ENVIRONMENTAL MANAGEMENT

Professor John D. Spengler, Ph.D. & George D. Buckley

WEEK 05

Water Pollution Control and Legislation

The latest course information is online at our website: http://lab.dce.harvard.edu/environment/

ONLINE THIS WEEK

Water Pollution Control and Legislation
Lecturer: George Buckley

Water pollution threatens the world's drinking water supplies, wetland habitats and many important species of life. This program will investigate the major pollutants of aquatic environments, their impacts and ways to reduce, treat or eliminate them. The roles of local, state, federal, and international regulations and management strategies will be discussed.

WEEKLY LECTURE FEEDBACK ASSIGNMENT & GRADING

Comprehension exercise: all students are required each week to complete a lecture feedback form in which you briefly (1-2 paragraphs) summarize one or more lecture topics, and suggest a multiple-choice question based on this week's

Printed for Science Network <email@sciencenetwork.com>
lecture or assigned readings. This is intended to enable instructors to verify that you are viewing the lecture materials each week. Follow the 'FEEDBACK' link to use an online form.

There are 12 lectures this term. You are required to submit feedback on at least 10 lectures to receive full credit (equivalent to a paper - 10% of course grade). Each feedback is worth 1 point. Feedback forms are due before the following week's lecture.

Late submissions are accepted at 1/2 point each. In other words, you could miss up to two lectures, or complete up to four assignments late and still get 10 points on this assignment.

Students who submit all assignments on time could receive up to 2 bonus points on their final grade.

**READINGS THIS WEEK**

Ch. 20 pgs 414-438
Water Pollution and Treatment

Refer to the course textbook:

*Environmental Science: Earth as A Living Planet*
(Botkin/Keller)
J.Wiley & Sons, NYC
[http://lab.dce.harvard.edu/extension/environment/textbook.html](http://lab.dce.harvard.edu/extension/environment/textbook.html)

**REQUIRED WORK**

Watch this week's lecture presentation
[http://lab.dce.harvard.edu/extension/environment/week-autoselect.html](http://lab.dce.harvard.edu/extension/environment/week-autoselect.html)

Submit Weekly Lecture Feedback
[http://lab.dce.harvard.edu/extension/environment/distance-students/feedback-frameset.html](http://lab.dce.harvard.edu/extension/environment/distance-students/feedback-frameset.html)

**MIDTERM EXAMINATION**

The format of the midterm exam is 80, 1-point multiple-choice questions, and 1, 20-point essay.

The classroom midterm examination for Environmental Management is scheduled on Harvard's Cambridge Campus at:

Harvard Hall, Room 104
Wednesday November 1, 2000
7:35 pm - 9:30 pm (Boston time)

The policy at Harvard concerning examinations is as follows:

"Distance Education Course Examinations: If you teach a distance education course and have classroom examinations, students in the New England area must
take the examination on campus as scheduled. If they cannot travel to the Harvard campus they must arrange to take their examination in absentia." - 2000 Harvard Faculty Handbook

There are links on the course website 'DISTANCE STUDENTS' page with forms to apply for an exam in absentia.

See instructions to apply for a proctored exam in your area.
http://lab.dce.harvard.edu/extension/environment/distance-students/proctor-exam-instructions.pdf

MIDTERM EXAM ONLINE OPTION

We have been granted permission to experiment with an online midterm examination for those students willing to give it a try. The format of the online midterm exam is the same as the classroom midterm exam: 80, 1-point multiple-choice questions, and 1, 20-point essay.

The midterm will be available for Distance Education students for four days in November.

Friday, November 3rd
Saturday, November 4th
Sunday, November 5th
Monday, November 6th

Distance Education students can sign-up for any 2-hour block of time over those four days. Students taking the online midterm will be allowed 1/2 hour of overtime to address technical issues.

Beginning October 25th you can sign-up online.

Below is a summary of the procedure for taking the midterm examination online:

Step 1: Review 'Exam Instructions'
Step 2: Test Browser & 'Cookie' Setting
Step 3: Signup online (reserve 2-hr time block)
Step 4: Check-in and Verify HUID at Scheduled Time
Step 5: Begin Exam (clock starts)
Step 6: Complete Exam & Submit Answers within 150 minutes (2 hrs + 30 min grace period)

For more information, follow links on the course website for 'Midterm Exam'.

