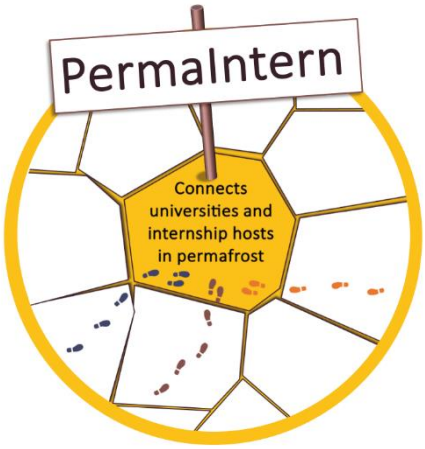
PermaIntern supervisor certification



To become a certified PermaIntern supervisor, you must fill out this form, which consists of three parts (A, B, and C).

- Part A is a description of the program, which you must sign to confirm that you have understood the aims, structure, and responsibilities of the parties in the PermaIntern program.
- Part B is a form in which you must describe your expertise and experience related to permafrost and pedagogics. This may require a couple of hours to fill out.
- Part C is a form in which you fill out some relevant administrative information. Here, you may need to contact the administrative staff at your home institution to acquire this information.

The final step of the certification process is to schedule a meeting (online) with the PermaIntern team. At this meeting, we will go through the forms you have filled out, and ask and answer any remaining questions about the program and the responsibilities of the supervisors.

Basic information

Name: Julie Malenfant-Lepage
Position: Postdoctoral researcher
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Part A. The PermaIntern program

The needs for professional competence in the Arctic are driven by societal developments in a complex region undergoing uniquely rapid changes. Challenges related to thawing permafrost, changes in natural resource accessibility, industrial development and demographic changes will require specialized professional competence in local communities. Local competence needs may be addressed by exchanges within and between the Arctic and other regions, but Arctic-specific professional competence needs to be built and maintained in the Arctic. Internships can help students translate their knowledge into skills in a professional setting, and at the same time provide platforms connecting students, academics, and professionals with competence needed in the Arctic.

PermaIntern is a project led by the UArctic Thematic Network for Permafrost and is funded by the Danish Ministry of Education from September 2022 to August 2024. The aim of the project is to build a sustainable platform and a program for international internships on permafrost and seasonal frost, and thus strengthen cold region-specific skills in Arctic societies and beyond. The program has been designed jointly by nine Nordic PermaIntern partners at higher education institutions (University of Copenhagen, UNIS the University Centre in Svalbard, Stockholm University, University of Oslo, Danish Technical University, Norwegian University of Science and Technology, Gothenburg University, and the Permafrost Young Researcher Network).

PermaIntern is a flexible program for internships focusing on permafrost and seasonal frost processes, and connects students, internship hosts, and university supervisors across and beyond Arctic countries.

- ***Students*** may be at any level of university studies in any discipline and may do the internship as part of their university education.
- ***Hosts*** may be any employer interested in professional activities related to permafrost/seasonal frost, such as engineering companies, research institutes, government agencies, Arctic communities, and NGOs.
- ***Supervisors*** are university teachers/employees with permafrost expertise and relevant pedagogical training at the student's home institution and provide the link to the home university educational program. Alternatively, supervisors may be external to the student's home institution, for example if no supervisor with the required expertise is available at the home institution.

All internships focus on permafrost or seasonal frost processes. University students in geoscience and engineering typically have limited exposure to these topics in their education, especially at the Bachelor level, since few universities offer dedicated courses on permafrost and frost action. To enable students at all levels to participate in the program, PermaIntern provides permafrost educational resources and certified supervisors with permafrost expertise. Prior educational experience in permafrost is therefore not a basic requirement for participating in the program but may be required by some of our internship hosts for specific projects.

PermaIntern aims at promoting flexible internship opportunities where projects are designed according to the host needs and the requirements from the student's home university. A student in PermaIntern must have a supervisor at their home university and should follow the home university's rules for internships within their educational programs. Internship projects may be of any duration and timing, may be paid or unpaid, and have varying entry requirements. To ensure the quality of the program, PermaIntern certifies all hosts and supervisors. The certification ensures that hosts, students (interns), and university supervisors know what is expected by all parties for a successful internship experience.

All PermaIntern projects include some **mandatory elements**.

- Project advertisement (host).
- Project plan and agreement between student, supervisor, and host.
- Internship period at host (student, host).
- Mid-term seminar (student, supervisor, host).
- Project final report (student).
- PermaIntern mentoring (student).
- PermaIntern blogpost (student).
- PermaIntern Diploma.

Most of these overlap with common mandatory elements of university internship courses and therefore do not require extra work from the involved parties. Instead, PermaIntern provides guidance to how these elements can provide effective learning experiences for students.

