北极大学联盟-哈尔滨工业大学
培训中心
UArctic-HIT-TC

International Arctic Summer School, Harbin Institute of Technology (IASS-HIT)

IASS-HIT-Env-2019

Last Announcement for the Summer School on:

To understand Arctic: Environment and Ecosystem

At Harbin Institute of Technology (HIT), Harbin, China

July 8-19, 2019

Organizers:

School of Environment, Harbin Institute of Technology (HIT), China

Association of Sino-Russian Technical Universities (ASRTU)

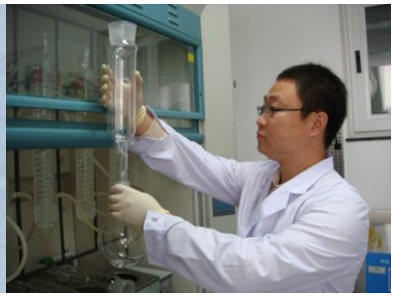
UArctic-HIT Training Centre, Polar Academy, Harbin Institute of Technology

Co-Organizers:

Norwegian University of Life Sciences & University Center in Svalbard, Norway

North-Eastern Federal University, Russia





Introduction

Compared on a global scale, circumpolar regions are currently experiencing the most dramatic environmental change related impacts, especially the impacts to the High North communities and complex ecosystems. Changes include retreat of sea- and land fast ice coverage, increased erosion at coast-lines, loss of permafrost damaging buildings and other infrastructure as well as ecosystem changes. However, these changes will also make the region increasingly accessible for economic development, e.g., resource extraction and tourism. Thus, the national regulators, as well as local communities and municipalities in the circum-Arctic regions are facing tremendous challenges when it comes to adjustments of environmental regulations and maintenance of infrastructure and planning of new technological solutions on restricted budget frames.

As young generations and future experts in different disciplines and fields from China and the eight Arctic countries, our goals on the Arctic are **to understand, protect, develop and participate in the governance of the Arctic**. To understand Arctic is the first step for suitable and sustainable strategies along this line. To understand the Arctic is to improve the capacity and capability in scientific research on the Arctic, to pursue a deeper understanding and knowledge of the Arctic science, and to explore the natural laws behind its changes and development, thus to create favorable conditions for us to better protect, develop, and govern the Arctic.

Therefore, the International Arctic Summer School on "**To understand Arctic: Environment and Ecosystem**" will serve as academic platform for **undergraduate education** on anthropogenic impacts on Arctic environment and ecosystem. We invite **undergraduate students** from all relevant disciplines and research fields from China and the eight circum-Arctic nations to Harbin Institute of Technology, the People's Republic of China to attend the Summer School. The Summer School aims at convey academic knowledge and modern strategies for a profound understanding, protection, development and active participation in the comprehensive sustainable governance of the Arctic region. The first step for suitable and sustainable strategies along this line is to understanding Arctic; and a comprehensive scientific understanding of the environmental, societal and regulative processes in Arctic is mandatory.

The Summer School will provide up-dated scientific knowledge on all relevant aspects of Arctic processes and the anthropogenic impact on these delicate environmental interactions. Relevant lectures will be delivered by international renowned experts with long-term experience in their respective fields of expertise. Furthermore, in follow-up discussions and seminars, opportunities will be given to discuss and elucidated detailed aspects on Arctic anthropogenic impacts on its environment and ecosystem.

This is the first Summer School to be held by the **UArtic-HIT Training Centre**, Harbin Institute of Technology, the first Regional Centre of UArctic, on the topic of **"Arctic Environment and Ecosystem"**. The **objectives** of this Summer School are

1. To establish and strengthen the friendship among students from Chinese and Arctic universities;
2. To understand and discriminate the anthropogenic impact (i.e. pollutants) in the Arctic environment and ecosystem;
3. To understand the currently observed dramatic Arctic climate change and the projected impacts on ecosystems and local communities;
4. To provide training for modern measurement and analysis methods for relevant organic pollutants, including persistent organic pollutants (POPs) and chemicals of emerging Arctic concern (CEACs) and other contaminants;
5. To improve public knowledge and awareness towards Arctic.

All lectures, seminars, discussion and reporting will be provided in English. Please note, all written materials will also be available or will be produced in English language.

Who can participate?

This summer school invites **undergraduate students** of all academic backgrounds from Chinese universities and from the eight circum-Arctic countries who have shown and can document profound professional interests in the Arctic and intend to achieve further relevant scientific knowledge on the Arctic environmental processes.

