

Arctic Futures Pathfinders on the One Ocean Expedition 2025

FAQs

March 2025

General Information

Am I eligible?

This opportunity is available to:

- Canadian citizens or Permanent Residents
 - Must have a valid passport
 - Must be able to obtain the necessary Visas to visit Greenland and the USA (more below)
- Undergraduate, Master's and Doctoral students in any discipline
 - You must be enrolled in a study program at the time of application and maintain active student status through December 2025.
 - Applicants from Northern regions and Indigenous communities are strongly encouraged to apply, with preference given to ensure diverse perspectives in Arctic research.
 - Applicants should demonstrate a genuine interest in Arctic research; a proven background or experience in this field will be considered a strong asset.

How does the reference portion of the application work?

You are required to provide the name of a reference in the Application Form and are responsible for requesting that your reference submit a letter of recommendation directly to Memorial University's Internationalization Office, which is coordinating submissions on behalf of the review committee.

• The letter must be sent by your supervisor or another faculty member to goabroad@mun.ca only. Please ensure it is not sent to any other email address listed in this document, on our website, or elsewhere.

What are some of the financial costs involved?

Accommodations, including meals, and all travel costs are fully covered.

Students are responsible for any additional expenses, such as personal clothing, equipment, and gear required for the trip. (While we will have a small supply of extra clothing on board, it will not be enough to outfit all participants.) Students are also responsible for the cost of a mandatory medical examination.

Here are some things you will need to bring (and will need to purchase yourself):

- Sleeping bag (and possibly a pillow if you need it).
- Comfortable clothes for working that can withstand a bit of wear.
 - Warm and windproof clothing for cold watches on deck.
 - Solid rain gear, both jacket and pants.
 - Good shoes: sneakers and waterproof shoes or rubber boots.
 - o Gloves, hat, warm socks, and a scarf/neck warmer
 - Warm inner layers; wool is recommended.
- Towels and toiletries.
- Camera and binoculars
- Personal medications, contact lenses with lens solution, etc., for the entire voyage.
- Unexpected costs incurred during travel (in the case of flight delays, etc., be prepared to cover the costs of cabs or anything not covered by the airline. More information on this to come soon).

What visas are necessary?

Normally, visas are not required for Canadian citizens to enter Greenland or the United States. However, processes can change and it is the responsibility of all accepted applicants to review the governmental information related to entry prior to departure.

Students with permanent residency status in Canada may have to obtain visa(s), depending on the country from which your passport is issued.

For more information, please visit:

- Visa Requirements for Foreigners Visiting Greenland
- Visa Requirements for Foreigners Visiting the United States

Depending on the portion of the journey you participate in, you may need a visa for Greenland (for Leg 1 and Leg 2) as well as a visa that will allow you to enter the United States (for Leg 2).

Please review your specific visa scenario before applying for the expedition.



Course-Related:

What kind of acoustic activities will be on board?

In terms of marine acoustic monitoring, there will be an ADCP (Acoustic Doppler Current Profiler) on board (300 kHz and 75 kH), as well as a hull-mounted hydrophone.

How does the 10ECTS convert to Memorial credit hours?

Generally speaking, 10 ECTS equates to 5 credit hours in the Memorial system. However, Memorial graduate students are recommended to connect with SGS with the course syllabi to discuss the transfer credit process for confirmation.

Memorial undergraduates should refer to the Transfer Credit Process <u>here</u>. Pre-approval of the course via the Letter of Permission form is required. Please reach out to <u>goabroad@mun.ca</u> for support, if needed.

For students not from Memorial: we encourage you to reach out to your institution's Internationalization office and/or School of Graduate Studies, or equivalent offices, for similar information.



Will we have the opportunity to collect samples, water, and sediment during the journey?

Research application licenses have to be completed before the expedition begins, and these must state clearly what type of samples we will take. Students will only be able to collect samples that fit within the framework of the research licenses already applied for. As a result, there will not be much opportunity for individual sampling (as well, space is limited on the boat for holding samples).

We will collect water samples with Niskin bottles, sediment samples with a Van Veen Grab, and zooplankton sampling with a WP2 net. The permanent instrumentation on board that gathers data underway is listed below, and can be used by the students within the framework of the obtained research licenses:

There is limited time for your own sample collection next to shift work, course work and standard station/sampling work carried out by the researchers onboard, but you will be able to help with station work, and you can of course seek collaborations with the researchers if you are interested in the samples/data.

What equipment is on the ship?

