

Mitigating Ocean Hazards in the Gulf



The LSU College of the Coast & Environment (CC&E) plays a significant role in advancing healthier oceans through a wide range of research and monitoring activities.

CC&E scientists use predictive models, GIS, remote sensing, and marine and coastal monitoring stations to observe ocean conditions, forecast near-term changes, and predict long-term environmental impacts.

Their work covers critical topics such as ocean observations, coastal land loss, coastal restoration, ecosystem health, sediment transport, and shoreline changes.

CC&E's Recent Research

Developing Strategies to Reduce Invasions of Nonindigenous Species

Studies marine animals to understand their ecology and develop strategies to reduce the risk of nonindigenous species introductions.

Forecasting the Dead Zone

Leads an annual research cruise to measure the extent of the hypoxic zone and develops advanced forecasting tools to predict hypoxic events in the Gulf of Mexico.

Understanding Erosion & Restoration Needs

Investigates changes in coastlines and the movement of sediment, which is vital for understanding erosion and restoration needs.

Observing the Ocean

Analyzes waves, sea level, salinity, and ocean currents, providing insights into how physical processes affect marine environments.

Assessing Contamination

Tracks oil releases, monitors containment efforts, analyzes chemical toxicity and degradation, and recommends remediation and restoration strategies.

Predicting Environmental Impacts

Predicts environmental impacts of changing climate and extreme weather events on ocean waters, sediments, nutrients and carbon cycles using supercomputers and AI tools

Modeling to Protect the Coast

Predicts coastal flooding, studies land building sites and develops nature-based solutions to protect coastal infrastructure, using advanced computer modeling.