Admissions in October 2025

Admissions in April 2026

Fukushima University Graduate School of Symbiotic Systems Science and Technology (Doctoral Program)

◇ **Major in Symbiotic Systems Science and Technology**
◇ **Major in Environmental Radioactivity**

Application Guide

*The application for the entrance examination at Fukushima University must be submitted on-line.
Online application registration alone does not complete the application process.
(Application procedures are completed by sending all application documents by simple registered express mail or bringing them in person.)

国立大学法人
福島大学
Fukushima University

Admissions Office
1 Kanayagawa, Fukushima City,
Fukushima Pref., 960-1296
Phone: 81-24-548-8064
https://www.fukushima-u.ac.jp/

Fukushima University
Smartphone-friendly
Website

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The Doctoral Program of Fukushima University Graduate School of Symbiotic Systems Science and Technology consists of two Majors, the Major in Symbiotic Systems Science and Technology and the Major in Environmental Radioactivity. The Major in Symbiotic Systems Science and Technology consists of two fields (Symbiotic Machines and System Intelligence and Symbiotic Environment Systems), and the Major in Environmental Radioactivity consists of one field (Environmental Radioactivity). Please refer to our website for more details of majors or fields.

< Graduate School of Symbiotic Systems Science and Technology >
https://www.sss.fukushima-u.ac.jp/en?lang=en

I. Application Guide for Fukushima University Graduate School of Symbiotic Systems Science and Technology (Doctoral Program)

1-1. Admission Policy (Student Acceptance Policy) for the Major in Symbiotic Systems Science and Technology (Doctoral Program)

○ **Educational Objectives and the Qualities sought in Prospective Students**

The Major in Symbiotic Systems Science and Technology aims to develop individuals who can contribute to tackling challenges we are facing in the 21st century, such as the realization of a sustainable circular economy and development of countermeasures against the aging populations with a declining birthrate. In order to resolve these issues that have complex, multiple causes, there is a need for highly-skilled, global-minded professionals and researchers, who have acquired expertise and research capabilities in Natural Sciences, which was a leading study field of Graduate Schools in science and technology, and also knowledge of Human/Social Sciences.

This Major has a concept of "symbiotic relationships among human beings, industry, and the environment" as its philosophy, and offers research projects in the following two fields of specialization: Field of Symbiotic Machines and System Intelligence and Field of Symbiotic Environment Systems. Through its practical activities, the Major develops individuals capable of independently conducting and developing research activities. It aims to contribute to the world by creating and developing a human-centered systems science where the symbiotic relationships among human beings, industry, and the environment are fully considered, and by handing it down to future generations.

The objectives and characteristics of each Field of specialization are as follows.

[Field of Symbiotic Machines and System Intelligence]

In this Field, education and research activities shall be conducted on mechanical science, electronics science, control science, mathematics information science, computer science, management information systems, technology management, production management, as well as logistic systems. Through these educational activities, this Field develops independent professionals and researchers with outstanding skills of technology development and high level of research abilities which are essential to satisfy the needs of regional communities and to build engineering systems that can exist in a symbiotic relationship with humans in various fields of industry, such as, information communication systems (communication networks and software, etc.), mechanical systems (industrial robots, etc.), medical and welfare systems, production systems, and transportation systems.

[Field of Symbiotic Environment Systems]

In this Field, education and research activities shall be conducted on functional materials, resource circulation, and energy technology. It develops independent professionals and researchers with a high level of research abilities. It develops skills in science and technology and a wide range of knowledge about the creation of industrial systems with a sustainable circular economy that can utilize regional characteristics. Furthermore, we provide resources to develop independent professionals and researchers with a variety of expertise:

Analysis and prediction skills which enable them to use a wide range of knowledge in the Field of environmental systems and various research methods, such as hygiene observations, modeling, and field surveys on ecological changes caused by water and material cycles

- Ability to use specialized skills in environmental preservation, purification of pollution, and environmental remediation in the spheres of atmosphere, water, geosphere, biosphere, and human society
- Ability to plan/manage sustainable social environment systems by evaluating the impacts of human activities utilizing environmental information
- Ability to elucidate the psychological mechanisms of humans by using a wide range of knowledge in Psychology, Physiology, and other fields related to that.

○ **Knowledge, Skills, and Will sought in Applicants**

To develop human resources who can contribute to tackling challenges that we are facing in the 21st century, such as the realization of a sustainable circular economy and development of countermeasures against the aging populations with a declining birthrate, we seek students or working persons who have the following knowledge, skills, and will to conduct studies and write a doctoral thesis in the subject groups mentioned in the curriculum policy.

- Basic knowledge and research experience acquired in a Master's Program of Graduate Schools in science and technology, which are necessary for the study in the Doctoral Program.
- Flexible thinking, the ability to quickly understand, the ability to apply knowledge, and the ability to express oneself.
- Enthusiasm to resolve concerns of modern society from the perspective of science and technology in cooperation with a variety of people with independent attitudes toward study and research.

○ **Basic Policy for Admission Selection**

Selection shall be based on a comprehensive evaluation of oral presentation, oral exam, and application documents, categorizing General Exam, Working Person Special Exam, International Students Special Exam, and Recommendation-based Exam (for students of advanced courses of technical colleges). In the oral presentation, applicants shall be asked to explain their graduation research during their undergraduate studies and their research after admission. Oral exam shall focus on basic and specialized matters related to the oral presentation and its content. Through the oral presentation and exam, the applicants shall be comprehensively evaluated on their knowledge, skills, and motivation, as well as on their ideal student as described above.

1-2. Admission Policy (Student Acceptance Policy) for the Major in Environmental Radioactivity (Doctoral Program)

○ **Educational Objectives and the Qualities sought in Prospective Students**

Radionuclides present in the environment may change their forms and state due to atmospheric and water circulation and activities of humans and other organisms, and migrate widely in the environment. The factors that influence such change can vary significantly from the physicochemical properties of radionuclides to meteorological conditions, nature and properties of soils, physio-ecological processes of plants and animals, and so on. Studies on environmental radioactivity, therefore, require interdisciplinary knowledge drawn from a wide range of sciences, including ecology, biology, geoscience, numerical modeling, chemistry, physics, mechanical engineering, and electrical engineering, as well as a holistic perspective and approach.

Human beings have experienced environmental releases of anthropogenic radionuclides due to atmospheric nuclear tests and accidents, but there are still many unresolved aspects of their effects. Another recent issue related to radiation is the need to control naturally occurring radioactive materials (NORMs) released during the extraction and processing of minor metals and other natural resources, which are indispensable materials for the development of advanced industrial products.

With these issues in the background, the Major in Environmental Radioactivity will select suitable human resources who have the will to 1) elucidate the environmental behavior of natural and anthropogenic radionuclides, 2) become able to perform the measurement, monitoring design, control, prediction, and evaluation in a comprehensive manner from a medium- to long-term perspective based on their expertise, 3) endeavor to meet challenges such as environmental protection, prediction and evaluation, environmental remediation, decommissioning, interim storage, decontamination, etc., and 4) contribute to the academic development of study fields of these issues. Selection will be based on an overall assessment of various skills, including basic academic skills necessary for the study, flexible thinking, analysis and observation skills, motivation for the study, and independent attitudes toward study and research.

This Major has one Field of specialization.