REMINDERS

Due This Week: Paper #1, Cape Cod Coastal Environment Field Trip Alternative Paper for Distance Students, Due: October 25, 2000
http://lab.dce.harvard.edu/extension/environment/E126cape-makeup.html

Have your questions ready for this week's Midterm Exam Review.
Distance students may email specific questions in advance to:
George_Buckley@watertown.k12.ma.us
LATE - Due LAST Week: Graduate students 1-page project proposal (topic selection)
Due: October 18, 2000
http://lab.dce.harvard.edu/extension/environment/graduate/graduate-students.html

LATE - Due LAST Week: Paper #1, Cape Cod Coastal Environment Field Trip
Campus Students, Due: October 18, 2000

COMING NEXT WEEK

Boston Harbor Cleanup
Lecturer: James Shine, Ph.D.

Midterm Exam Review
Lecturer: George Buckley

PASSWORD ACCESS FOR REGISTERED STUDENTS

Passwords are required to access streaming audio-video lecture presentations.

For USER NAME, enter your Harvard University ID (HUID) number. It is typically an 8-digit number that begins with '00'. This number was assigned to you by the Registrar and appears on your registration confirmation. All students should have received this information by mail. Your HUID is NOT your Social Security Number.

For PASSWORD, enter your last name (all lowercase letters). Only eight (8) characters are allowed, so if your name is longer (i.e. Washington), use only the first 8 letters (washingt).

If you have not received, or cannot locate, your HUID immediately contact the Registrar's office.

Harvard Registrar (DCE)
51 Brattle Street
Cambridge, MA 02138
(617) 495-9522
(617) 496-1111 DCE

For details, see:
http://lab.dce.harvard.edu/extension/environment/passwords.html

TECHNICAL DIFFICULTIES

A few students reported password problems trying to view online lectures over the weekend. We apologize for any inconvenience. Harvard DCE tech support has been notified. We expect the problem to be fixed in a day or so. We are trying to figure out why some students were able to view the lectures and others were denied access. If you have experienced any technical difficulties, report it on this week's feedback form. Please be as specific as possible, it will help us to
debug the problem.

- Thanks for your help

ANNOUNCEMENTS

ALTERNATIVE FIELD TRIP FOR DISTANCE STUDENTS

Independent Student Field Trip:

Choose a wetland, woodland or coastal area that you can visit for several hours. At a good library get several field guides that relate to that area (i.e. Audubon, Peterson, Golden Guides). -- see also Ocean Cast & Crew species list on website.

Visit the area
Produce a written and diagrammed or photographic report.
Describe the areas's general geography, habitats, representative plants, animals, and other life.
Describe the area's importance and/or uniqueness.
Discuss management strategies to protect the area.

Paper Length: 4-6 pages
Due: October 25, 2000

Online Info
http://lab.dce.harvard.edu/extension/environment/E126cape-makeup.html

Urban Ark - 2 Hour Tour and Lecture

Independent Student Field Trip and Suggested Paper Topic
Excellent opportunity to learn about environmentally sustainable urban living.

Location: Private home in Newton -- Directions will be provided when you sign-up

Call: Fran, (617) 969-5927 so that Urban Ark will know how many students to expect.

Several students attended Urban Ark tour last Saturday.
The 2nd group tour will be:

November 19 (Sunday)
Time: 1:00 PM to 3:00 PM

Cost: $18, Make checks payable to: Green Decade Coalition Newton

Reserve by Mail:
Green Decade Coalition
Box 242
Newton Centre, MA 02459

Attendance on this independent field trip is worth an extra point towards your final course grade. This is also a great topic for the 2nd student paper (10-
points). It could also be an interesting project for a short video or photo essay, that could be used on course website.

http://lab.dce.harvard.edu/extension/environment/E126arc.html

UPCOMING LECTURES & CONFERENCES

Professor Spengler suggested these upcoming events. Any of these would be a great topic for Paper #2. Some of these events charge a fee, others are free. All are optional. If you live outside the New England area, contact a local college or science museum for similar programs in your area.

