

Coastal Restoration and Management
GEOL 6760
Fall 2003 Monday 1-3.50 pm GP 1056

Denise J. Reed GP 1058 djreed@uno.edu 280-7395

This course explores coastal problems and appropriate mitigation approaches on barrier shorelines and beaches, deltas and estuaries. Topics include beach nourishment, shoreline structures, marsh deterioration, examining tradeoffs between natural processes, technical design issues and human use constraints, and using examples from around the world. Management aspects include project implementation and a background to regulatory frameworks for coastal restoration decision-making. The course is based upon real-world examples of coastal issues and uses contemporary policy frameworks for the application of science to these issues.

Learning objectives – students will be able to understand and apply restoration and management approaches to real-world scenarios, discriminate amongst technical and policy challenges to restoration and management, describe several major national restoration programs, evaluate the success of restoration and management actions by examining goals and objectives, technical approaches, and assessing monitoring findings.

Attendance Policy

Attendance is required. If you cannot attend class for some reason, call/e-mail the instructor and explain why. The instructor will make every effort to make materials for missed classes available but final assessments will cover all aspects of class content, including class discussions that cannot be made up.

Learning Resources

No specific textbook is recommended. Source texts, papers and websites will be suggested during classes relative to particular topics of discussion.

Assignments and Grading

See class schedule for expected timing of assignment due dates and exams.

Assignment # 1 (25% final grade)

Task - to evaluate the potential impact of climate change on one particular coastal environment (from provided list), and to suggest appropriate adaptation and coping strategies.

Method – determine likely effects of climate change on the environmental system of concern using up to date sources, investigate management strategies to address resulting problems, devise and justify community strategies and response.

Deliverable - short presentation on October 13 AND short paper (< 5 pages) including overview of project, your findings and how, if at all, they deviate from agency findings or expectations.

Grading scheme based instructor assessment of paper and presentation technical content.

Assignment # 2 (35% final grade)

Task - to prepare a poster presentation highlighting a large-scale coastal restoration or management issue

Method - select issue, preliminary research (library, www, interviews, etc.) on topic, progress review with Reed, complete research, prepare and display poster.

Deliverable - present poster at session on 1 December to be judged by your peers and instructor.

Grading scheme based on poster review form provided to class prior to poster presentations.

Course projects (15% final grade)

Topics to be determined but to include:

Wetland Value Assessment vs. Hydrogeomorphic Method exercise (10 Nov)

Public comment letter concerning technical aspects of LCA studies (3 Nov – may change)

Final Exam (25% final grade)

13 December 10.30 - 12.30 am

Narrative responses required showing critical thinking skills and basic knowledge of course content.

Statement on Academic Integrity

Academic integrity is fundamental to the process of learning and evaluating academic performance. Academic dishonesty will not be tolerated. Academic dishonesty includes, but is not limited to, the following: cheating, plagiarism, tampering with academic records and examinations, falsifying identity, and being an accessory to acts of academic dishonesty. Refer to the UNO Judicial Code for further information. The Code is available online at http://www.uno.edu/~stlf/policy%20Manual/judicial_code_pt2.htm.

Accommodations for Students with Disabilities

Students who qualify for services will receive the academic modifications for which they are legally entitled. It is the responsibility of the student to register with the Office of Disability Services (UC 260) each semester and follow their procedures for obtaining assistance.

Classroom Conduct

Try to be in class on time. Please do not come five, ten, or twenty minutes late. There is no excuse for repeatedly arriving late. Parking is often a hassle; allow enough time for it. Cell phones should be turned off before class begins.

Coastal Restoration and Management
Fall 2003 GEOL 6760
Denise J. Reed djreed@uno.edu

| | |
|--------------|---|
| 25 August | Introduction Assignments – introduction to assignment #1 Coastal Dynamics Restoration and management concepts |
| 1 September | Labor Day |
| 8 September | Land Claim and Coastal Defense I Hard vs. soft (vs. people) - challenges on sand shorelines Case study – do segmented breakwaters work? |
| 15 September | No class – work on assignment #1 |
| 22 September | Land Claim and Coastal Defense II Managed retreat and rolling easements Case Study – breaching levees in UK and California |
| 29 September | Industrial Uses of Coasts Effects of pollution, power generation, oil and gas production, tradeoffs between use and sustainability Case Study – Dredging Windows |
| 6 October | Coastal Development for Tourism Cost-benefit relationships, people vs. habitat Intro to assignment #2 |
| 13 October | Presentations re. Assignment #1 |
| 20 October | No Class – preparatory work for assignment #2 |
| 27 October | Indirect Impacts on the Coast Watershed changes, eutrophication, bathymetric changes Case Study – Coastal Hypoxia in Louisiana |
| 3 November | *Making Restoration Decisions The planning process, “Principles and Guidelines” Case Study – Louisiana Coastal Area Study |
| 10 November | Evaluating Restoration Options What makes a good project? Case Study - Wetland Value Assessment vs. Hydrogeomorphic Method |
| 17 November | Evaluating Project Performance Monitoring goals, procedures and results. |
| 24 November | Adaptive Management in Coastal Restoration Experiences from California, Florida – what can we learn in Louisiana? |
| 1 December | Poster presentation session - Assignment #2 |
| TBD | Final Exam 2 hours |

* Note this topic may be moved in the schedule depending on schedule for public meetings on LCA.