[Field of Environmental Radioactivity]

This Field develops human resources who endeavor to create human reassurance, safe society and environment by elucidating the mechanisms of dynamics of radioactivity in the environment, utilizing, deepening, merging, and developing their expertise.

○ **Knowledge, Skills, and Will sought in Applicants**

To develop professionals with practical ability to contribute to the region in the new academic framework of environmental radioactivity science, we seek students or working persons who have the following knowledge, skills, and will to conduct studies and write a doctoral thesis in the subject groups mentioned in the curriculum policy.

- Basic knowledge and research experience acquired in a Master's Program of Graduate Schools in science and technology, which are necessary for the study in the Doctoral Program.
- Flexible thinking, the ability to quickly understand, the ability to apply knowledge, and the ability to express oneself.
- Enthusiasm to resolve issues related to environmental radioactivity in cooperation with a variety of people with independent attitudes toward study and research.

○ **Basic Policy for Admission Selection**

Selection shall be based on a comprehensive evaluation of oral presentation, oral exam, and application documents, categorizing General Exam, Working Person Special Exam, International Students Special Exam, and Recommendation-based Exam (for students of advanced courses of technical colleges). In the oral presentation, applicants shall be asked to explain their graduation research during their undergraduate studies and their research after admission. Oral exam shall focus on basic and specialized matters related to the oral presentation and its content. Through the oral presentation and exam, the applicants shall be comprehensively evaluated on their knowledge, skills, and motivation, as well as on their ideal student as described above.

2. Number of Students to be Admitted

○ **October 2025 Admission**

General Entrance Exam, Working Person Special Exam

Major	Field	Number of Students to be Admitted
		October 2025 Admission
Symbiotic Systems Science and Technology	Symbiotic Machines and System Intelligence	A few
	Symbiotic Environment Systems	
Environmental Radioactivity	Environmental Radioactivity	A few

○ **April 2026 Admission**

General Entrance Exam, Working Person Special Exam

Major	Field		Number of Students to be Admitted
			April 2026 Admission
Symbiotic Systems Science and Technology	Symbiotic Machines and System Intelligence	Iº round	4
	Symbiotic Environment Systems		
	Symbiotic Machines and System Intelligence	IIº round	A few
	Symbiotic Environment Systems		
Environmental Radioactivity	Environmental Radioactivity	Iº round	2
		IIº round	A few

* The number of students to be admitted is the total number of students admitted through General Exams and Working Person Special Exams.

* No limit is set to the number of students for each field.

3. Application Qualification

(1) General Exam

A person who falls under any of the following items qualifies for the General Exam.

1) A person who has been conferred a master's degree or a professional degree, or is expected to be conferred by the last day of the month before the desired month of admission.
2) A person who has been conferred a master's degree or a degree equivalent to a professional degree in foreign countries, or is expected to be the last day of the month before the desired month of admission.
3) A person who has been conferred a master's degree or a degree equivalent to a professional degree, or is expected to be conferred by the last day of the month before the desired month of admission, by taking correspondence courses offered by foreign schools in Japan.
4) A person who has been conferred a master's degree or a degree equivalent to a professional degree by completing a graduate course at an educational institution located in Japan that is recognized

by the educational system of a foreign country and is separately designated by the Minister of Education, Culture, Sports, Science and Technology, or is expected to be the last day of the month before the desired month of admission.

5) A person who has been conferred a degree equivalent to a master's degree or is expected to be conferred by the last day of the month before the desired month of admission, by completing a course of United Nations University that has been founded based on a United Nations General Assembly resolution dated December 11, 1972 as stipulated in Article 1, Paragraph 2 of the Act on Special Measures Incidental to Enforcement of the Agreement between the United Nations and Japan regarding the Headquarters of the United Nations University (Act No.72 of 1976).
6) A person who has completed an educational program at a foreign school, a designated academic institution as described in item 4) above, or United Nations University, and has passed an exam or a screening equivalent to those outlined in Article 16-2 of the Standards for Establishment of Graduate Schools, and has been recognized as having equivalent or superior academic ability to that of a person with a master's degree.
7) A person who has graduated from a university and has research experience of more than 2 years at universities or institutions, etc., and has been recognized by the Graduate School of Symbiotic Systems Science and Technology based on the research achievements from the period after the graduation as having equivalent or superior academic ability to that of a person with a master's degree or a professional degree.
8) A person who has completed 16 years of school education in foreign countries, or in Japan by taking correspondence courses provided by foreign schools, and has research experience of more than 2 years at universities or institutions, etc., and has been recognized by the Graduate School of Symbiotic Systems and Science based on the research achievements from after the graduation as having equivalent or superior academic ability to that of a person with a master's degree or a professional degree.
9) A person who is recognized by the Graduate School of Symbiotic Systems Science and Technology as having equivalent or superior academic ability to that of a person with a master's degree or a professional degree as a result of an individual enrollment qualification assessment and also reaches the age of 24 by the last day of the month before the desired month of admission.

(Note)
A person who intends to apply under the application qualification items 6), 7), 8), or 9) must take an individual assessment. Enter the necessary matters in the Application Form prescribed by the University and submit by the date and time designated by the University before the application for the entrance exam, with the required documents.
For more information and the necessary documents for application, please contact the Admissions Office of the University or refer to the "Entrance Exam Information" on the website of the University. (https://nyushi.adb.fukushima-u.ac.jp/ (Available only in Japanese))

(2) Working Person Special Exam
A person who falls under any of the application qualifications for "(1) General Exam" and also either of the following application qualifications.

A) A person who is employed by a company or a public agency, etc. at the time of application.
B) A person who is not employed by a company or a public agency, etc. at the time of application, but more than 2 years have passed since the acquisition of a master's degree or a professional degree.

4. Application Procedure

◎ Before applying, please be sure to contact the instructor you wish to have as your supervisor and discuss your suitability for the field of study.

If you do not know how or whom to contact, please notify the Admissions Office of the University (email: nyushi@adb.fukushima-u.ac.jp).

***The Internet application site is available only in Japanese. If you have difficulty using the site in Japanese, the university will assist you with the Internet application process. Please contact us by email (ier@adb.fukushima-u.ac.jp)**

(1) Check the Application Method (Step 1)

For details on the application procedure, please refer to the "Entrance Exam Information- Application Guide" posted on the university's website, (https://nyushi.adb.fukushima-u.ac.jp/yoko.html (Available only in Japanese)) and the following.

The application procedure is not completed only with the "Internet Application Registration (Step 2 below)".

[redacted]	Check Application Procedure (See pages 4 to 6)	Before you start the application procedure, please read this Application Guide carefully and confirm its contents.
▼		
[redacted]	Internet Application Registration (See page 6)	During the application registration period, please access the Internet application site and enter the required information.
▼		
[redacted]	Payment of exam fee (See pages 8 to 9)	Follow the instructions on the Internet application site to pay exam fee. (Do not pay if you are applying for an exam fee exemption.)
▼		
[redacted]	Preparation of necessary documents, Printing and sending (See pages 9 to 10)	Please send the required documents printed from the Internet application site or the University website and all other required documents to the University by simple registered express mail so that they reach the University by the end of the application period.
▼		
[redacted]	Printing of Exam Admission Slip (See page 10)	Once your application has been accepted, you will be able to print out your Exam Admission Slip from the Internet application site after the application period is over. Each applicant must print the Exam Admission Slip in color. Be sure to bring it with you on the day of the exam.

