HIGH POINT UNIVERSITY
THE PREMIER LIFE SKILLS UNIVERSITY
Undergraduate Research and Creative Works

SPOTLIGHT

The Official Newsletter for Undergraduate Research & Creative Works

MISSION STATEMENT

The Office of Undergraduate Research and Creative Works mission is to bring together undergraduate students and faculty members for the purpose of creating unique and collaborative projects. By fostering an imaginative research experience, we hope to promote the development of new competencies, encourage critical thinking skills, inspire students to add to the global sum of human knowledge, and help students develop the skills to be competitive in the marketplace.

WHAT'S INSIDE:

ALL YOU NEED IS LOVE...AND URCW!

Spring is approaching and as we wrap up the month of February, URCW is looking forward to the second half of the semester. In this month's issue of *Spotlight*, we're featuring students who are engaging in research opportunities and creative work on campus in a variety of ways. Plus, High-PURCS is just around the corner—find out when to mark your calendars, how to submit your abstracts, and why you should both present and attend!

SUBMIT YOUR ABSTRACTS FOR HIGH-PURCS 2026!

High-PURCS 2026 is approaching quickly, and URCW is ready to prepare you with everything you'll need to make the most of this unique experience. High-PURCS is High Point University's Research and Creativity Symposium, and is held annually at the end of every spring semester. This year's High-PURCS will be held on **April 14th from 8am to 2pm** at the Nido and Mariana Qubein Conference Center. This event showcases student scholarship in a supportive environment that models a professional venue. As students, you may choose to present your work as a poster, oral presentation, brief performance, or exhibit. Students from ALL schools, majors, and minors are invited and encouraged to present at High-PURCS—this is your opportunity to share and showcase your hard work with fellow students, faculty, and staff! Abstract submissions are due **March 14th**. Click here or scan the QR code below to learn more and how to apply!

"I'm not presenting at High-PURCS, so why should I attend?"

High-PURCS isn't exclusively beneficial to participating student presenters—it's an opportunity for **EVERYONE** to discover and experience professional development. Below are just a few ways past attendees have benefited from High-PURCS—and how you can, too! By attending High-PURCS, you can:

1. **Expand your understanding** of what academic research can look like
2. **Build connections** with students and professors across a variety of disciplines
3. **Possibly turn your attendance into extra credit** in a current course (ask your professor whether High-PURCS can count toward a related assignment!)
4. **Strengthen your confidence** in discussing research and asking informed questions
5. **Find inspiration** to pursue your own research and creative work

Abstracts are due: MARCH 14th

Scan the QR code to the left to learn how to submit to High-PURCS, presentation guidelines, and how to apply for monetary awards!

PROJECTS IN PROFILE: DR. BROOKS'S TEAM!

"Projects in Profile" features students, or teams of students, in *Spotlight* who are doing remarkable work in research and creative areas that deserves to be HYPED! This month, we're highlighting Dr. Jacob Brooks's team of student researchers who are experimenting with various silicone materials to better understand the types of bacterial interactions that can form on these surfaces and lead to infections in hopes of improving healthcare technology.

Caitlyn Wingeart and Lauren Rumble (student in Dr. Fiser's lab) prepare materials to grow MRSA (a type of bacteria).

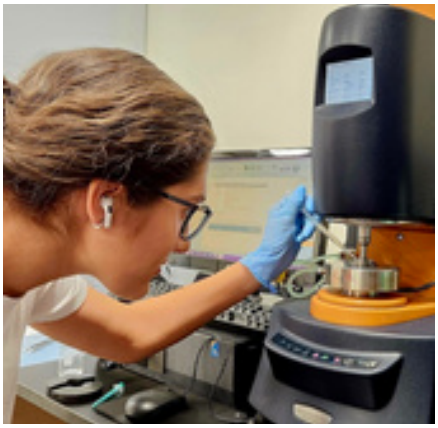
Aubrey Fessler and **Caitlyn Wingeart** have been working in Dr. Brooks's lab over the last couple of years, including over the summer through URCW's SuRPS program. In this Physics lab, these students are studying the flow and deformation of materials to better understand the interactions between silicone surfaces that make up medical implants (like catheters) and harmful biofilms such as MRSA, a type of bacteria resistant to many common antibiotics that makes infections difficult to treat. Aubrey explains that the goal of this research is to, "contribute to the development of methods that reduce the amount of biofilms that build up on different surfaces to mitigate the spread of infections."

