College of Science, Technology, Engineering & Mathematics Eastern Washington University

WELCOME BACK!

Thank you for celebrating the opening of our MESA Center! See EWU stories for inspiration from our leaders and Dr. Melissa Graham! inside.ewu.edu/mesa/

<u>ewu.edu/stories/community-celebrates-opportunity/</u>



CONGRATULATIONS! IN THE NEWS

Washington state universities navigate shifting DEI support

https://www.spokanejournal.com/articles/16642-dei-in-higher-education

"We are setting the stage, and we're developing the concepts and ideas of expanding the university MESA program to Washington State" -Dr. Melissa Graham

"We recognize that there are issues of access throughout society and not all students come to Eastern with the same opportunities...This is a space where they can find each other and find a community." - Dr. Melissa Graham

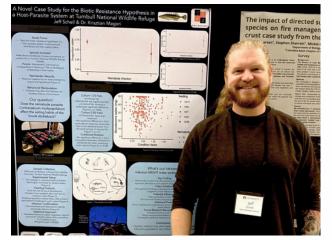


Washington state universities navigate shifting DEI support

Some schools recommit to inclusivity while Idaho programs dismantle

EWU Student Wins Murdock Poster Prize

ewu.edu/stories/ewu-student-wins-murdock-poster-prize/



"I felt like a scientist. Having a lab full of fish and running them and then analyzing their behavior was really intriguing," Schell says, adding that the hands-on learning, including fish husbandry and statistical analysis, will come in handy in graduate school. During graduate study, Schell hopes to work with intelligent marine animals, such as cephalopods (octopuses and squids) or cetaceans (whales and dolphins).



January 2025

NEWSLETTER

CONGRATULATIONS!

IN THE NEWS



The Catalyst has a new work of art thanks to a donation by Judy Hamel, wife of the late Dr. Owen Hamel of Computer Science. It hangs in the CSEE faculty hallway if you would like to see it. The work was purchased by the Hamels in 1970 when he had his first lecturer position in Indiana.

NIH awards \$350,000 to help chemistry professors Nick
Burgis and Yao Houndonougbo explore ways to "stabilize ITPA clinical variants."
Congradulations!





January 2025

NEWSLETTER

DEAN'S TEAM

David Bowman, PhD

Dean

College of Science, Technology, Engineering & Mathematics



Associate Dean

College of Science, Technology, Engineering &

Mathematics





AND WELCOME TO ZACK BROWN, CSTEM SENIOR ADVISOR (CAAR)



Zack Brown

Senior Advisor for CSTEM

(509) 359-4801 zbrown15@ewu.edu



January 2025

NEWSLETTER

OUR FOUNDATION

Meet Jennifer Hicks, CFRE,CAP® is the new Director of Philanthropy for CSTEM! She started in July of 2024.

She is an EWU alumna in music, is an experienced and certified fundraiser and is passionate about the mission of Eastern. Her past fundraising roles were with the Spokane Symphony, Providence Health Care Foundation and Deaconess Medical Center Foundation.

Though not a scientist, she has sincere respect and appreciation for the contributions of those in the scientific fields. She will ride the coattails of her sisters; Sarah Otterstrom who has a PhD in Ecology from UC Davis and Emily Patterson who has a MS in Chemistry from Brigham Young University and has taught Chem 101 there.

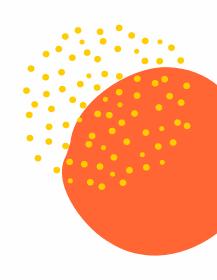
Her brother Karl Otterstrom is also an EWU alumnus in Urban Planning and is currently the interim Co-CEO of Spokane Transit Authority.

She has lived in Hawaii, Greece, Italy and Maryland but hails from Spokane. She has traveled extensively and loves music, cooking, architecture, archeology, outdoors and the arts. She is the mother to two grown sons.

She is the VP of the Spokane Estate Planning Council, and the Immediate Past-President of the Inland Northwest Planned Giving Council.

Welcome aboard Jennifer!