(2) Preparation in Advance (Step 1)

Please check and prepare well in advance of registering your online application.	
Preparation of PCs, etc.	Online applications must be processed under the following environment. Recommended environment when using a PC: • Microsoft Edge (Latest Version) • Google Chrome (Latest Version) • Mozilla Firefox (Latest Version) • Apple Safari (Latest Version) Recommended environment when using a smartphone or tablet: *The standard browser for each OS is recommended. • iOS 12 or higher • Android OS 8 or higher • iPadOS 13 or higher *Using the tab function of the browser to perform application operations simultaneously in multiple tabs may cause problems such as selected content being carried over to other tabs. Please do not perform simultaneous application operations in multiple tabs. *Do not use the browser's “back” and “forward” buttons or swipe on smartphones; please use the buttons displayed on the screen. *In operations from an Android smartphone, PDF display may not be possible from the PC version of Chrome. Please use the mobile version. *If the display is distorted or not functioning properly, please try using a different browser.
Email Address Preparation and Email Setup	An email address is required for application, so please have it ready in advance. Smartphone and cell phone email addresses are also accepted. If you have set up a domain name filter, please add the following domains to your settings so that you can receive emails from these domains. **(@adb.fukushima-u.ac.jp，@e-apply.jp)** The following emails will be sent to the email address you registered at the time of application. 1) Test email when registering for My Page 2) Automatic email upon completion of application registration information 3) Automatic email upon completion of payment of exam fee (No email when exam fee is exempted.) 4) Notification email when Exam Admission Slip becomes downloadable 5) Various emails related to general application procedures *Do not change your email address until you print your Exam Admission Slip.
Preparation of applicant's photo (data)	A color facial photo (jpg) is required for online application registration. (Your facial photo will appear on Exam Admission Slip.) As it will be used for identification purposes, upload a clear facial photo on the Internet application site, facing front, upper body, hatless, without a background, and taken within three months prior to the application date. Photo size should be 4 cm (H) x 3 cm (W) and the file size should not exceed 10 MB. Please note that the application may not be accepted if the photo is not suitable for identification, such as those listed below. [Examples of photos that may not be used] Difficulty in identification because of unclear, dark background, face turned sideways, makeup or bangs over the eyes, etc., multiple people in the photo, altered image, **re-photographed photo (taking a photo of an already developed photo)** etc.
Preparation of necessary documents, etc.	Please prepare the documents listed on “(7) Applications Documents, etc.” (See pages 9 to 10) in advance so that they will be ready in time for the application period.

Preparation of an envelope	Please prepare a commercially available Square No. 2 envelope (240mm x 332mm) or similar size envelope for submitting the application documents.
Preparation for printing forms (Printer, printing paper, etc.)	Forms printed from the Internet application site must be in color on A4 size paper, so please prepare a color printer and printing papers. You may use the printing services of public facilities or convenience stores to print your documents if they meet the printing requirements, but please be careful with your personal information. Applicants may be contacted if the printing is unclear and cannot be verified.

(3) Online Application Registration Period (Step 2)

October Admission	**Wednesday, July 9, 2025 - Thursday, July 17, 2025, 4:30 p.m. in JST**
April Admission Iº round	**Wednesday, July 9, 2025 - Thursday, July 17, 2025, 4:30 p.m. in JST**
April Admission IIº round	**Sunday, October 26, 2025 - Friday, October 31, 2025, 4:30 p.m. in JST**

(4) Payment of Exam Fee (Step 3)

Exam fee is **30,000 yen**. Please refer to the payment method on the Internet application site, and pay by "credit card", "Internet banking", "convenience store", "Post Office/bank ATM", or "Flywire (applicants residing abroad only)". (A separate payment fee is required.)

* Those who are expected to complete the Master's Program of the Graduate School of Fukushima University in September 2025 and continue to apply for the Doctoral Program of Fukushima University (October admission), and those who are expected to complete the Master's Program of Fukushima University in March 2026 and continue to apply for the Doctoral Program of Fukushima University (April admission) do not need to pay the exam fee.

* Residents of foreign countries who have difficulty in registering by Internet application or paying the exam fee by "credit card", "Internet banking", "convenience store", "Post Office/bank ATM", or "Flywire (applicants residing abroad only)", should contact the Admissions Office of the University at least one month prior to the application date, and remit the exam fee of 30,000 yen through international money transfer to the bank account designated by the university.

[Payment period]

October Admission	**Wednesday, July 9, 2025 - Thursday, July 17, 2025, 4:30 p.m. in JST**
April Admission Iº round	**Wednesday, July 9, 2025 - Thursday, July 17, 2025, 4:30 p.m. in JST**
April Admission IIº round	**Sunday, October 26, 2025 - Friday, October 31, 2025, 4:30 p.m. in JST**

Payment is due within four days from the date of completion of the online application registration. (If the application deadline comes shorter than 4 days, payment is due on the application deadline.)

Exam fee shall not be returned for whatever reasons after the application documents are received except for the following cases:

a. The applicant paid exam fee but did not complete the application (did not submit application documents or the application documents were not received)

b. The applicant mistakenly made a double payment of exam fee.

c. Procedure for refund application shall be notified individually.

In addition, the transfer fee for the refund will be borne by the claimant.

For inquiries regarding the refund of exam fees:

Exam fee refund: Fukushima University Admissions Office

Phone: 024-548-8064

Remittance of refunds: Fukushima University Financial Affairs Division, Accounting Section

Phone: 024-548-8015

*Exam fee exemption
The University will offer special measures to exempt exam fee for all entrance exams in FY2025.
For the conditions of the exemption, please refer to "13. Exam Fee Exemption for Those Affected by the Great East Japan Earthquake (Including the Nuclear Power Plant Accident) and Other Serious Disasters" on page 14.
Please do not pay exam fee at the time of application if you would apply for exam fee exemption.

(5) Application Period (Step 4)

October Admission	**Friday, July 11, 2025 - Thursday, July 17, 2025, 5 p.m. in JST**
April Admission I^{o} round	**Friday, July 11, 2025 - Thursday, July 17, 2025, 5 p.m. in JST**
April Admission II^{o} round	**Tuesday, October 28, 2025 - Friday, October 31, 2025, 5 p.m. in JST**

(6) Submission of Application Documents (Step 4)
Fukushima University Admissions Office
1 Kanayagawa, Fukushima City, Fukushima Prefecture, 960-1296 Phone: +81-24-548-8064

(7) Application Documents (Step 4)
Applicants shall prepare the following application documents and must send by simple registered express mail or bring them in person. Application documents delivered after the application period will not be accepted. Please send it ahead of time, fully considering the period required for mailing.
However, only simple registered express mail postmarked by the originating office on the day before the last day of the application period specified in "(5) Application Period" will be accepted even if it arrives after the deadline. **Simple registered express mail postmarked by the sending office on the last day of the application period will not be accepted**. (This is because it is certain that the documents will not arrive at the University within the application period.)
If you bring your application documents in person, the Admissions Office is open from 9 a.m. to 5 p.m. on weekdays.
If you are mailing them from overseas, please in advance contact the Admissions Office by email (nyushi@adb.fukushima-u.ac.jp) and follow their instructions.

