



FAIRMONT STATE
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Office of Sponsored Programs

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SPECIAL FEATURE

**Undergraduate Research Experiences at
Fairmont State: Making SURE STEM
Students Are Prepared for Graduate School**

When it comes to undergraduate research experiences, there are

various factors to consider when designing a truly engaging program. Meeting student needs and learning objectives while also providing practical experiences that will enable students to progress in their education and future careers is often a concern when designing undergraduate research experiences. However, the most important component of undergraduate research is often the faculty mentors.

Faculty mentors are necessary to guide undergraduate students, providing them with hands-on learning experiences in a supportive environment. Various grant-funded programs at Fairmont State provide students with valuable research opportunities but the one OSP would like to focus on for our monthly Special Feature is the current Semester/Summer Undergraduate Research Experience (SURE) grant awarded to Fairmont State University in 2024 through the West Virginia Higher Education Policy Commission (WVHEPC) Science, Technology, and Research (STaR) Division.

The STaR Division at WVHEPC offers grant opportunities for scientific research and science education through the National Science Foundation's Established Program to Stimulate Competitive Research (EPSCoR) and the Research Challenge Fund. The STaR Division also coordinates various federal agency grant programs for research infrastructure in West Virginia.

Fairmont State's current SURE grant, *Increasing Undergraduate Research Opportunities at Fairmont State University*, aims to improve student STEM engagement through undergraduate research supported by faculty mentorship and involvement in the STEM community. Observing higher education statistics in STEM-specific degrees, students who are from West Virginia and underrepresented (female, low-income, or neurodivergent) tend to have the lowest retention rates and highest levels of science anxiety. To help these students succeed at Fairmont State, the SURE grant seeks to provide these students with new opportunities to truly excel.

Student objectives for the SURE grant are to

- Develop a high-quality research project that can be adapted at the graduate school level
- Identify relevant graduate programs and grant/scholarship opportunities
- Create successful graduate school and grant applications
- Facilitate cohort building and networking
- Share original research by presenting at a national or international scientific conference

"Many students are eager to pursue research but face barriers like not knowing where to begin or being unable to afford unpaid opportunities," stated Kristy Henson, PhD, Assistant Professor of Forensic Science and Principal Investigator for Fairmont State's SURE grant. "The SURE grant provides critical support by allowing them to engage in research during the academic year while receiving financial assistance. Beyond the lab, it opens doors for students to present at scientific meetings, where they connect with professionals in the field and often return inspired to continue or expand their

research journeys."

Since the initial year of the grant, Henson has been able to work with various undergraduate students and pair interested students with faculty mentor from the Art, Architecture + Graphic Design; Computer Science & Mathematics; Exercise Science; Natural Sciences; and Engineering Technology departments. Although Fairmont State is not an R1 institution, there is a prevalent culture that expects faculty members to mentor undergraduate research, especially in the College of Science & Technology.

In January 2025, eleven students were selected to participate in the SURE experience. Students in the program engage in specialized research projects with faculty mentors, which then can be turned into further research at the graduate level or presented at conferences. Henson found that one of the biggest student-identified deterrants to undergraduate research at Fairmont State was the difficulty of finding time outside of their work schedule to participate in research. The SURE grant minimized this hurdle for students by providing them with a semester stipend, which enabled students to participate in research without worrying about lost wages.

Since 2024, SURE students have been able to attend and present research at various conferences including WV Academy of Sciences, American Academy of Forensic Sciences, North Carolina Chapter of the American Fisheries Society, and TriBeta Regional Convention. Fairmont State University's Celebration of Student Scholarship was also an event in which many students were able to participate and gain conference experience in a familiar environment. Additionally, multiple students are still working on their research projects and plan to present before May 2026.

"Taking these undergraduate students to scientific meetings is one of the most rewarding aspects of my role as an educator," Henson shared. "These experiences not only allow them to present their research to a broader audience, but also to engage with leaders in the field, gain valuable professional insight, and be recognized for the caliber of their work. In fact, they are often mistaken for graduate students. Many even leave with tangible opportunities, including job offers. It's an environment that affirms their potential and accelerates their growth."

Beyond research and conference experience, SURE students have also been able to successfully enter graduate programs. Students who have participated in Fairmont State's SURE program have been accepted into graduate schools at Marshall University; Ohio University Heritage College of Osteopathic Medicine; California State Polytechnic University, Humboldt; Fairmont State University; and Virginia Tech.

Ultimately, this program seeks to continue offering various types of research projects in different disciplines to create research inclusivity and collaboration among STEM majors at Fairmont State. Anyone interested in learning more about the SURE program can contact

FINAL REMINDER: OSP's Lunch & Learn is next week!



On November 4, 2025 join OSP for their presentation Apply Yourself and Get a Grant: Grant Writing Basics Workshop. Attendees can expect to learn common grant writing strategies and to practice their grant writing skills through guided practice.

This Lunch & Learn will be from 12:20-1:20 PM in 310 Hardway Hall.

SPECIAL NOTE:

Any grant application, proposal, or request for external funding must be reviewed and approved **prior to submission** through an internal process managed by the Office of Sponsored Programs. Please *visit our website* for more information and to access the required forms which facilitate the internal review and approval process.



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