The following eligibility criteria will be applied for the selection of the candidates:

1. You are undergraduate student in one of the UArctic member universities or one of the Association of Sino-Russian Technical Universities (ASRTU) universities.
2. The student is professionally interested in enhancing his understanding on Arctic environmental processes.
3. The student is actively interested in contributing to throwing friendship among the students from Arctic Nations and China.
4. The student must have good active English skills, both in oral and written communication, with focus on academic language.

The undergraduate students who are interested in attending the IASS-HIT-Env-2019 will apply by providing a short CV (about 100 words including email address and telephone number), a brief letter of interest, and description of what you hope to gain and contribute to the Summer School. The documents must be send to the secretariat:

Weiwei Song (iass_hit@163.com).

Please note: Application deadline: March 31, 2019

Student scholarships

Accommodations and meals for attending students in Harbin during the summer school period will be covered. A special scholarship will be available for 2 indigenous students upon separate application. One for a Russia student and one for a student from another circum-Arctic country. The scholarship will include a return trip flight tickets between Harbin, China and the nearest airport to the student's home University (We will purchase the tickets for the students after approval).

We are responsible for the following expenses:

- Accommodation during the official program period, 7 July (check-in)-20 July (check-out), 2019 (On campus or appointed hotel)
- Meals on campus
- Cost occur in experimental courses

Students are responsible for the following expenses:

- Travel cost
- Personal travel insurance covering medical expenses, flight accidents etc.
- Costs for activities that is not part of the official program
- Costs for additional stay in China before or after the official program period, 7 July (check-in)-20 July (check-out), 2019
- Other personal expenses such as costs for issuing passport and documentations needed for participating in the Summer School

Courses and Lectures

1. Core Courses (8 class hours for each course): (1.5 credits)

Teachers	Titles	Email address
Roland Kallenborn Norwegian University of Life Sciences & University Center in Svalbard, Norway	Local sources of contaminants in Arctic Environment	roland.kallenborn@nmbu.no
Yi-Fan Li Harbin Institute of Technology, China	Contaminants in Arctic Environment due to long-range transport	dr_li_yifan@163.com
Anatoly N. Nikolaev Northeastern Federal University, Russia	Introduction to Arctic ecosystems	an.nikolaev@s-vfu.ru

2. Specialised lectures (2 hours for each lecture)：(1 credit)

Teachers	Titles	Email address
Minhong Cai China Polar Research Institute	Persistent organic pollutants (POPs) in Arctic and Antactic air and sea waters	caiminghong@pric.org.cn
Katrin Vorkamp Aarhus University, Denmark	Chemicals of emerging concern in the Arctic	kvo@envs.au.dk
Atte Korhola University of Helsinki, Finland	Climate feedbacks in the Arctic landscape: where is carbon stored and where released?	atte.korhola@helsinki.fi
Konstantin G. Gribanov Ural Federal University (UrFU), Yekaterinburg, Russia.	Stable water isotopologues in Arctic climate studies: Direct measurements, remote sensing and modeling	kgribanov@remotesensing.ru
Jianmin Ma Peking University	Environmental Fate and Contamination of Persistent Organic Pollutants in Marine Environment Food Web under Global Change	jmma@pku.edu.cn
Jun Ma Harbin Institute of Technology	Arctic water environment and ecological civilization	majun@hit.edu.cn
Yujie Feng Harbin Institute of Technology	Pollutant treatment, resource utilization and energy conversion in cold area	yujief@hit.edu.cn
Defeng Xing Harbin Institute of Technology	Polar microbial ecosystem and anaerobic biotechnology	dxing@hit.edu.cn

3. Experiment Courses: Analysis technology for the Chemicals of emerging Arctic concern Class hours for laboratory exercises：16 in total (1 credit)

Teachers	Titles	Email address
Ed Sverko Harbin Institute of Technology	Analytical methods for chemicals of emerging Arctic concern	sverkoed@qq.com
Zifeng Zhang Harbin Institute of Technology	Treatment of water samples	zifeng_zhang@aliyun.com
Liyan Liu Harbin Institute of Technology	Treatment of soil samples	llyan7664@163.com
Wanli Ma Harbin Institute of Technology	Treatment of air samples	mawanli002@163.com
Weiwei Song Harbin Institute of Technology	Treatment of particle samples	weiweiwendysong@126.com