Documents required for application	**Targeted persons**		**Remarks**
1) Application Form (◆)	All Persons		University designated form Please fill in the required information.
2) Academic Performance Certificate	Al persons		Issued by the president of the University of graduation or the dean of the Graduate School. (Copies are unacceptable)
3) Certificate of (expected) Graduation	All Persons		Issued by the president of the University of graduation or the dean of the Graduate School. (Copies are unacceptable)
4) Master's Thesis, etc.	**All Persons**	**(A) Persons who are expected to complete a Master's Course or to be conferred a Master's Degree**	**・Research Outline** Write a summary of your ongoing research, including the prediction of its result (up to five pages of A4 paper).
		(B) Persons who have completed a Master's Course or have conferred a Master's Degree	**・A copy of your Master's Thesis** **・An abstract of your Master's Thesis** Write an abstract of your Master's Thesis (up to five pages of A4 paper). If you have any research papers, abstracts, or patent certificates related to your Master's Thesis, submit a copy of them.

		(C) Persons who do not fall under (A) or (B) above	**・Research Outline** Write a summary of your past research results (up to five pages of A4 paper).
5) Research Plan	All Persons		Write about your future research theme, purpose, and its concept (up to five pages of A4 paper).
6) Performance Certificate of English Proficiency Test	Persons who wish to be exempt from the Academic Test		Persons who have obtained a score of 550 or higher of either of the following English proficiency tests shall be exempted from the Academic Test. TOEIC Listening & Reading Test (Open Test) TOEIC Listening & Reading IP (Including College TOEIC) The Scores shall be those acquired by the test taken during the period from two years before the date of entrance exam to the date of application. TOEIC Official Score Certificate, Score Report, or the TOEIC official digital certificate shall be submitted for performance certificate.
7) Research Results Report (◆)	All Persons		Enter the research results and employment history, etc.
8) Documents proving current employment	Working Person Special Exam Applicants		A person falling under application qualification (2) (A) shall submit the documents certifying that the person is employed (a copy of employee ID or wage statement, etc.)
9) Application Form for Exam Fee Exemption (◆) and Documents to be Attached	*Applicants for the exemption only		University designated form If you wish to apply for exam fee exemption, please do not pay exam fee at the time of application.
10) Envelope for submitting application documents	All persons		Please prepare a commercially available Square No. 2 (240mm x 332mm) envelope or similar size envelope, enclose the required documents applicable to you from 1) – 9) above, and send by simple registered express mail.
11) Address sheet (◇) for submission of application documents	All persons		Please print an address sheet in color from the Internet application site and glue it to the front side of the “10) Envelope for submitting application documents”. Enclose the necessary application documents and mark the applicant's checklist on the address sheet to make sure that nothing is missing.

(8) Notes on Application Documents (Step 4)

1) Documents marked with (◇) in the table are to be printed in A4 size in color from the Internet application site after registering the online application. Please note that once you have completed the online application registration, you will not be able to correct any of the information you have entered.
2) Documents marked with (▨) in the table are to be printed in A4 size in black and white (double-sided printing in the case of multiple pages) from the University's website. (Exam Information - Application Guide on the University's website, https://www.ier.fukushima-u.ac.jp/en/graduate-school#link-exam)
Please use a black or blue ballpoint or fountain pen and write in block style. Documents can also be prepared with computers.
3) Certificates (“2. Academic Performance Certificate”, “3. Certificate of (expected) Graduation”) written in languages other than Japanese (or English) must be submitted along with a Japanese translation.
4) The abstract and research outline of the “4. Master's Thesis, etc.”, and “5. Research Plan” should be written in Japanese (or English).

5) Please note that your application will not be accepted if any of the following deficiencies are found in your application documents.
   ・Incomplete form or incorrect information on the application form, etc.
   ・Certificates and other documents that are required to be attached to the application are not enclosed.
6) Once the application documents have been received, no changes will be allowed under any circumstances.
7) Admission may be revoked in cases where false statements are made in the application documents.
8) If the name on the certificate differs from the applicant's name on the application, please submit an official certificate (e.g., a certificate of the family register) to prove that the applicant is the same person.
9) The original document of the Official Score Certificate (official certificate) or the Score Report (personal transcript) in "6) Performance Certificate of English Proficiency Test" will be returned on the day of exam after the Admissions Office making photocopies. However, if you want to have it returned by mail, please prepare a "return envelope" by yourself, put a stamp on it, and enclose it with your application documents. If you submit the TOEIC digital official certificate, it will not be returned.

(9) Printing of Exam Admission Slip (Step 5)
Exam Admission Slip can be printed from the Internet application site after the application period is over. Please print it in color, cut it with scissors along the cut line, and **bring it with you on the day of exam**. Email will be sent to email address registered at the time of application, informing you that you can now print Exam Admission Slip. Even if you do not receive an email from your provider, please log in to the Internet application site at least 3 days prior to exam date to print Exam Admission Slip.

5. Selection Method

(1) General Exam

・ In the General Exam, selection shall be made by comprehensively considering the result of the Academic Test (except for those with a TOEIC score of 550 or higher), oral presentation, oral exam, and with the application documents.
・ In the Academic Test, questions to check your English proficiency and technical vocabulary skills in your research field shall be asked in the form of oral questions and answers.
・ In the oral presentation, applicants shall describe their past research achievements (Master's Thesis, etc.) and the details of their research plan after admission, within 15 minutes. Bring three copies of presentation materials, comprising a maximum of five pages of A4 paper, hand them over the interviewers, and explain mainly using the materials. If necessary, you can use devices for supplementary explanations (for example, you may use the PC for playing motion pictures and for executing demonstration software) by bringing them in. However, you cannot use a screen or a projector.
・ In the oral exam for the Major in Symbiotic Systems Science and Technology, questions on the oral presentation, and basic and specialized matters related to the presentation shall be asked.
・ In the oral exam for the Major in Environmental Radioactivity, questions on the presentation, and basic and specialized matters related to the presentation shall be asked. In addition, questions to check your English proficiency and technical vocabulary skills in your research field shall also be asked.

(2) Working Person Special Exam

・ In the Working Person Special Exam, selection shall be made by comprehensively considering the result of the oral presentation, oral questions and answers, and application documents.
・ In the oral presentation, applicants shall describe their past research results (Master's Thesis, etc.), research achievements, and the details of their research plan after admission, within 15 minutes. Bring three copies of presentation materials, comprising a maximum of five pages of A4 paper, hand them over the interviewers, and explain mainly using the materials. If necessary, you can use devices for supplementary explanations (for example, you may use the PC for playing motion pictures and for executing demonstration software) by bringing them in. However, you cannot use a screen or a projector.
・ In the oral questions and answers on research, questions on the presentation, and basic and specialized matters related to the presentation shall be asked.

6. Exam Schedule and Venue

(1) Exam Schedule

【October Admission】

Category	Exam Date	Exam Method
General Exam	**Friday, August 22, 2025** Meeting times and other details will be announced in the "Exam Information" page on the University's website at least one week prior to the exam date.	Academic Test Oral presentation/Interview
Working Person Special Exam		Oral presentation/Interview

【April Admission I° round】

Category	Exam Date	Exam Method
General Exam	**Friday, August 22, 2025** Meeting times and other details will be announced in the “Exam Information” page on the University's website at least one week prior to the exam date.	Academic Test Oral presentation/Interview
Working Person Special Exam		Oral presentation/Interview

【April Admission II° round】

Category	Exam Date	Exam Method
General Exam	**Wednesday, November 19, 2025** Meeting times and other details will be announced in the “Exam Information” page on the University's website at least one week prior to the exam date.	Academic Test Oral presentation/Interview
Working Person Special Exam		Oral presentation/Interview

(2) Exam Venue

Fukushima University (1 Kanayagawa, Fukushima City)

*You can refer to the Fukushima University’s website for the Campus Map (https://www.fukushima-u.ac.jp/2304_guidemap_en.pdf) and access information (https://www.ier.fukushima-u.ac.jp/en/about/access#link-04).

