



# Science Initiative News

Fall 2023

## Program Updates

From Tuesday, May 16th through Saturday, May 20th, more than 30 college educators from UW and five community colleges participated in the immersive LAMP Summer Institute held at Camp Sacagawea on Casper Mountain. The educators came together with the goal of mastering active learning techniques with an emphasis on problem-based learning. During the last two days of the Summer Institute, LAMP participants created and presented their own instructional strategy. Throughout the academic year, LAMP faculty will implement and assess their active learning strategies. More about the Summer Institute and a list of participating educators can be found on the [LAMP 2023 Summer Institute website](#). This Fall semester, 37 learning assistants will also provide facilitation for active learning courses. They will support all of the Chemistry, Biology, Anatomy, and Genetics courses being taught in the largescale active learning classroom as well as other courses ranging from Earth System Science to General Psychology.

The Roadshow wrapped up a very successful and busy spring semester! From locations such as Casper, Cody, Cheyenne, and Pinedale, the Roadshow reached 1,309 K-12 students across 15 events. We are building off of this incredible momentum and are looking forward to heading back to Cody for a STEM day in October, the UW STEM Carnival in September, and various other events and presentations throughout the state. We were thrilled to offer two K-12 teacher professional development events

last spring in partnership with the Wyoming State Science Fair and the Wyoming Department of Education. The Roadshow continues to expand collaborations and looks forward to building relationships with more K-12 teachers and communities in Wyoming.

WRSP is excited to kick off a new year with 48 fellows, including 24 new students, for the 2023-24 academic year.

## IMPORTANT DATES

- Join us for the [2nd annual STEM Carnival](#), Friday, September 8 from 10 AM - 2 PM at the Engineering Education & Research Building (EERB)!
- LAMP Coffee & Curriculum is back this Fall with select Friday sessions from 8-9am on [Zoom](#). On November 10th, we will welcome special invited LAMP Alumnus, Jessica Sutter (now faculty at Whitman College). [A full schedule](#) of sessions is available.
- For those wanting to become LAs or for professors hoping to have LAs next semester, please get [applications](#) submitted early. We are over capacity for our funding and can support very few new LAs in the spring semester.

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## Program Updates, Cont'd.

Our program continues to demonstrate steady, positive growth since its initial cohort of four students in 2015. The WRSP supports students performing cutting-edge science with UW's world class research faculty. WRSP students are a diverse and interdisciplinary group of scholars, and they are important ambassadors for undergraduate research and student success at UW and around the state. This fall, many WRSP students will travel throughout Wyoming to engage in STEM outreach, helping to spread excitement and demystify UW research contributions throughout our communities. In addition, our program will host the annual WRSP Symposium with poster presentations near the end of the semester.

## 2nd Annual STEM Carnival

The Office of the President and the Science Initiative invite you to the 2nd annual STEM Carnival, Friday, September 8 from 10 AM – 2 PM at the Engineering Education & Research Building (EERB). The STEM Carnival will feature a wide range of engaging demonstrations and hands on activities from UW STEM faculty, students, programs and local businesses. This year we will have an Engineering focus and attendees will get the chance to explore facilities such as the UW Makerspace, Drilling Rig Simulator, Cybersecurity lab, Driving Simulator and much more! Come learn and experience STEM!

## Welcoming Erin Klauk



Please help us welcome Erin Klauk to the SI Leadership Team! Erin comes to us with nearly two decades of K-12 teaching experience. She will be developing and facilitating community-based collaborations across Wyoming for the UW Science Initiative STEM Community Engagement Program by working with Wyoming communities and relevant UW and community college STEM programs, departments, faculty and students. She

will also be assisting with K-12 outreach and engagement for the Science Initiative Roadshow with a specific focus on developing and implementing engaging activities centered on earth science. She is passionate about helping WY K-12 teachers unpack the newly required Wyoming State Science Standards by creating and implementing fun and engaging community-related standards-based activities around the state. Erin will additionally take on a lecturing role with the Geology and Geophysics department where she will be able to share her passion for geology with the students of UW.

## Active Learning Classroom (ALC)

This semester, the Active Learning Classroom (ALC) is again full of active learning in introductory science courses. Eleven course sections are being taught in the ALC. This semester those courses include 2 sections of Organic Chemistry I, 3 sections of General Biology, 1 section of General Microbiology, 1 section of Integrative Physiology, the LAMP Best Practices in Active Learning course, 1 section of Human Anatomy, 1 section of General Chemistry I, and 1 section of Genetics. In total, over 1,100 students are enrolled in these courses.

