

HYFLEX INTERNATIONAL EXCHANGE PROGRAM Transdisciplinary Summer School on the Environment Faculty of Environmental Science, Nagasaki University

Faculty of Environmental Science, Nagasaki University

"Asian Environmental Resilience Research Initiative 2024"

Asian Environmental Resilience Research Center (AERRC)



About Summer School Transdisciplinary Summer School on the Environment provides unique opportunities for undergraduate and master course students who wish to acquire knowledge and skills on environmental management and science for environmental conservation. The HyFlex Summer School consists of International Environmental Expert Seminar, Problem-Based Learning, and Internship at the Faculty of Environmental Science, Nagasaki University, Japan or via online linking with your own home and partner universities.

International Environmental Expert Seminar (IEES) & Problem-Based Learning (PBL) on the environment July 8- August 30, 2024

International Environmental Expert Seminar (IEES) provides multidisciplinary lectures with topics ranging from Japanese environmental management policies to the science and technology for the environmental issues. Problem-Based Learning (PBL) includes group discussions, local field trips, and group presentations on environmental problems of students' home countries. Students will receive 2 credits on the completion on the IEES and PBL.

Laboratory Internship & Young Researcher Training by Asian Environmental Resilience Research Center (AERRC) July 23- August 19, 2024

Laboratory internship opportunities are hosted by our faculty members with expertise ranging from social science to natural science. Laboratory work includes analytical/green chemistry, toxicology, solid waste management, physiology, bioengineering, geology, phycology, conservation ecology, environmental law, economics, sociology, international relations, management and planning. Please visit our website (http://www.env.nagasaki-u.ac.jp/english/members.html) for available options.

AERRC provides training program for young researchers to promote transdisciplinary environmental research for SDGs.

July	8	9	10	11	12	13	
July	Mon	Tue	Wed	Thu	Fri	Sat	
1 st week	Orientation	First half of IEES (on-demand classes of four key topics in environmental science)					
(Online)	Opening remarks	Discovering the roots of industrial pollution in Japan (Dr. Yuuki TOMOZAWA) & Challenges for sustainable forest management (Dr. Masahiko OTA)					
<u> </u>		Can you measure the weight of a molecule? (Dr. Yuji TAKAO) & Clouds and climate (Dr. Kazuaki KAWAMOTO)					
July	15	16	17	18	19	20	
	Mon	Tue	Wed	Thu	Fri	Sat	
2 nd week	Japanese Holiday: Marine day	First half of IEES (continued)					
(Online)							
	22	23	24	25	26	27	
July	Mon	Tue	Wed	Thu	Fri	Sat	
	WOII	Laboratory Internship &	wea	THU	•••	Jut	
3 rd week	Arrival at Nagasaki	Young Researcher Training					
(HyFlex)		(1st round: 8 days)					
lader	29	30	31	1	2	3	
July	Mon	Tue	Wed	Thu	Fri	Sat	
4 th week	PBL progress check		Laboratory Internship &				
(HyFlex)	(online)		Young Researcher Training				
(Hyrick)			(2 nd round; 8 days)				
August	5	6	7	8	9	10	
	Mon	Tue	Wed	Thu	Fri	Sat	
5 th week	PBL progress check			PBL Group Meeting & Nagasaki History and	Nagasaki Memorial Day		
(HyFlex)	(online)			Cultural Exchange	(Peace day)		
	12	13	14	15	16	17	
August	Mon	Tue	Wed	Thu	Fri	Sat	
	Self study					Jul	
6 th week	Japanese Holiday:	Self study	Self study	Self study	Preparing PBL		
(HyFlex)	Mountain day (observed)	(NU's Summer Closure)	(NU's Summer Closure)	(NU's Summer Closure)	presentation & abstract		
August	19	20	21	22	23	24	
August	Mon	Tue	Wed	Thu	Fri	Sat	
7 th week	Internship presentation			Second half of IEES (face-to-face classes)	Shimabara Peninsula	
(HyFlex)	& PBL progress check			(Dr. Y. TOMOZAV	VA & Dr. M. OTA)	(Dr. Kodo UMAKOSHI &	
(Hyrick)	. 0			(Dr. Y. TAKAO & D	r. K. KAWAMOTO)	Dr. Takashi WATANABE)	
August	26	27	28	29	30	31	
August	Mon	Tue	Wed	Thu	Fri	Sat	
8 th week		Nagasaki Peace Study		DPI procentation			
(HyFlex)	PBL progress check	(TBA)	Submit PBL abstract	PBL presentation & Discussion	Closing remarks	Preparing return trip	
(пугіск)		(IDA)		& DISCUSSION			

