

## **Tohoku University (National) Graduate School of Environmental Studies**

### ◆ Program name

International Post-Graduate Program in Human Security “Human Security and Environment”

### ◆ Degrees:

Master of Environmental Studies  
Master of Interdisciplinary Studies

### ◆ Credit and years needed for graduation:

30 credits, 2 years

### ◆ Address:

468-1 Aramaki Aza Aoba, Aoba-ku  
Sendai, Miyagi 980-8572 JAPAN



## **Features of University** <https://www.tohoku.ac.jp/en/>

### **Philosophy & Mission**

With over 100 years of history and distinguished traditions, Tohoku University has developed excellence in education and research under its principles of "Research First," "Open Doors," and "Practice-Oriented Research and Education" since its establishment in 1907. The university will maintain these traditions while looking toward even more dramatic progress in the future. As a world-leading center of education and research, it will contribute greatly to the human race by grappling with the difficult and complex issues facing the 21st century. Tohoku University will focus its efforts of its faculties, graduate schools, and research institutes to foster ethical international leaders who will carry humanity into the future, while expanding its globally renowned creative research for the benefit of society at large.

### **Characteristics**

#### **1) Three Foundational Ideals**

"Research First," "Open Doors," and "Practice-Oriented Research and Education" — soon after its founding, Tohoku University established this set of unique ideals, the substance of which it is continually developing in response to our changing times.

#### **2) Rich Educational Environment**

Tohoku University has numerous research organizations and facilities, primarily comprising 10 undergraduate schools, 15 graduate schools, 3 professional graduate schools, and 6 research institutes. Research institute staff also participate in educational activities.

#### **3) Research University**

Tohoku University is a school that continuously produces numerous internationally recognized research results and concertedly pushes forward with leading-edge research and education.

#### **4) Active Regional/Industrial-Academic Ties**

The university is actively working to expand its diverse regional and industrial ties.

#### **5) Globalizing Education and Research**

Among Japan's national universities, Tohoku University is one of the top schools in terms of agreements with overseas universities. It is actively expanding exchange in education and research. The university strives to foster globally active individuals through strong support for studying abroad by Japanese students, as well as recruitment of numerous international students.

## **Features of the Graduate School** <https://www.kankyo.tohoku.ac.jp/en/>

### **Environmental Studies Unique to Tohoku University**

By bringing together the multidisciplinary knowledge of Tohoku University, the Graduate School of Environmental Studies (GSES) aims to establish environmental science as an integrated discipline that transcends the traditional divisions of the humanities and sciences in order to establish a culture supporting sustainable development as well as technologies and systems needed to establish resource-circulating societies. To achieve this goal, GSES has set the educational objective of fostering individuals equipped with a combination of broad knowledge and deep expertise relevant to the understanding and solving of environmental problems. By effectively integrating insights from existing academic fields while creating new frontiers of knowledge, GSES seeks to foster environmental professionals capable of playing an active role in the international community. GSES is looking for students who share these goals. We especially welcome applicants with a strong desire and ability to carry out study and research, and the fundamental academic skills needed to achieve their goals.



The faculty members of the GSES are the top leaders in various academic fields not only in engineering and natural sciences but also in social sciences and the humanities. They have been leading their own fields and, at the same time, have communicated with each other to find a common horizon for Environmental Studies. Now, we will take a step further toward a practical use of Environmental Studies, where we will be able to indicate a way to solve environmental issues by connecting the knowledge from diverse fields.

## **Features of the Program** <https://www.kankyo.tohoku.ac.jp/en/intlprograms.html>

### **Understanding Human Security**

In the post-Cold War era a new concept of "Human Security" focusing on the protection of human lives against pestilence, poverty, environmental destruction, climate change and dispute, has attracted considerable attention in place of the conventional idea of "Nation Security", which focuses on armaments. Following this present trend, the Japanese government is moving toward the incorporation of this new concept of "Human Security" as the central basis for international cooperation. Especially in developing countries, with its cultural diversity and varied levels of economic development, many people have spent their lives in danger against a background of poverty, disasters, poor environmental hygiene, malnutrition, and social unrest including active disdain for human dignity. In addition, international epidemics such as HIV/AIDS, SARS, and Covid-19, environmental and food pollution, terrorism and drug trafficking jeopardize human security across borders.

