

## Contact Information

Shayla.Williams@asurams.edu

## Research Areas and Interests

- Incorporating artificial intelligence, machine learning (AI/ML) into analyzing trends in environmental chemical exposure to vulnerable populations.

## Teaching

Principles of Biology, Principles of Epidemiology, Botany, Introduction to Microbiology, Environmental Biology, Introduction to Natural Resources, Research and Independent Studies, Sources of Pollution, and Introduction to Biology

## Professional Experiences

Williams, Shayla D. 2022. Summary of an Active Learning Curriculum. FY 2022 Minority Science and Engineering. Improvement Program. Virtual Project Directors' Meeting July 20-21.

Williams, Shayla D. 2021. Designing a Virtual Research Environment. FY 2021 Minority Science and Engineering. Improvement Program. Virtual Project Directors' Meeting "Developing Future STEM Leaders During the COVID 19 Pandemic" July 28-29.

Williams, Shayla D. 2020. Designing a Virtual Research Environment. FY 2020 Minority Science and Engineering. Improvement Program. Virtual Project Directors' Meeting "Driving Innovation – Scaling for Unprecedented Remote Teaching" July 27-28.

Williams, Shayla D. 2004. PCB bioaccumulation trends and ecosystem stress responses in young-of-the-year bluefish (*Pomatomus saltatrix*) Northeast Fisheries Science Center's Eight Science Symposium, February 3-5 Atlantic City, New Jersey.

Williams, Shayla D. 2004. Bioaccumulation of organochlorines and ecosystem stress responses in young-of-the-year bluefish (*Pomatomus saltatrix*) from the Hudson River Estuary. Atlantic Estuarine Research Society Fall Meeting, October 14-16. Lyndhurst, New Jersey.

Williams, Shayla D. 2003. Ecosystem stress responses of juvenile bluefish *Pomatomus saltatrix* to PCB exposure in the Hudson River (Progress Report). Expanding Opportunities Conferences on Atmospheric and Oceanic Sciences, March 30–April 1. Tallahassee, Florida.

Williams, Shayla D. 2002. Ecosystem stress responses of juvenile bluefish *Pomatomus saltatrix* to PCB exposure in the Hudson River. NOAA's Educational Partnership Program with Minority Serving Institutions Annual Meeting, November 3-6. Salisbury, Maryland.

## Publications

Williams, Shayla D. and JoAnn P McCrary. (2021). *Temporal organochlorine profiles in young-of-the-year bluefish (Pomatomus saltatrix) in the Hudson River Estuary*. Marine Pollution Bulletin, 165, 112-128.

Yunbiao Wang, ByungHoon Kim, Ashley Walker, Shayla Williams, Ashley Meeks, Yong-Jin Lee, Seong S. Seo, *Cytotoxic effects of parathion, paraoxon, and their methylated derivatives on a mouse neuroblastoma cell line NB41A3*, Fundamental Toxicological Sciences, 2019, Volume 6, Issue 2, Pages 45-56, Released March 12, 2019

Williams, Shayla and Lemon, Kenya, "*Introduction to Biology*" (2016). *Biological Sciences Grants Collections. Book 1*. <http://oer.galileo.usg.edu/biology-collections/1>

## Recent Grants

**\$299,998** (2022) Shayla D. Williams. *Integrating an Artificial Intelligence-Driven, Culturally Responsible Digital Graphic Novel Curriculum into STEM Introductory Biology Courses*. NSF 21-579 Improving Undergraduate STEM Education: Education and Human Resources

**\$5000** (2021) Shayla D. Williams. *Characterizing Environmental Chemicals in Breast Milk of Nursing Mothers*. NIH Enhancing Career Development of HBCU Biomedical Researchers.

**\$598,705** (2019) Shayla D. Williams, Jo-Ann P. McCrary, Anthony Cooper, Anta'Sha Jones. *Improving Albany State University's Research Capabilities and the Student Research Experience* Department of Education, MSEIP Program

**\$8,000** (2019). Shayla D. Williams. *Characterization of biomarker expression in caged Flint River freshwater mussels*. Flint RiverQuarium Research and Education Program

**\$353,763** (2016). Seong Seo, Byung-Hoon Kim, Yong J. Lee, and Shayla D. Williams. *Toward a Systematic, High-Throughput Screening of the Toxicity of Various Organophosphate Compounds* – Department of Defense

**\$10,800** (2015). Shayla D. Williams, Kenya Lemon, and Nathan Woods. *Affordable Textbook Transformation* – State of Georgia

**\$5000** (2014). JoAnn P. McCrary and Shayla D. Williams. *Enhancing Learning with Graphic Novels* – Albany State Seed Grant

## **Awards and Honors**

Artificial Intelligence/Machine Learning Consortium to Advance Health Equity and Researcher Diversity (AIM-AHEAD) Leadership Fellow (2022-2023)

## **Education**

- ◆ FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY (*Tallahassee, FL*)  
Ph.D., Environmental Science/Aquatic Ecosystems (*2006*)
- ◆ ALBANY STATE UNIVERSITY (*Albany, GA*)  
B.S., Biology (*1998*)