

" WATER "
(EES A07)

Instructor: Dr. Jovan R. Stefanovic

Office: PO104 - Room109

Lecture: Monday 7 –10pm (SY 110)

Email: jovan.stefanovic@utoronto.ca

Phone: 416-287-7224

Office hours: Monday 6-7 pm

T.A.s: Herb Maier
Andrew Chi-Wai

Office: SW 511A
Office hours: TBA(on the Intranet soon)

Textbook: *Water Resources*, Shimon Anisfeld,2010, Island Press

Grading:

Assignments (2 assignments x 10%):	20%
Mid-term Examination:	30%
Final Examination:	50%

Intent of the course:

This course consists of a survey of the planet's water resources and the major issues facing the use of water. Topics include: Earth, the watery planet; water the last great resource; Canada's waters; Ontario's waters; social and ecological problems, including water scarcity, pollution, flooding, conflicts over water; water in an era of global change and protecting our waters. Case studies such as the Walkerton tragedy will be studied.

Week *LECTURE TOPICS*

1. Perspectives on Water and Environmental Issues
Video: How the Earth Changed History: Water..... Sep. 10th
2. Water Circulation through Environment (Ch.2.1-2)..... Sep. 17th
3. Water Availability and Water Use (Chapter 3)..... Sep. 24th
4. Water Pollution: Sources, Impacts & Solutions
(Walkerton case study).(Ch.2.3;9.1-5;10.4)..... Oct. 1st
Video: The role of OCA in protecting source water
Assignment #1 – Discussion
5. **Thanksgiving Day - University closed** Oct. 8th

6. Dealing with Floods and Water Scarcity(Chapters 4&5).....	Oct. 15 th
7. Water in an Environment of Global Change: Impacts of Climate Change and Land Use (Chapter 6)	Oct. 22 nd
Video: When the Water tap Runs Dry	
8. Soft and Hard: Technologies for Sustainable Water Management(Ch.7).....	Oct.29 th
9. Humans and Aquatic Ecosystems :Finding the Right Balance; Water and Energy.(Chapter 8 and 11.1).....	Nov. 5 th
Assignment #2 – Discussion	
10. Canadian's and Ontario's Waters: Case Studies and Application to Water Management.....	Nov. 12 th
Video: Water Under Fire: The Great Lakes	
11. Economics in Water Management and Water Conflicts (Ch.12&13) Video: Water Wars: Struggle in the Holy Land.....	Nov. 19 th
12. The Future of Our Water Resources	Nov. 26 th
Course review	

ASSIGNMENTS

There are no tutorials in this course. TAs will hold office hours to help with assignments. See the Intranet to find out who is your TA. I would suggest you to attend office hours of your TA (*always the same TA*) regularly since he will mark your assignments. Students are encouraged to actively consult with the TA regarding any problems or questions about the preparation of the assignment. You will have two assignments during the term, assignment #1 worth 10% and assignment #2 worth 10% of the final grade. You will be able to access the problem sheets on the Web at the times detailed below. Completed exercises must be placed in the box outside SW-511A, by **5 pm** on the dates shown. More details on the assignments will be circulated during the term.

Feel free to discuss the assignments with your classmates, but be sure to write the assignments using your own individual words and ideas. **Each student is expected to write independently and submit all assignments as their own work**, and to acknowledge with **citations** any personal communications which contributed ideas for their assignment.

ASSIGNMENTS SUBMITTED LATE WILL NOT BE ACCEPTED. EXTENSION WILL BE GRANTED ONLY WITH MEDICAL NOTE or under some very serious circumstances.

You should use a word processor for your written responses. Your document should conform to the following: 25.4 mm margins, single-spaced, 12-point print size. The document must bear a name, signature, student number, date and TA name. Calculations may be handwritten.

	On the INTRANET	Submission Due
Assignment #1	Oct.1 st	Oct. 15 th
Assignment #2	Nov. 5 th	Nov. 19 th

MID-TERM EXAMINATION

The 1-hour in class mid-term examination will be held in October. The exam will consist of multiple-choice and true-false questions and will be worth 30% of the final grade. Videos are for the exam.

FINAL EXAMINATION

The 2-hour final examination will be held during the final examination period, exact time, date and rooms TBA. The exam is worth 50% of the final grade. It will be a combination of multiple choice, and true-false questions. Videos are for the exam.

FURTHER READINGS

Cech Thomas V.2009. *Principles of water resources: history, development, management, and policy*

John Wiley and Sons.

Christopherson, R.W.&Mary-Lousie Byrne.2006. *Geosystems An Introduction to Physical Geography*, Canadian Ed. Pearson, Practice Hall.

Grover Velma I. 2007. *Water: a source of conflict or cooperation?* Science Publishers.

Grover Velma I. 2006. *Water: global common and global problems*. Science Publishers

Kumar Arvind. 2004. *Water pollution*. S.B. Nangia. A.P.H. Publishing Corporation.

Robert Lenton and Mike Muller.2009.*Integrated Water Resources Management in Practice*.Earthscan.

Smith,K. and Ward,R.1998. *Floods*. New York: John Wiley & Sons

Tarbuck Edward J., Lutgens Frederick K., Tasa Dennis.2010. *Earth Science*. Pearson Education, Limited.

Note:

Check INTRANET regularly. All announcements, lecture notes, assignments and midterm marks all other information will be posted on the intranet.