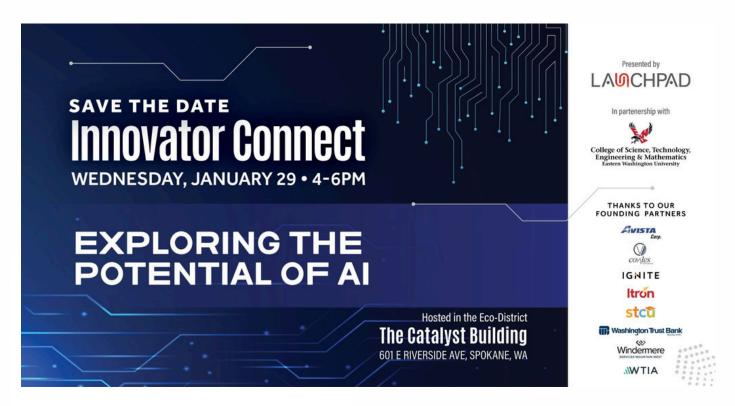


January 2025

NEWSLETTER

UPCOMING EVENTS AND OPPORTUNITIES

LaunchPad Presentation at Catalyst



Welcome to Innovator Connect: Exploring the Potential of Artificial Intelligence (AI)! Join us on Wed Jan 29 2025 at 4 pm, doors open at 3:30 pm, for an exciting event at Eastern Washington University Spokane. Dive into the world of AI and discover its endless possibilities with industry experts and innovators. Get ready to connect, learn, and be inspired by the latest advancements and real world examples in artificial intelligence. Don't miss out on this opportunity to expand your knowledge and network with like-minded individuals. This event is free to attend, a no host bar for people with valid ID's and appetizers will be available. See you there!

BIOLOGY



For folks thinking about keeping bees!

Spring 2025 Class:

Dates: Sat. March 1 (10:00am-2:30pm) and

Sat. March 8 (10:00am-2:30pm)

In Person Location:

Eastern Washington University, Cheney

Pence Union Bldg (PUB)

Room 321/323

**Also available remotely via Zoom

for \$35. If any wish to join the class, they should reach out to us via email (westplainsbeeke epers@gmail.co m), and we will send them an

invoice at the

reduced rate.

We offer the

class to students

Cost: \$50 per person - includes 1 Washington State Beekeepers Association (WASBA) manual and 1 WASBA certification test. Additional family members \$10 each (no manual/test).

Hands-On Practicum:

Dates: April 2025 +, TBD

Location: WPBA Apiary, Medical Lake Cost: Included in price of the class

To register, go to: www.wpbeekeepers.org/services/classes
For more information: call 801-923-3797 or email
westplainsbeekeepers@gmail.com

COMPUTER SCIENCE AND ELECTRICAL ENGINEERING

The Electrical & Computer Engineering program and Computer Science sponsored a seminar by **Dr. Arbel Yaniv titled "Artificial Neural Networks for Power Flow Analysis in Smart Grids"** on Friday, January 10, 2025. Arbel Yaniv is a Postdoctoral Researcher at the Technical University of Munich, Germany. Her research focuses on the development of optimization methods and applied machine learning for energy systems applications, advancing the planning and operation of power systems to address the challenges of renewable integration and grid modernization. She develops novel methodologies for the efficient management of distribution networks, microgrids, and grid edge assets through advanced control strategies. Over 35 students and faculty attended the event. Thank you Dr. Sanmeet Kaur for helping in bringing in the speaker.

CYBERSECURITY

Hosted **Skills USA**, with over 100 local high school students to the Catalyst building. Students engaged and learned in competitions ranging from drones to coding to circuits to more! Thank you for all you do for the community!







January 2025

NEWSLETTER

DESIGN ROUNDUP





Senior Lecturer **Sonja Durr'**s Social Practice Design students worked on two engaging projects with community partners last fall.

First, the students created and installed a Get Out the Vote PSA campaign in JFK library with a focus on youth voting. (Posters are available to the public at this link: GOTV P.)







DESIGN ROUNDUP

Professor Travis Masingale has several projects we are proud to highlight.

He is working with Career Services to create **Level UP!**, **the inaugural Creative Careers Expo.**Taking place in the Catalyst Building, "this event aims to bring together students, alumni and industry leaders in the creative industry in a career fair style format. By facilitating networking opportunities and showcasing diverse career paths, the fair seeks to launch the creative futures of soon-to-be graduates, alumni, high school graduates, and other area college graduates while also connecting industry leaders to the area's creative talent."

Masingale also recently completed phase one of the website redesign for the <u>Spokane</u> Scholars Foundation.

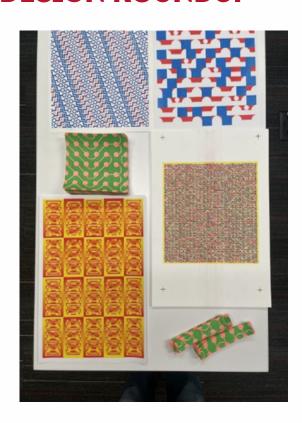
At the Catalyst Building, he is working with a student team to create donor recognition signage for Itron, who sponsors the Department of Design's "Innovation Hub" (room 172).

Masingale will participate in a panel about Artificial Intelligence in the Creative Sector for LaunchPad Inland Northwest (Wednesday, January 29, from 4 – 6 at the Catalyst Building).

Lastly, be sure to read Professor Masingale's feature in Eastern Magazine, "Machine Learning?," which is a fascinating conversation between Masingale and ChatGPT on the subject of AI and education.

