I. COURSE: CMSS 6590/ESCI 5490 – Sea Level Change (2 credit hrs.)

II. FACULTY: Richard A. Davis, Jr., Adjunct Professor, HRI 122; rldavis@usf.edu or madradrpt@gmail.com

III. COURSE DESCRIPTION

This is a graduate level course in the discussion/seminar format. It will cover sea level change in the past, present and future with emphasis on scales and rates. All aspects of the impact of sea level change including geological, physical, biological, economic and policy will be included. Global conditions will be covered although the emphasis will be on the Gulf of Mexico.

IV. TEXTBOOKS

Davis, R.A., 2011, Sea Level Change in the Gulf of Mexico, Texas A&M Press, 178 p., $25. There will also be considerable reading from journals, government publications at various levels and the web.

V. COURSE OBJECTIVES

The main objective of the course is to provide graduate students with current information on sea level change phenomena from all points of view and covering the broad spectrum of topics that are influenced by sea level change. It is NOT a course on global warming. Students from all disciplines will come away knowing the current thinking on sea level change from all points of view; scientific, economic, policy and law.

VI. LEARNING OBJECTIVES

Each student will make several short presentations on specific topic concerning sea level change. The individual students will be encouraged to choose within the topic of the week, something that is related to their personal research if possible. They will be expected to find information on this topic from various sources. Written analyses of each of these topics will be submitted most weeks permitting the faculty member to regularly assess their research work and their writing.

VII. COURSE REQUIREMENTS & GRADING CRITERIA

The grading elements are:
- Weekly recitation and short presentations (written and oral) 50%
- “Major” paper 25%
- Final exam 25%
- Total 100%

VIII. GENERAL FORMAT OF CLASS MEETINGS

Each weekly class meeting will be on a distinct topic (see schedule below). The topic will be introduced by the professor and specific topics within the general one for that week will be listed. Each student will
be required to choose among those listed (while keeping a balance among all of them) to prepare for the following week. This will take about 40-45 minutes.

The remainder of the time will be spent discussing the topics assigned from the previous week. There will be an expert on certain topics that will be brought to the class to provide up-to-date information on the topic and participate in the discussion. Each student will submit their written “report” on their specific topic for evaluation by the professor.

Grade Appeals*

As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

Disabilities Accommodations*

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Driftwood 101.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

CLASS SCHEDULE

Week 1 – Introduction; causes of sea-level change
Week 2 – Rates and extents of sea-level change
Week 3 – SL and the origin and development of the Gulf of Mexico
Week 4 – Quaternary history of sea-level change
Week 5 – Pleistocene coastal/shelf environments of the GOM
Week 6 – Holocene sea-level rise
Week 7 – Early occupation of the shelf/coast
Week 8 – Sea level and coastal morphologic development
Week 9 – SL influence on barrier/inlet systems
Week 10 – SL influence on estuarine systems
Week 11 – Socio-economic aspects of sea-level rise
Week 12 – Influence of SL change on policies and legal issues
Week 13 – Mitigation approaches
Week 14 – What is in the future?
Week 15 – Summary and Final Exam