



**Environmental
Protection
Agency**



Environmental Science and Engineering Scholarships Awarded in 2023

Nine environmental science and engineering students received scholarships to study at Ohio colleges and universities this year, through Ohio EPA's Environmental Education Fund.

"Our environmental scientist and engineering students are passionate about their studies," said Ohio EPA Director Anne M. Vogel. "Ohio EPA is proud to support research projects that lead to innovative methods to protect human health and the environment in Ohio. Students are researching new ways to treat contaminated wastewater, new tools to handle agricultural drainage, and new technology for reducing emissions statewide, and we look forward to the results of each of these important studies."

Students in four-year programs who will receive a \$5,000 scholarship for the 2023-2024 academic year include:

- Reilly Blackwell, University of Akron (Biology, Geology), Akron, OH
- Hannah Leibman, University of Cincinnati (Environmental Engineering), Prospect, KY
- Ashley Malenfant, Ohio State University (Environmental Science), Dayton, OH
- Brynn McGrail, University of Cincinnati (Environmental Engineering), Delaware, OH
- Elizabeth Navratil, Kenyon College (Biology, Environmental Studies), Olmsted Falls, OH
- Michael Penka, Ohio State University (Environmental Science), Powell, OH
- Rachael Rice, Capital University (Environmental Science, Biology), Hilliard, OH
- Haley Ritchie, University of Findlay (Environmental Health, Safety and Sustainability), Vermilion, OH
- Grace West, Marietta College (Environmental Engineering, Petroleum Engineering), Vienna, WV

This year's candidates have a variety of research and work experience on topics such as:

- Use of algal biofilms to remove pharmaceutical contaminants from wastewater.
- Testing saline and selenium contaminated agricultural drainage water in constructed wetlands.
- Measuring reactive nitrogen in soil gas emissions to optimize nitrogen fertilizer application.
- Carbon sequestration through bacterial fixation of calcium carbonate.

- Duckweed mitigation of fertilizer runoff in urban retention ponds.
- Carbon sequestration and disease resistance in butternut and American chestnut trees.
- SARA 311-312 reporting and Right-to-Know compliance.
- Projected changes in water temperature and dissolved oxygen on predator-prey interactions between smallmouth bass and round goby in Lake Erie.
- Atmospheric deposition of nitrate and ammonia to soils.
- Effectiveness of baghouse, scrubbers, cyclones, and electrostatic precipitators at reducing GHG and criteria pollutant emissions from refineries.

A total of \$45,000 was awarded this year. Since the scholarship program began in 2000, \$1,099,950 has been awarded statewide to 407 students at 52 Ohio colleges and universities. Funding comes from civil penalties collected by Ohio EPA for violations of air and water pollution control laws. The scholarship program is administered by the Ohio Academy of Science. The next application deadline for scholarships is April 15, 2024. Additional information about the scholarship is available by calling Ohio EPA's Office of Environmental Education at (614) 644-2873 or visiting [Scholarships and Career Exploration | Ohio Environmental Protection Agency](#). To learn more about the Ohio Academy of Science and find application forms, please visit www.OHIOSCI.org.