The Design Department, with support from the Spokane Arts Grant Awards, hosted Risograph Resident Artists during the Summer and Fall of 2024 and welcomed over 40 local artists and creators across four events and workshops. Summer Resident Mykola Haleta explored pattern and geometry in over 30 prints, offered as a spiral-bound collection at local bookstore Giant Nerd Books.

DESIGN ROUNDUP



During the Fall Residency, local artist **Kevin Haas** created "Anxious Days 2025," a 12-month calendar with designs that investigate anxiety through scrambled letter and word forms.

In addition to the individual projects produced over their month-long residency, Haleta and Haas led workshops, where local artists and creators could learn about Risograph printing, and receive guidance to produce a series of prints featuring their own work. Resident artists also hosted Risograph demonstrations during Spokane First Friday, welcoming community members to learn about printing methods and techniques, and encouraging them to consider the possibilities that Risograph printing can offer.



DESIGN ROUNDUP

Lecturer **Sam Mills** was awarded a 2024/2025 Faculty Grant for Research and Creative Works. He will receive a stipend in summer 2025 to ink pages of his young-adult graphic novel, The Chicken.



GEOSCIENCES

EWU Geosciences hosted the Geological Society of America Joint Regional Meeting for the Cordilleran and Rocky Mountain Sections at the Davenport Grand in May 2024. The meeting had the highest regional meeting attendance for the western US and the highest number of student presentations for a regional GSA meeting. Chad Pritchard was the Chair of the organizational committee and helped edit and publish a GSA guidebook for regional field trips, including a field guide for geologic and anthropologic history of downtown Spokane (field trip was built into the meeting). Nigel Davies organized student volunteers for the meeting and we had over 16 students participate in the meeting from EWU as well as dozens of students from Humboldt State University, Chico State University, Central Washington University, and other NW schools and regional companies.

- Meeting Website
- Guide Book

The West Plains PFAS Fate and Transport Study

continues until June 2025, part of a regional groundwater grant for \$450,000 with Ecology that Chad Pritchard worked with Spokane County Water Resources and Spokane Regional Health to obtain, since it is legislatively appropriated funds, the funding had to go through a regional government and the City of Medical Lake is acting as the grant awardee and contracted EWU to run the groundwater modeling and sampling of about 160 locations in the West Plains, from Medical Lake to Seven Mile and Deep Creek to Latah. This study had been highlighted by the Seattle Times, West Plains Water Coalition, KLXY, KHQ, Spokane Public Radio, KYRS, Spokesman Review, Range Media, and was one of the top stories in 2024 for the Cheney Free Press. Hamilton Studios in Spokane has released a documentary on the

topic, https://www.youtube.com/watch?v=y7sijgtGwNY

January 2025

NEWSLETTER

GEOSCIENCES

Things to Celebrate!

Society Gibson Geology Field Course Award of Excellence for his achievements at the Eastern Washington University Geology Field Camp, GEOS 490G. In the summer of 2024, the EWU Geology Field Camp capstone class mapped along folds and faults outside of Dillon, MT; explored a variety of geologic interests from copper deposits to structural dome resurgence in Yellowstone National Park; and regional mapping near Red Lodge, MT. Chad Preitcahrd nominated Kevin because he is a positive and hardworking student, but it was the field that brought out a new level of detail and observation that was manifested in his maps and cross sections as the class progressed. Kevin is set to graduate with a BS in Geosciences from EWU and plans to continue as a licensed geologist at Budinger and Associates, conducting geotechnical and exploration across the northwest US.



GEOSCIENCES

Things to Celebrate!



Results are back from the **Hydrogeologic Assessment of Saltese Basin**, **Spokane County**. Over 2024, Chad Pritchard used funds from a Summer Faculty Research Grant to bring students from EWU and Community Colleges in Washington to Saltese Flats and Upland Conservation Area to map geology and explore subsurface hydrologic conditions for collaborative academic research for retention and recruitment. Two students from regional community colleges started at EWU after this project. Ages of the rocks at Uplands Conservation Area show confirm that the Lake Hauser Gneiss is metamorphosed from the 1.45 billion year old Prichard Formation, intrude by mafic dikes about 1.43 billion years ago and the uplifted and partially melted about 60 million years ago as part of the Priest River Core Complexes. Initial Results were presented at the EWU Symposium, GSA meeting in Spokane, and presented to regional groups such as the Liberty Lake Rotary Club.

GEOSCIENCES

Things to Celebrate!

Congratulations to Marilyn Smith for receiving the Alumni-funded Undergraduate Research Grant from EWU Geosciences! These funds will be used for geochemical analyses of granitic rocks from the Spokane area as Marilyn compiles and interprets U/Pb ages of granitic rocks from around the area with Professor Chad Pritchard. Granitic intrusions tell us a lot about the timing of past tectonic activity. This important work was presented at the Spokane 2024 Geological Society of America meeting and will be presented again this spring!" if you would like to donate towards Undergraduate Geology Research at EWU, please follow this link: Geosciences Student Research Fund @www.ewu.edu/give/funds/)



January 2025

NEWSLETTER

GEOSCIENCES

Things to Celebrate!