### **Intellectual Contribution to the World**

The "human insecurity" of the 21st century is caused by a very wide range of factors. Therefore, to solve the above-mentioned problems both in theory and practice, those in leadership positions must have obtained multiple perspectives beyond the conventional academic disciplines and for methodologies to be in place that incorporate interdisciplinary skills and knowledge.

Tohoku University started the International Post-Graduate Program in Human Security in April 2005, by linking the Graduate School of Agricultural Science, the Graduate School of Medicine, the Graduate School of International Culture (-2017) and the Graduate School of Environmental Studies. This program aims at making intellectual contributions to the realization of Human Security throughout the world.

The Human Security program is currently composed of 3 programs, "Food & Agriculture for Human Security," "Public Health Sciences for Human Security," and "Human Security and Environment." Each graduate school provides curricula designed to develop an understanding of the intricate structure of various problems related to the areas of Food, Health, Environment, DRR, and Regional Community. This enables JDS fellows to take a wide range of related subjects according to their interests.

### Training of Experts, Researchers and Thinkers

The International Post-Graduate Program in Human Security is designed to train the current and next generations of leaders and experts who will actively participate in the areas of policy planning and regional communities at the international and domestic levels. Applicants must demonstrate competence in either engineering, science, medical science, social and disaster sciences, and the potential for leadership in the field of Human Security.

### **Necessary Curriculum to Obtain the Degrees**

The JDS fellows taking the “Human Security and Environment” need to belong to the **Department of Frontier Sciences for Advanced Environment; Cultural Environmental Studies**. The requirements of the department, in addition to some lectures provided by the Human Security program, must be completed.

#### •Master Course

A minimum of 30 credits are required for a master's degree including the followings;

#### **[Human Security and Environment] TBC**

The JDS fellows are required to acquire a total of 30 credits or more, including 18 credits from compulsory subjects taught in English and 12 credits from elective subjects including the Transdisciplinary Subjects in the Human Security and Environment, and to pass a master's thesis examination after receiving the necessary research guidance.

[Specialized Subjects]					
Subject	Credit	Remarks	Subject	Credit	Remarks
Practical Lecture for Principle & Knowledge of Project Management	2	elective compulsory	International Trend and Practical Knowledge for Disaster Risk Reduction / Special Lecture on Sustainability in the Dynamic Earth I	2	elective compulsory
Special Lectures on Human Security A (Basics of Disaster and Safety Science I)	1	compulsory	Special Lectures on Human Security B (Basics of Disaster and Safety Science II)	1	compulsory
Special Lectures on Human Security C (Pre-disaster DRR Investment for Sustainable Development)	2	elective compulsory	Special Lectures on Human Security D (Pre-disaster DRR Investment for Sustainable Development (Practicum))	2	elective compulsory
Introduction to Environmental Studies	2	compulsory	Seminar on Environmental Studies	2	elective compulsory
Introduction to Environmental Studies for Advanced Society I	2	elective compulsory	Introduction to Environmental Studies for Advanced Society II	2	elective compulsory
Advanced Environmental Studies	2	elective compulsory	Environment and Civilization I	2	elective compulsory
Social Anthropology of Northeast Asia	2	elective compulsory	Water and Urban Environments	2	elective compulsory
Special Lecture I	1	elective compulsory	Special Seminar I	1	elective compulsory
Internship	1~2	elective compulsory	Seminar on Human Security and Environment	4	compulsory
Master Course Seminar on Human Security and Environment	6	compulsory			

[Transdisciplinary Subjects in the Human Security and Environment]

\*Subjects in parentheses ( ) indicate the Graduate School providing the subject.

