During the spring-summer intersession, we annually offer courses, including traditional geology, hydrology, and geophysics, but none of these courses provide the level of practice of marine geological and geophysical data. Now in year four, UTIG owns and operates the R/V Acadiana, a 22’ aluminum-hulled vessel maintained by NOAA as the only research vessel in the continental shelf. The ship is equipped with a starboard winch, wet lab, and dry lab interior spaces, and a networked computer system. The R/V Acadiana is equipped with a CHIRP sub-bottom profiler, sidescan sonar, seismic and Doppler bathymetry, sub-bottom profiler, and a host of other systems.

FIELD TIMELINE

Course Introduction to Field Work, Multichannel Seismic Systems, and Marine Geophysics
1 week

In-class Introduction to Multibeam Bathymetry
4 days

Multibeam Intervention for Students
5 days

Final project reviews and presentations
5 days

LOCATION

Galveston, TX
Port Aransas, TX

IN-CLASS INTRODUCTION

Students learn marine skills such as maintaining a survey track and geophysical interpretation. Students also learn to deploy the various systems in the lab. Students are divided into groups, and each group gains experience in data collection using industry-standard software.

Sediment Sampling

Sub-bottom Profiling

Sidescan Sonar

Coring

Students work together to deploy the Multibeam Seismic System

Students collect, process, and interpret data from the Multibeam Seismic System.

Students conduct multibeam intervention in the classroom and lab.

Students use the Coda SSS-1000 system to analyze sub-bottom profiles.

Students collect and process sediment cores from the study area.

Students collect and process core samples from the study area.

Students conduct sub-bottom profiler intervention.

Students conduct multibeam intervention in the classroom and lab.

Students use the Coda SSS-1000 system to analyze sub-bottom profiles.

Students collect and process sediment cores from the study area.

Students use the Coda SSS-1000 system to analyze sub-bottom profiles.