IEES Lecturers in AERRI 2024



Transdisciplinary Summer School on the Environment (Asian Environmental Resilience Research Initiative 2024) International Environmental Expert Seminar



Assoc. Prof. Dr. Yuuki TOMOZAWA

Environmental Sociology Laboratory, Department of Environmental Science, Graduate School of Fisheries and Environmental Sciences, Nagasaki University

"Discovering the roots of industrial pollution in Japan"

Japan's rapid modernization in the 19th and 20th centuries was built on a number of serious pollution incidents at home and abroad. This lecture will present the history of pollution in Japan and the experiences of people's struggle to overcome both pollution and social injustice.



Prof. Dr. Yuji TAKAO

Environmental Chemical Micro-analysis Laboratory, Department of Environmental Science, Graduate School of Fisheries and Environmental Sciences, Nagasaki University

"Can you measure the weight of a molecule?"

In recent years, mass detectors have been widely used in environmental analysis. You will learn the principles of this detector and deepen your understanding of its advantages, disadvantages, and environmental applications



Assoc. Prof. Dr. Masahiko OTA

Natural Resource Management Laboratory, Department of Environmental Science, Graduate School of Fisheries and Environmental Sciences, Nagasaki University

"Challenges for sustainable forest management"

Managing forests sustainably requires a deeper understanding of institutional, economic, and social aspects. This lecture will elucidate the current status and challenges of forest management, with a particular focus on tropical Asia and Japan.



Prof. Dr. Kazuaki KAWAMOTO

Satellite Climatology Laboratory, Department of Environmental Science, Graduate School of Fisheries and Environmental Sciences, Nagasaki University

"Clouds and climate"

Clouds occupy about 60% of the earth's surface and play a crucial role for formation of the climate via dynamical, hydrological and radiative processes. In this lecture, the relationship between clouds and climate will be described mainly by observed data.



Host Professors of Laboratory Internship in AERRI 2024

Laboratory information is as of 1^{st} October 2023. Please check the latest information at our web page using the QR code.



Environme	ental Policy	Science & Technology		
Prof. Aiko ENDO (Water-Energy-Food Nexus)	Assoc. Prof. Masahiko OTA (Natural Resource Management)	Prof. Hiroshi ASAKURA (Solid Waste and Resource Engineering)	Prof. Hideki NAKAYAMA (Environmental Bioengineering)	
Assoc. Prof. Satoshi FUKAMI (Tourism and Environmental Education)	Prof. Yoko SEKI (Environmental Philosophy)	Prof. Kei'ichiro IGUCHI (Conservation Ecology)	Assoc. Prof. Tomoki NAKAYAMA (Atmospheric Environmental Science)	
Prof. Seiko GOTO (Landscape Architecture)	Assoc. Prof. Yosuke SHIGETOMI (Environmental System)	Assoc. Prof. Masafumi IIMA (Phycology)	Prof. Masaya NISHIYAMA (Soil Science)	
Assoc. Prof. Hironori HAMASAKI (Environmental Governance)	Assoc. Prof. Sunhee SUK (Environmental Business and Management)	Assoc. Prof. Makoto KAGABU (Environmental Water Science)	Prof. Jiro OKADA (Neuroethology and Ecotoxicology)	
Assoc. Prof. Mitsuru HATTORI (Evolutionary Ecology)	Assoc. Prof. Takayuki TAKESHITA (Energy, Environmental, and Economic Systems Analysis)	Prof. Kazuaki KAWAMOTO (Satellite Climatology)	Prof. Seiji SHIRAKAWA (Green Chemistry)	
Assoc. Prof. Moe HONJO (Animal Law and Policy)	Assoc. Prof. Yuuki TOMOZAWA (History of Environmental Philosophy in Japan)	Assoc. Prof. Mitsuhiko KOYAMA (Resource Circulation Bioengineering)	Prof. Yuji TAKAO (Environmental Analytical Chemistry)	
Prof. Kensuke KATAYAMA (Urban and Regional Planning)	Assoc. Prof. Yoko WADACHI (Environmental Politics)	Assist. Prof. Takashi KUBO (Environmental Safety Science)	Assoc. Prof. Hiroyuki TAKASU (Biogeochemistry and Marine Environmental Science)	
Prof. Hidehiro KIKUCHI (Environmental Law and Policy)	Prof. Takashi WATANABE (Landscape and Regional Planning)	Prof. Tetsuji MUTO (Morphodynamics and Stratigraphy)	Prof. Kodo UMAKOSHI (Seismology and Volcanology)	
Assoc. Prof. Satoru KURODA (Environmental and Regional Sociology)	Assoc. Prof. Mamoru YOSHIDA (Environmental Planning and Disaster Risk Management)	Prof. Masaki NAGAE (Environmental Toxicology)	Assoc. Prof. Masahiro YAMAGUCHI (Plant and Atmospheric Environment)	
Prof. Hirohiko NISHIKUBO (Environmental Law and Policy)		Prof. Kei NAKAGAWA (Environmental Groundwater Science)	Prof. Noriyuki YAMAGUCHI (Animal Ecology)	

