

# Water Cooperation and Diplomacy

A Joint Education Programme between  
the University for Peace, Oregon State University, and IHE  
Delft Institute for Water Education



United Nations  
Educational, Scientific and  
Cultural Organization



Institute for  
Water Education  
in partnership with UNESCO

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## 1. BACKGROUND

Across the globe, competition between water users and between uses is growing. Water cooperation among different stakeholders is, thus, becoming increasingly important to ensure effective water resources planning and management at different scales and access to equitable water services both in rural and urban context.

There is a need for experts and practitioners to deal with water dispute avoidance, management and resolution, and to develop and promote strategies, mechanisms and tools of water cooperation and water diplomacy. These experts and practitioners will require in-depth knowledge of and skills in critical analysis of water conflicts, water resources management, dispute prevention, and tools to promote/achieve water security and to ensure dialogue and cooperation among competing users at different scales. Only a few programs in the world (among them IHE-Delft, University for Peace, and Oregon State University) can provide this type of training, and often those in greatest need of such training are also least able to afford it. There is a resulting need for support of programs that provide education in this area and training in these skills to increase the number of experts and practitioners.

The Joint Educational Programme in Water Cooperation and Diplomacy described here is intended to fill the needed gap for training of water professionals and offers education and training in the areas of global water cooperation and diplomacy around water.

## 2. PROGRAMME UNIQUENESS

Distinctive aspects of the programme include the following:

- Unique pedagogical approach – exposure of students to the theory followed by practical exposure to contemporary issues through field work at different scales
- Strong theoretical foundation in peace and conflict studies
- Particular emphasis on conflict from different points of view, with a particular focus on the water sector
- Foundation in how to understand the nexus of environment and development: how to integrate water-related issues in a broader environment and development framework
- Focus on practical skills-training for actual dispute resolution processes
- Collaborative and interdisciplinary project work
- Field experience in both the Global South and Global North contexts
- Extended networking opportunities from different but complementary fields (water-oriented experts, and peace and conflict experts)

### 3. PROGRAMME PARTNERS

This partnership takes advantage of existing strengths of all institutions.

UPEACE is a global leader in research and education related to peace, security and conflict and will take the lead in training students in the underlying theories of and approaches to peace, security and conflict. Moreover, UPEACE will place water-related conflict into a broader historical, legal and theoretical context. This partnership also takes advantage of UPEACE's geographical setting in the Global South to expose students to water-related conflicts at different scales via field-based study and research.

The study of water resources at the OSU provides students with access to courses and faculty expertise from across six colleges<sup>1</sup>, and includes a certificate programme in Water Conflict Management and Transformation (WCMT) delivered through the College of Earth, Ocean and Atmospheric Sciences. The WCMT certificate, which supports water conflict prevention and resolution in Oregon, across the US and internationally, focuses on training and research on all aspects of water conflict transformation. The expertise available at OSU is thus ideal to supplement the conflict management aspect of the proposed joint programme. Moreover, it offers an additional field-based component, which ranges from the small local scale to the international scale, and illustrates clearly the different scalar dimensions of water conflicts.

IHE Delft is a global leader in water research and the training of water professionals. It brings existing strengths in the training of students in water governance and the technological, hydrological and engineering aspects of water management.

### 4. LEARNING OBJECTIVES

The programme will adopt an interdisciplinary approach and provide participants with a theoretical and historical understanding of conflict and peace dynamics and frame issues of water security and cooperation in the broader context of environmental issues. The programme will provide tools (methodological, diplomatic and legal instruments) and training in a number of skills, such as negotiation skills. Additionally the programme will offer the unique opportunity to undertake fieldwork and hands-on experience in Costa Rica, The Netherlands and USA. Participants will be exposed to different case studies, involving diverse challenges and contexts at different scales.

