

Hokkaido University



WISE Program for One Health Frontier  
Graduate School of Excellence

Ally Course

# One Health Frontier Graduate School of Excellence



The development of preventive and curative medicine and the promotion of preventive measures have made it possible to control certain infectious diseases. At the same time, however, emerging and re-emerging infectious diseases have successively occurred, posing a threat to humankind. In addition, health hazards to humans and animals due to chemicals and the destruction of the ecosystem constantly occur as people enjoy the conveniences of life. These problems occur beyond national boundaries. We now have a mission to promote a healthy environment of humans and animals from damaging hazards (infectious pathogens and chemicals) and preserve a sustainable and healthy environment and ecosystem for future generations. The One Health Frontier Graduate School of Excellence, promoted by Faculty of Veterinary Medicine and Graduate School of Infectious Disease, Hokkaido University, produces experts with a clear philosophy of disease control and a balanced international perspective who can see the health of animals, humans and the ecosystem from a higher point of view and who can design and implement solutions involving One Health: professionals with knowledge and technological expertise.



Utilizing the advantages of a comprehensive university, this is an educational program in which various departments collaborate and have established a system of collaboration with international government / cooperating institutions, other universities and private companies.

From basic research to global issues related to the two major hazards of infectious disease pathogens (biohazards) and chemical substances (chemical hazards): zoonotic and animal infectious diseases, and health and socioeconomic damage caused by chemical substances Aiming to be a global advanced research center that comprehensively implements various practical activities.

Promote interdisciplinary and practical education and research related to One Health globally.

One Health's distinctive initiatives will be offered to graduate students on campus as well as graduate students of collaborative universities as "One Health Ally Course", an inter-university / university special education program. This is a "Hokkaido Major Minor System" that gives graduate students the power of "plus  $\alpha$ " and increases the value of graduates by taking sub-majors in addition to the main major.