Nagasaki University **Area Map**

About the Nagasaki City

Population

The population of Nagasaki city is about 410,000.

Environment

A centralized city that has a mix of the ocean, mountains, and a downtown area.

海・山・市街地が一つになったコンパクトな町です。

Cultural heritage

8 of the locations listed under UNESCO's "Sites

of Japan's Meiji Industrial Revolution." 「明治日本の産業革命遺産」としてユネスコ世界遺産に登録された構成遺産が長崎には8つあります。

History

Nagasaki city has a culture of its own, one that is a mixture of Western, Chinese and traditional Japanese culture.

長崎は西欧、中国、そして日本の文化が融合している歴史的な 町です。

The tram that will make your transportation around the city much easier. 路面電車で長崎市内を簡単に周れます。

About Nagasaki 長崎について

Nagasaki is a very unique city where you can enjoy nature, historical sites and urban area at the same time. While you live in Nagasaki city, you can enjoy shopping, hiking, and going to beaches.

You don't want to miss the breathtaking night view of Nagasaki city that has been recognized as one of the "New Three Great Night Views of the World."

長崎は、自然と史跡、市街地を同時に楽しめるユニークな街です。市内に住 みながら、ショッピングやハイキング、夏にはビーチを楽しめます。 また、長崎は「新世界三大夜景」に選ばれた街でもあります。長崎の夜景は見

Climate 気候

Enjoy the beauty of all four seasons in Nagasaki! 長崎では、日本独特のはっきりとした四季を楽しめます。

Season 四季	Climate 気候	What you can enjoy 特色	
Spring 春	About 20°C. Moderate. Comfortable weather.	Flower viewing, Hanami!	
March to May 3~5月	約 20 度。暑くもなく寒くもなく ちょうど良い季節。	花見を楽しめます。	
Summer 夏	About 32°C. Hot and humid. Rainy season in July.	Beautiful beaches.	
June to August 6~8月	約32度。暑くて湿度が高いです。 7月は雨期に入ります。	美しいビーチが多くあります。	
Fall 秋 September	About 23°C. Moderate. Comfortable weather.	A huge festival called Kunchi which Nagasaki resident are passionate about.	
to November 9~11月	約 23 度。暑くもなく寒くもなく ちょうど良い季節。	長崎市民が毎年心待ちにしている、長崎 で一番大きな祭り、くんちがあります。	
Winter 冬 December	About 8℃. Very dry.	Occasionally snow flurries without heavy snow.	
to February 12~2 月	約8度。空気がとても乾燥します。	大雪にはなりません。たまに降る雪の美 しさを楽しめます。	

Mt.Inasa Uni.Hospital Ohato City Hall Sakuramachi Megane bashi Museum of History and culture Shindaiku Hotarujaya Mt.Kazagashira

Bunkyo Campus

Nishiurakami sta

Bunkyo

Campus

Nagasaki University

Sakamoto

Mt.Konpira

[片淵キャンパス]

Economics [経済学部]

