



WIN! Water Innovations

Policy, Management, Research

Tartu-Kuressaare/Pärnu (Estonia), August 12-23, 2019

Introduction

The **WIN!** summer school will be a vibrant mixture of interactive sessions, field trips, and group work in a unique setting, designed to give participants hands-on project and research experience with a range of water, wetland and littoral ecosystems and their sustainable use, and with a focus on novel and innovative approaches and methodologies. After an introductory day with an overall overview of water sustainability challenges and the state of art in water science, policy and management, the students will follow one of the selective blocks (the choice will be placed before the start of the summer school) – (1) Wetland Science or (2) Science, management and policy of rivers and floodplains, then two non-selective blocks – (3) Coastal and small island science, management and policy, and (4) urban water science, management & policies. Each thematic bloc will feature taught sessions (lectures and skill training workshops) on science, management, policies and research methodology, field excursions, and space for a group assignment and a discussion. The School will start and finish in Tartu, while the for coastal, marine and urban parts all the participants and faculty will move to West-Estonia (Kuressaare or Pärnu, the decision is pending). By the end of the School, all the participants (individually or in small groups) will be expected to develop and present proposals for a practical solution for a real-life problem, or detailed paper proposals reflecting on their project experience and learning outcomes of the **WIN!** School. Participants and faculty are encouraged to re-develop the final reports into academic papers or project applications. Successful students will be awarded a **WIN!** Certificate of Completion at the end of the course and transferred 3 ECTS.

The **WIN!** summer school will be a valuable learning experience for everyone, but having a great time is also a summer essential. All 30 participants will be students or young experts, therefore we would like everyone to have a memorable time with us in Estonia!





Summer school faculty:

Dr. **Aron Buzogany**, University of Natural Resources and Life Sciences, Vienna (Austria)
Prof. **Raimonds Ernsteins**, University of Latvia (Latvia)
Mr. **Attila Katona**, Central European University (Hungary)
Prof. **Maris Klavins**, University of Latvia (Latvia)
Dr. **Ain Kull**, University of Tartu (Estonia)
Prof. **Valdo Kuusemets**, Estonian University of Life Sciences (Estonia)
Prof. **Hans-Peter Nachtnebel**, University of Natural Resources and Life Sciences, Vienna (Austria)
Prof. **Kalle Olli**, Estonian University of Life Sciences (Estonia)
Dr. **Tarmo Pikner**, University of Tallinn (Estonia)
Ms. **Laura Remmelgas**, Baltic Environmental Forum, BEF Estonia
Dr. **Anda Ruskule**, Baltic Environmental Forum, BEF Latvia
Prof. **Kalev Sepp**, Estonian University of Life Sciences (Estonia)
Dr. **Anton Shkaruba**, Estonian University of Life Sciences (Estonia)

Program overview

- **Pre-School** (June 30-August 11, 2019): pre-course reading and case study materials (made available through a dedicated e-learning site from June 30, 2019), development and collection of course participants profiles with short visions for the course (to be compiled to the course participant directory) and an introductory webinar for pre-course preparatory assignment
- **In-School** (August 12-23, 2019):
 - o (1) scoping phase (August 11-13)
 - o August 11: Arrival to Tartu, registration, meet & greet
 - o August 12-13: Introduction to the School, faculty and participants; overviews of water sustainability challenges and the state of art in water science, policy and management
 - o (2) research training phase (August 14-21)
 - o August 14-15: selective blocks (1) Wetland science (including a workshop on copter-aided observation techniques), management and policy and (2) Science, management and policy of rivers and floodplains (with a focus on flood issues and risk assessment and management, and on transboundary issues); a field trip
 - o August 16: moving to Kuressaare or Pärnu; marine spatial planning workshop
 - o August 17-18: block (3) Coastal and small island science, management and policy
 - o August 19: moving back to Tartu; an intro to block (4) urban water science, management & policies
 - o August 20-21: an introduction to urban water science, management and policies continued; a field trip
 - o August 21 (the second half of the day): space for independent and group work
 - o (3) reporting, graduation, departures (August 22-23):
 - o August 22: group work on reports and consultations
 - o August 23: reporting and graduation
 - o August 24: departures
- **Post-School** (September 1-September 30, 2019):
 - o the group leaders send the final version of group reports (paper or solution proposals) to be included to the edited on-line volume and case study database.



