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 Course Title					
Inter-Graduate School Classes(Educational Program):One program for Global Goals					
 Subtitle					
SDGs Field study: Arctic Exercise: Atmosphere, Oceans and Land Environment and Society (NJE3)					
 Instructor (Institution)					
OHNISHI Fujio ( Arctic Research Center )					
 Other Instructors (Institution)					
OHNISHI Fujio ( Arctic Research Center )					
 Course Type				 Open To Other Faculties / Schools	OK
 Year	2026	 Semester	1st Semester (Summer Term)	 Course Number	101228
 Type of Class	Seminar	 Number of Credits	2	 Year of Eligible Students	~
 Eligible Department / Class				 Other Information	
 Numbering Code	IGS_NAS 5301				
 Major Category Code	 Major Category Title				
IGS_NAS	Inter-Graduate School Classes_Natural and Applied Sciences				
 Level Code	 Level				
5	Specialized Subjects (basics) in graduate level (Master's Course and Professional Course), Inter-Graduate School Classes				
 Middle Category Code	 Middle Category Title				
3					
 Small Category Code	 Small Category Title				
0					
 Language Type					
Classes are in English.					
 Course list by the instructor with practical experiences					

 Key Words

Arctic Sciences, Ecology, Geocryology, Permafrost, ecosystems, Engineering, Political Economy

 Course Objectives

Students gain an understanding of the Arctic environment, including the atmosphere, oceans, land surfaces and ecosystems, life and society in the Arctic, and the societies of indigenous peoples.

## ■ ■ Course Goals

Students form groups and work in collaboration with members from different disciplines and cultural backgrounds to identify and solve problems through lectures, discussions and fieldwork.

## ■ ■ Course Schedule

In collaboration with the University of Alaska Fairbanks (UAF), we will conduct practical training at the Fairbanks campus in Alaska, USA, through lectures, field exercises, and group work with the emphasis on terrestrial ecosystems. Field exercises will include field surveys to experience and learn about greenhouse gas flux from boreal forest underlain by permafrost and glacier terminus, field trips to periglacial environment, permafrost tunnel and indigenous villages. For the group work and group presentations to showcase outcomes, students will be divided into groups of two to four members. Each group will discuss and analyse the insights and data gained through lectures and fieldwork, culminating in a presentation on the final day.

Through this practical training, the aim is to consider, across disciplines including natural sciences, engineering, humanities and social sciences, how global environmental change is affecting the environment and society in the Arctic region, and further, how the changes and impacts becoming apparent in the Arctic region will affect the environment and society on a global scale. The programme is primarily aimed at Master's students but will also include undergraduate fourth-year students (those taking advanced courses), doctoral students, postdoctoral researchers, and other early-career researchers.

Duration: Approximately two weeks in August and September

Location: International Arctic Research Centre (IARC) at the University of Alaska Fairbanks (UAF) and fieldwork

Format: Hybrid of lectures, experiential learning and active learning

Instructor: Fujio Ohnishi(Arctic Research Center), Go Iwahana(Arctic Research Center), Jun Uetake(Field Research Center for Northern Biosphere),Yukiko Tanabe (National Institute of Polar Research)

Pre-lectures to be held at the end of August

30 August: On-site meeting (Fairbanks, Alaska, the United States of America)

31 August: Orientation (including presentations on individual interests and preliminary research); Visit to the Museum of the North

1-3 September: Field Work at Castner Glacier

4 September: Lecture; River Boat tour (visit to indigenous village)

5 September: Day off

6-8 September: Field survey at UAF's Poker Flat Research Range (see: <https://www.pfrr.alaska.edu/content/welcome-poker-flat>)

9 September: Data analysis

10 September: Group presentations

11 September: On-site dismissal

\*The schedule is subject to change. Please attend the orientation to obtain updated schedules.

## ■ ■ Homework

Read the text and deepen your understanding of Alaska as the field of this field study. Consult the designated reading material to identify an Arctic issue you wish to explore independently and conduct preliminary research into its causes and background. Setting a research topic linked to the fieldwork will prove effective. Each participant is expected to give a presentation on their preliminary research during the orientation session on the first day (approximately 5 minutes per person).

## ■ ■ Grading System

The evaluation of this course will be based on attendance, participation in group discussions, and group presentations.

## ■ ■ Practical experience and utilization for classes

## ■ ■ Condition of tasking the subject

■ ■ Textbooks

アラスカ物語 / 新田次郎 : 新潮文庫

■ ■ Reading List

北極域の研究-その現状と将来構想 / 北極環境研究コンソーシアム : 海文堂出版, 2024

■ ■ Websites

■ ■ Website of Laboratory

<https://www.arc.hokudai.ac.jp/en/>

■ ■ Additional Information

The following supporting instructors will also be participating in this course.

Jun Uetake (Field Research Center for Northern Biosphere, HU)  
Yukiko Tanabe (National Institute of Polar Research)

■ ■ Update

2026/03/19 12:08:19

■ ■ Class Method

face to face