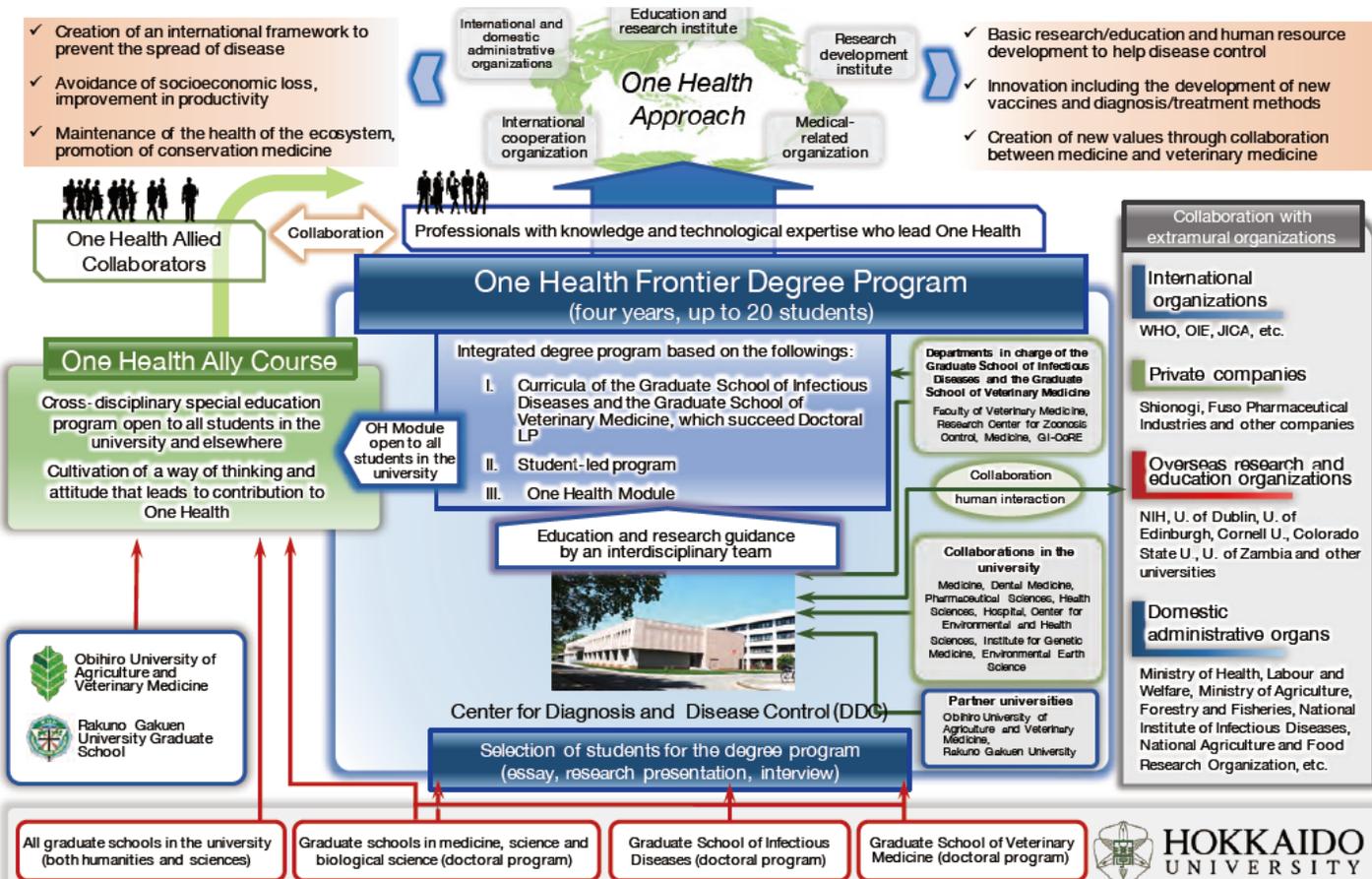


# One Health

The concept of **One Health** originates in the 19th century idea of “zoonosis” introduced by German pathologist Rudolf Virchow. The necessity of the One Health approach, an interdisciplinary, collaborative effort by multiple sectors to control zoonoses and maintain the health of ecosystems, was proposed in the 2004 Manhattan Principles of the Wildlife Conservation Society. The concept of One Health has since evolved, and further collaboration between medicine and veterinary medicine is needed from the perspective of Zoobiquity, which highlights how collaboration between medicine and veterinary medicine leads to the improved health of people and animals because of their commonalities in diseases.

## What is Ally Course ?

To realize One Health, experts produced in this program are required to become leaders of One Health, and it is also necessary for experts from various fields to participate in this initiative. The OH Module in this program is practical education provided through industry-academia-government collaboration with the units of the DDC Center at its center. The participation of graduate school students from both humanities and sciences in this exceptional module allows students from different backgrounds to interact with each other, leading to future interdisciplinary activities. This will be a meaningful course for students who are interested in international organizations and over-seas activities but who have no such opportunities. This course is comprised of the following four sub-modules. The hours required for learning can be converted to eight credits. Students who have completed this course receive a diploma.



# Sub-Modules

The Ally course system is a new system in which graduate students at each department / university participate in training courses offered by One Health Frontier Graduate School while still affiliated with their departments. There will be various exchanges with 20 graduate students who belong to the WISE Program for One Health Frontier Graduate School of Excellence.

We will promote the realization of the “Hokkaido Version Major Minor System”, which gives graduate students the ability of “plus  $\alpha$ ” in addition to their majors to increase the value of graduates. This will be the test of graduate school education reform at Hokkaido University.

The Ally course consists of the following four submodules. The amount of time required for study is equivalent to about 8 credits when converted to credits. Those who complete the course will be given a certificate of completion of the course.

4. Experience of the One Health approach through practical surveys and joint research overseas



Heavy metal pollution of fish (Ethiopia)



Survey on filovirus in bats (Zambia)

3. Cultivation of an ability to collaborate through participation in joint research and support for conferences by international administrative organizations



Conference on bird flu control (FAO Vietnam)



Survey on infectious diseases (WHO Philippines)

2. Development of universal ability, including explanation and debate capabilities, through group work for problem-solving and policy planning



Problem-solving simulation

1. Learning of basics of One Health

## One Health Ally Course

4.OH on site training

3.OH collaborative training

2.OH transferable skill training

1.OH seminar

HOKKAIDO SUMMER INSTITUTE

Niobe College

Hi-System

Rakuno Gakuen Univ

Obihiro University of Agriculture

北海道大学 HOKKAIDO UNIVERSITY  
Graduate Schools (PhD)



## Sub-Module 1 OH seminar

- Students learn about One Health through an omnibus class. The purpose of this seminar is to have a concrete image of One Health from the history and actual activities of One Health.