Thematic blocs and field trips:

#1, wetlands: the key issue to be explored will be how to secure the most favourable conservation status for wetlands, and what is the most favourable in this context. Participants will be offered an overview of methodology and guidelines for restoration of degraded mire habitats sites. This will also include the basic principles of protection and management of wetlands, as well as restoration and monitoring (on the field and by drones) of the degraded wetlands.

Sites to be visited: Alam-Pedja (Soosaare mire), Tudusoo and Sirtsu Nature Conservation Areas, and Lahemaa National Park (Laukasoo mire).

The central question of group assignments: Evaluation of ecosystem services of degraded and restored wetlands.

Faculty in charge: Dr. Ain Kull

#2, rivers and floods: this course bloc will explore river restoration projects planned, such as for resurfacing (lost) rivers, naturalising channelised rivers, adaption to climate change, compliance with the Floods Directive and link to the relevant Flood Risk Management Plans. Compliance with the EU Water Framework Directive.

Sites to be visited: for flood management – Emajõgi in the city of Tartu and its outskirts, Sindi dam at the River Pärnu; for river restoration projects – a trip across Northern Estonia.

The central question of group assignments: how can we handle complex trade-offs between flood safety, economic interests and ecosystem services?

The faculty in charge: Prof. Hans-Peter Nachtnebel

#3, marine spatial planning: any human activities on sea must be based on achieving or maintaining a healthy marine environment. The bloc will explore marine spatial planning (MSP) process in Europe, Baltic Sea Region countries and in Estonia. It will offer an overview of MSP related maritime uses. Examples will come from Pärnu, Hiiu Pilot Studies and maritime spatial planning for sustainable economics.

Sites to be visited: West- Estonian coastline, a pilot areas of Pärnu MSP.

The central question of group assignments: How can we handle conflicts between maritime uses? How can we manage trade-offs between ecosystem services and maritime uses?

The faculty in charge: Dr. Tarmo Pikner

#4, coasts and small islands: this bloc will explore Integrated Coastal Zone Management (ICZM) and its applications. In particular, it will focus on cultural, environmental and social aspects of small islands' sustainability.

Sites to be visited: islands of Kihnu and Vormsi.

The central question of group assignments: what should be considered for a management plan for the small island? What is sustainable for small island ecosystems and communities?

The faculty in charge: Prof. Raimonds Ernsteins



#5, urban waters: this bloc is concerned with water-related nature base solutions and their management and governance in cities, in particular in relation to storm water management and use of natural water retention measures. It will also explore the issues of compliance with the Floods Directive and link to the relevant Flood Risk Management Plans.

Sites to be visited: the field work will be carried out within the city of Tartu

The central question of group assignments: how start with the development of policies for urban stormwater and adaptation to climate change in urban areas?

The faculty in charge: Prof. Valdo Kuusemets

Application process

Details about the application procedure and available travel grants are available from <http://conference.emu.ee/summerschools/win/>. The application deadline for those who applies for any form of financial assistance and/or needs visa in order to enter Estonia is **May 15, 2019**. The deadline for all other categories of participants is **June 1, 2019**.

Financial information

We are working on affordable accommodation and catering solutions during the school; all the relevant information will be available soon from the summer school www. Some practical info is available from <https://www.emu.ee/en/studies/practical-information/>, and information about Tartu from <https://visittartu.com/>. The tuition fee for applicants from OECD countries is EUR 650 and waived for the rest of the world; based on individual merits and personal situation we are ready to consider fee waivers for the participants from OECD countries as well.

Contacts

The School's website will be launched soon. All the inquiries on the matters not covered by the website should be sent to Dr. Anton Shkaruba, anton.shkaruba@emu.ee, Estonian University of Life Sciences, Kreutzwaldi 5 Tartu 51006, Estonia