MONDAY, OCTOBER 23

"Water Quality and Health Studies in Cherepovets, Russia"
With Tim Ford, Associate Professor of Environmental Microbiology; Director, Program in Water and Health, and Andrey Egorov, Environmental Science & Engineering Program Doctoral Student. Discussion will cover epidemiological study in Russia to assess associations between poor drinking water quality and risk of gastro-intestinal diseases, assessment of population exposures to water chlorination by-products in Cherepovets, Russia, and monitoring of disinfection resistant protozoan parasites in water supplies in Cherepovets and selected Russian cities and assessment of population exposure to these parasites. Time: 12:30-1:30pm. Location: Bldg. I, Rm. 1301, Harvard School of Public Health. Contact: Avis Stiller, astiller@hsph.harvard.edu

WEDNESDAY, OCTOBER 25

"Simplifying Transit"
With Martha Lampkin Welborne, FAIA. Time: 6 pm. Location: Rabb Lecture Hall, Boston Public Library, Boston, MA. Contact: http://www.architects.org

"Fish Farming, World Fish Supplies, and Transgenic Fish"
With Rebecca Goldburg, Ph.D., Senior Scientist, Environmental Defense. Time: 12-2pm. Location: Belfer Library, BCSIA, Harvard University. See: http://www.cid.harvard.edu/cidbiotech/events/goldburg.htm

THURSDAY, OCTOBER 26

"New Evidence in Bureaucratic Compliance"
With John Brehm, University of Chicago. Part of the New Directions in Regulation Lunch Seminar Series. Time: 1-2:30pm. Location: Fainsod Room, Kennedy School of Government. RSVP: amy_christofer@harvard.edu

"The Human Portfolio: Population Growth and Resource Economics"
With Norman Myers, Ph.D., 1994 Pew Fellow in Conservation and the
Environment; Consultant in Environment and Development, UK. When does human population tip the scales against ecological balance? Dr. Myers will address our ever-growing human "ecological footprint" and methods to minimize the effects of population imbalance through sound use of resource economics. Time: 7pm. Location: New England Aquarium's Immersive Theater, part of the Exploration Center on the ground floor of the Boston Harbor Garage. Contact: Ken Mallory, 617-973-5295, kmallory@neaq.org

Sixth Annual Buy Recycled and EPPs Vendor Fair and Conference
Sponsored by the Massachusetts Operational Services Division. Time: 7:30am-4pm. Location: Boxborough Woods Holiday Inn, Boxborough, MA. Contact: Marcia Deegler, Environmental Purchasing Trainer, 617-720-3356, marcia.deegler@osd.state.ma.us or see http://www.magnet.state.ma.us/osd/enviro/events.htm

"Approaches to Sustainable Regional Development: The Role of the University in the Globalizing Economy"
This conference (Oct 26-28) provides an opportunity for participants engaged in regional development to share experiences and analyses and to find creative ways to enhance the economic and social development of the regions in which they are located. Location: UMass-Lowell, Lowell, MA. Fee: $25-50, free for UMass Lowell students and faculty. Register by October 18, 2000. Contact: Rick Sherburne, sherburne@juno.com, http://www.uml.edu/com/cita

"The Ecological Imagination"
Nature writers, poets, scientists, and environmentalists read from their work, addressing the possibility of creating a vital environmental ethic. This series of programs (Oct 26-28) is sponsored by the Yenching Institute of Harvard University, Orion Society, and the Massachusetts Foundation for the Humanities. Time: 7:30pm. Location: 3 Church Street, Harvard Square, Cambridge. Contact: director@cambridgeforum.org, http://www.cambridgeforum.org

Mass Climate Action Network Meeting
Time: 6:30pm. Location: 29 Temple Place, 5th Floor Conference Room. Contact: mbreslow@neaction.org, 781-643-5911

