

11.382 WATER DIPLOMACY

Spring 2017

FIRST CLASS WILL MEET February 9 in Room 9-450 B

Classes meet Thursdays 3:00 – 5:00 pm

Sections on Thursdays 5:00 – 6:00 pm

INSTRUCTOR:

Prof. Lawrence Susskind MIT, 9-432 Phone: 617-253-206 Email: susskind@mit.edu	Co-Instructors: Jungwoo Chun (jwchun@mit.edu) and Yasmin Zaerpoor (yasminz@mit.edu) Office hours: by appointment
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OBJECTIVES OF THE COURSE

This class focuses on conflicts over the allocation of water resources and ways of resolving them. Graduate students (and advanced undergraduates) in DUSP, CEE, TPP, and other departments and programs interested in water policy and water management at any geographic scale, anywhere in the world, are invited to participate. Student are required to prepare a detailed case study of a water conflict and use it to test the likely effectiveness of the *Water Diplomacy Framework* (Islam and Susskind, **Water Diplomacy**, Resources for the Future, 2012) as a conflict management strategy.

There are no prerequisites. The class is taught comparatively, that is, with constant references to examples from around the world.

The course has five parts: **Presentation of the Water Diplomacy Framework, a review of key concepts central to water security and water resource management, discussion of cases included in the Aquapedia (aquapedia.waterdiplomacy.org), presentation of student case studies of water conflict, and reconsideration of the Water Diplomacy Framework in light of student findings.** The first part compares the Water Diplomacy Framework (WDF) with traditional thinking about ways of handling transboundary water conflicts. The second examines key concepts like water as a human right and water security. The third examines case studies of water conflict in South Asia, North America, and Africa. The fourth considers case studies of transboundary water conflict prepared by students in the class. And, the final portion of the class revisits the WDF in light of the case study findings.

Course Requirements

Class Meetings: The class meets for two hours every Thursday from February 9 through May 18 except for March 27. Students are required to attend all scheduled class meetings. Students will also be required to attend the Finn River Basin Game (day/time TBD) and the session on creating an Aquapedia case.

Section Meetings: There are sections that meet late Thursday afternoon once the regularly scheduled class sessions are over. Sections meet for one hour on the following dates: 2/23, 3/2, 3/23, 4/6, 4/13, 4/20.

Section meetings are optional but highly recommended.

Required Texts: The course will use one text plus additional readings. The text is Shafiqul Islam and Lawrence Susskind, **Water Diplomacy: A Negotiated Approach to Managing Complex Water Networks**, Resources for the Future, 2012. It can be purchased from the COOP (or book purveyor of your choice). You may also choose to make use of the copies of the required text on reserve in the Rotch Library (Building 7, second floor).

Reading assignments are described (and most are available) on Stellar (<http://stellar.mit.edu/S/course/11/sp14/11.382/>). *Please make a habit of checking the Stellar site*, as new readings may be posted as the semester progresses.

Participation in the in-session role-play simulation is required. The Finn River Basin game offers an opportunity for students to apply the ideas and techniques that are discussed throughout the semester. The game deals with the political and scientific disputes that arise in the context of negotiations over water quality, water allocation, water security, rights to water and the deployment of relevant technologies.

Disabilities

If you have a documented disability or any other problem you think may affect your ability to perform in class, please see Professor Susskind early in the semester so that arrangements may be made to accommodate you.

Academic Misconduct

Plagiarism and cheating are both academic crimes. Never (1) turn in an assignment that you did not write yourself, (2) turn in an assignment for this class that you previously turned in for another class, or (3) cheat on an exam. If you do so, it may result in a failing grade for the class, and possibly even suspension from MIT. Please see Professor Susskind if you have any questions about what constitutes plagiarism. Anyone caught cheating on an exam will be reported in line with recognized university procedures.

Assignments and Grading

1. Final Written Assignment -

Each student is required to submit a finished case study (double-spaced) at the end of the class that conforms to the requirements of the AquaPedia. Each student must notify the co-instructors of their case selection by **March 16th** via Stellar.

Each student is expected to submit (via Stellar) their case study of a water conflict following the format specified by the AquaPedia. Acceptable case studies will be published in the AquaPedia.

