsteps, Todd knew he wanted to do more than just send an annual check. He established the Todd E. Butler Scholarship Fund for Mechanical Engineering and Mechanical Engineering Technology students.

Todd jump-started the fund with a generous \$25,000 gift, ensuring immediate support for future engineers. Critically, his company, Collins Aerospace (an RTX Business), recognized the importance of this investment and provided a substantial \$15,000 corporate match, instantly magnifying the impact. Todd plans to continue growing the fund with future matched contributions, solidifying a commitment that will make quality engineering education accessible for generations to come.

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Foundation News Donor Spotlight



The Power of Giving

Todd Butler's story is a powerful reminder that giving is more than a financial transaction; it's about making a direct, personal connection to the students whose potential we help unlock. When an alumnus connects with the talent, drive, and dedication of today's Eagles, it sparks a deep, transformational kind of support—a legacy that changes lives on both sides of the gift.

EWU's commitment to applied learning makes this an exceptional time to support Science, Technology, Engineering, and Mathematics (STEM) initiatives. Your contribution can directly fund student research, enhance laboratory facilities, and create crucial scholarships for the next generation of innovators. We invite you to explore the exciting giving opportunities in STEM and discover how you can personally empower students to pursue life-changing careers in high-demand fields.



Jennifer J. Hicks, CFRE, CAP®
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