International Advanced PhD course on

Ecologically relevant oceanographic processes in the Northeastern Atlantic

21 August – 1 September 2023 – Tórshavn, the Faroe Islands

Enjoy the Faroes – the gateway of currents and migratory wildlife!

This Advanced Course provides a thorough introduction to the oceanography of the Northeastern Atlantic, with emphasis on physical drivers of ecological processes, and focus on the waters off and on the Faroe shelf.

Through lectures, hands-on work onboard the new research vessel, R/V *Jákup Sverri*, and assessment of scientific literature and data, a team of ~ 13 prominent lecturers will cover key oceanographic features in the Northeastern Atlantic (e.g. thermohaline circulation, gyre circulation systems, principal atmospheric drivers, nutrient upwelling and ocean-shelf interactions) and how changes in this system impact ecologically important species from all trophic levels. After the course, you will be able to *i*) describe the characteristics of main biogeographical zones in the subpolar North Atlantic, *ii*) extract, process and analyze data from physical oceanographic models and *iii*) discuss your research topic in both a climate variability (natural) and in a climate change (anthropogenic) perspective.

6 ECTS Credits

Application Deadline: 9:00, 29 May 2023

More information at: www.setur.fo, www.hav.fo and gransking.fo

HAVSTOVAN
FAROE MARINE RESEARCH INSTITUTE

FRÓÐSKAPARSETUR FØROYA
University of the Faroe Islands

granskingarráðið RESEARCH COUNCIL FAROE ISLANDS

Time and place

- August 21 to September 1, 2023 at the University of the Faroe Islands and the Faroe Marine Research Institute (FAMRI), both located in the heart of Tórshavn - the capital.
- Two days (August 28-29) are spent with hands-on work and lectures onboard the new Faroese state-of-the-art research vessel R/V *Jákup Sverri*.

Please do not plan to travel on August 21 and September 1, since these will be full teaching days.

Participants

- Ph.D. students and recent postdocs. PhD students and Postdocs associated with the program *Marine Research In the North Atlantic Ocean* (MARI-NAO, see gransking.fo) will be prioritized if space is limiting.

Registration – now open!

Please submit your application to Research Enterprise Unit at the University (email: reu@setur.fo) by May 29, 2023. We offer space for up to 15 students, and participation will be confirmed based on availability by June 12, 2023. A description of required application documents is given below.
Questions about the course content can be sent to Dr. Hjálmar Hátún, FAMRI, hjalmarh@hav.fo.

More information:

Lecturers

Experts and supervisors from the MARINAO program and FAMRI will present lectures and facilitate exercises/hands-on work onboard. Confirmed lecturers are listed below (alphabetic order) and others will be announced in the coming weeks.

Dr. Bjarni Mikkelsen, FAMRI, Faroe Islands – marine mammals

Dr. Bogi Hansen, FAMRI, Faroe Islands – oceanography in Faroese waters

Dr. Brian MacKenzie, DTU Aqua, Denmark – climate-hydrographic impacts on commercial fish stocks

Dr. Eilif Gaard, FAMRI, Faroe Islands – plankton

Dr. Eydna í Homrum, FAMRI, Faroe Islands – pelagic fish

Dr. Gunnvør á Norði, Aquaculture station, Faroe Islands – fjord processes

Dr. Hjálmar Hátún, FAMRI, Faroe Islands – large-scale oceanography and impact on ecosystems

Dr. Ian Salter, FAMRI, Faroe Islands – biogeochemistry and lower trophic levels

Dr. Jóhannes Danielsen, FAMRI, Faroe Islands - seabirds

Dr. Karin Margretha H. Larsen, FAMRI, Faroe Islands – oceanography in Faroese waters

Dr. Peter Grønkjær, Aarhus University, Denmark – dendrochronology and fish stocks

Dr. Petur Steingrund, FAMRI, Faroe Islands – benthic fish stocks

Sólvá Jacobsen, FAMRI, Faroe Islands - plankton

Program (preliminary)

Monday, 21. Aug.: (Meet at the University of Faroe Islands at 9.15) Large-scale features and climate variations (Hjálmar Hátún)

Tuesday, 22. Aug.: Physical characteristics of the Atlantic domain, inflows and overflows, on and off the Faroe shelf (Karin Margretha H. Larsen and Bogi Hansen)

Wednesday, 23. Aug.: Lower trophic levels (primary production and zooplankton) in the open ocean (to be decided)

Thursday, 24. Aug.: Pelagic fish in the boreal and subarctic domains (Brian MacKenzie and Eydna í Homrum)

Friday, 25. Aug.: Benthic fish stocks and long-term records (Peter Grønkjær)

Social activity during the weekend

Monday, 28. Aug.: Meet onboard R/V Jákup Sverri (in Tórshavn harbour). A two-hour lecture on the Faroe shelf and fjords (Ian Salter/Eydna í Homrum/Gunnvør á Norði). Hands-on work with sampling in fjords (waters samples, CTD, VPR and more)

Tuesday, 29. Aug.: Hands-on work with sampling in fjords, with research vessel(s) (continued)

Wednesday, 30. Aug.: Seabirds and mammals (Jóhannis Danielsen, Bjarni Mikkelsen, and person from Greenland)

Thursday, 31. Aug.: Case study - The Faroe shelf (Sólvá Jacobsen, Eilif Gaard, Petur Steingrund)

Friday, 1. Aug.: We tie it together (Hjálmar Hátún, 2 hours). Oral presentations by the students.

Social event on Friday evening

End

Lectures will be given from 8.15 to 15, followed by work on assignment, self-sampled data and oral presentation (15.15-17).

Costs

The course itself will be free of charge for researchers under the MARI-NAO programe, and for students at the University of the Faroe Islands, while external participants pay 3000 DKK. Participants/projects will have to pay their travel to and from Tórshavn, as well as accommodation. We offer low-cost accommodation (300 DKK per pers./night, contact: hjalmarh@hav.fo) for up to eight students in a private house located between FAMRI and the university (about three minutes walk from each location). Students from over-seas have priority.

Travel

You can fly to Vágar airport from Copenhagen, Billund, Aalborg, Oslo, Bergen, Edinburg, Reykjavík, Paris and Barcelona. From Vágar, you take an airport shuttle or the airport bus to Tórshavn (< 1 hour).
If you want to combine the experience with a sea voyage, see www.smyrilline.fo.

Applications

Applications should ***include the following documents assembled into a single pdf file***:

- A short (max. half page) summary of your research interests/project.
- A paragraph on what you hope to learn and take away from the course.
- Your current CV (2 pages max.), including statement of your programming, modelling and data analytical skills, as well as which programming languages you know (e.g., R, Excel, Matlab, Python). This will help us design group work.
- For applicants outside of MARI-NAO: a half page statement of intent detailing your motivation and interest for participating, in relation to your research goals.