



FAIRMONT STATE UNIVERSITY™

Office of Sponsored Programs

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SPECIAL FEATURE

NASA IV&V and ERC Partnership

STEM Education Enhancement & Enrichment with NASA IV&V and Educational Research Center Partnership

This week the Office of Sponsored Programs is pleased to highlight another exciting program at Fairmont State University: the NASA Educational Resource Center (ERC).

In January 2024, Fairmont State was awarded \$2,548,265 from the Katherine Johnson NASA Independent Verification and Validation (IV&V) Facility to extend the existence of the ERC over the next five years. These two agencies have had a collaborative relationship that has benefited North Central West Virginia for over 20 years. The collaboration between NASA IV&V and Fairmont State offers educators access to facilities and supported application of expertise in their efforts to meet state and national science, technology, engineering, and math (STEM) education standards.

The work of the ERC expands opportunities for West Virginia students and educators who are dedicated to the promotion of STEM and STEM education. Fairmont State's College of Science and Technology plans to strengthen public understanding of NASA missions, increase STEM literacy to build a diverse future workforce, create unique opportunities for students, and continue other activities related to the vision and mission of NASA IV&V.

"ERC staff has conducted professional development sessions, student workshops, and STEM engagement events. Over the course of nine months, our YouTube video series has been viewed 21,550 times and our STEM kits have been loaned out 78 times and delivered to 7,692 students," said Deb Hemler, Ed.D., Interim Dean of the College of Science and Technology and Professor of Geoscience at Fairmont State. As the ERC Director, Hemler facilitates and manages the grant, ensuring ERC events, programs, and activities can take place as planned. "We impact K-16 students directly through our robotics, drone, rocketry, and coding events that we've sponsored over the years and continue to expand."

The ERC regularly engages teachers in virtual and face-to-face workshops focused on NASA missions, STEM instruction, and six available STEM kits. In 2023, the ERC coordinated and hosted the 2nd annual West Virginia Secondary School Activities Commission Robotics Championship Tournament, which is the only West Virginia Department of Education state-sanctioned robotics event. Recent events include Destination Space Camp and two other robotics camps this summer on Fairmont State's campus.

A unique aspect of the partnership between NASA IV&V and Fairmont State is that this ERC targets K-16 students, which includes students from K-12 public schools in West Virginia and those in college. The ERC also leads and supports community outreach events like Day in the Park, NASA Day, and other large public events. Efforts made by highly qualified educators to raise West Virginia students' aspirations and achievement scores in STEM, as well as their own professional aspirations, are strongly supported by the ERC. Hemler explained, "ERC staff provides opportunities to help teachers through professional development and our kit loan program, which in turn impacts thousands of K-12 students every year. Last grant year we conducted 41 professional development sessions and impacted 767 teachers."

Positions created with this grant include Robotics Outreach Specialist, STEM Education Specialist, and Program Manager/Secondary Education Specialist. Fairmont State personnel, in conjunction with NASA IV&V, (1) demonstrate and facilitate the use of educational technologies like NASA podcasts and apps; (2) provide training for in-service, pre-service, and informal educators using NASA curriculum support products; (3) target specific domains or initiatives of interest to the NASA IV&V Program; (4) partner with local, regional, and state education organizations to become part of the systemic initiatives in the state; and (5) lead the region in

providing educational and competitive STEM programs.

Ultimately, the partnership between Fairmont State and NASA IV&V is designed to inspire and motivate students, encourage and support educators, and engage citizens statewide. Faculty and staff who want to support the Educational Resource Center should contact *Deb Hemler*, *Todd Ensign*, *Josh Revels*, or *John Holbrook* to get involved as volunteers.

ERC's next event on campus will be the First Lego League WV State Tournament on December 7 in the Falcon Center.

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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Fairmont State University | 324 Hardway Hall 1201 Locust Ave. | Fairmont, WV 26554
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