

Tanganika Johnson, Ph.D.

Southern University and A&M College | UFOR 271 Environmental Science

Mentor 1: Mohammed Elmellouki - Mississippi Valley State University

Mentor 2: Not assigned

Home Institution: Southern University and A&M College

Target Course: Environmental Science

Course Number: UFOR 271

Enrollment: 10-15 students

Course Offered: Spring or Fall semester

Science Gateway Resource Needs / Questions

- Which SGX3 support will help us launch CloudBank Classroom through ACCESS and onboard students equitably?
- Which Baton Rouge urban-heat datasets and mapping tools best support discovery, visualization, and interpretation?
- What scaffolded notebooks and instructor guides will support four CURE activities without relying on mentors?
- What SGX3 practices will keep notebooks and data accessible, reproducible, reusable, and sustainable?

Project Goals

FROM THE BLUFF TO THE BAYOU

- Develop four scaffolded CURE activities centered on urban heat and environmental resilience in Baton Rouge and South Louisiana.
- Guide students through Discovery, Visualization, Analysis, and Interpretation using gateway datasets and student-collected field data.
- Use HPC Carpentry's Introduction to HPC to prepare students for shared computing, remote resources, and responsible data practices.
- Produce reusable notebooks and authentic products: a research report, accessible poster, and community-facing environmental brief.

Science Gateway Goals

- Establish ACCESS CloudBank Classroom as the managed course JupyterHub
- Select accessible gateways, tools, and Louisiana datasets with SGX3
- Provide equitable, low-barrier onboarding for 10-15 students
- Sustain reproducible, reusable workflows across future semesters