

UNIVERSITY OF WATERLOO
SCHOOL OF ENVIRONMENT, ENTERPRISE AND DEVELOPMENT

Water and Security

2020

Course Instructor: **Larry Swatuk**

Class Time: Thurs 08h30 – 11h20

Class Location: **EV1 - 350**

Office hours: by appointment

E-mail: lswatuk@uwaterloo.ca

Note: The guidelines in this syllabus are subject to change. Refer to the course website for updates.

Overview:

This course is meant to serve as an introduction to issues – theoretical, conceptual, practical – of water and security in the world with a particular focus on the global South. Conventional wisdom would have us believe that the world is likely to face ‘water wars’ in the not-too-distant future. This scenario is dependent upon a rather simplistic equation: since freshwater is a scarce and constant resource, and since global populations are ever increasing, then water (and other resource) shortages are likely to cause (violent) conflict over time. While many regard this statement as axiomatic, the ‘reality’ of these hypothesised ‘water wars’ is still to be demonstrated. Nevertheless, the fact that many people – indeed, many powerful actors in the global political economic system – are thinking and beginning to take policy decisions along these terms makes it important for us to consider these issues carefully.

Impending conflict or not, the fact of scarce resources raises a number of issues for consideration. For example, how much water is there and where is it to be found? To what uses is this water being put? How are these uses determined? Who benefits and who suffers from existing water resource use patterns? Whose security is assured and whose threatened by current patterns of supply and demand? How would this balance alter if current supply/demand patterns were altered? What may be done to assure that in future there is water security for all?

How one answers the last question depends largely on where one sits in the present social, political and economic order. For, where one sits in this order determines to a significant degree what one thinks – about security, justice, equality – and hence the ‘relevant’ theoretical and practical frameworks for achieving and managing ‘security’.

The course is divided into two distinct sections. The first section introduces the concept of security and seeks to provide an understanding of the various ways it is used in policy and other related discourses. The second section focuses specifically on the role/place of water in security at both conceptual and practical levels. The emphasis is placed on institutional and organizational change through time, with focus on key issues such as climate change, conflict and cooperation, integrated water resources management and good governance. In the 2020 Winter version of the course, we also place special emphasis on urban water security.

Objectives:

- To provide students with the necessary skills to inform appropriate policy approaches to water security
- To provide a nuanced understanding of the role and place of water in the built and natural worlds
- To provide a nuanced understanding of key concepts such as security, development, conflict and cooperation
- To assemble a collectively-written, peer-review ready monograph on Urban Water Security

Assessment (Details regarding assignments are available on the course homepage):

Critical Reflections: 2 x 10% = 20%

Essay step 1: 5%

Essay step 2: 10%

Essay step 3: 35%

Oral participation: 30%

COURSE CONTENT

1: Why Water? Why Security? (Lectures/Roundtable discussions)

Read:

L. Swatuk, 2018. Water in Southern Africa, Chaps 1 (for week 1) and 3 (for week 2)

L. Swatuk, 2020. Security and Development

Multimedia: Water and Security in the Jozini Dam region of South Africa

Recommended:

WWDR 2, Chapter 4

Tony Allan on the Hydraulic Mission

Lyla Mehta on Manufactured Scarcity

2. How much water for whom, for what, and why?

Read:

M. Falkenmark and J. Rockstrom, Chapters 1,2, 3 and 5 in M. Falkenmark and J. Rockstrom, *Balancing Water for humans and nature*, (London: Earthscan, 2004).

Savenije, H.H.G., 2002. 'Why water is not an ordinary good, or why the girl is special', *Physics and Chemistry of the Earth* vol. 27, pp. 741-744.

Recommended:

Hoekstra and Mekonnen on the Water Footprint of Humanity

Hoekstra and Chapagain on Water footprints of nations

Multimedia: UNESCO-IHE, *Water: the Drop of Life: Kalahari Bushmen* (2:00); Phoenix family (5:31); Lucas Family, Namibia (6:04).

3 & 4. Water Security (Lectures/Roundtable discussions)

Read:

P. van Hofwegen, 2007. 'Water Security: everybody's concern, everybody's responsibility'. Paper presented at the 50th anniversary conference of UNESCO-IHE, October.