The following is a list of the ship's permanent equipment:

- 2 Smart sensor
- 2 Radar Precipitation Sensor
- 2 IR sensor for SST skin temperature measurements
- 1 Carousel (sensors, watersamplers)
- 1 Winch for carousel
- 1 CTD carousel
- 1 Dissolved oxygen carousel
- 1 ChlA/turbidity/backscatter carousel
- 1 PAR carousel
- 1 PAR surface
- 1 pH carousel
- 1 ADCP 300 kHz
- 1 ADCP 75 kHz
- 3 Hydrophone hull mounted
- 1 SooGuard Ferrybox
- 1 Conductivity/salinity, temperature, density Ferrybox
- 1 O2, temperature Ferrybox
- 1 Chlorophyll A, Turbidity, Phycocyanin Ferrybox
- 1 Pressure, temperature Ferrybox
- 1 Scientific Echosounder EK80
- 1 Kongsberg ES38/200 Combi C echosounder transducer
- 1 Kongsberg ES120-7C echosounder transducer
- 1 eDNA filtration
- 1 eDNA extraction
- 1 Microplastics filtration/analysis
- 1 CTD

- 2 Fishing equipment
- 1 Net sampling
- 3 SeaAwarenes camera
- 1 PAR
- 1 Ocean model
- 2 TorpedDNA
- 1 Freezer
- 1 Data management and event logging
- 1 Fridge

How will exchange students attending the One Ocean Expedition from universities other than UiT be expected to take part in the parts of the Arctic Futures Pathfinders course that takes place before and after the expedition?

Preparations before and after the course will be conducted online; it will be ensured that all students that participate in the course will get the same information regardless if they are external or UiT students.

You will be expected to follow along on your own time. However, please note that a considerable part of the course is organised as group work and you will be assigned in a group with students from UiT and other universities. You will have to coordinate your work with the group you are assigned to.

Will Inuit ambassadors be on board the ship?

Yes. There will be two elders, one on each leg. There will also be two mentors from the Indigenous People's Secretariat of the Arctic Council present, one on each leg (these might not necessarily be Inuit).



Are there specific activities or sessions planned to integrate perspectives from Indigenous and local knowledge holders?

Yes, we plan for such activities and they will be taken regularly and often. The intent is to have a diverse mix of participants along with the Indigenous elders.

Can you describe what kind of research will be taking place on board and how students might be involved?

The research on board is quite diverse. There will be researchers from every faculty at UiT!

The research topics include the following:

- Assessment of fish and zooplankton populations
- Biodiversity assessment using physical sampling, morphological and molecular (environmental DNA) analyses
- Biotechnology: exploring marine bioactive compounds
- Understanding changes in sea ice thickness
- Technology: safe and sustainable operations in remote areas with demanding weather conditions
- Arctic Memoryscapes: documenting changes in Arctic coastal and underwater heritage
- Information literacy by integrating Indigenous knowledge, experiential learning, and Extended Reality technologies
- Ocean literacy: understanding and stewardship of marine environments through integrating diverse knowledge systems and emotional literacy
- Documenting, revitalizing, and integrating management and conservation practices of Indigenous peoples
- Creative futures thinking using experiential learning and worldbuilding through the course running on-board
- International relations: interplay between the Arctic and Arctic local and Indigenous societies with global political, economic, security processes
- Arctic linguistic landscapes
- Didactics: students' perspectives on teaching and learning processes in collaborative interdisciplinary project work
- Epidemiology and impact of diet transitions in Indigenous populations
- Health studies: impact of onboard watch system on health and wellness of OOII participants

We will map out which tasks from the research plans are suitable for students and then we'll map this against the interests of the students. Because there are 60 students per each leg of the expedition, not all students will have research tasks to help with.

Life Onboard the Ship

Do I need to have any prior sailing experience?

No. You do not need any sailing experience at all! Everything will be explained on board and the crew will completely take care of you and teach you.

The website mentions that we should bring warm clothing. Can you provide more information about what we should anticipate for weather and activities to know what kinds of clothing and accessories and other equipment we should bring?

In terms of clothing, you should bring:

- Warm and windproof clothing for cold watches on deck; it often gets windy and wet at sea, and temperatures in the area can be around 0 degrees Celsius. Therefore it can get very cold standing watch or manning the helm!
- Comfortable clothes for "working" that can withstand a bit of wear.
- Solid rain gear, both jacket and pants.
- Good shoes: sneakers and waterproof shoes or rubber boots.
- Gloves, hat, warm socks, and a scarf/neck warmer
- Warm inner layers; wool is recommended.
- Casual clothes for when you are on land.
- Slippers for inside.

An example packing list will be provided to successful applicants.



Are there restrictions on what can be brought on board?

There are mainly space restrictions. Everyone has a personal locker of around 70L capacity. There is some extra space which is for sharing (e.g., for boots or heavy jackets). Be considerate in what you choose to bring with you. You should bring your belongings in a duffel bag, as

these are easier to store away; do not bring a hard case suitcase. No alcohol and drugs are allowed (it is a "dry" ship).

What kind of laundry facilities are available on the ship?

There are sufficient laundry facilities (washing machines, dryers, dryer cabinet).

Will we be required to do heavy lifting or are there ways to accommodate those who may be limited?

Everyone can join the physical activities in whatever capacity they are able, but there is no pressure to take part in everything. Sailing the ship requires a certain level of fitness, but any individuals who need accommodations will receive them.

Are we allowed to fly drones and bring cameras onboard to carry out sea ice observations?

We will bring a drone for tagging icebergs.