## HHMI IE3 Initiative Updates

LAMP Director Rachel Watson continues to serve as the Program Director for the Wyoming Inclusive Excellence 3 (IE3) Initiative. This effort is funded, in part, by a grant to UW from the Howard Hughes Medical Institute Science Education Program. During the spring of 2023, the first phase of this work culminated with a Learner Showcase at Northwest College. During the summer, representatives from NWC, EWC, WWC, LCCC and Casper College traveled with Rachel and Christi to the IE3 Convening on HHMI's Janelia Campus in Virginia. At this convening, the Wyoming team engaged in sessions with members of their national learning community which is comprised of nearly 50 institutions all focused on building 2-year and 4-year transfer partnerships that forge inclusive student environments promoting the success of diverse STEM transfer students. Wyoming members contributed to the writing of an annual reflection and engaged in dialogue with faculty nationwide who are working on other inclusion challenges. Professor Vicky Mayfield, lead for the EWC effort, reflected on the experience saying, "I find myself in awe of our/IE3's goal(s). I am super impressed by the amount of hope that the ENTIRE IE3 group has. With BIG society problems (and IE3's goals are to make a REAL difference in diversity, equity, and inclusivity in STEM), I tend to be a bit (well, probably a lot) of a pessimist. However, I find myself getting caught up in the hope and excitement."

This fall, the NWC Learning Community will head into their second year of learning and action. Applications for the LCCC Learning Community opened on August 28th. [We invite UW applicants](#) who may want to join this 2-year to 4-year conversation.

# People in SI



## WRSP Scholar

### Elizabeth Howard

**Hometown:** Omaha, NE

**Majors:** Zoology, Environment & Natural Resources

**Faculty Mentor:** Corey Tarwater

Elizabeth is working with Dr. Corey Tarwater in the Avian Behavior and Ecology Lab. She is looking at how space use in birds changes based on food availability and community structure in mixed-species foraging events in Panama. Last spring, she presented “Niche Differentiations within Ant-Following Birds at Mixed Species Foraging Events” at the PiEE Student Symposium. Elizabeth is also President of the Wyoming Undergraduate Research Coalition (WURC) RSO.



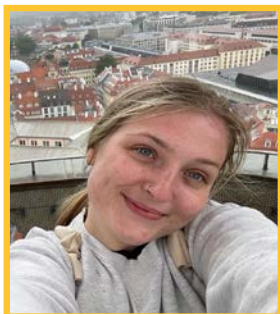
## Roadshow Outreach Assistant

### Alyssa Baldwin

**Hometown:** Toledo, OH

Masters student in Ecosystem Science and Management

From Alyssa: “Being from the Midwest and living near the Great Lakes, I have always had a passion for ecology, animals, herpetology, freshwater habitats, and educating anyone around who will listen to me talk about frogs. My project here at UW is based on how communities (of plants, macroinvertebrates, and amphibians) change at BDAs (beaver dam analogs/man-made beaver dams) sites. Then compare how we see progression changes to how beavers impact the streams to see if humans (by BDAs) can replicate an ecosystem engineer (beavers, which make beaver dams that change the ecosystem) effectively from an ecological standpoint. I am always ecstatic when I get the chance to go teach kids and the public about the science I am so passionate about. When I am not geeking about frogs, snakes, salamanders, lizards, or turtles I love DIY’ing, crafts, baking, and anything that involves crafting something new!”



## LAMP Learning Assistant

### McKenna Hackett

**Hometown:** Scottsbluff, NE

**Major:** Microbiology

**Faculty Mentor:** Cassandra Willingham

McKenna’s faculty mentor, Professor Cassandra Willingham says, “McKenna dedicated 5 semesters to serving as a learning assistant for both General and Medical Microbiology. She played an instrumental role in the development of both of these courses and I couldn’t have done it without her. She is an extremely versatile, thoughtful, creative and dependable person and her students and I are lucky to have worked with her.”



## LAMP Fellow

### Jacob Layer

Assistant Lecturer, Kinesiology & Health, UW

Our featured LAMP Fellow this semester is Jacob Layer. Jacob is the instructor for the large Anatomy courses and he began his transition to active learning in the spring of 2022. During each subsequent semester, Jacob was able to increasingly adopt student-centered pedagogies. He began collaborating with LAMP Learning Assistants and systematically studying impacts of course elements on students’ experience. In the spring of 2023, Jacob supported his learning assistants in completing a SoTL study that asked the question: Are students who engage more frequently with LAs also the students who are more likely to utilize all course resources? Also in the spring of 2023, Jacob was accepted as a LAMP Fellow in the competitive yearlong training program. Throughout the spring, weeklong Summer Institute and remaining summer months, Jacob built his holistic teaching philosophy, aligning his beliefs, learning outcomes, assessments and pedagogies. In one of his reflections, Jacob writes, “I’m obligated to do the most I can with my life, and to make the greatest impact possible, by habitually investing in those around me.” Jacob’s students can attest to this!