More specifically, the learning objectives of the programme are to:

- Articulate the complexities of socio-natural processes
- Discuss and compare theories and dimensions of conflict and its avoidance, management and resolution

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<sup>1</sup> Program information can be found at <http://oregonstate.edu/gradwater/>

- Critically analyse water disputes (including actors, policies, institutions, historical, social and bio-physical processes)
- Identify and analyse issues, challenges and potential conflicts of water allocation and access to water resources at different scales
- Use an interdisciplinary approach to critically assess and evaluate conflict management tools and techniques available to deal with water-related disputes
- Apply conflict management tools and design conflict resolution processes with the aim of mitigating water management disputes
- Research the selection and application of adequate methodologies and techniques of water conflict management tools and formulate well-founded conclusions and recommendations

## 5. APPROACH TO THE PROGRAMME

Professionals and researchers in the water sector are increasingly required to be specialists in their own field or discipline, whilst also having a basic knowledge of adjacent fields. This has been described as T-shaped knowledge, where the vertical leg of the 'T' represents the in-depth knowledge of the main discipline and the horizontal leg the basic knowledge of adjacent disciplines. The goal of this programme is, therefore, to allow participants to deepen their knowledge and skills in their field of expertise and, at the same time, extend their knowledge to related fields and disciplines. To achieve this, the programme will take a multidisciplinary approach to water security, cooperation and conflict exploring legal, political, economic, and environmental dimensions.

The programme recognizes water security as an outcome resulting from a combination of socio-hydrological processes. In line with this premise, the programme will start with a course describing the dialectic relation between social and hydrological processes. The programme will then address water cooperation and conflict management from diverse and intertwined dimensions. The following disciplines and fields will be integrated in the programme:

- Socio-hydrology: dialectic between social and hydrological processes;
- Peace and conflict studies;
- Environmental security;
- Water governance and water conflict management;
- Collaborative research and writing;
- Negotiation skills; and
- Law and diplomacy.

The programme will also introduce new forms of teaching, with the possible integration of online courses and the alignment with existing programmes at OSU. These include the Water Resources Graduate Program, Natural Resources Leadership Academy, and the Public Policy programme.

## 6. DEGREE OPTIONS

In summary, there are two options for students: the first is for those only wanting a project-based Master of Science degree; they will complete their studies at OSU, and receive degrees from UPEACE and OSU. The second is for those wanting to do independent research and write a thesis. They may do so and continue the programme at UPEACE, IHE Delft or OSU for another six months, receiving degrees from all three institutions. Within that option there will be three sub-options from which the students can choose, depending on their interest and requirements.

Participants attend the common and core taught element of the programme in all three institutions, starting with UPEACE, then IHE Delft and OSU. They will focus on different areas at each, as described in further detail in this document

### **Capstone collaborative project**

An important element of the programme at OSU is the collaborative project undertaken by the students jointly as a group. This research project may be conducted within the scope of activities of the US Army Corps of Engineers (USACE) as part of the ICIWaRM.<sup>2</sup> The duration of the project will be approximately two months and would be conducted under the direction of a professor. It will thus not be an internship but will provide a collaborative approach to project work with the possibility of the project outcome being published. The intention is to provide students with an applied, collaborative element to their studies. Completion of the collaborative project will reinforce the conceptual and theoretical background provided earlier in the programme, give students an opportunity to experience an interdisciplinary working environment, and help prepare them for real-world collaboration on water-related projects.

Once the project has been completed, students will have two options:

1. Project option: in this option the students will incorporate comments and required revisions from the instructors into a final version of the collaborative project document and end the programme at that point. Students will then obtain an MSc from OSU in Water Resources Policy and Management, specialization in Water Cooperation and Diplomacy and an UPEACE Master of Arts in Environment, Development and Peace, specialization in Environmental Security and Governance.
2. Thesis option: this option is for students wishing to write a thesis; they may choose to work with a thesis advisor from any of the three institutions. Students will then obtain an MSc from OSU and IHE-Delft and a MA from UPEACE.

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<sup>2</sup> ICIWaRM is a UNESCO Category 2 Research Centre headquartered at the U.S. Army Corps of Engineers' Institute for Water Resources (IWR) in Alexandria, Virginia, USA. It is a consortium of U.S. government agencies, universities, and non-governmental organizations committed to working together in support of the strategic program objectives of UNESCO's International Hydrological Programme (IHP). OSU is an academic partner of ICIWaRM; IHE Delft is an International partner.

