

SYLLABUS

Course Title: CZMT-0699-DE1
Environmental Risk Assessment

Course Dates: April 7, 2008 to June 27, 2008
Instructor: Donald S. McCorquodale Jr., PhD

Email: for general enquiries: de-coastalpollution@mail.ocean.nova.edu
In-course students: please use the WebCT course e-mail Inbox.

Course Materials: No Text; suggested resources, article citations and websites provided with each unit.

Course Goals: The emphasis is on the coastal zone manager's understanding of pollution sources, relative risk and potential effects on human and marine life. Sources, measurement and control of pollution in marine and coastal environments are discussed.

Prerequisites: Students should have some familiarity with general chemistry and biology.

Course Learning Outcomes:

Upon completion of the course, students will have a clear understanding of:

- *Basics of risk assessment.*
- *Risk characterization.*
- *Relative risk and potential effects of toxicity on human and marine life.*

Course Schedule

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|-------------|-------------|---|
| Unit One | Week One | Overview of risk assessment in marine environment |
| Unit Two | Week Two | Basics of risk assessment |
| Unit Three | Week Three | Ecological risk assessment |
| Unit Four | Week Four | Assessment Framework |
| Unit Five | Week Five | Risk characterization |
| Unit Six | Week Six | Midterm Examination |
| Unit Seven | Week Seven | New developments in risk assessments |
| Unit Eight | Week Eight | A ranking approach to multiple stressors |
| Unit Nine | Week Nine | General model for regional risk assessment |
| Unit Ten | Week Ten | Life cycle assessment as decision making tool |
| Unit Eleven | Week Eleven | Examples in marine and coastal environments |
| Unit Twelve | Week Twelve | Final Examination |

Course Evaluation

Final Grade Breakdown:

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| Midterm | 20% |
| On-line Discussion | 30% |
| Final Exam | 50% |

The mid-term examination will be multiple-choice format, and will be accessible directly from the course WebCT site during the sixth class week. The final examination will also be accessed directly from the course WebCT site during the final week of term. It will be essay format.

A discussion question will be provided at the start of each unit. Additional student-generated discussion related to the topic is encouraged. There are ten discussion units with possible individual score of 0 to 3, total of 30 maximum points. Postings after the week specific to that discussion will not be assessed.

Online Discussion Evaluation Criteria -----

| Points | Frequency of Participation | Discussion & Feedback | Readings |
|--------|--|---|--|
| 3 | Participates in discussion at least three times a week. | Excellent and thoughtful answers to the discussion exercises and questions; offers original analysis and comment; uses assigned readings text, as well as web-links to back up arguments. The student offers valuable feedback to help classmates better understand an issue. | Comments clearly demonstrate that the student has done the required readings, and that the student comprehends the course material and its significance. |
| 2 | Participates at least two times a week in lengthy discussions. | Good and thoughtful comments to the discussion exercises. Takes a solid interest in the comments and questions of fellow classmates. | Has done the majority of the readings. Provides competent summaries and analysis of the main issues in answers. |
| 1 | Sporadically participates. | Not good. Comments to the discussion exercises marred by misunderstanding of key concepts. Rarely offers any comments on the course readings. | Actual knowledge of material is outweighed by improvised comments and remarks. |
| 0 | Rarely participates. | Poor. Rarely answers the discussion | Little familiarity with the readings. |

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| | | exercises on the web. | |
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