For doing other types of drone work, we would need to obtain research licences beforehand, and therefore we cannot guarantee that this will be possible.

Yes, you can bring a camera, if it fits in your allotted 70L locker/duffel bag.



What do we eat while on board the voyage?

The chef and stewards will ensure a well-balanced diet, accommodating nutrition needs for doing heavy work under cold conditions. We will ask you to inform us of any dietary restrictions, which will be taken into account. The ship can accommodate vegetarians.

How much storage is allocated to each passenger on the ship?

As mentioned above, approximately 70 liters. Everyone has a locker that can hold 70 L. Your personal belongings should be brought on board in a soft duffle bag, not in a hard suitcase. There *is* some available storage for heavy equipment like boots, but it is shared and therefore limited.

What if someone is unable to join the crew while he or she is attending the course?

Synchronous teaching is organised in 2hrs/day for each of the three shifts. These 2 hrs are outside the 4+4 shift time. It can happen that for a specific task the crew needs the students that are in the middle of a teaching session, but that is fine.

Will we spend time in Greenland outside of our time on the boat?

When the ship arrives in Nuuk on the 3rd of August, it will remain in the harbour for two nights before leaving on August 5th. During this time, you are welcome to visit Nuuk. However, in general, there are no planned, day-long excursions.

We plan for an Open Ship day on the 4th, where we will welcome the community in Nuuk. Moreover, you will join a survival-suit training in Nuuk before the ship leaves the port.

Application

I will be starting graduate school in the fall. Should my future MA supervisor be my reference, or should it be my current BA supervisor?

Choose a reference who can effectively showcase your academic strengths, research interests, and the personal qualities that make you an ideal candidate. If you have a longstanding relationship with your BA supervisor, they're an excellent choice. Alternatively, if you've also established a connection with your future MA supervisor—even in a different capacity—you might consider asking them as well. There's no pressure to choose your MA supervisor, especially since you'll be starting graduate school in the Fall.

What are the criteria to select the participants?

Applicants should demonstrate a strong connection to Arctic research and a deep commitment to Arctic sustainability. We seek individuals who are not only academically accomplished but also possess the personal qualities needed to thrive in a dynamic, immersive exchange experience. Ideal candidates will be:

 Motivated and Adaptable: Passionate about Arctic research and capable of adjusting to challenging, evolving environments.

- Academically Excellent: Proven scholarly performance as evidenced by your transcripts and academic record.
- **Leadership-Oriented:** Possessing the initiative and independence necessary to drive projects and contribute meaningfully to group endeavors.
- Resourceful and Competent: Able to creatively solve problems and handle unforeseen challenges with integrity and skill.
- Assertive and Open-Minded: Ready to engage actively, share insights, and embrace diverse perspectives in a collaborative setting.

Applicants will be evaluated based on a comprehensive review of their Statement of Interest, university transcripts, CV, and a work sample. Your Statement of Interest should clearly articulate your connection to Arctic research, your motivations for applying, and your long-term goals in this field. Together, these materials will help the review committee determine your readiness to fully benefit from and contribute to this unique Arctic research experience.



How up-to-date does the medical certificate need to be?

The medical certificate usually expires after 2 years.

We require a seafarer's medical certificate. You can find doctors that can issue these here:

https://sjomannsleger.sdir.no/

There is only one provider in St. John's. If this is not a possibility for you, get in touch with <u>Yasemin</u> or <u>Saga</u> at UiT, and they can verify whether your medical certificate can be accepted.

When can we expect the final decisions to be announced?

Applicants will be notified sometime early in April. (and no later than mid-April).

Are applications open to international students (study permit holders)?

This opportunity is funded through several channels, including Norwegian and Canadian government support. Each funding source comes with its own requirements and stipulations. As stated above, you must be a Canadian citizen or a permanent resident to be eligible to apply.

Do we need to submit only the transcript from our current degree, or also those from previous degrees?

Most institutions provide a comprehensive transcript detailing every course you've completed, whether at the undergraduate or graduate level. If you earned both degrees at the same institution, a single transcript will suffice. However, if you attended different institutions, please submit your most recent transcript—that is, the one for your current degree—that includes at least two semesters of coursework. If you started school this past Winter, you'll need to use an older transcript to meet this requirement.

For new graduate students, do we include the transcript from our undergraduate studies?

Yes. See above.

Do portfolio documents (for the application) need to be in English?

Yes.

Should the reference reflect relevant experience to this program (arctic, sailing?) or be generally more directed toward academic abilities?

Your reference should primarily be able to speak to your academic abilities, but if they have knowledge of your extracurricular abilities (as a result of field work, excursions, and so on), they are certainly welcome to discuss that, as well, as it is also relevant to the program.

No experience regarding the Arctic or sailing is expected. The most important thing is having good teamwork skills and being able to live under modest conditions for a month! But, if you have experience, please include it somewhere in your application!



If you have any other questions regarding eligibility, please email Lisa at Igoulet@mun.ca.

If you have any questions regarding the Application Form specifically, reach out to Mandy at <u>mandy.rowsell@mun.ca</u>