It is expected that the decision to write a thesis is made at the beginning of the programme, for practical purposes. Members of all institutions would be part of the examining committees as well.

## **7. TIMELINE AND LOCATIONS**

The programme lasts 16 months for students pursuing the project-based master degree (beginning in August of Year 1, with degree completion in December of Year 2) and 20 months (beginning in August of Year 1, with degree completion in April of Year 2) for those undertaking a thesis.

The locations of the taught element are (and in that order): the campus of UPEACE in Ciudad Colón (Costa Rica); IHE Delft in Delft (Netherlands); and OSU, Corvallis (USA). Students wanting to complete the thesis will return to UPEACE or to IHE Delft or remain at OSU depending on the institutional affiliation of their thesis supervisors.

## 8. CURRICULUM OVERVIEW AND COURSE DESCRIPTIONS

	Module	Length	Dates
	Orientation I	1 day	August
1	<b>Socio-hydrology</b>	2 weeks	August
	Orientation II	2 days	August
2	<b>UPEACE Foundations Course</b>	3 weeks	August-Sept.
3	<b>General Course on the UN System</b>	2 weeks	September
4	<b>Environment, Conflicts and Sustainability</b>	3 weeks	October
5	<b>Water Security and Peace (concept, theories, and field course)</b>	3 weeks	October-November
6	<b>Management of Coastal Resources (<u>concepts, theories and field course</u>)</b>	3 weeks	November
	<i>Break for travel</i>	1 week	Nov.-December
7	<b>Water governance</b>	2 weeks	December
	<i>Christmas break</i>	2 weeks	Dec. -Jan.
7	<b>Water governance</b>	1 week	January
8	<b>Water economics</b>	3 weeks	January
	Examination period	1 week	February
9	<b>Water law</b>	3 weeks	February
10	<b>Water conflict management I</b>	3 weeks	March
	Examination period	1 week	March
11	<b>Water conflict management II</b>	3 weeks	March-April
12	<b>Elective module</b>	3 weeks	April-May
	Examination period	1 week	May
13	<b>Research Methodology + Thesis proposal work</b>	2 weeks	May
	<i>Break for travel</i>	1-2 weeks	May-June
14	<b>Natural Resources Leadership Academy</b>	1 week	June
15	<b>Applied Hydrology</b>	1 week	June
16	<b>Applied Field Problems/Technical and Academic Writing in Water Resources</b>	3 weeks	June-July
17	<b>Conducting Collaborative Projects /Writing in Water Resources</b>	4 weeks	July-August
18	<b>Collaborative Project/Directed Research</b>	3 weeks	August-Sept.
19	<b>Project completion – OSU; Seminar and Journal Club</b>	10 weeks	September-December
	<b>Thesis at either IHE Delft/UPEACE/OSU</b>	6 months	September - April

### Summary

The Joint Educational Program in Water Cooperation and Diplomacy delivered by the three partner institutions described here will provide critically important training for students across the world and help develop the next generation of practitioners and diplomats whose expertise will be needed to



manage increasingly scarce resources while at the same time promoting peace and access to water and sanitation for people from across the world.

### **About the Institutions**

IHE Delft carries out educational, research and capacity development activities in the broad fields of water engineering, water management, sanitation and governance. It is the largest international graduate education institute in the field of water.

UPEACE is a global leader in research and education related to peace, security and conflict and will take the lead in training students in the underlying theories of and approaches to peace, security and conflict. Through this unique partnership, UPEACE will provide a broader historical, legal and theoretical context to water conflict. UPEACE's geographical setting in the Global South will also expose students to water-related conflicts at different scales through field-based study and research.

Oregon State University has a strong graduate program in Water Resources that provides students access to a broad range of courses and faculty expertise, and the opportunity to earn a certificate in Water Conflict Management and Transformation (WCMT). Coursework at OSU includes a field-based component, addressing water conflicts ranging from local to international scales.

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