

Draft Outline Syllabus for EMSE 292 Environmental Security
 Fall Semester 2006, George Washington University
 1776 G. St. Room 101 Thursday Nights 7:10 pm to 9:40pm
 Adjunct Professor Robert M. Andersen
 Phone 202 989-8287 randers@llgm.com

Textbook: Government Institutes, "Homeland Security Law Handbook," ABS Consulting (2003)

Session 1 Thursday September 7, 2006	Introduction to the Study of Environmental Security	Text pp.1-55 Handouts
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1. Introductions and background of the students.
2. Definitions of Environmental Security and what will be covered.
3. Administrative matters: midterm papers and final examination
4. Overview of environmental security, the role of preventing access, the role of information control, and recent examples of breaches in environmental security and their consequences
5. Can law and expenditures make our environmental infrastructure secure?
6. Readings and handouts. Topics for papers due in two weeks.

Sessions 2-3	Securing Environmental Infrastructure from Attack Case Study Number 1: Dams, levees, harbors (LNG) and water resources in general	Text Ch. 4 Handouts
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Week 2 Class Exercise. Drinking Water Security

1. Mock Vulnerability Assessment for Small Ground Water Facility and Large metro system
2. Safe Drinking Water Act Amendments and technology Forcing Laws
3. Introduction in the role and effectiveness of environmental security regulation
4. What is the greatest contaminant threat and is it credible; what is the greatest structural threat and is it credible.
5. "Intentional Katrina" and levee safety in America. Compare and contrast risk with Water supply.

Sessions 3-5	Case Study Number 2: Securing Nuclear Materials Nuclear Power Plants and Spent Nuclear Waste and the Yucca Mountain Solution	Handouts
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Sessions 6-7	Bioterrorism Threats, preventive measures, and responses	Text Ch. 7 Handouts
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Sessions 8-10	Defense Legacy Materials Nuclear, biological, and chemical weapons materials Safe storage and prevention of access Chemical Demilitarization programs and non-proliferation Damage from environmental dispersion	Text Ch. 5 Handouts
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Sessions 11-12	Emergency and long term responses to breaches in Environmental Security: Lessons from Defense Cleanup programs (DERP, FUD, FUSRAP, CERCLA)	Handouts
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9/11/2001, Kuwait Oil fires, Hurricane Katrina,
Chernobyl and beyond

Session 13 Cyber-security and the role of intelligence gathering
in Preventing Breaches of Environmental Security Text Chapters 2,
9, 12, 13

Session 14 Evaluation of technical, legal, and political efforts to
Prevent Breaches of Environmental Security

FINAL EXAM