

Announcement

11th International Summer School on “Climate of the Baltic Sea Region”

18 August – 25 August 2025

co-organized by

Leibniz Institute for Baltic Sea Research Warnemünde (IOW), the
University of Rostock and the International Baltic Earth Secretariat
under the umbrella of Baltic Earth (www.baltic.earth)



We invite students from the entire Baltic Sea region to the 11th Baltic Earth Summer School on “Climate of the Baltic Sea region”

Students will be introduced into fundamental processes of the atmosphere, ocean, sea-ice and land surface with relevance for the climate system. We will start from basic principles and equations of motion that describe the circulation and dynamics in the atmosphere, ocean and sea-ice. The available knowledge in the literature about water and energy balances will be presented. Further basic methods of the analysis and modeling of the regional climate system will be treated, including the statistical analysis of time series to identify changes in regional climate. We will explain atmospheric pressure patterns of the large-scale circulation like the North Atlantic circulation with influence on the Baltic Sea and the corresponding catchment area, as well as the functioning of the wind-driven and thermohaline circulation of the Baltic Sea.



Furthermore, the course will deal with coupled atmosphere-ocean climate models, climate change, the greenhouse gas effect and other drivers of regional climate, dynamical downscaling, and the variability of circulation and regional climate. We will study the possible impact of climate change on the marine ecosystem including biogeochemical cycles. Other human impacts as the pollution of the oceans by toxins and plastic will also be discussed.

With the help of teachers from several disciplines, a holistic Earth System approach will be presented although the main focus of the course is on the physical aspects of changing climate. In addition to lectures, tutorials, exercises and literature studies the course will give the students the opportunity to discuss the learned topics further during group exercises.



Course site: Askö Laboratory is situated 80 km south of Stockholm in the Swedish archipelago.
Website: <http://www.su.se/ostersjocentrum/english/askö-laboratory>



Course period:

8 days in total, 18 August – 25 August 2025
Travel from Stockholm to Askö by bus and boat on 18 August and return on 25 August.

Estimated number of participants:

~ 20 students from all Baltic Sea countries and several experienced lecturers/supervisors (will be announced soon)

Costs: Accommodation and all meals are provided free of charge on Askö.

Travel costs will not be reimbursed but limited funds are available and applications for travel support are welcome together with your application (please add a brief motivation). Unfortunately, applications for travel support submitted at a later date cannot be considered.

Credits: 3 ECTS for the successful participation (exam) in the course.

Applications: The School is open to undergraduate and graduate students in marine sciences and associated fields.

Please use our [application tool](https://www.io-warnemuende.de/bess-application.html) on the website:
<https://www.io-warnemuende.de/bess-application.html>

Also provide your contact, a motivation letter (max. 1 page), a short CV (max. 2 pages) and a recommendation letter from your supervisor.

Deadline for applications: 1 May 2025.

Successful candidates will be notified by 31 May 2025.

Contact:

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