7. Preliminary Consultations for Applicants with Disabilities

Applicants with illnesses, injuries, disabilities, etc. who need special consideration for taking exam and after admission shall notify the Admissions Office at least one (1) month before the application.

If you wish to use a hearing aid or other device due to illness, injury, or disability during the examination, you must apply for an examination accommodation.

8. Security Export Control

The University conducts security export control based on the “Foreign Exchange and Foreign Trade Law” to ensure that the content of education and research provided to international students does not interfere with the maintenance of international peace and security. Please note that the University may request changes in the content of the education / research you wish to pursue.

For details, please contact the Research Development Division (+81-24-548-5248).

9. Announcement of Successful Applicants

October Admission	**Thursday, August 28, 2025, 11:00 am in JST**
April Admission I° round	**Thursday, August 28, 2025, 11:00 am in JST**
April Admission II° round	**Thursday, December 11, 2025, 11:00 am in JST**

Announcement of the successful candidates will be made by posting the examinee numbers on the "Exam Information" page of the University website (https://nyushi.adb.fukushima-u.ac.jp/ (Available only in Japanese)), as well as by "Letter of Acceptance" to be sent to the successful applicants by postal mail.
Any inquiries regarding the admission decision by phone call or such will not be answered.

10. Enrollment Procedure and Precautions

(1) Successful applicants shall complete the enrollment procedure during the following period **by postal mail**. The details will be stated in "Guide for Enrollment Procedure" to be sent to successful applicants.

【Period for enrollment procedure】

October Admission	**Friday, August 29, 2025 - Thursday, September 4, 2025, 4 p.m. in JST**
April Admission I° round	**Friday, December 12, 2025 - Friday, December 19, 2025, 4 p.m. in JST**
April Admission II° round	**Friday, December 12, 2025 - Friday, December 19, 2025, 4 p.m. in JST**

* Failure to complete the enrollment procedures by the designated date will result in the loss of rights as an accepted student.

*"Guide for Enrollment Procedure", which describes the enrollment procedure, fees, etc. **will be enclosed along with the "Letter of Acceptance" for the successful applicants to be enrolled in the October admission and in the April Admission (II° round). For the successful applicants to be enrolled in the April admission (I° round), "Guide for Enrollment Procedure" will be sent in the beginning of October separately from the "Letter of Acceptance."**

(2) Admission and Tuition Fees

Admission Fee	282,000 yen [as of now]
Tuition Fee	
First Semester	267,900 yen [as of now]
Second Semester	267,900 yen [as of now]
Annual amount	535,800 yen [as of now]

(Note)

(1) The admission fee does not have to be paid by those who will complete the Master's Course in September 2025 and continue to purse Doctoral course in October, or by those who will complete the Master's Course in March 2026 and continue to pursue Doctoral course in April, you do not need to pay this fee.
(2) If the admission and tuition fees are revised at the time of admission or during enrollment, the new admission and tuition fees shall be applied from the time of revision.
(3) After completion of the enrollment procedure, if you wish to decline admission due to special circumstances, please call the Admissions Office in advance, and submit the "Admission Declination Form" (in a discretionary form, include specific reasons for declination, major and course to decline, your name, examinee number, application submission date, and your signature) by 5 p.m. on Tuesday, September 30, 2025 for October admission, and by 5 p.m. on Tuesday, March 31, 2026 for April admission. Provided that, the admission fee shall not be returned for admission declination. This includes the case where the applicant cannot satisfy the admission qualifications owing to repeating a school year, etc.

11. Reduction or Exemption of Admission and Tuition Fees

Students who have difficulty paying the Admission and Tuition Fees due to financial reasons, and who are recognized as having outstanding academic performance may be permitted to receive a reduction or exemption of the fees after screening.

In addition, a special exception system is available for students of the Doctoral Course who are recognized as having excellent grades or outstanding research achievements, and upon application by the student, tuition (full or partial) will be waived after screening and selection.

For more details of reduction or exemption of admission and tuition fees, please refer to the "Guide for Enrollment Procedure" to be sent to the successful applicants.

Contact: Fukushima University Student Services Division Phone: +81-24-548-8060

12. Matters of Note

(1) Application procedure and exam date, etc. are subject to change depending on the situation. If there is any change, updated information shall be provided on the University website (https://nyushi.adb.fukushima-u.ac.jp/ (Available only in Japanese)).

(2) Personal information of applicants

The University will obtain personal information of applicants from the submitted application documents and entrance exams. Obtained information shall be kept confidential and used only for the following purposes in compliance with Act on the Protection of Personal Information Held by Independent Administrative Agencies and the personal information protection regulations of Fukushima University.

○Use for operations of selecting applicants for admission (including procedures, such as statistical processing)

○Use for the Enrollment Procedure

○For the person who completed the enrollment procedure, we will use personal information for operations on instructions for study, student support, improvement of education, and collection of tuition fees after enrolling. For those who are exempt from admission and tuition fees and/or who applied for scholarships, results of the entrance exam, etc. shall be used for selection and determination of persons to be exempt and receive scholarships.

In order to facilitate the application process, the University outsources some of its operations. In this case, we provide necessary personal information to the subcontractor, but we supervise the subcontractor appropriately, for example, by concluding a contract with the subcontractor regarding the appropriate handling of personal information.

(3) Contact for Entrance Exam

Fukushima University Admissions Office Phone: +81-24-548-8064

13. Exam Fee Exemption for Those Affected by the Great East Japan Earthquake (Including the Nuclear Power Plant Accident) and Other Serious Disasters

In order to reduce the financial burden of those affected by the Great East Japan Earthquake, TEPCO's Fukushima Daiichi Nuclear Power Plant accident, and the severe disasters such as the heavy rain fall in and after FY2011, and to ensure opportunities for those affected to pursue higher education, the University will offer special measures to exempt exam fee for all entrance exams in FY2025.

(1) Eligible Person

Applicants of Fukushima University who is falling under any of the categories below by the end of the admission period are eligible for exam fee exemption.

1) A person who suffered damages in the area to which the Disaster Relief Act shall apply, which was designated in the Great East Japan Earthquake or a person who suffered damages by the disasters designated as "disasters of extreme severity" after FY2011, whose house the person or the major household income earner resided was certified as having fallen victim to full destruction, large-scale half destruction, half destruction, or flown out.

2) A person who was damaged in the area to which the Disaster Relief Act shall apply, which was designated in the Great East Japan Earthquake, or a person who suffered damage from the disasters designated as “disasters of extreme severity” after FY2011, whose major household income earner died or disappeared.
3) Those who resided or whose major household income earner resided in the “evacuation order zone (warning zone)”, “planned evacuation zone”, “emergency evacuation preparation zone” or “specific spots recommended for evacuation” as of March 11, 2011, which were established after Tokyo Electric Power Company's Fukushima Daiichi Nuclear Power Plant accident, and who needed to evacuate in connection therewith.

