

**Terrigenous Depositional Systems** (3 credit hours): This course is designed to provide a concise overview of the most common terrigenous sedimentary environments. The primary objectives are to understand the conditions under which different types of deposits form, and the characteristics (e.g., geometry, sedimentary structures, grain size relationships, fossils,) by which they can be recognized. In order to establish the criteria for the recognition of the different depositional environments, modern settings will be emphasized.

#### **Course Outline**

1. Origin and classification of terrigenous sediments
2. Variables controlling grain composition and texture
3. Origin and description of sedimentary structures
4. Alluvial fan, eolian, and, lacustrine depositional systems.
5. Fluvial depositional systems:
6. Deltas and chenier plains
7. Barrier islands, strandplains, and associated facies
8. Estuaries and tidal flats
9. Siliciclastic shelves
10. Slope, submarine fan, & deep marine deposits