Subject	Credit	Remarks	Subject	Credit	Remarks
Health and Social Resilience for Large-Scale Disasters (Medicine)	2	elective compulsory	Human Security and Global Health (Medicine)	2	elective compulsory
International Development Studies (Agriculture)	2	elective compulsory	Food Economics (Agriculture)	2	elective compulsory
Environmental Security and Energy Security (Environmental Studies)	2	compulsory	Hydro-Environmental Studies (Environmental Studies)	2	compulsory
Energy and Resource Strategies (Environmental Studies)	2	elective compulsory	Disaster Control System (Engineering) 【Subject of the JICA Development Studies Program】	2	elective compulsory
Global Governance and Safety (International Cultural Studies)	2	elective compulsory	International Society II (International Cultural Studies)	2	elective compulsory

### List of faculty members capable of guiding JDS Fellows

<https://www.kankyo.tohoku.ac.jp/en/faculty/>

Name of Supervisor	Research Feilds
Professor Ono, Yuichi	Green innovation, water resources, environmental impact assessment, disaster management, and related policies and institutions
Professor Sano, Daisuke	Green innovation, water resources, environmental impact assessment, disaster prevention, waste management, urban development, and related policies and institutions
Specially Appointed Professor Nagami, Kozo	Disaster prevention, urban development, critical infrastructure development (including transport traffic, roads, electricity, etc.), and related policies and institutions
Specially Appointed Professor Komori, Daisuke	Green innovation, forest conservation (including REDD+), water resources, environmental impact assessment, disaster management, waste management, electricity (but only regarding hydropower potential), and related policies and institutions
Associate Professor Kubota, Kengo	Green innovation, water resources, environmental impact assessment, disaster prevention, waste management, urban development, and related policies and institutions
Associate Professor Sasaki, Daisuke	Green innovation, water resources, environmental impact assessment, disaster management, and related policies and institutions

The JDS fellows will primarily be supervised by the six professors listed above. Listed below are the secondary

supervisors.

Name	Graduate School	Research field
Professor Nakaya, Tomoki	Environmental Studies	Geographic information science, spatial epidemiology, health geography
Professor Yoshioka, Toshiaki	Environmental Studies	Resource recovery process studies, waste management
Professor Egawa, Shinichi	International Research Institute of Disaster Science (Medicine)	International Cooperation in Disaster Medicine
Professor Muraio, Osamu	International Research Institute of Disaster Science (Engineering)	International Strategy for Disaster Reduction
Assis. Professor Hara, Yuta	International Research Institute of Disaster Science (Environmental Studies)	Geography, natural symbiotic systems, climate and landscape, regional studies, regional planning
Professor Oshitani, Hitoshi	Medicine	Virology, infectious disease epidemiology
Assis. Professor Imamura, Takeaki	Medicine	Microbiology
Professor Fuyuki, Katsuhito	Agricultural Science	International development studies
Professor Shirakawa, Hitoshi	Agricultural Science	Nutrition
Professor Yu, Jeongsoo	International Cultural Studies	Science of Sustainability, Waste Management, Resource Recycling
Assoc. Professor /Lecturer Matsumoto, Asuka	International Cultural Studies	International political economy
Assis. Professor Wada, Moe	International Cultural Studies	International relations, sociology and political science
Professor Li, Yu-You	Engineering	Environmental conservation engineering

Other faculty members of the GSES can be found at the following URL (attached) ;

## Academic Schedule

NOTE: The AY2025 schedule will be subject to change based on the graduate school.

### Academic Calendar of AY2024

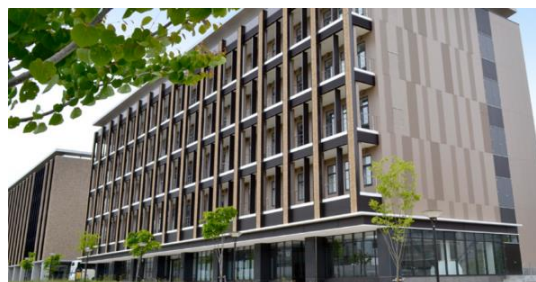
Events	Date
Spring Semester	April 8 (Mon.) - August 5 (Mon.), 2024
Summer Break	August 6 (Tue.) - September 30 (Mon.), 2024
Open Campus (No class)	July 30 (Tue.) - July 31(Wed.), 2024
Fall Semester	October 1 (Tue.) - February 4 (Tue.), 2025
University Festival (No class)	October 25 (Fri.), 2024
Winter Break	December 27 (Fri.), 2024 - January 3 (Fri.), 2025
National Center Test (No class)	January 17 (Fri.), 2025
Semester-end Vacation	February 5 (Wed.), 2025-