For the details of the above exemption, see the table below.

<table>
<tr><td>Category</td><td colspan="5">Approval of exam fee exemption (Approval:○, Disapproval:×)</td></tr>
<tr><td rowspan="2">1) Total or half destruction of the house</td><td>Total destruction</td><td>Half destruction in a large scale</td><td>Half destruction</td><td>Flown out</td><td>Partial destruction</td></tr>
<tr><td colspan="4">○</td><td>×</td></tr>
<tr><td rowspan="2">2) Major household income earner died or disappeared</td><td colspan="4">Major household income earner</td><td>Other than major household income earner</td></tr>
<tr><td colspan="4">○</td><td>×</td></tr>
<tr><td rowspan="2">3) Impact by the nuclear power plant accident</td><td>Evacuation order zone</td><td>Planned evacuation zone</td><td>Emergency evacuation preparation zone</td><td>Specific spots recommended for evacuation</td><td>Other areas</td></tr>
<tr><td colspan="4">○</td><td>×</td></tr>
</table>

Note: Zones are the ones before the reorganization.

(2) Required Documents

To apply for exam fee exemption, the following documents are required.

1) Application form for exam fee exemption (designated form attached hereto)
Please refer to the University's website (Exam Information - Application Guide)
(https://nyushi.adb.fukushima-u.ac.jp/yoko.html (Available only in Japanese))

2) A copy of any one of the certificates set forth below:
If falling under (1)-1) above, “disaster victim certificate issued by the head of municipalities”.
If falling under (1)-2) above, “document certifying the death or disappearance of the major household income earner”.
If falling under (1)-3) above, “document certifying that the person is (was) under evacuation” (self-claiming document is acceptable).

(3) Submission Method and Submission Deadline for Exam Fee Exemption

Please submit the requested documents together with the application documents.
If you apply for the exam fee exemption, please do not pay for the exam fee at the time of application.
* Submissions after the application period will not be accepted.
*If the certificates requested in (2)-2) above cannot be submitted together with the application documents due to various reasons, please contact the Admissions Office in advance.

II-1. Features of the Major in Symbiotic Systems Science and Technology (Doctoral Program)

1. Organization and Basic Philosophy of Educational Programs

The Major in Symbiotic Systems Science and Technology (Doctoral Program) aims to realize a sustainable circular economy based on the concept of "symbiotic systems science." The Major provides a variety of specialized education to equip students with a high level of research capability and a wide range of knowledge that forms the basis thereof, which enable them to conduct research activities independently in their own fields, toward resolving the issues of the 21st century.

In order to clearly define the objectives of specialized learning, it promotes research and education in the following two distinct fields of study: Field of Symbiotic Machines and System Intelligence, Field of Symbiotic Environment Systems. Furthermore, to promote better coordination between the needs of regional society and education at the Graduate School, the Major aims to develop professionals with practical research capability that can benefit the regional society. Therefore, it offers an educational system where students can conduct on-site development and verification experiments to actively tackle regional concerns, in cooperation with other institutions and companies in Fukushima Prefecture.

2. Requirements for Completion, Class Attendance, and Conferment of the Degree

For those who study at the Graduate School for three years or longer and satisfy the following requirements for completion, "Doctoral Degree in Science and Engineering" will be conferred.

(Requirements for Completion and Class Attendance)

Complete 20 credits in total, including 18 credits of compulsory class subjects and 2 credits of elective class subjects, and successfully defend the Doctoral Thesis.

3. Class Subjects and Credits to be Offered

Class Subjects and Credits to be Offered Graduate School of Symbiotic Systems Science and Technology **Major in Symbiotic Systems Science and Technology (Doctoral Program)**					
Subject Type	Subject Name	Year	Credits		Remarks
			Compulsory	Elective	
Common	(Common Subject A)				
	Advanced Seminar in Symbiotic Systems	1	2		
	(Common Subject B)				
	Research Internship	1		2	
	Practical Training in Symbiotic Machines and System Intelligence	2			
	Practical Training in Symbiotic Environment Systems	2			
Specialized	Advanced Seminar in Symbiotic Systems Science I	1	2		
	Advanced Seminar in Symbiotic Systems Science II	2	2		
	Advanced Seminar in Research Practice I	1	2		
	Advanced Seminar in Research Practice II	2	2		
	Advanced Practical Training in Symbiotic Machines and System Intelligence	3	2		
	Advanced Practical Training in Symbiotic Environmental Sciences	3			
Advanced Research	Advanced Research on Symbiotic Systems Science	1-3	6		

4. List of Instructors Eligible to Serve as Supervisors of Advanced Research on Symbiotic Systems Science (Some instructors might be changed.)

【Field of Symbiotic Machines and System Intelligence】

Name	Laboratory name	Research Content
BAMBA Kazuharu	Cosmology	Study of cosmology and astrophysics based on general relativity, quantum field theory and particle physics, and gravitational theories
DONG Yanwen*2	Management Information System Engineering	Application of data science and artificial intelligence technology for enterprise management, and development of management information system
FUJIMOTO Katsushige	Evaluation and Decision Making	Mathematical science and informatics for evaluation and decision making processes
HASEGAWA Shingo	Information Security	Research and development of cryptography and security applications
HIGUCHI Yoshiyuki	System Modeling and Simulation	Modeling, simulation, analysis, optimum design and operation for logistics, production, social infrastructure, Material Cycles and Waste Management
INADA Shunko Albano	Medical Engineering	Research Content: Development of photonics devices and systems for treatment of cancer, skin diseases, and other diseases, tumor detection
ISHIKAWA Tomoyasu	Logistics Systems	Study based on planning method related to physical distribution and logistics including vehicle routing, facilities location planning, and inventory planning
ISHIOKA Masaru	Innovation and Technology Management	Recent research activities have focused on the major three areas based on innovation and technology management, such as product development strategy, innovation strategy, and strategic brand management
KAKEHI Munenori	Production Service System	Engineering study based on management methods to solve problems faced by companies in the fields of manufacturing, services, and human resource development
KINUGAWA Jun	Interactive Systems Design	Research and development of human-robot collaborative systems and related technologies
MIURA Kazuyuki	Algorithms	Computer algorithms such as graph drawing algorithms and their applications
NAKAGAWA Kazushige	Nonlinear Analysis	Analysis on nonlinear problems caused by natural and social phenomena in a mathematical sense
NAKAMURA Shoichi	Data Engineering	Data analytics, visualization and their applications for social media analysis, programming education and discovery of know-how in combined creation work
NAKATA Fuminori	Differential Geometry	Study of differential geometry on twister theory and the structure of exceptional Lie groups
NAKAYAMA Hiroki	Human-Computer Interaction	Interaction design and its applications for supporting intellectual activities such as online discussion, presentation and Web exploration
NISHIJIMA Daisuke	Sustainable Economic Systems	Studies of sustainable production and consumption based on engineering system analysis and environmental economics
ONUMA Ryo	Knowledge Systems	Accumulation and analysis of diversified history data in intellectual work on PC, and their applications for understanding implicit knowledge such as trial and error circumstances