- ① History of OH
- ② OH International Framework
- ③ Infectious disease measures
- ④ Environmental health measures
- ⑤ Practice example 1 of OH activity
- ⑥ Practice example 2 of OH activity
- ⑦ Practice example 3 of OH activity

## Sub-Module 2 OH transferable skill training

- Sub-Module 2 is a Group work focusing on problem-solving simulation. Student will participate in following activities;

### Workshop

Twice a year, problem-solving simulation classes are held in a workshop style.

### SaSSOH

The Sapporo Summer Symposium for One Health (SaSSOH) run by young faculty is an international symposium. This is a cross-disciplinary symposium that is held by young researchers and students, while also inviting prominent researchers from Japan and overseas.

### Debate

It is a debate that students enthusiastically discuss.

# Sub-Module 3

## OH collaborative training

In the sub-module 3 at the Ally course, students will receive practical training to acquire skills to collaborate with human resources from different fields. For example, students participate in the following activities.

Example 1) Experience the activities of international organizations through administrative support such as the preparation, operation, and reporting of meetings held by international organizations.

- We will collaborate with WHO-CC (Collaborating Centers) and OIE-RL (Reference Laboratories) at Hokkaido University, Obihiro University of Agriculture and Veterinary Science and Rakuno Gakuen University.
- At the Research Center for Zoonosis Control (WHO-CC), students will participate in support/management activities of conference and training course of WHO.
- The Center for Environmental and Health Sciences (WHO-CC) supports to make risk profiles and manuals related to chemical hazards.
- Support OIE / FAO meetings.

Example 2) International Needs Assessment.

- Create disease risk profiles by region, cause, animal species, and insect vector on a global scale.
- Utilizing this, students will conduct a needs assessment and promote the development of diagnostics and treatment methods, and the establishment of a system that can provide technical cooperation and training that matches the needs of the developing countries.
  - How to collect and identify mites
  - Zoonosis and animal infections in Asia and Sub-Saharan, and their diagnosis
  - Environmental pollutants

Example 3) Infectious disease control in hospitals and animal hospital, countermeasures against drug-resistant bacteria, practice for regulatory application, etc.

- Control measures for drug-resistant bacteria at the animal hospital
- PMDA regulatory application exercise (will be provided in Japanese language)

Example 4) Participate in a class held at Hokkaido Summer Institute and work on issues together with students from different research fields.

- Students will participate in collaborative training provided by each graduate school

# Sub-Module 4 OH on site training

In the classes conducted by the Ally course, students participate in symposiums, conferences, and overseas activities involving diverse researchers. Participating students can also create their own international research network.

Ally course will finally provide research based activities on One Health overseas. The keywords are “One Health”, “various research fields”, “Overseas”.

Students work together with the university faculty staff in collaboration with students from different research fields on the same issues. For example, field surveys overseas are conducted jointly in different fields.

Students are provided with travel and accommodation expenses.

The feature of the Ally course is the participation of professors from various fields. Students can join the activities based on research subjects in different fields that you cannot usually experience at your graduate school. In the Ally-course, it does not matter distinguish of literary/sciences. In addition, one of the purposes of this course is to facilitate participation by students who are not able to take one step even if they are longing for overseas activities.

Another attractive feature is the exchange of graduate students from various research fields. It may give you hints for new research developments and ideas from different angles.

## How to participate the Ally course...?

- ◆ Call for the Ally course is open until the 31 August 2020. Classes will begin in October.
- ◆ The capacity is 15 people.
- ◆ Applicable to all doctoral students from Hokkaido University, Obihiro University of Agriculture and Rakuno Gakuen University.



## CONTACT

WISE Program for One Health Frontier Graduate School of Excellence, Faculty of Veterinary Medicine, Hokkaido University

Kita 18, Nishi 9, Kita-ku, Sapporo 060-0818, JAPAN

TEL: 81-706-6108

Email: [ohf@vetmed.hokudai.ac.jp](mailto:ohf@vetmed.hokudai.ac.jp)

<https://onehealth.vetmed.hokudai.ac.jp/>



HOKKAIDO UNIVERSITY WISE  
Program for  
**One Health Frontier**  
Graduate School of Excellence



**北海道大学**  
HOKKAIDO UNIVERSITY