E. Norman et al., 2010. Water Security – A Primer

D. Grey et al., 2016. Water Security.

M. Zeitoun et al., 2016. Reductionist and integrative research approaches to complex water security policy challenges.

Recommended:

UN Water, Analytical brief on water security

5. Managing Risk for Water Security

Read:

Readings from Weeks 3 and 4

Recommended:

Palaniappan and Gleick on Peak Water

Multimedia: L. Swatuk on Managing Risk for 21st C Water Security:
<https://www.youtube.com/watch?v=FN6sq6FIOQA&t=737s>

6. Perspectives: Water as a Human Right or Economic Good?

Read:

P. Gleick, 2007. The Human Right to Water.

J. Scanlon, A. Cassar, N. Nemes, 2004. *Water as a Human Right?* IUCN Environmental Policy and Law Paper No. 51 (Gland: Switzerland).

B. Pardy, 2011. The Dark Irony of International Water Rights.

K. Bakker, 2013. Neoliberal Versus Postneoliberal Water: Geographies of Privatization and Resistance
WWDR 2, Chap. 12.

8: Institutional Frameworks: Governing Water

Read:

K. Conca, 2006. Governing Water, Chap. 4.

P. Woodhouse and M. Muller, 2017. Water Governance – An Historical Perspective on Current Debates
The Dublin Statement

UN Convention on Non-navigational Uses of International Watercourses
WWDR 2, Chap. 2.

UNDP and others, 2013. User's Guide on Assessing Water Governance.

S. McCaffrey, 2008. Convention on the Law of the Non-Navigational Uses of International Watercourses.

Multimedia: L. Swatuk on 'Day Zero' in Cape Town: <https://www.rcinet.ca/en/2018/01/25/water-crisis-in-cape-town-s-africa-coming-to-your-city-in-the-near-future/>

7: Institutional Frameworks: Managing Water

Read:

K. Conca, 2006, Water Governance, Chap. 5 on 'Expert Networks'.

P. Moriarty, J. Butterworth & C. Batchelor, 2004, IWRM and the domestic water and sanitation sub-sector.

J. Butterworth et al., 2010, Finding Practical Approaches to Integrated Water Resources Management.

8-9: Transboundary Waters

Read:

L. Wirkus, ed., 2005. Water, Development and Cooperation – Comparative Perspective: Euphrates-Tigris and Southern Africa, BICC Paper 46.

WWDR 2, chap. 11.

P.C. Villar, 2016. International cooperation on transboundary aquifers in South America and the Guarani Aquifer case.

M. Vick, 2006. The Senegal river basin: A retrospective and prospective look at the legal regime.

A.T. Wolf, K. Stahl, M. Macomber, 2002. Conflict and cooperation within international river basins: The importance of institutional capacity.

Recommended:

A. Earle, A. Jagerskog, J. Ojendal, eds, 2010. *Transboundary Water Management: principles and practice*, Chapters 1, 13 and 14.

P. Gleick, 'Environment and Security: Water Conflict Chronology – Version 2000', in P. Gleick, *The World's Water 2000-1*, (California: Island Press, 2000).

Toset, H.P. Wollebaek, and N.P. Gleditsch, 1999, 'Conflict and Shared Rivers', paper presented to the 40th annual convention of the International Studies Association, 16-20 February, Washington, D.C.

10-11. Conflict and Cooperation

Read:

J. Fatch and L. Swatuk, 2018. Boundaries of benefit sharing: Mapping conflict and cooperation in the Lake Malawi/Niassa/Nyasa sub-basin.

L. Swatuk, M. Amakali and K.M. Jembere, 2009. Managing Resource Conflicts through People, Polices and Institutions: lessons from the Berki (Ethiopia), Kuiseb (Namibia) and Pongola (South Africa) River Basins.

K. Conca, 2006, *Governing Water*, Chap. 6, 'The Ecology of Human Rights'.

J.A. Allan, 'Hydro-peace in the Middle East: why no water wars? A Case Study of the Jordan River Basin', *SAIS Review*, vol. 22 no. 2 (Summer-Fall 2002).

L. Swatuk et al., 2018. The Boomerang Effect: Overview and implications for climate governance.

J. Durst et al., 2018. Contested development: The Belo Monte Dam, Brazil.

P. Gleick, 2014. Water, Drought, Climate change, and Conflict in Syria.

Recommended:

L. Swatuk et al., 2012. Conflict Resolution and Negotiation Skills for Integrated Water Resources Management, 2nd ed., CAP-NET/UNDP.

