

## EDUCATION AND WORKFORCE DEVELOPMENT

# Ph.D. in Engineering at an HBCU

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This project has established and institutionalized a Ph.D. program in Engineering (Coastal Engineering and Computational Engineering concentrations) at Jackson State University, a Historically Black College and University. After formalizing doctoral engineering program concentrations for both Coastal Engineering and Computational Engineering, the program has helped increase workforce diversity in the greater Homeland Security Enterprise (HSE) and STEM fields generally. The program includes 7 core and 39 elective courses taught every 1-2 years.

The program has produced 12 Master's (MS) graduates and currently hosts 4 MS and 4 Ph.D. students, with goals of recruiting 3 more MS and 3 more Ph.D. students during the life of the 5-year funded project. With the DHS work forming a foundation, JSU has produced a steady, sustained source of MS graduates and an emerging source of Ph.D. graduates focused on coastal natural disasters.

Students in this program have worked in 13 Homeland Security-related internships through 2019, working with end users including Mississippi Emergency Management Agency and the U.S. Army Corps of Engineers (USACE). Graduates from the program currently work at the Texas Department of Transportation, USACE (Vicksburg, Memphis and Fort Worth districts) and multiple private engineering firms across the country. 🏠



## FAST FACTS

- + Program has produced 12 Master's and 2 Ph.D. candidates.
- + Program is the only HBCU Ph.D. Engineering (coastal engineering concentration) program in the country focused on coastal natural disasters.
- + 8/12 graduates currently employed in the greater Homeland Security Enterprise, with 11/12 employed in STEM fields. Two emerging Ph.D. graduates are employed in the greater HSE within the commuting area.

## ← Fig. 1

Dr. Whalin with 2017 MS graduate Joshua Brown at Jackson State University's Commencement ceremony. Graduate is employed by the Vicksburg District of the U.S. Army Corps of Engineers.