

**Shoreline Geomorphology Lab
Field Exercise and Write-up**

GEOL275: Geomorphology

Field Activity to introduce students to shoreline geomorphology and the impacts of development on shorelines.

Description: Students will observe shoreline processes, sketch and describe beach and barrier island profiles, and investigate the impact of development and shoreline control structures on beaches.

Goals:

- Understanding of geomorphic processes acting on the beach
- reading and locating points on an aerial photograph
- relating current shoreline processes to past beach features
- Identifying parts of the beach and beach deposits
- preparing a technical write up of the beach, a description of the processes observed, and how those processes impact shoreline development

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Shoreline Geomorphology Lab

Sullivan's Island, near Wild Dunes

Photos take during the lab will be posted on WebCT.

1. Turn in cross-section / profile drawn in field where we first entered the beach that shows the parts of the beach
2. From the aerial image of the island you were provided, draw and label two illustrative cross-sections / profiles from A – A' (from the ocean, across the island, to the tidal channel behind the island). One profile should show and label what is on the island now, the other should show how the island **should** look in a natural state.
3. Include a brief write-up (~2 pages) on
 - what geomorphic processes and human shoreline activities you saw on the field trip (deposition, accretion, etc.),
 - how they are impacting the beach and shoreline development,
 - what is being done to protect the beach, and
 - what you think should (or should not) be done to help stabilize the beach.