

Special Topics-Estuarine Processes (EVR6930) Spring 2007

Lecture: Friday in 13/202, 11:00-1:45

Estuaries are dynamic environments formed where continents and oceans interact. Due to the mixing of freshwater and saltwater bodies that occurs in estuaries, these environments exhibit a range of physical, ecological, and geochemical parameters, both between different estuaries and within a single site, that affect their biogeochemical and biological systems. This graduate-level course uses a combination of lectures, field activities, and laboratory to explore estuaries. The field sampling and analytical activities will be directly tied to concepts discussed in class; both primary literature and survey readings will be assigned to elucidate the topics discussed in lectures and field activities. Students will prepare a detailed written review of an estuarine system to be decided upon in concert with the instructor; an oral presentation will also be given by each student.

Professor	Office Hours
Dr. Matthew Schwartz	Tuesday: 8:00-10:00
Bldg 13/219	Thursday: 9:10-10:10; 12:15-2:15
office phone: 474-3469	Friday: 8:00-10:00
e-mail: mschwartz@uwf.edu	and by appointment

Prerequisites: none

Laboratory Corequisite: none

Assignments: All assignments are due in the professor's office, his e-mail account, or his departmental mailbox by 5 p.m. on the due date. Late assignments will be penalized at a rate of 1 grade per day, beginning at 5:01 p.m. on the due date (e.g., the maximum attainable grade for a paper turned in at 5:30 p.m. on the due date will be a B, rather than an A). All written assignments will be subject to a plagiarism review via the Turnitin software package.

Attendance Policy: Lectures will begin promptly at the scheduled meeting time. Students are expected to attend all scheduled class meetings, as lectures will provide important information that cannot be gained from other sources. The responsibility rests solely on the student to obtain any and all material presented during a missed period.

eLearning material: Course material (including course notes, supplemental readings, and web links) may be supplied online via the eLearning service (<http://elearning.uwf.edu>).

Student Evaluation: A course grade will be assigned based on student performance on homework and presentations (written and oral) as listed below.

Course Component		Grading Scale		
Field activity summaries and analyses	20%	A	4.0	94-100%
Estuary research paper	50%	A-	3.7	91-93%
Estuary presentation	10%	B+	3.3	88-90%
Final exam (due May 4)	20%	B	3.0	84-87%
		B-	2.7	81-83%
		C+	2.3	78-80%
		C	2.0	74-77%
		C-	1.7	71-73%
		D+	1.3	68-70%
		D	1.0	64-67%
		F	0.0	0-63%

Textbook (required): none; readings will be made available via the UWF library reserve and the eLearning systems.

ADMINISTRATIVE INFORMATION

Academic conduct: Expectations for academic conduct and classroom behavior are described on pages 46-7 in the UWF Student Life handbook available online at <http://www.uwf.edu/uwfmain/stuHandbk/>

Plagiarism Policy: Plagiarism is a serious offense and will not be tolerated under any circumstances. The course plagiarism policy will follow UWF and College of Arts and Sciences policies as described in <http://uwf.edu/cas/aasr/Plagiarism.pdf>. All written assignments will be subject to a plagiarism review via the Turnitin software package.

Special technology utilized by students: medium (personal computer, spreadsheet programs, calculator, maps, and similar).

Student Learning Outcomes: After successfully completing this course, students will recognize how freshwater and saltwater bodies interact to create dynamic estuarine systems. Students will be able to classify estuaries based on physical and biogeochemical properties. Students will collect and synthesize data to assess spatial variability in a local estuarine environment. Oral and written presentations will be used to promote synthetic learning and analytical abilities.

Students with Special Needs: The University’s policies for students with special needs are described in the UWF Disabled Student Services publication available at http://uwf.edu/sdrc/dss_pub.pdf. Students who have special physical needs should contact the professor early in the semester due to the number of boat-based field activities associated with this course.

Tentative Course Schedule: Please note that the following schedule is *tentative*; though every attempt will be made to follow this schedule, the instructor may add or delete material to meet the course objectives and student interest. All changes to this tentative plan will be recorded in an updated and amended syllabus that will be supplied to all students in class, via e-mail, or on the course website (eLearning).

Date	Topic
12 January	Course introduction; types of estuaries and estuarine dynamics
19 January	Water column sampling methods (sampler types, sampling protocols)
26 January	Field activity (salinity and currents)
2 February	Chlorinity; Salinity profiles
9 February	Estuarine mixing dynamics and other physical oceanographic processes
16 February	Field activity (nutrient sampling and kit analysis)
23 February	Estuarine biogeochemistry and nutrient limitation
2 March	Dissolved oxygen dynamics; Winkler titrations (lab)
9 March	Field activity (dissolved oxygen and pH)
16 March	Estuarine and coastal anoxia: biogeochemical causes and environmental implications
23 March	TBA: Field activity (phytoplankton; light penetration) or no class meeting (<i>Spring vacation</i>)
30 March	TBA: Field activity (phytoplankton; light penetration) or no class meeting (<i>GSA meeting in Savannah, GA</i>)
6 April	Eutrophication; harmful algal blooms
13 April	Field Activity (benthic sediments)
20 April	Pensacola Bay summary: Evaluation and discussion of field results
27 April	Estuary research student presentations