Responsibilities of hosts

The main responsibility of the host will be to offer a structured training program ensuring the participants can gain the knowledge and skills sought during the internship period. Internship projects must have a focus on permafrost or seasonal frost processes but may include other activities as well. The host must discuss the feasibility of the project plan and its alignment with course requirements from the home institution with the supervisor before the start of the internship period. Internship objectives and expectations should be well defined, and interns must be informed of any relevant safety protocols at the workplace. Please, sign this document to confirm that you have read and understood the program and your responsibility as a host.

Responsibilities of supervisors

Supervisors are responsible for ensuring the relevance to permafrost or seasonal frost processes throughout the internship project. They are also the link to the educational program and thereby responsible for following the educational curriculum as required by the home institution. Supervisors should also be ready to guide students through the administrative tasks needed to set up an internship through their home institution's educational program. This includes pointing students to the relevant resources and contact persons, but not to carry out excessive administrative tasks for the student.

Please, sign this document to confirm that you have read and understood the program and your responsibility as a supervisor.

16/11/2023 Julie Malenfant-Lepage
Date Signature

Part B. Expertise and experience

Here we ask you to describe your expertise and experience in both permafrost and pedagogics related to internships. We also ask you to describe your pedagogical context (students and educational framework) and finally, to provide a reflection on how to effectively supervise students within the PermaIntern program. This information will be shared on our website and you can find the responses from our certified supervisors there, for inspiration.

1. **Describe your academic expertise, with special focus on your expertise in permafrost:**

   I have been working in permafrost engineering research for over 15 years and conducted fieldwork with interdisciplinary teams in Canada and Greenland. I completed my master thesis at the Department of Civil and Water Engineering at Université Laval in Canada on mitigation techniques to reduce the effects of permafrost degradation on transportation infrastructure. I have also done my PhD at Université Laval and my research focused on the impact of water on permafrost and the design of road drainage systems in the arctic. During my PhD studies, I also did a research collaboration with the Norwegian University of Science and Technology on erosion of frozen soils. I live now in Trondheim in Norway and I am conducting research on data driven diagnostic to solve road drainage issues.

2. **Describe your experience as a supervisor for student projects, and your formal pedagogical training (if any):**

   I have supervised students during fieldwork activities in permafrost areas as well as during experiments at the geotechnical laboratory at Université Laval.

3. **Describe the students at your home institutions, including the academic programs and any teaching on permafrost:**

   There is no course at NTNU at the moment that has permafrost as the main focus. However, permafrost science is likely introduced in some science and engineering courses. Therefore, most students have a limited academic background regarding permafrost and seasonal frost, and I would be delighted to supervise them during their internship. I have been working in multidisciplinary teams since the beginning of my career in research, so feel free to contact me even if you are not studying at an engineering department.

4. **Describe how your home institution is currently working with internships (e.g. compulsory part of education, offered as courses, no internship opportunities offered, etc.). Please provide as much information as possible regarding the formal structure and possibilities for students:**

   Students enrolled in a 5-year integrated master's in technology must do a summer internship for a 6-week period. The internships can take place in the public or private sectors. Students are usually getting paid, but they don't get course credits for their internships. Please note that rules for internships may be different for other departments at NTNU.

5. **Describe any mandatory parts of internships at you institution and how they may complement of overlap with the mandatory parts of the PermaIntern program (project plan, midway presentation, final project report)**

   There are no final project report or presentation included in the internship.

6. **Provide a reflection on your role as a supervisor for interns in the PermaIntern program, in the context of your answers to questions 1-6 above:**

   My main roles as a supervisor will be to guide students during their internships and ensure they acquire the skills and knowledge related to permafrost science and engineering. I will also collaborate with the host to define learning objectives and make sure the academic requirements are met during the internship. I will also be happy to help students connect theoretical concepts of permafrost science and engineering with real-world applications in the workplace.

7. **Would you be interested to act as a supervisor also for students from other institutions? If so, please provide a reflection on how you could best provide such supervision:**

   Yes, but the student needs to be aware of the administrative rules and procedures regarding internships at their home university.

Part C. Internship administration

Here we ask you to provide some information regarding internship administration at your institution. Administration is often perceived as the biggest hurdle for students who want to do internships as part of their studies and as a supervisor you are likely to be asked for this information. You may want to bring this form to a study administrator at your institution.

1. **Can students at your institution get credits for internships? (Provide any relevant details)**

   No, they do not get credits in civil engineering.

2. **Are students that do internships with external hosts through your institution allowed or required to be paid? (Provide any relevant details)**

   Yes, students usually get paid.

3. **List any financial support available for international internships for students (e.g. Erasmus+ or local and national support):**

   Eramus +

4. **Please describe the insurance situation for students at your institutions doing internships abroad. List any insurances that students are covered by and any needs for extra insurance when traveling abroad for internships:**

   Students need to purchase their own travelling insurance and make sure they are insured by the host during their internship.

5. **List the contact information for internship course enrollment and approval of credits:**
   Praksis og arbeidslivserfaring under studiet - Knowledge base - NTNU

6. **List the contact information for insurance for international travel:**
   Insurance for students - Knowledge base - NTNU
   Travel - NTNU