L. Swatuk, 2016. Water, Conflict and Cooperation in Southern Africa.

A.T. Wolf, A. Kramer, A. Carius and G.D. Dabelko, 'Managing Water Conflict and Cooperation', in Worldwatch Institute, *State of the World 2005: Global Security*, (London: Earthscan, 2005).

Sadoff, C.W. and D. Grey, 2002. 'Beyond the River: the benefits of cooperation on international rivers', *Water Policy* 4, 389-403.

Multimedia: UNESCO-IHE, *Water: the Drop of Life* one or more short videos on Ataturk Dam (4:33); Okavango River (4:40); Jordan River (7:19); Aswan Dam (5:09); Tajo Segura Spain (4:39); Equador Rain Forest (5:48); Namib Desert (2:44); Rift Valley (2:18)

12. Group Project Presentations

Students will present their research paper findings in presentations lasting 7-10 minutes each with no more than 3 substantive powerpoint slides.

Pedagogy, Attendance and Participation

This course combines several teaching elements: (i) lectures followed by Q and A and general discussion; (ii) short video followed by deconstruction of the video; (iii) seminar style discussion of particular readings; and (iv) publication-oriented writing workshop. Participation in class activities is an integral aspect of this course and constitutes 30% of your overall grade. This requires you to attend all classes, do your weekly readings and engage in critical discussion of the materials. Grades will be awarded on the frequency and quality of student participation in class. I recognize that some students may not be comfortable speaking in large group settings and as a result contribution in small group discussions is encouraged. Attendance will be taken each day and students who absent themselves without any valid reason will not receive any marks for attendance. Please note that the readings have been carefully selected and have been ordered logically, so you should read them one after the other as they appear in the course outline. **All readings are available on the course web-pages on Learn.** The seminar should then focus on each of the readings on its own: (i) what is the reading about? (ii) what are the key ideas s/he is putting forward? (iii) what are the key concepts the author(s) uses/develops? (iv) what are the key premises of the author's argument? (v) what evidence does the author bring forward in support of the argument? You can weigh in with a critique of the reading.

Email policy

If you'd like to contact me outside of my scheduled office hours, please direct all course-related questions to my uwaterloo email address at lswatuk@uwaterloo.ca. I will respond to your emails as promptly as possible. However, please be advised that I usually receive many emails each day that require a response. Therefore, it may take me a day or two to reply to your message.

Submission of assignments

Check the requirements in the schedule above regarding submission of electronic and/or hard copies for each assignment. Hard copies (with double-sided printing) are to be submitted to me during class.

By submitting an assignment for this course, you are agreeing to the following:

You have properly referenced and footnoted all ideas, words or other intellectual property from other sources used in the completion of this assignment.

You have included a proper bibliography, which includes acknowledgement of all sources used to complete this assignment.

The assignment was completed by your own efforts. You did not collaborate with any other person for ideas or answers (with the exception of group projects)

This is the first time you have submitted this assignment or essay (either partially or entirely) for academic evaluation.

Late policy: You are expected to take account of the possibility of computer or printer failure in planning your time. Emailed or faxed assignments will not be accepted. The penalty for late assignments is **5 %** of the total possible mark per day, including weekends and holidays. I will not accept assignments more than 5 days after the due date unless we have a prior arrangement.

When You Cannot Meet a Course Requirement Due to Illness or Other Reasons: There will be no unpenalized extensions on assignments except for illness, severe personal extenuating circumstances, or weather emergencies. When you find yourself unable to meet a course requirement because of medical, compassionate or other reasons, please advise me in writing by email; make sure to include your full name in your message. Where possible, you must contact me in advance of the assignment due date, but otherwise as soon as possible after the due date. As a rule, you must provide appropriate documentation, for example, a note from your doctor indicating the dates during which you were ill, and describing the severity of your illness. *Manage your time carefully. Pressure of work alone is not an acceptable reason for seeking an extension without penalty.*

Consequences of Academic Offences:

Students are expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for their actions.

Students who are unsure whether an action constitutes an offense, or who need help in learning how to avoid offenses (e.g., plagiarism, cheating) or about rules for group work / collaboration should seek guidance from the course professor, TA, academic advisor, or the Undergraduate Associate Dean.