SATURDAY, OCTOBER 28

"The Supreme Court and the Environment, 2000-01"
As a part of Harvard Law School's Environmental Alumni Event, the HLS Environmental Law Society will host a panel discussion on the two major environmental cases set for argument before the Supreme Court this term, American Trucking Associations v. Browner and Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers. These cases both involve constitutional challenges to substantial environmental statutes, the Clean Air Act and Clean Water Act, respectively. Panelists include Professor Richard Lazarus of Georgetown University Law Center, Professor Robert Percival, Visiting Professor at Harvard Law School from University of Maryland School of Law, and Howard Learner of the Environmental Law and Policy Center. Time: 4pm. Location: Harvard Law School, Ames Courtroom. Contact: Arianne Callender, acallend@law.harvard.edu

"Facing the Future"
Workshop (Oct 28-29) on our ecological predicament. Time: 10am-6pm. Location: Lincoln, MA. Fee: $65. For more information, contact: Garret Whitney 978-371-2188, gw@world.std.com
George Buckley suggested this upcoming lecture in class. Reporting on this event would be a great topic for Paper #2. If you live outside the New England area, contact a local aquarium, science museum, or college for similar programs in your area.

Lowell Institute Lecture at New England Aquarium

Thursdays in October at New England Aquarium - 7 PM to 8:30 PM

These Lowell Institute sponsored programs are free, but you need to call 617-973-5200 to reserve tickets.

Oct. 26 - Human population growth and resource economics

OTHER SUGGESTED PAPER-2 TOPICS

Paper Topic: New Bedford Wastewater Treatment Plant Field Trip
Paper Topic: Whalewatch Nature Cruise (5-hr boat trip)

Paper Topics:
http://lab.dce.harvard.edu/extension/environment/E126paper-topics.html

Special Undergraduate Project:
http://lab.dce.harvard.edu/extension/environment/projects-special-undergrad.html

WHERE TO SEND ASSIGNMENTS BY EMAIL

There are prepared forms on the website which enable students to submit coursework online. For example, click 'FEEDBACK' button to use the webform for weekly lecture feedback.

Students may submit material in any format we can read. Simple text (.txt) or Microsoft Word (.doc) format is suggested. PowerPoint (.ppt), PageMaker (.p65), Adobe Portable Document Format (.pdf), Excel (.xls), and other standard formats may also be used. Before you create work in a more exotic program, send us an email to see if we can read it. With advanced notice we can make arrangements to read most any file.

Students can paste text from a wordprocessor into a webform or email message, or send a .doc file (for example) as an email attachment addressed to:

harvard-email@sciencenetwork.com

Email messages & attached assignments will be routed automatically to the right place if any of these phrases are used as the SUBJECT line of an email (copy/paste exactly as written).

Harvard-NSCIE126-Essay
SYLLABUS

Course SYLLABUS is available online in three (3) formats:
Interactive - Linked to Video Lectures and Assignments
PDF - Formatted for your Printer (8.5"x11")
ASCII - Unformatted file for Text-to-Speech software
(Visually impaired students)

More information is available online

Course Web Site:
http://lab.dce.harvard.edu/environment/

TECH SUPPORT

Tip: If the video stream freezes or seems to lose sync with the audio track, you can restore synchronization by clicking the left '<' review arrow under the video window. This 'rewinds' the video stream back to the last 'key frame' (each a few seconds apart).

Tip: Be sure that you have installed the latest version of Internet Explorer and Real Player. Students report the best results with MS Internet Explorer 5.5 and Real Player Basic 8 (both available free). See what else you need to view this site correctly:
http://lab.dce.harvard.edu/extension/environment/CapeCodVirtualFieldTrip/browser.html?plugins
Follow links for 'HELP' and 'How to Get Free Software to View This Website'.

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H A R V A R D        U N I V E R S I T Y
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Harvard Extension School Distance Education Program
COURSE NEWSLETTER FOR NSCIE126 CRN-11769
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To Post Messages, send email to:
nsclie126@dcepea.harvard.edu
Messages will be emailed to everybody in this class.
________________________________________________________________________________
Email Everyone:  nsclie126@dcepea.harvard.edu
________________________________________________________________________________
Email TA: Zachary@sciencenetwork.com
Teaching Assistant: Zachary D. Zevitas