





# 2025-2026 Undergraduate Research Experience and Mentoring (REM) Program

#### What is involved? (12 month commitment)

- 8 weeks summer research (June July 2025)
- Research project poster to present at Emerging Researcher National (ERN) conference (Spring 2026)
- Regular meetings with project mentors (Aug '25-May '26)
- Mentoring sessions with education coordinators

#### What you will receive:

- \$6,500 stipend for summer research
- Necessary summer travel and lodging fully covered
- \$1,000 stipend in Fall 2025
- \$1,000 stipend in Spring 2026
- All expenses paid trip to ERN conference
- STEM mentors
- Graduate school/internship prep sessions

#### Who is eligible?

Students from the University of Arizona, Wayne State, and Spelman College who have also completed their sophomore year by beginning of this REM program are eligible.

# **RESEARCH PROJECTS**

#### For more information on projects visit newfos.arizona.edu/education/rem

**Building Emerging Technologies with Surface Acoustic Waves** - Location: University of Arizona Design, build, and optimize cutting-edge Surface Acoustic Wave (SAW) devices, gain hands-on experience in a state-of-the-art cleanroom, and develop skills for exciting careers in semiconductors, RF technologies, and beyond.

#### Fabrication of reconfigurable acoustic devices - Location: University of Arizona

Synthesize phase-change materials from scratch, fabricate acoustic circuits using laser writing, and create waveguides that guide sound waves by switching between crystal and glass phases.

### Miniaturized Acoustic Waveguides for Quantum-Inspired Computing: A Finite Element Analysis

Approach - Location: Wayne State University

Learn finite element analysis (FEA) to model miniaturized acoustic waveguides for quantum-inspired computing and design and simulate waveguides in COMSOL.

Experimental Demonstration of Topological Modes in a Su–Schrieffer–Heeger (SSH) System -

#### Location: Spelman College; Georgia Tech

Modifying an air track to conduct experiments on protected edge modes AND gain skills in mechanical design, CAD, and 3D printing.

## Applications due: March 17, 2025