The final written assignment is due **in draft** on **May 4th** and in **final form** on **May 18th**.

Drafts or final versions of the case more than a week late will not be accepted.

Students will be graded on both intellectual content and clarity of writing.

2. Oral Presentation –

Each student must make a 20 minute **oral presentation** of their case on April 27, May 4, or May 11.

3. Three Written Commentaries –

Each student is required to serve as a commentator on one of the First Round of cases (guest lecturers) AND on two of the Second Round cases (prepared by other students) in the class.

The students are required to indicate to the co-instructors by **March 23rd** (via Stellar) the three cases they wish to comment on.

The first written commentary

The commentary on the First Round of Water Diplomacy case studies, is due **April 27st** before class time.

Each student is expected to submit (via the Stellar system) 500 word paper (i.e., 2 pages double-spaced, 12 point font) commenting on the extent to which the Water Diplomacy Framework helps or does not help to explain the sources of the conflict and the effectiveness of the ways of addressing the conflicts presented in the case.

The second and third written commentaries

The commentaries on the Second Round cases (student cases) are due **May 18th** before class time.

Each student is expected to submit (via Stellar) two 500 word papers, each paper commenting on one of the student case study presentations. The commentaries should point out the strengths and weaknesses of the case presentation.

Grading will be based on the three commentaries (30% of the grade), the draft and final version of the case study (40%), one oral presentations (20%), and regular attendance and participation in the role-play simulation (10%).

Final grades are based on a weighted average for the term. Grade cutoff points are as follows:

A = 93-100% A- = 90-92% B+ = 87-89% B = 83-86% B- = 80-82% C+ = 77-79% C = 73-76%
C- = 70-72% F = <60

Time Table of Due Dates-

- **March 16, 2017:** Identify which case you will work on for your final assignment.
- **March 23, 2017:** Identify the three cases that you plan to comment on.
- **April 27, 2017:** First commentary due (from guest speaker case presentations).
- **May 4, 2017:** First draft of final assignment due (hardcopy and uploaded to Stellar).
- **May 18, 2017:** Two commentaries due.
- **May 18, 2017:** Final assignment due.

COURSE SCHEDULE

FOCUS	DATE	TITLE AND READINGS
Introduction	2/9	INTRODUCTION: Why are there conflicts over the allocation of water resources around the world? What kinds of conflicts arise and how are they usually addressed or resolved? How can a country guarantee its water security? A review of the objectives of 11.382. A heads-up on the Socratic approach used in the class. Student responsibilities and grading policy.
Part 1: The Water Diplomacy Framework	2/16	THE WATER DIPLOMACY FRAMEWORK (Part I) <i>Assigned Reading:</i> Shafiqul Islam and Lawrence Susskind, Water Diplomacy: A Negotiated Approach to Managing Water Networks , Chapters 1 – 3 (pp. 1 – 88)
	2/23	THE WATER DIPLOMACY FRAMEWORK (Part II) <i>Assigned Reading:</i> Shafiqul Islam and Lawrence Susskind, Water Diplomacy: A Negotiated Approach to Managing Water Networks , Resources for the Future, 2012, Chapters 4 – 8 (pp. 89 – 268)
	2/23 <i>Section Meeting 1</i>	FINN RIVER BASIN ROLE-PLAY SIMULATION Assigned Readings: Read the General Instructions and Assigned Confidential Instructions for the Finn River Basin Simulation
	3/2	DEBRIEF OF FRB ROLE-PLAY
	3/2 <i>Section Meeting 2</i>	Unit #2: KEY CONCEPTS What is Integrated Water Resource Management (IWRM)? What is IWRM aimed at accomplishing? How is it supposed to work? Who is meant to play what part? What information is crucial to the success of
Part II: Key Concepts	3/2 <i>Section Meeting 2</i>	