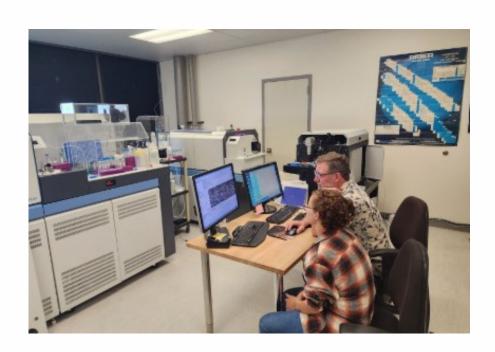
Congratulations to **Natalie Potter** for **receiving research and travel grants** from EWU Geosciences, CSTEM Dean's Office, and the Provost's Office. Natalie has been a remarkable undergraduate researcher studying the detrital zircon U/Pb ages of buttes around the Spokane area and Cambrian to Neoproterozoic rocks from across NE Washington with Professor Chad Pritchard. Natalie has presented at three Geological Society of America meetings in three different states, recently presented at the Murdock Undergraduate Research Conference, has had over 15 posters at EWU Symposium, and has given multiple department seminars on her work with the US Geological Survey (student employee on the EWU- USGS Cooperative Agreement), TA's for Chemistry courses, and has assisted with multiple field events for Geoscience students.

January 2025

NEWSLETTER

GEOSCIENCES

Things to Celebrate!



The EWU - US Geological Survey Cooperative has been running for over 30 years, connecting EWU Geoscience students with USGS Research Geologists. We recently received additional funding and have hired three students to conduct high-level field work at California Pass REE deposits, in the lab, and on publications!





GEOSCIENCES

News

Recent EWU graduate **Matt Slater** from the Department of Geosciences and **Dr. Lauren Stachowiak** consulted with the **Vashon Heritage Museum** on Vashon Island in Fall 2024 on a dendrochronology exhibit exploring local ecology through tree rings. The exhibit is planned for opening Summer 2025 and will feature an oldgrowth Douglas-fir cross section with interactive dendrochronology information and ways scientists can learn about past environments from trees.



Picture by Matt Slater outside the Vashon Heritage Museum on Vashon Island



Picture of Dr. Lauren Stachowiak collecting a core from a beam in the interior stairwell of a historic structure. The core has tree rings which are used to reconstruct the calendar year in which the structure was built.

The Dendrochronology and Spatial Analysis Lab led a dendroarchaeology project in Hamilton, Montana in June 2024 in collaboration with researchers from the University of Idaho Tree-Ring Lab to reconstruct the site archaeology of a privately-owned homestead. The tree cores collected from the historic structure were analyzed for cutting dates and established to be built in 1869, which makes it one of the oldest and most well-preserved wooden structures in the state of Montana. Students working in Dr. Stachowiak's lab this Winter 2025 will be developing a site-level tree-ring chronology to be published on the International Tree-Ring Data Bank via the NCEI.



GEOSCIENCES

News

The first annual **GIS Day event** in the Department of Geosciences was held at The Catalyst Building on November 22nd, 2024 to celebrate student achievements in GIS and cartography. Over 100 attendees met to discuss the latest advances in GIScience and education, share information on GIS projects happening in the Spokane region, and to view the entries for the mapping contest. We had 18 small-format submissions, five large-format maps, and the National Geographic Giant Map on display throughout the Catalyst lobby. Geoscience majors Emerson Slanga (1st Place), Marilyn Smith (2nd Place), Cherese Bentley (3rd Place), and Basil Lund and Natalie Potter (Honorable Mentions) produced the winning maps with topics ranging from groundwater hydrology modeling to bee population decline. Well done to all students and thank you to all who participated in the event!





Pictures of the GIS Day event in the Catalyst Lobby. Student maps of all sizes and themes were showcased for community members to attend. The winning submissions to the mapping contest are now on display outside the main Geosciences Office in SCI.

MECHANICAL ENGINEERING AND TECHNOLOGY



LinkedIn Video

The MENG 485 Advanced Robotics class with Professor Leaf has spent fall quarter working on an integrated multi-robot manufacturing process. This quarter-long project is a demonstration of how hands on learning combines with engineering theory and design to offer an enhanced, real-world learning experience for our students. As a class, we designed a toy car with 3D printed and steel parts. Student teams have designed and built five robot work cells, each showcasing a common application of robots in manufacturing settings: part assembly, quality control using computer vision, welding, packaging, and disassembly + part sorting. The teams had to consider not only the engineering requirements for their own cells, but how their production output impacted work cells further down the line.

