

**2019 Academic Years**

**Graduate School of Integrated Sciences for Life  
Hiroshima University**

**Application Guidelines  
Doctoral Course**

**For April 2019 Admissions**

**Examinations Schedule**

<b>Program</b>	<b>Application Period</b>	<b>Examination Date</b>	<b>Results Announcement</b>
<b>Food and AgriLife Science Bioresource Science Life and Environmental Sciences</b>	Jan. 15 (Tue)– 21 (Mon) 2019	<b>Feb. 20 (Wed) 2019</b>	Mar. 6 (Wed) 2019

Note: Prior to application, please consult about your research programs with the expected academic supervisor. There may be change in the faculty members who recruit students. In such cases, information will be uploaded on the website of the graduate school, please confirm them before consultation.

**October 2018  
Hiroshima University**

## **Admission Policy (Doctoral Course)**

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## 1. Number of Students To Be Admitted and Venue for Examinations

April 2019 Admission

Program	To Be Recruited	Examination Venue
Food and AgriLife Science	14	Preparatory Office for the Establishment of Graduate School of Integrated Sciences for Life (Graduate School of Biosphere Science, Hiroshima University) TEL: +81-(0) 82-424-7908
Bioresource Science	15	
Life and Environmental Sciences	6	

## 2. Applicants who need consideration about the examinations / learning

Applicants who need special treatments/considerations at the time of examinations and after their enrollment are requested to submit the application form (its format is not specified) containing the information listed below to the Office and consult with the staff of the office.

### (1) Consultation Deadline:

Examination Period	Deadline
February 2019 Examination	December 14 (Fri), 2018

### (2) Contents of the Application Form

- 1) Your name, address, contact information (telephone number)
- 2) The name of the university that you graduated from, the department in which you wish to enroll, and the name of the expected academic supervisor
- 3) The type and level of your disability (If you are being treated, please submit a medical certificate.)
- 4) Special treatments that you wish to receive at the time of examinations
- 5) Special treatments that you wish to receive after enrollment
- 6) Special treatments that you have received at the university that you graduated from
- 7) Please describe your daily life.

## 3. Enrollment Fee and Tuition Fee

### Payment

< April 2019 admission >

Enrollment Fee: ¥282,000

Tuition Fee: ¥535,800 per year (¥267,900 per semester)

- (1) The enrollment fee, once paid, will not be refunded for any reason.
- (2) The enrollment fee and tuition shown above were correct as of April 2018. If they are changed, students must pay the revised amount.
- (3) Details of enrollment procedures, which will be conducted in mid-March 2019, will be notified later to successful applicants.

## 5. Applicant Eligibility

Applicants must satisfy one of the following qualifications:

- (1) have received a master's degree or profession's degree in Japanese institutions;
- (2) have received a master's degree or a degree equivalent to profession's degree outside Japan;
- (3) are expected to receive any of the above-mentioned qualifications by March 31, 2019 for April 2019 admission.

Be sure to contact the Preparatory Office for the Establishment of Graduate School of Integrated Sciences for Life, Hiroshima University no later than one month before the application period, if you think you are recognized as having academic achievements equivalent to or higher than those who have master's degree or profession's degree even though you do not receive any of the above-mentioned qualifications.

## 6. Application Procedures

### (1) Application Period

#### April Admission

#### (February 2019 Examination)

#### **From January 15 (Tue) to 21 (Mon) , 2019 (No later than 5:00 p.m. on the final day)**

If you plan to submit the documents in person, visit the Office of the Graduate School between 8:30 a.m. and 5:00 p.m. on a weekday. Please note that the office is closed on Saturdays and Sundays. If you plan to mail the documents, send them by registered mail and ensure that they reach the office by January 21 (Mon). Should they fail to reach the office by that date, however, those postmarked on or before January 19 (Sat) will be accepted.

On the envelope, please write "Application for the Graduate School of Integrated Sciences for Life, Hiroshima University" in red ink.

### (2) Address for Submission of Application Documents:

Preparatory Office for the Establishment of Graduate School of Integrated Sciences for Life  
(Support Office of the Graduate School of Biosphere Science, Hiroshima University)  
1-4-4 Kagamiyama, Higashi-Hiroshima, Hiroshima Prefecture, 739-8528 Japan (Tel: +81-(0)82-424-7908)

### (3) Documents to Be Submitted

<b>A</b>	Application Form Exam Admission Slip, etc.	(Use the specified forms.) Application Form, Examination Admission Slip, ID Photograph Card, and Slip for Certificate of Examination Fee Payment
<b>B</b>	Academic Transcripts	Should be prepared and signed by the president/dean of the university from which you have graduated and sealed securely.
<b>C</b>	Certificate of (Expected) Graduation of Master's Course	Should be prepared and signed by the president/dean of the university from which you have graduated, or expect to graduate *If you are a graduate or a current student of a university in China, please obtain the following document by requesting it at " (CHSI)" ( <a href="http://www.chsi.com.cn/xlcx/bgys.jsp">http://www.chsi.com.cn/xlcx/bgys.jsp</a> ), and submit it to us together with " (Certificate of Graduation" and " (Bachelor/Master's Diploma)". Graduates: Online Verification Report of Higher Education

