

Forecasting Extreme Weather



From sudden storms to humid days, weather shapes Louisiana's economy. By studying coastal meteorology, LSU's College of the Coast & Environment (CC&E) provides climate data and research that help communities and industries adapt to changing conditions.

While coastal weather influences all sectors, it is especially critical for Louisiana's agricultural industry. Collaborating with the LSU AgCenter and the Louisiana Office of State Climatology, CC&E supports resources like the Drought Irrigation Response Tool (DIRT), which guides farmers in managing water resources and addressing weather-related challenges.

Through its new degree in Coastal Meteorology, CC&E prepares graduates to anticipate, understand and respond to Louisiana's unique weather challenges.

CC&E's Recent Research

Predicting Wildfires with over 90% accuracy

Predicts, detects and tracks wildfires using AI, transforming wildfire response for communities and ecosystems.

Providing Personalized Flood Risk Assessment

Uses indices to accurately pinpoint the potential for flooding for a specific parcel of land.

Predicting Future Precipitation Trends

Studies past extreme precipitation and predict future trends using advanced Earth system models and observations.

Pioneering World's First Two-Way Coupled Compound Flood Prediction Model

Provides lightning-fast forecasts with improved accuracy of flooding from two sources.

Mitigating Hazardous Weather Impacts

Mitigates hazardous weather impacts using data mining, satellite analysis and modeling.

Offering Nation's First BS in Coastal Meteorology

Offers a new degree in coastal meteorology that adheres to OPM-1340 hiring standards.

Monitoring Air Quality

Expands air quality data and air quality literacy in parishes bordering the Mississippi River, between Baton Rouge and New Orleans.