



International Virtual Seminar “Water and Climate”

## Course Guide



**N. ECTS: 6 ECTS**

**COORDINATION**

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# 1. Context

The "International Virtual Seminar - Water and Climate" (IVS-WaC) is a digital-collaborative Master's module jointly thought by 6 university partners from Denmark, Germany, Greece, Portugal, Romania and the Netherlands:

- [Department of Environmental Sciences, Open University of the Netherlands, The Netherlands](#)
- [Department of Environment of Aegean University, Greece](#)
- [Department of Paleontology, University of Bucharest, Romania](#)
- [Department of Planning, Aalborg University Copenhagen, Denmark](#)
- [Department of Science and Technology, University Aberta, Portugal](#)

The Seminar is coordinated by Universitat Oldenburg, Oldenburg, Germany.

Within the seminar you can develop a theoretical, practical and critical understanding of the notion of water and climate in a wider scientific and governance framework. This includes a differentiated understanding of the challenges posed to societal groups and decision makers. It also provides foundation for wisely dealing with issues of water and climate on local to transnational levels. At the same time, the seminar will give insights into selected national and international projects and possible future fields of practice.

Complex societal challenges, related to climate change and water require innovative approaches, which will be addressed in a challenging international and interdisciplinary environment.

## 2. Learning Outcomes

Within the seminar students develop a theoretical, practical and critical understanding of the notion of water and climate in a wider scientific and governance framework. This includes a differentiated understanding of the challenges posed to societal groups and decision makers. It also provides foundation for wisely dealing with issues of water and climate on local to

transnational levels. At the same time, the seminar will give insights into selected national and international projects and possible future fields of practice.

Students will be able to:

- understand and reflect different approaches and methods being applied in topical research and policy making
- discuss the challenges of water and climate in an international context
- evaluate impacts of human activities on water and climate systems
- present information and critical arguments relating to water and climate theory and practice
- work as an effective group member in an international and interdisciplinary team.

### **3. Target**

Any advanced Bachelor's, early Master or PhD students. All the Seminar will be taught in English in the UAb Moodle platform.

The course will be offered to the Master Students in Citizenship and Participation and can be integrated in the study plan of this Master. Registration for these students is done separately.

### **4. Contents**

In the IVS-WaC seminar, two teaching-learning formats are used, which contain both asynchronous and synchronous elements. In a first part all students are taught the 6 main topics through guest lectures by the lecturers and experts from the field (3 ECTS). On the second part, students work in small groups on a term paper on one of the topics and develop a short film or podcast to share the results with all participants and beyond (3 ECTS). The available topics are:

## Environmental Governance

- Environmental Governance
- Spatial Planning & Climate Change Adaption
- Marine Spatial Planning & Coastal Management
- Marine litter and waste management
- Communicating Climate Change
- Water and climate change in UNESCO global geoparks

In total, 30 international students will be able to develop a variety of skills in 6 thematic areas that address current challenges of sustainable water and climate management. They are supervised by 11 participating lecturers who actively engage in the seminar and provide current discourses and comprehensive competences in water and climate research, which are additionally sharpened by 2 practice-oriented expert lectures (authorities, international networks, NGOs):

### **International Virtual Seminar – Water and Climate**

#### **Virtual asynchronous lectures**

- lecturers will be involved supporting with their specific expertise
- Lectures will be recorded for students and available online

#### **Live discussions**

- with the lecturers every two weeks

#### **Case Study Seminar (limited to 30 students)**

- Total of six small international, interdisciplinary groups for each topic
- Problem-based, self-directed and research based learning
- Each group is supervised by the lecturer of that topic

## 5. Schedule

Both formats (Lecture Series and Case Study) will start in April. The structure of the Lecture Series is divided into two main thematical blocks: “Environmental Governance, Planning and Management” and “Climate Change Communication and Adaption; Geoparks”. The case study topics will be provided according to the expertise of the partner institution.

The schedule consists of synchronous and asynchronous parts. Synchronous meetings between lecturers/supervisors and students will be:

- Introduction sessions at the beginning of the courses (separate sessions for Lecture Series and Case Study)
- Discussion of Lectures every two weeks
- Discussion of Case Study progress with supervisor approx. every two weeks (will be organized within the Case Study group)
- Closing sessions

### **Lecture series:**

- Recorded lectures for flexible, asynchronous learning (weekly uploaded)
- interactive group discussions with the experts of the topics every two weeks
- forum discussion as assignments

The lecture series will start with a synchronous Introduction session. Afterwards **two** topics/lectures form one block which consists of:

- Two Lectures which will be uploaded on Monday before noon.
- Discussions which will take place on Thursdays 5pm (CET) every two weeks, moderated by the two lecturers.
- Assignment with the deadline on Sunday after the discussion session.

### **Case Study Seminar**

(Limited number of students; 30 students in total)

- Six small international, interdisciplinary groups for each topic of about 5 students
- Problem-based, self-directed and research based learning by students
- Problems for which there are different possible solutions.
- Each group is supervised by the supervisor of that topic
- Presentation of results in written form and podcast or video
- Approx. 2-weekly discussions with tutors

## 6. Assignment

-Individual writing document about the lectures Series (50 %);

- For the case studies (50 %):

- Individual learning progress record
- Group work: podcast or video (context and complexities of the case)
- Peer-to-peer review of the podcast/video of other groups.

## 7. Teachers

Lectures series: Guest lectures by the lecturers and experts from the partner universities

Case studies: Tutors from the partner universities in each case study

Universidade Aberta team:

**Sandra Sofia Caeiro** holds an undergraduate degree in Environmental Engineering from NOVA University of Lisbon, a Masters in Science of Coastal Zones from University of Aveiro, a PhD on Environmental Engineering from NOVA, Portugal, and Habilitation in Sustainability, Environment and Global Changes from Universidade Aberta (UAb). She is currently Full Professor in the Department of Science and Technology at Universidade Aberta (UAb) and a senior researcher at CENSE - Center for Sustainability and Environmental Research and she also collaborates with the LE@D - Distance Education and e-learning Laboratory of UAb. Her main research and teaching areas include sustainability assessment tools, education for sustainable development and e-learning and environmental sciences.

**Sara Bettencourt Pereira Martins** completed the Bachelor's degree in Biochemistry in 2016 and the Master's degree in Applied Biochemistry in 2018, both in Universidade do Minho. Her master's dissertation was inserted in the European project VOLATILE, being her work focused on lipid production using oleaginous yeasts and volatile fatty acids as carbon sources. Considering that her main interests are sustainable development, circular economy and waste management, now she is a PhD student of Social Sustainability and Development, in

Universidade Aberta. Sustainable development and marine litter are the areas that Sara is exploring in her PhD thesis.

#### **Project team at University of Oldenburg**

##### **Dr Leena Karrasch**

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#### **More information about the project at:**

<https://uol.de/en/wire/eoeco/research/ivs-wac-international-virtual-seminar-water-and-climate>