From Left to Right: Dr. Jacob Brooks, Megan Mueller (summer research team), Aubrey Fessler, and Caitlyn Wingeart

This research provides Aubrey and Caitlyn with the opportunity and possibility of directly improving patient's lives. Caitlyn says, "It's fascinating to investigate how something as subtle as textured silicone can make such a significant difference in preventing infection." URCW is grateful for their commitment to research that has the potential to improve patient outcomes and is proud of the example they're setting across campus and beyond!

CAITLYN WINGEART
Class of 2026
Neurobiology major, Physics minor

"I'm especially excited that my project focuses on understanding what makes current industry-standard products effective, because that knowledge could help us design even better solutions in the future."



Aubrey Fessler measures and prepares a guar gum sample (a thickening agent commonly used in research) to test in a rheometer, a device that measures how materials flow and stretch.

AUBREY FESSLER
Class of 2028
Biology Major, Religion Minor

"Even though this lab falls under the Physics department, I've also enjoyed learning about the different biological and chemical components that are involved!"

Want Your Research HYPED?

Would you like to see your research team featured in an upcoming issue of *Spotlight*? Simply scan the QR code to the left and complete the short form to share details about your project and your team. We'd love the opportunity to highlight your work and celebrate the impact you're making, so don't hesitate to reach out!

STUDENT RECIPIENTS OF GRANTS FROM URCW

URCW is proud to award grants to students and faculty mentors who plan to present their research and creative works at disciplinary conferences, as well as to students who are continuing to develop their current projects alongside their mentor. Congratulations to all of the grant recipients listed below—we are excited to see your impact through these experiences within your fields and beyond!

1. **Malia Agostinelli, Quinn Ferguesson,** and **Madison Molis** to present at the Sigma Tau Delta Convention in New Orleans, Louisiana mentored by Dr. Joshua Bartlett (English Department).

2. **Christopher Langhorne** to aid his research for his project "Panther Power Arcade Machine" mentored by Dr. Eve Klopf.

3. **Meghan Alessi, Emilie Briscoe, Lily Bruner, Annabelle Chabot, Aubrey Church, Alexis Evatt, Aubrey Fessler, Alekxander Gouge, Denning Jacob, Nicole Korczyk, Holley Lowe, Lauren Marra, Alea McRorie, Kaitlyn Ngo, Rebekah Olls, Helia Osareh, Anneliese Paris, Jack Quintana, Brian Ragoobir, Ellie Ratta, Jack Schoultz, Kara Vaartjes, Anthony Walters,** and **Sierra Werner** to present at the 2026 Annual Conference of the Association of Southeastern Biologists (ASB 2026) in Mobile, Alabama accompanied by Dr. Megan Bowman, Dr. Jacob Brooks, Dr. Robert Charvat, Dr. Daniel Greene, Dr. Nicole Hughes, Dr. Dane Kuppinger, and Dr. Alexander Mosier.

4. **Josh Elbertson** to present at the Acoustical Society of America School and Conference in Philadelphia, Pennsylvania mentored by Dr. Eric Rokni.

FEBRUARY RESEARCH ROOKIE OF THE MONTH: SOPHIA MESSERLY

We're excited to announce our February Research Rookie, Sophia Messerly! Sophia is a freshman Biochemistry major on the pre-med track. When asked how Research Rookies has been meaningful to her, Sophia said, "Research Rookies has given me the tools and experiences crucial to my future research endeavors throughout the semester and a half I have been a part of it. Through the program, I have been able to attend a research conference and learn a lot about different facets of research topics and how the process works. I am grateful for the opportunities this program has given me and can't wait to do more research in the future." Congratulations, Sophia!

LET'S KEEP IN TOUCH!