Name	Laboratory name	Research content
ORIHARA Dai*1	Electric Power System Engineering	Research on design, operation, control, monitoring, analysis of electric power system highly penetrated by renewable energy resources based on numerical simulation, experiment, and hybrid method (hardware-in-the-loop simulation)
Salahuddin Muhammad Salim ZABIR	Ubiquitous Intelligence Laboratory	Research on recent trends in technologies for information networks, its applications, enabling technologies for IoT, information security, development of energy efficient technologies for information networks and/or IoT, application of IoT and artificial intelligence etc.
SHIMADA Kunio	Fluid Systems Engineering	Engineering study based on fluid related to electromagnetism including mechanical engineering, energy, and creation of material by chemistry
TAKAHASHI Takayuki*2	Mechatronics	Development of human support robots supporting the daily life of human and field robots working in underwater or forests. Development of related fundamental technologies.
TANAKA Akira	Human Medical Engineering	Measurement, analysis and control targeting physiological regulatory system based on a system engineering approach. (e.g., control system for artificial heart, autonomic nervous function analysis)
UTSUMI Satoshi	Network Engineering	Development and performance evaluation of communication protocols in the information networks including the Internet
WADA Masaki	Probability Theory	Probability theory based on analytical methods, such as perturbation theory, functional analysis and differential equation
YAMAGUCHI Katsuhiko	Solid State Physics	The research on magnetism and light (including radiation) based on quantum mechanics from both experimental and simulation perspectives

【Field of Symbiotic Environment Systems】

Name	Laboratory name	Research content
ASADA Takashi	Biomass Resources Engineering	Developments of functional materials by carbonization of renewable biomass resources and their applications to energy technology
DAIRAKU Takenori	Applied Organic Chemistry	Novel catalyst metallo-DNA: rational design, characterization, and application for hydrogenation reactions
GOTO Shinobu	Environmental Planning	Study on planning to improve the environment based on systems approach of integrating arts and science, including environmental education and media
HIROTA Shun	Evolutionary Ecology	Research on plant speciation and diversification based on field survey and genome-wide genetic analysis
INOMATA Shinji	Inorganic Chemistry	Syntheses and properties of transition metal chalcogen clusters as super iron sulfur proteins
IWAMURA Shinichiroh	Material Chemical Engineering	Studies on the processes for developing nanomaterials and their applications in energy and environmental fields

Name	Laboratory name	Research content
KANEKO Shingo	Conservation Ecology	Our research is to clarify the ecology and evolution for the conservation of various plants and animals
KAWAGOE Seiki	Watershed Environmental Systems	Our studies target at hydrologic system management to make harmonious coexistence with sustainable watershed environment (disaster, water resources and environment protection)
KUROSAWA Takahide	Plant Taxonomy	Plant taxonomy and ecology, and studies of biodiversity conservation based on them
MIZUSAWA Leiko	Plant Reproductive Ecology	Our research aims to clarify the reproductive system of angiosperms, including their pollination system, sexual system, and degree of inbreeding, focusing on the plant material in Fukushima prefecture and island populations
MOROOKA Tetsuro	Analytical Electrochemistry	Research on electrochemistry and surface chemistry related to the utilization of hydrogen and its application to fuel cells
NAGAHASHI Yoshitaka	Volcanology and Quaternary Geology	Volcanic explosive eruption history and regional quaternary geology based on geological field survey and petrographical analysis
NAGAHATA Koji	Soundscape	Soundscape studies based on ISO 12913 series, toward designing and planning sustainable soundscapes for well-being
NAKAMURA Kazumasa	Advanced Materials	Preparation and characterization of high-performance carbon materials, composite materials, or engineering ceramics by alloying their precursors with specific nanoparticles
NANBA Kenji	Environmental Microbiology	Research on microorganisms and environmental cycling for environmental management
OHASHI Hironori	Surface Reaction Chemistry	To reveal scientific phenomena using X- or γ-ray radiation (mainly using XAFS and Mössbauer spectroscopy)
OYAMA Dai	Synthetic Chemistry	Development of highly functionalized transition metal complexes based on non-innocent ligands
SHIBASAKI Naoaki*2	Groundwater Basin Management	Considering groundwater as precious water resources, practical research aimed at conservation and effective use of groundwater in each groundwater basin
SUGIMORI Daisuke	Bioengineering	Development of plastic and rubber-degrading microorganisms and enzymes Exploring of diagnostic enzymes Revealing of those catalytic reaction mechanism of enzymes
TAKAGAI Yoshitaka	Analytical Chemistry	Development of new chemical system, analytical method and creation of new material
TAKAHARA Madoka	Psychophysiology	Basic research on human cognition in various conscious states from awakening to sleep and applied research concerning better life and sleep
TOMIGASHI Akira*1	Shallow Underground Resources	Considering the shallow geothermal energy as untapped natural resources, practical research aimed at promoting effective use and proper utilization

Name	Laboratory name	Research content
TSUTSUI Yuji	Experimental Psychology	Experimental studies on the psychological mechanisms of humans and animals, being also researching the psychological effects of the nuclear disaster
TSUTSUMI Tadaaki	Entomology	Study on the morphology, ecology and diversity of insects and small arthropods
WATANABE Norihiro*1	Geothermal Engineering	Modeling and analysis of geothermal systems for exploration, characterization, and utilization of geothermal resources
YOKOO Yoshiyuki	Watershed Hydrology	Modeling of dominant hydrological processes, estimation and mapping of water resources, sediment balance and transport
YOSHIDA Ryuhei	Meteorology	Meteorological/climatological research based on the numerical simulation. Application of numerical forecast/prediction to agriculture, disaster prevention, and renewable energy

・Faculty members marked with "*1" will provide research guidance to students in the Cooperative Graduate School System.

・If you choose the faculty members marked with "*2" for your academic advisor, the academic advisor might be changed during your graduate program.

5. Special Measures for Education Method

In order to respond to the requests of working people who want to study at the graduate school, the Major adopts the system of opening classes day and night. For specific fields, students can complete the requirements for all the credits (20 credits) by taking two classes offered in the evening (from 6:00 p.m. to 7:30 p.m. and from 7:40 p.m. to 9:10 p.m.). If you want to avail of this special provision, please consult, before applying, with the Admissions Office and the instructor from whom you wish to receive instructions after admission.

6. Extended-Study Plan

This is the system allowing students who have restrictions on time, as they are concurrently taking up jobs, etc., to study beyond the standard study period (“Extended-Study Period”). If a student is accepted as an Extended-Study Plan student, the student shall pay the tuition fee in each year at a divided amount, according to the permitted period of extended study (for example, in a Doctoral program, a student completes the program in three years in general, but under this system, the student can study for four to six years for the same total amount of tuition fee).

Contact: Fukushima University Educational Affairs Division Phone: +81-24-548-8357

II-2. Features of the Major in Environmental Radioactivity (Doctoral Program)

1. Organization and Basic Philosophy of Educational Programs

The Major in Environmental Radioactivity (Doctoral Program) offers class subjects in the three fields of study: ecology, modeling, and measurement. It conducts practical educational activities utilizing the observatory sites in Fukushima and the collaborative relationships with both international and Japanese universities and research institutions. In each Field of study, students will acquire a high level of expertise, which forms the basis of the Doctoral Program and also specialized knowledge and skills required for researchers and professionals in the field of environmental radioactivity. Under the supervision of instructors from different fields of specialization, students will further develop their expertise from multiple perspectives, merging and deepening the specialized knowledge and technologies. Also, students develop the ability to communicate and share the knowledge acquired with the general public by putting 'science communication' into practice.

