

WVNANO EHRDO

Education, Human Resource Development, & Outreach (EHRDO) is an integral component of WVNano. WVNano envisions a comprehensive effort to not only enhance formal education but also informal education to foster public awareness, engagement, and understanding of nanoscale science, engineering, and technology.

WVNano initiates, partners with, builds upon, and extends other NSF-funded EHRDO projects and University-supported initiatives with the following goals:

- Bridge science and education via integrative programs
- Develop and diversify the STEM workforce
- Transform the academic culture and environment in order to increase retention and graduation rates of STEM students.
- Support faculty development through grant training and mentoring.

Strategic Program Areas

Undergraduate UREP
Retention and Completion

Graduate Student
Recruitment and Retention

Early-Career/Junior Faculty Development

<http://wvnano.wvu.edu>

WVNANO EHRDO

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West Virginia University

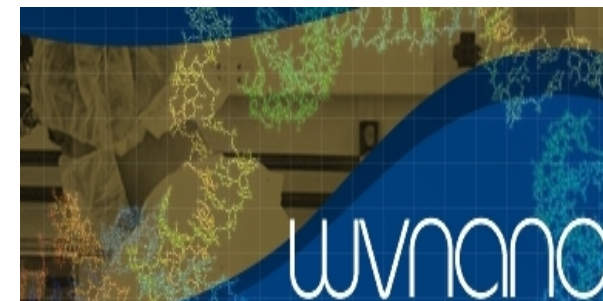
WVNANO EHRDO

ENCOURAGING ...
ENGAGING ...
ACHIEVING

Education

Human Resource Development

Outreach



ABOUT WVNANO

The WVNano Initiative is WV's focal point for discovery and innovation in nanoscale science, engineering, and education (NSEE). WVNano's central objective is to advance the research environment and diversify West Virginia's economic base through cultivation and growth of research in targeted NSE areas.

The Initiative's research builds on and connects WV core strengths in the bio-nano-info triad. Technical efforts target coordinated discovery in materials, devices, and biomolecular systems to advance molecular recognition and transport device innovation for societal impact in security, health, energy, and environmental applications.

WVNano Objectives:

- **Grow WV's NSEE Research**
- **Solidify WV'S NSEE Research Enterprise**
- **Build NSEE Culture**
- **Bridge Science and Education**



EHRDO APPROACH AND ACTIVITIES



Approach

Undergraduate UREP Retention and Completion

- Adaptation of the Meyerhoff Scholars Program Model
- Summer Launch Bridge Program – Freshman
- Peer Mentoring and Supplemental Instruction
- Summer Research Experience (SURE) – Sophomores/Juniors/Seniors
- Coordination with Louis Stokes Alliance for Minority Participation (LSAMP) Program

Graduate Student Recruitment and Retention

- B.S./M.S. to Ph.D. Transition
- Summer Research Bridge Program
- WVNano Seminar Series
- Mentoring Using Best Practices
- Modeled after NSF Alliances for Graduate Education and the Professoriate programs

Early-Career/Junior Faculty Development

- Faculty Grant Development Support
- Faculty Mentoring
- Focused UREP STEM Faculty Summer Research Enhancement

Major Student Activities

WVNano/LSAMP Summer Launch

- Partnership with Louis Stokes Alliance for Minority Participation
- Three-week residential program for Rising Freshman
- Students earn 6-credit hours (mathematics or science course and university orientation course)
- Enhancement Activities
- Upper-Class Peer Mentors and Content Tutors

WVNano SURE

- Eight-week summer undergraduate research experience in WVNano faculty laboratories
- Coursework: 1-credit hour Seminar
- Mentored by graduate assistants as well as faculty
- Poster Presentations

WVNano Graduate Bridge Award

- \$5,000 per year supplement to department stipend
- UREP Recruitment and Retention Incentive
- Nano Emphasis
- Summer Research Experience
- WVNano Seminar Series
- Mentoring by WVNano
- Renewable for one year