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URCW

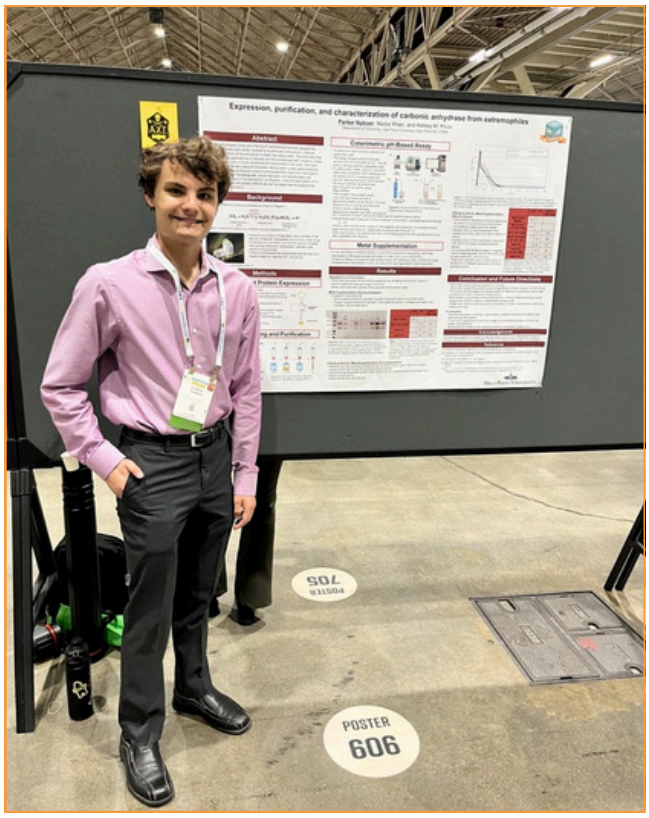
STUDENT IN PROFILE: PARKER NYBOER

In each issue this spring semester, we're highlighting students from various fields who have accomplished incredible work during their undergraduate experience at HPU. For the month of February, our student profile features Parker Nyboer! Parker is a Biochemistry major who is graduating this spring. During his undergraduate experience, Parker has conducted research alongside his mentor, Dr. Kelsey Kean, since 2023. Parker was recognized as a Research Apprentice after completing URCW's Research Rookies program in 2023, and has also participated in summer research at HPU through URCW's SuRPS program. His research has involved a project that concerns characterizing a novel carbonic anhydrase from tardigrades—this means he has been studying a newly discovered enzyme found in microscopic organisms known for surviving extreme environments to learn how the enzyme works, and why it may be biologically significant. He has presented his research at multiple conferences, including the American Chemical Society National Meeting and Exposition and High-PURCS.

"The URCW has helped me through the Research Rookies program and their university-wide support for student research."