The aim of the Major in Environmental Radioactivity (Doctoral Program) is to develop researchers and professionals capable of identifying and resolving tasks related to environmental radioactivity, leading academic development of such duties, and contributing to society from a global perspective.

2. Requirements for Completion, Class Attendance, and Conferment of the Degree

For those who study at the Graduate School in principle for three years or longer and satisfy the following requirements for completion, a “Doctoral Degree in Science and Engineering” will be conferred.

(Requirements for Completion and Class Attendance)

Complete more than 20 credits in total, including 6 credits of basic subjects (choose 3 from the 6 basic class subjects), 8 credits of compulsory class subjects of applied subjects, and 6 credits of the compulsory thesis subject, and successfully defend the Doctoral Thesis.

3. Class Subjects and Credits to be Offered

Class Subjects and Credits to be Offered

Graduate School of Symbiotic Systems Science and Technology

Major in Environmental Radioactivity (Doctoral Program)

Subject Type/ Field of Study		Subject Name	Year/ Semester	Credits		Type of Class			Remarks
				Compul-sory	Elective	Lecture	Exercise	Experiment/ Fieldwork	
Basic	Ecology	Advanced Practicum in Ecological Radioactivity I	1 (First Semester)		2		*	○	*composed of exercises and practicums
		Advanced Practicum in Ecological Radioactivity II	1 (Second Semester)		2		*	○	*composed of exercises and practicums
	Modeling	Advanced Practicum in Analyses of Radioactivity Dynamics I	1 (First Semester)		2		*	○	*composed of exercises and practicums
		Advanced Practicum in Analyses of Radioactivity Dynamics II	1 (Second Semester)		2		*	○	*composed of exercises and practicums
	Measurement	Advanced Practicum in Radioactivity Measurement I	1 (First Semester)		2		*	○	*composed of exercises and practicums
		Advanced Practicum in Radioactivity Measurement II	1 (Second Semester)		2		*	○	*composed of exercises and practicums
	Common	Research Internship	1		2			○	
Applied		Special Practicum in Environmental Radioactivity I	2 (First Semester)	2			○		
		Special Practicum in Environmental Radioactivity II	2 (Second Semester)	2			○		
		Special Practicum in Environmental Radioactivity III	3 (First Semester)	2			○		
		Special Practicum in Science Communication	3 (Second Semester)	2		*	○	*	*composed of lectures, practicums and exercises
Thesis		Advanced Research on Environmental Radioactivity	1-3	6			○	*	*composed of experiments, exercises, and practicums

4. List of Instructors Eligible to Serve as Supervisors of Advanced Research on Environmental Radioactivity

Field	Instructor	Description
Field of Environmental Radioactivity	Ismail M.M. RAHMAN	The students will review the latest research publications on reduce, reuse, or recycle technologies for waste management to select the research topic, followed by the formulation of a research plan and direction of the doctoral thesis. Students will use the plan and directions to learn and design the laboratory works, field-sampling, and instrumental analysis leading to the development of new eco-compliant approaches for environmental remediation or environmental analysis. Students will present their research achievements in domestic and international conferences and discuss with other fellow researchers to improve their research. The results obtained during the three-year course tenure of doctoral studies will be summarized in a doctoral thesis.
	Maksym GUSYEV	The research aim of the doctoral course is to involve students in research on the numerical modeling of environmental radioisotope transport in the terrestrial water cycle. Students will conduct a literature review about recent advances in modeling and design a research plan based on their research interests including water sampling, isotope analysis with the IER equipment, and numerical modeling such as surface and groundwater flow, floods, droughts, and climate change. Students will learn to make presentations of their research results at domestic and international conferences and to prepare peer-reviewed manuscripts for publishing in peer-reviewed international scientific journals. These results and published manuscripts will be compiled in a doctoral thesis within the three-year course.
	Vasyl YOSCHENKO	Based on the comprehensive review of the research publications related to dynamics of radiocesium in the forest environments in Fukushima and Chornobyl and impact of radiation on the plant species, students choose research topics and formulate research plans of doctoral thesis. Based on those plans students choose the relevant research methods and experimental sites, and acquire necessary theoretical knowledge and practical skills while obtaining and analyzing the experimental results. Students present their results at domestic and/or international academic conferences and discuss with other researchers for further improvement of their research. The results obtained in the course of doctoral thesis studies will be summarized in a doctoral thesis during the three years of enrollment.
	TAKATA Hyoe	The students will obtain scientific findings through the comprehensive understandings of biogeochemical dynamics of radionuclides in the ocean by the latest research papers, followed by the construction of research plans based on the interdisciplinary perspective including chemical oceanoglaphy and analytical chemistry for radionuclides. Then, they will provide results to domestic/international scientific community and publics by publishing to scientific journals/presenting in the conferences. Discussion of their achievements with scientific/public community will also open up profound insight. The research achievements obtained through the course will be summarized as the doctoral thesis during three years of enrollment.
	HIRAO Shigekazu	Students review the latest research publications on atmospheric transport of natural/artificial radionuclides in order to select their research topics and develop research plans towards the development of doctoral thesis. The plans and course of action are carried out and taken by students to learn and design numerical simulations, field sampling, and analysis of radioactivity. Students aim to elucidate the physical principles behind the observed phenomena and acquire new scientific findings. They will present their research achievements in domestic/international conferences and further improve their research through discussions and interactions with other researchers. Students shall develop the doctoral thesis based on the research results that they obtained in the course.

Field	Instructor	Description
Field of Environmental Radioactivity	WAKIYAMA Yoshifumi	Based on scientific literature review in the field of radionuclide dynamics on terrestrial environment, as well as related academic fields such as hydrology, geomorphology and soil science, students get directions of doctoral thesis and make research plans. Under these plans, students conduct collections of environmental samples (water, sediment, etc.) in the field, acquisitions of time-series data with monitoring devices, laboratory works for sample processing and measurement, and integrative data analyses. Students present their results at domestic and/or international academic conferences to discuss with other researchers for further improvement of their research. The results obtained during doctoral thesis studies will be summarized in a doctoral thesis during the three years of enrollment.
	WADA Toshihiro	Based on scientific literature review in the Field of aquatic radioecology, limnology, oceanography, fisheries science, fish ecology, etc., students select relevant direction of doctoral thesis and set-up the research plan. According to the plan students improve skills related to field sampling, laboratory rearing experiment, analyses of radionuclides data. Students also acquire skills of presentation and problem solving through feedback of their results for domestic and international conferences to discuss their achievements with wide scientific community as well as write and submit articles for relevant international journals. The results obtained in the course of the studies will be summarized in the doctoral thesis during three years of enrollment.

5. Extended-Study Plan

This is the system allowing students who have restrictions on time, as they are concurrently taking up jobs, etc., to study beyond the standard study period (“Extended-Study Period”). If a student is accepted as an Extended-Study Plan student, the student shall pay the tuition fee in each year at a divided amount, according to the permitted period of extended study (for example, in a Doctoral program, a student completes the program in three years in general, but under this system, the student can study for four to six years for the same total amount of tuition fee).

Contact: Fukushima University Educational Affairs Division Phone: +81-24-548-8357