

Coastal and Ecological Engineering Graduate Research Positions

Louisiana State University (LSU) is seeking exemplary MS/PhD graduate students (up to 6) to join a large interdisciplinary research team of engineers and ecosystem scientists. Successful applicants will be working on fully integrated coastal, hydrologic and ecosystem projects to address complex challenges at the coastal land-margin.

Coastal Systems Ecology: Field and laboratory techniques in nutrient biogeochemistry along with quantitative tools that simulate ecosystem processes.

Hydraulics and Hydrology Engineering: Field and laboratory techniques in H&H processes, including the surficial zone, and computational H&H model development.

Coastal Engineering: Computational model development, verification and validation for the simulation of tide, wind wave and surge processes at the coastal land margin, with emphasis on integrating H&H to assess compound flooding.

The main objective of the research efforts is to develop dynamic tools to simulate coastal hydraulics, river basin hydraulics and hydrology (H&H), and ecosystem processes under a changing climate to increase coastal resilience for national security. Exciting day by day activities will span the full gamut of research to include field work, laboratory analysis, and physical/computational modeling. This exciting new opportunity emphasizes two interrelated themes: First, the development of the capability to model compound flooding; and, second, to foster collaborative ecosystem design approaches.

Research centers at LSU supporting the project include the Center for River Studies (<https://lsu.edu/river/>), Center for Coastal Resiliency (<https://www.lsu.edu/ccr/>) and Coastal Sustainability Studio (<https://css.lsu.edu/>), along with collaboration with LSU Center for Computation and Technology (CCT) and Coastal Studies Institute (CSI). These research centers provide state of the art research and education facilities and opportunities to apply both science and engineering approaches to understanding complex river basin and coastal processes.

Possible degrees include MS or Ph.D. in Oceanography and Coastal Sciences (<https://www.lsu.edu/cee/graduate/docs/index.php>), Ph.D. or MS in Civil Engineering (<https://www.lsu.edu/eng/cee/academics/graduate/index.php>), and MS in Coastal and Ecological Engineering (<https://www.lsu.edu/eng/cee/academics/graduate/ms-coastal-and-ecological-engineering.php>).

In addition to the application package that should be submitted to the respective graduate degree programs listed above, each applicant should submit the following application materials for assistantships to LaTosha Mullins (lmullins1@lsu.edu): (a) cover letter designating degree and department that student is applying; (b) complete curriculum vitae; (c) statement on research interests; and (d) names and contact details of at least three references. Review of the applications will start on November 1, 2020 and continue until the positions are filled.