		<p>IWRM? What has been the success of the IWRM concept thus far?</p> <p><u>Assigned Readings:</u> Please look at the web site of the Global Water Partnership (www.gwp.org), especially the sub-sections on What is IWRM? Look, also, at their Handbook and Technical Briefs until you are absolutely clear about IWRM in theory and in practice. Then, read Muhammad Mizanur Rahaman and Olli Varis, Integrated water resources management: evolution, prospects and future challenges, “in Sustainability: Science, Practice and Policy, Spring 2005, Volume 1, Issues 1, pp. 15 – 21 and Asit Biswas, “IWRM: A Reassessment,” in Water International, Volume 29, No. 2, pp. 248-256, June 2004.</p>
	3/9	<p>What are the elements of Water Security? What would it take to guarantee a country’s water security? Using the Water Security diagram in the Lankford et. al. book, how would you describe the prospects of water security in the United States? In another country of your choice?</p> <p><u>Assigned Reading:</u> Bruce Lankford, Karen Bakker, Mark Zeitoun and Declan Conway, <i>Water Security: Principles, Perspectives and Practices</i> (Routledge, 2013), pp. 1 – 25, 49 – 63, 80 – 100, 115 – 147, 204-219, and 336-352</p>
	3/16	<p>Can water disputes actually be resolved, or can they only be managed? How does the idea of value creation relate to efforts to resolve water conflicts? How should uncertainty and complexity be handled in efforts to resolve trans-boundary water disputes?</p> <p><u>Assigned Reading:</u> TO BE ASSIGNED</p>
	3/23 (Guest Lecturer: Prof. Sharmila Murthy)	<p>What are the principles of international water law? How are they enforced? What are the arguments for and against water and sanitation as a human right?</p> <p><u>Assigned Readings:</u> Eyal Benvenisti, <i>Sharing Transboundary Resources: International Law and Optimal Resource Use</i>, (Cambridge University Press, 2002), pp. 1-21, 156-200,</p>

		and 201-231. Key Concepts of International Water Law – Prepared by Sharmila Murthy for the Water Diplomacy Workshop Sharmila L. Murthy, Can International Water Law be a Tool for Water Diplomacy?, (Journal of International Law of Peace and Armed Conflict, 1/2014), pp. 17-25.
	3/23 <i>Section Meeting 3</i>	What are the important distinctions between Blue Water Green Water and Virtual Water? How do these relate to IWRM and to Water Security? What is virtual water? What’s the connection between water security, food security, energy security and sustainable development. <u>Assigned Reading:</u> Tony Allen, Virtual Water (I.B. Tauris, 2011). We urge you to skim the whole book. However, please be sure to read pp. 21-47, 65-78, 169-233, 297-343
Part III: Case Studies and Preparation	4/6 Guest: Dr. Bruno Verdini	FIRST ROUND OF WATER DIPLOMACY CASE STUDIES: NORTH AMERICA: The U.S.-Mexico Water Case <u>Assigned Readings:</u> Stephen Mumme, 2009, “The Liquid Frontier: Water and Sustainable Development on the U.S.-Mexico Border.” <i>Journal of the West</i> 48/4: 104-112. Bruno Verdini, 2017, “Laying the Foundations for Mutual Gains in Transboundary Water, Energy, and Environmental Negotiations: The Colorado River Case.” Skim 3.1; Read 3.4-3.10.
	4/6 <i>Section Meeting 4</i>	Introducing the AquaPedia (materials to be handed out)
	4/13 (Guest Lecturer: Prof. James Wescoat)	SECOND ROUND OF WATER DIPLOMACY CASE STUDIES: SOUTH ASIA: The Indus River Case <u>Assigned Reading:</u> TO BE ASSIGNED
	4/13 <i>Section Meeting 5</i>	Case Study Selection and Design <u>Assigned Reading:</u> Robert Yin, Case Study Research: Design and Methods,

		5th edition, Sage, 2013, pp. 27-70
4/20 (Guest Lecturer: Ms. Yasmin Zaerpoor)		THIRD ROUND OF WATER DIPLOMACY CASE STUDIES: NORTHERN AFRICA: The Nile River Case <u>Assigned Reading:</u> TO BE ASSIGNED
4/20 <i>Section Meeting 6</i>		FAQ Session on Aquapedia or Case Study Assignment
4/27		<i>STUDENT CASE PRESENTATIONS</i>
5/4		<i>STUDENT CASE PRESENTATIONS</i>
5/11		<i>STUDENT CASE PRESENTATIONS</i>
5/18		<i>THE WATER DIPLOMACY FRAMEWORK REVISITED</i> <i><u>*Final Case Study Assignment Due*</u></i>