- Parker on how URCW shaped his research experience at HPU

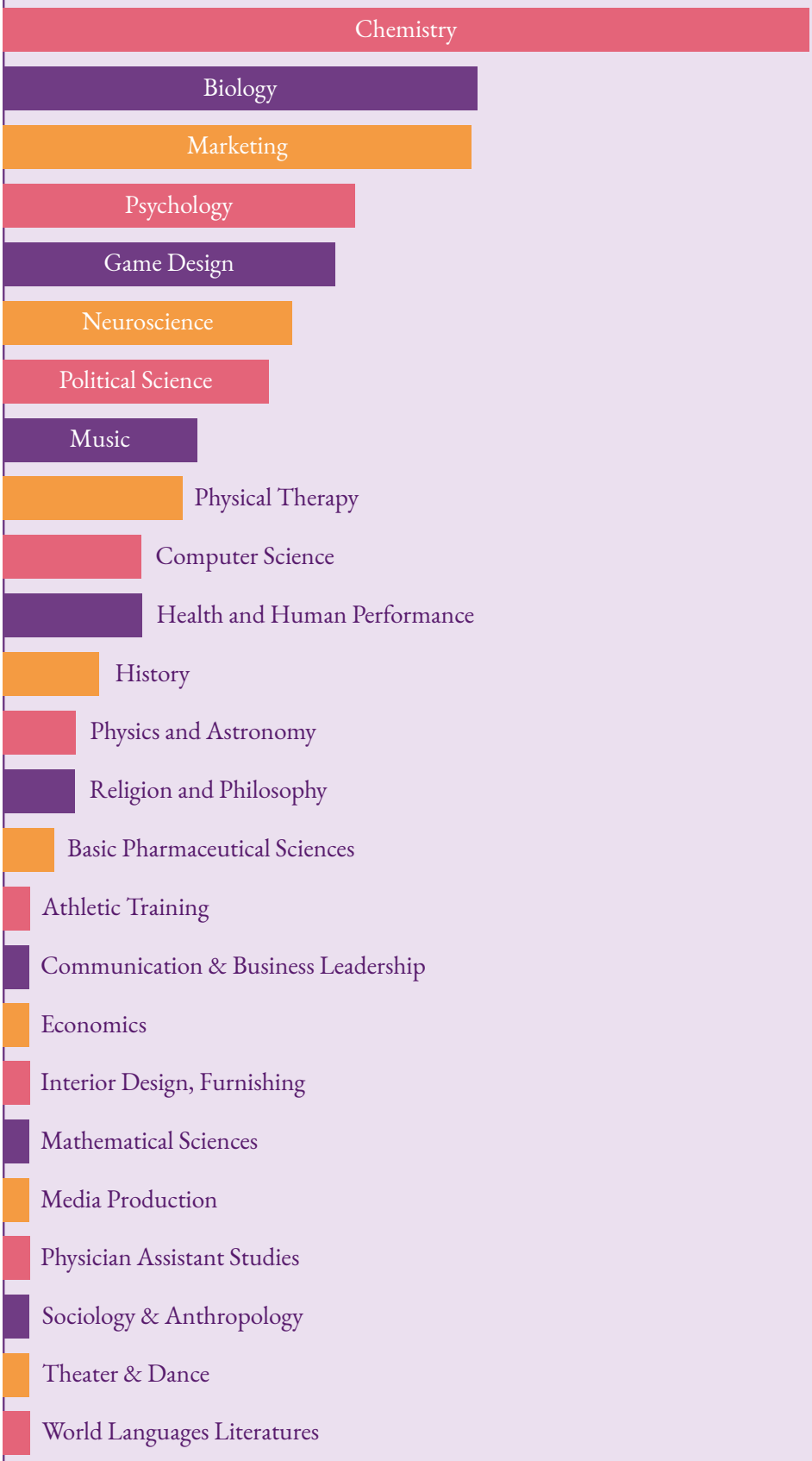
Parker shared that his proudest accomplishments during his time as an undergraduate at HPU include presenting at conferences and helping build his team's project from scratch at the beginning of his research journey. Parker is deeply grateful to his mentor, Dr. Kean, for her guidance and support in shaping his research experience and opportunities. "Dr. Kean has been my guide not just in our research, but also in developing myself to be a successful and professional scientist. She has helped me grow my independence and foster my developing interests in proteins, while also being a patient and effective teacher in the lab." After graduating from HPU in the spring, Parker plans to earn his Ph.D. in Biochemistry and hopes to be employed in a research position at the NIH (National Institutes of Health) before returning to graduate school and becoming an enzymologist involved in medical research. URCW is proud to have played a role in Parker's achievements and growth, and looks forward to following his continued success!



Parker Nyboer presents his research on a newly discovered enzyme found in tardigrades at the American Chemical Society National Meeting and Exposition.

STUDENTS IN RESEARCH AND CREATIVE WORKS

From the URCW Registry



ARE YOU COUNTED?

URCW tracks the number of students who are undertaking new research and creative projects across all disciplines at High Point University. By registering your work with URCW, you not only contribute to highlighting the achievements of your department, but also help us record the diverse creative works happening on campus. This allows us to reach out with valuable resources relevant to your goals and endeavors! Sign up on the registry if you are:

1. Collaborating or assisting with faculty members' academic research or creative work

2. Pursuing your own independent projects that are mentored by a faculty member

3. Further developing research or creative work done in class into a presentation or exhibit for a broader audience

Scan the QR Code below to register your research and creative works!