**Facilities** <https://www.kankyo.tohoku.ac.jp/en/facility.html>

#### <AOBAYAMA New Campus>

##### Main Building of the GSES

In October 2015, the main building of the Graduate School of Environmental Studies was completed in the new campus area of Aobayama. The building allows for passive energy-saving methods such as efficient natural ventilation, natural lighting, and "green curtains", with the aim of reducing energy consumption and raising environmental awareness.



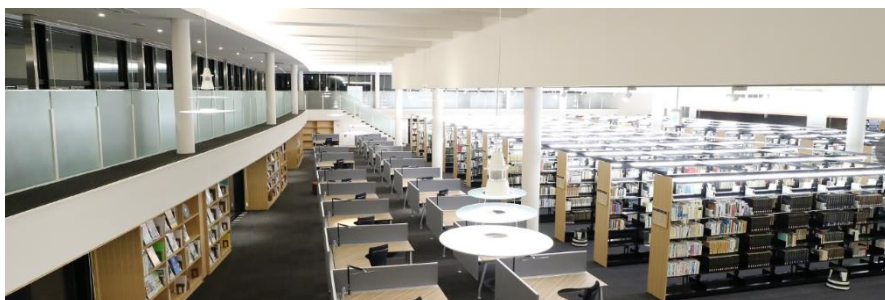
##### Laboratory (on Aobayama East Campus)

There is a wooden school building, "Ecollab," completed in the spring of 2010. "Ecollab" means "Ecology," "Collaboration," and "Laboratory. Inside the building, which has a simple, light, modern exterior and the warmth of a wooden structure, the results of research that fuses nature and technology to create next-generation lifestyles with less environmental impact are applied.



##### AOBAYAMA Commons

This building includes an **Agricultural Library**, **Lecture Halls**, **Learning Commons**, **Health Care Center**, **Shop**, and **Cafeteria**. Everyone can do many kinds of activities among the green in this building.





### **AOBAYAMA Midori Welfare Facilities**

This building is a welfare facility faced to the Campus Mall. There is a **Convenience Store, Café and Noodle Shop, Campus Life Support Plaza, and Nursery** located in this building.

### **University Housing**

Tohoku University offers well-equipped dormitories for international students. One of the dormitories, **University House Aobayama** is located on Aobayama new campus. (Please submit the applications to your department's Educational Affairs Section)

[http://campus.bureau.tohoku.ac.jp/en\\_campusguide/en\\_newaob\\_top.html](http://campus.bureau.tohoku.ac.jp/en_campusguide/en_newaob_top.html)

<https://www.tohoku.ac.jp/en/about/facilities/index.html>

## ***Message for the Applicants***

International Post-Graduate Program in Human Security is designed to train the current and next generations of leaders and experts who will actively participate in the areas of policy planning and regional communities at the international and domestic levels.

Students from the Graduate Schools of Environmental Studies, Medicine and the Agricultural Sciences who participate in the program take lectures and conduct research in addition to the regular curriculum, which is designed to develop their international and interdisciplinary research skills. There are abundant opportunities for students to acquire practical skills in interdisciplinary 'resilience studies' after completing specializations contributing to human security and acquiring knowledge in basic fields, and to hone their qualities as researchers and practitioners equipped with problem- and project-solving learning skills from a multilayered perspective.

We look forward to your active participation in the program, as you are full of enthusiasm and a spirit of challenge, and are eager to spread your wings to the world.