ENSC 407 Global Water Issue – Syllabus for Fall 2004

Calendar Description:

Water cannot be created but must be shared. The Earth’s supply of water is the same as it was a million years ago, but there are increasing demands on resources and contamination of both surface water and groundwater. This course will develop a global perspective on issues of water distribution, management, pollution, conservation, conflict and policy.

Schedule (subject to revision):

Week 1
Monday Sep 13 - Introductory Lecture – Is there a water crisis? If so, what sort of crisis?
Monday tutorial - Introducing ourselves, Introduction to Assignment #1.
Thursday Sep 16 - Lecture 2 – Water Resources. How much is there and whose is it?
Forecasting water needs.

Week 2
Monday Sep 20 - Lecture 3 – Water and Conflict. National and International Hydropolitics
Monday tutorial - Field trip (water treatment plant)
Thursday Sep 23 - Lecture 4- Water and Earth Systems Engineering

Week 3
Monday Sep 27 - Lecture 5 – Water and Earth Systems Engineering
Monday tutorial - Assignment #1 due. Introduction to assignment #2. Two short films.
Thursday Sep 30 - Lecture 6 – Water and industry: Mining gold, mining water.

SATURDAY OCTOBER 2 FIELD TRIP TO TAY WATERSHED

Week 4
Monday Oct 4 – Water and agriculture: Irrigation, french fries and depleting aquifers
Monday Tutorial – Planning debate (Assignment #3). Film about Mt Kenya
Thursday Oct 11 – 2 case studies (1,2)

Week 5 (Thanksgiving – no Monday lectures)
Thursday Oct 14 - Assignment #2 due - 2 case studies (3,4)

Week 6
Monday Oct 18 Field trip – Belle Park and Cataraqui river, Kingston: The case of the leaking golf course
Thursday Oct 21 – 2 case studies (5,6)
Week 7
Monday tutorial – assignment #2 due. Skeptical Environmentalist (assignment #3) debate
Thursday Oct 28 – 2 case studies (7,8)

Week 8
Monday Nov 1 - Lecture 8 – Water and the Law. Are our watersheds, ecosystems and drinking water supplies protected enough?
Monday tutorial – Planning for Global Summit on Water (class project). Film about water issues in South American cities.
Thursday Nov 4 – 2 case studies (9,10)

Week 9
Monday tutorial - Assignment #4 due. Film about Arsenic contamination in Bangladesh.
Thursday Nov 11 – 2 case studies (11,12)

Week 10
Monday Nov 15 - Lecture 10 – Bottled Water. A luxury for Canadians, a necessity for the developing world?
Monday tutorial - 2 case studies (13,14)
Thursday Nov 18 – 2 case studies (15,16)

Week 11
Monday Nov 22 - Lecture 11 – Extra lecture
Monday tutorial - 1 case study (17) More planning for Global Summit on Water.
Assignment #5 due.
Thursday Nov 25 – 2 case studies (18, 19)

Week 12
Mon Nov 29 - 2 case studies (20,21)
Monday tutorial, etc. Global Summit on Water. May be evening event unless we can get all of Monday morning
Thu Dec 2 – Last lecture, Debriefing

Activities, Assignments and Marking Scheme:

1. Assignments (each worth 8%) 40%

   How much water do we need? How much do we use? Due Mon Sep 27

   Explaining water treatment in an interesting way. Due Thu Oct 14

Setting Limits: Water criteria for human and ecosystem health  
*Due Mon Nov 8*

Found in translation: explaining a consultant’s report to a community. *Due Mon Nov 22*

2. Case study (Oral presentation 10%, extended abstract and reference list 15%)  
Deliver a 10-minute individual oral presentation on selected water issue  
Accompanied by a summary and detailed list of sources  
*Scheduled due date for each student sometime between week 4 and week 12 of Fall term*

3. Peer Interview (Prepared questions 8%, conducting question period 7%)  
Prepare and co-ordinate response to one of case studies  
*Scheduled due date for each student sometime between week 4 and week 12 of Fall term*

4. UN Summit on the World’s Water Crisis (class project)  
Role-playing group exercise debating extent, nature and solution to global water problems from perspective of selected nations, non-governmental bodies and private sector interests  
*Preparation throughout term, summit held during Week 12*

**Total**  
100%