estuaries, turbidity and mixing in estuaries, seiches, storm surges, internal waves, salt balance, and inlet flows.

7126 Marine Biochemistry (3) V Prereq.: OCS 4470. Principles of marine biochemistry. Function of enzymes and other proteins; metabolism of carbohydrates, proteins, and lipids; energy transformations; environmental conditions controlling metabolism; and cellular respiration and photosynthesis. Prerequisite: DVM degree or equivalent and credit or concurrent registration in VMED 5202. May be taken for a maximum of 6 hrs. of credit. 3 hrs. lecture; 3 hrs. lab.

7130 Marine Isotope Biogeochecmy (3) F Prereq.: graduate standing or consent of instructor. Concepts and laboratory principles for stable and radiocarbon isotopes, first-hand experience interpreting isotopic data, modern applications in oceanography and biogeochemistry.

7131 Marine Geochecmy (3) S Geochecmical processes in the marine water column. Marine biogeochemistry, pore water processes and interactions across the sediment-water interface, and early diagenesis; euhedral aragonite and microspar, calcite, and the effects of these sequences on groundwater chemistry. 3 hrs. lecture; 2 hrs. lab. Sampling techniques; proper handling and preservation of samples; data processing for analysis; and the role of analytical geochemistry to determine reaction pathways, and applications in marine geochecmy.

7132 Coastal Physical/Chemical Systems: Analytical Methocdology (3) F Prereq.: instructor's consent. Series of exercises to develop students' skills in analytical methods and data interpretation. Emphasis on the determination of trace metals, organo-metallic compounds, and volatile compounds. 2 hrs. lecture; 3 hrs. lab. Sampling techniques; proper handling and preservation of samples; data processing for analysis; and the role of analytical geochemistry to determine reaction pathways, and applications in marine geochecmy.

7165 Biogeochemistry of Wetland Soils and Sediments (3) S-O Same as AGRO 7165. Microbial and redox chemistry processes in wetland soils and estuarine sediments; microbial community structure and function; soil physical and chemical properties; chemical and microbial processes associated with nutrient cycling; and nutrient cycling in aquatic ecosystems. 3 hrs. lecture; 3 hrs. lab. Sampling techniques; proper handling and preservation of samples; data processing for analysis; and the role of analytical geochemistry to determine reaction pathways, and applications in marine geochecmy.

7170 Satellite Oceanography (3) F Prereq.: OCS 4470 or equivalent. Oceanographic measurements and observations using satellite-borne sensor systems; radiation-ocean-atmosphere interactions, satellite systems, sensor design, and data types; analysis of infrared, visible, and microwave data for deep ocean, coastal, and estuarine phenomena.

7311 Marine and Estuarine Plankton (3) S Prereq.: DVM degree or equivalent, consent of instructor. Marine plankton: primary producers; grazing and predation; community structure and function; nutrient cycling; energy flow; and species interactions. 3 hrs. lecture; 3 hrs. lab.