Campus

| Biomedical Sciences | Esia 学総合研究科 |
| Pharmaceutical Sciences (Doctoral Course) |
| 漢学 (博士後期) |
| **Tropical Medicine and Global Health |
| 熱帯医学・グロー・ジャヘルス研究科 |

[文教キャンパス] Undergraduate Schools| 学部

Global Humanities and Social Sciences [多文化社会学部] Education [教育学部]

Mod Sciences (情報子 女科学部) Information and Data Sciences [情報子 女科学部] Engineering [工学部] Environme

Environmental Science [環境科学部] Fisheries [水産学部]

Graduate Schools 大学院

Pharmaceutical Sc [薬学 (博士前期)

Engineering [工学研究科] Fisheries and Environmental Sci [水産・環境科学総合研究科]

Cost of Living 生活費

Lunch ランチメニュー(飲み物含む)	¥500~¥1,500
Combo meal in fast food restaurant ファストフード店でのセットメニュー	¥700
1 litter of whole fat milk 4 件 $(1\ \ell)$	¥150~¥210
12 eggs (large) 卵1ダース	¥150~¥220
A bottle of mineral water (500 ml) at supermarket ミネラルウォーター(500ml)	¥70~¥150
A bottle of mineral water (2L) at supermarket ミネラルウォーター(2ℓ)	¥120~¥200
A cup of coffee at a café カフェでのコーヒー	¥350~¥500
A movie ticket(student) 映画チケット(学生割引)	¥1,500











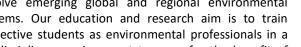
Message



Come and learn about environmental policy and technology in Japan

Dean, Prof. Jiro OKADA

Faculty of Environmental Science was established in 1997 to solve emerging global and regional environmental problems. Our education and research aim is to train prospective students as environmental professionals in a transdisciplinary environment to serve for the benefit of the global society. We welcome all of you to Nagasaki University to share this excellent opportunity during this



summer.



Great experiences in the Summer School.

Sonya from Mahidol University, Thailand

The Summer School Program is an eye-opening experience for me, this program allows me to make new friends from different countries, while also study under the professors during the internship period. This is one of the best academic events that I ever participated in my life. The three weeks internship period is the time of learning with the professors of my choosing in the field of study that I am interested in. And the result of the internship is fruitful, I have gained more new knowledge and learned about the topic and field that I am interest in, and this helped me in determining the path of my future.



Laura from Lancaster University, United Kingdom

It was a worthwhile experience working with students from Japan, Thailand, and Indonesia, and learning and experiencing the cultural differences and work styles etc. Interesting lectures, lab work and PBL topics to learn from in all aspects of environmental science and the different attitudes and problems faced by people from around the world. I thought some of the follow up in person lectures could have been more teaching focused, but the initial online lectures were all very interesting and to learn from a different perspective than I have been exposed to before. Overall, I really enjoyed the experience, and thought everyone involved were very friendly and created a nice environment. I feel like I have learnt a lot from it.









Memorial photos



Participants of the Transdisciplinary Summer School on the Environment (AERRI 2023)



How to apply

International Exchange Committee, Faculty of Environmental Science, Nagasaki University

1-14 Bunkyo-machi, Nagasaki-shi, Nagasaki 852-8521, Japan

waived from tuition and fees.

travel and accommodation. Limited scholarships are available.

Phone: +81-(0)95-819-2715

E-mail: env_international@ml.nagasaki-u.ac.jp URL: http://www.env.nagasaki-u.ac.jp/english/

Please contact International Exchange Office of your university. Students from universities

holding MOU with Nagasaki University are

Participants are responsible for their cost of

Access to Nagasaki University



From Fukuoka International Airport 2 hours by highway express bus to Nagasaki

From Nagasaki Airport

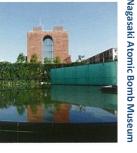
50 minutes by limousine bus via Showa-machi

From JR Nagasaki Station

20 minutes by tram #1, 2 & 3 towards Akasako



Faculty of Environmental Science, Nagasaki University 1-14 Bunkyo-machi, Nagasaki-shi, Nagasaki 852-8521, Japan Tel. +81-(0)95-819-2715 Fax. +81-(0)95-819-2716



Unzen Volcano (front right: Mt. Mayu

Megane-bashi (Spectacles Bridge