		<p>Qualification Certificate ( )</p> <p>Expected Graduates: Online Verification Report of Student Record ( )</p> <p>Please note that applicants must pay the issuing fee for the Online Verification Report (2 / certificate) by themselves. Also be sure that there are 15 or more days left until the expiration date of the online verification at the time of its submission.</p>				
D	Summary of Master’s Thesis and/or Research Highlights	<p>(Use the specified forms.)</p> <p>Applicants who have completed (are expected to complete) master’s course should submit Summary of Master’s Thesis.</p> <p>Applicants who have research records after completing master’s course should also submit Research Highlights together.</p> <p>Applicants who had not completed master’s course should submit Research Highlights.</p> <p>To be approximately 1,000 words in length.</p>				
E	Detailed Descriptions of Research Highlights	<p>(Use the specified forms.)</p> <p>Describe your research achievement such as your academic papers, books/journals, if any, and attach copies of your academic papers.</p>				
F	Research Plan	<p>(Use the specified forms.)</p>				
G	Return Envelope	<p>A self-addressed standard-size envelope with appropriate postage (stamps)</p> <p>(Only applicants from inside Japan)</p>				
H	Examination Fee (30,000 yen)	<p>(Only applicants from inside Japan)</p> <p>(Use the specified form.)</p> <p>Use the specified form “Hiroshima University Bank Transfer Slip for the Entrance Examination Fee”.</p> <p>Write your name and address within the frames specified in all the three slips. And then pay the amount at a city bank. (If you pay at a branch of Japan Post Bank, you have to use a different form. In that case, present the official slip enclosed herein at a window of Japan Post Bank and follow the instructions provided. Please note that you cannot pay by transfer from an ATM of any bank, including Japan Post Bank).</p> <p>Also, please note that the bank transfer fee shall be borne by the applicant. Be sure to confirm the hours of bank window service, since the payment should be made within the periods below.</p> <table><tr><td>Examination period</td><td>Period of Bank transfer for the Entrance Examination Fee</td></tr><tr><td>February 2019 examination</td><td>January 4 (Fri) – January 21 (Mon), 2019</td></tr></table> <p>*Those applicants who wish to enter the doctoral course from the master's course of the Graduate School of Biosphere Science, Hiroshima University, do not need to pay either the examination fee or enrollment fee.</p> <p>(Applicants from outside Japan)</p> <p>Please ask the office about the method of payment.</p>	Examination period	Period of Bank transfer for the Entrance Examination Fee	February 2019 examination	January 4 (Fri) – January 21 (Mon), 2019
Examination period	Period of Bank transfer for the Entrance Examination Fee					
February 2019 examination	January 4 (Fri) – January 21 (Mon), 2019					
I	Certificate of Examination Fee Payment	<p>(Only applicants from inside Japan)</p> <p>The left part ( ) of the Hiroshima University Bank Transfer Slip for the Entrance Examination Fee is regarded as the Certificate of Examination Fee Payment. Paste this certificate on the Slip for Certificate of Examination Fee Payment, specified in A of this Table.</p>				

#### (4) Application Procedures

- 1) Prepare documents A to I, and submit them together during the application period.

(Note) Applicants who graduated (expected to graduate) from the Graduate School of Biosphere Science, Hiroshima University, do not need to submit documents B and C.

- 2) If you have specific reasons for being unable to submit documents B and/or C, you may submit alternative documents that are equivalent to them.
- 3) International students who have taken a Japanese proficiency test and/or an English proficiency test such as TOEIC® /TOEFL® test are strongly encouraged to submit the grade certificate(s).

## 7. Examination Date and Time

### February 2019 Examination

Examination Date	Examination	Time*
February 20 (Wed), 2019	Interview (about 60 minutes/person)	TBD

\* Starting time of the examination will be notified individually after adjusting schedules.

## 8. Screening Methods

Screening will be based on the results of an examination (interview).

Your academic transcripts, summary of master's thesis / research highlights, and research plan will be reflected in the interview.

## 9. Announcement of Successful Applicants

Examination Period	Announcement Date
February 2019 Examination	12:00 on March 6 (Wed), 2019

- (1) The Graduate School will send letters of the result to applicants.
- (2) Successful applicants' ID numbers will be released on the bulletin board on the first floor of Building C of the Graduate School of Biosphere Science and the website of the Graduate School of Integrated Sciences for Life, Hiroshima University.

\*Please note that the announcement of the website will be unofficial. Official announcement will be made via the bulletin board and the letters of acceptance.

The office will not accept inquiries by phone regarding the results of the examinations.

## 10. Hiroshima University Excellent Student Scholarships

To inspire students to study hard and to foster excellent human resources, Hiroshima University institutes its own scholarship system that supports students who show excellent performances at their research achievement and so on.

## 11. Personal Information

Your personal information (name, date of birth, sex, etc.) provided for screening will be used solely for the purpose of screening, announcement of results, and enrollment procedures. After your enrollment, the University will manage the information to use it for student support activities (filing applications for scholarships and for waiving/discounting tuitions, etc.), and survey and research activities (for instance, surveys and analyses of applicants in order to improve screening systems). The University shall neither appropriate the information for any other purpose nor provide it to individuals/groups other than faculty or staff members of the University.

## 12. Additional Notices

- (1) **Prior to application, please consult about your research programs with a faculty member under whom you wish to study.** ([http://en.hiroshima-u.jp/gsbs/list\\_academic](http://en.hiroshima-u.jp/gsbs/list_academic))  
Graduate School of Biosphere Science ([https://www.hiroshima-u.ac.jp/en/gsbs/list\\_academic](https://www.hiroshima-u.ac.jp/en/gsbs/list_academic))  
Graduate School of Integrated Arts and Sciences (<https://www.hiroshima-u.ac.jp/en/souka/staff>)
- (2) The certificates to be submitted must be the originals or certified photocopies. Uncertified photocopies would not be recognized as official certificates.
- (3) No changes are permitted in the content of documents after their submission.  
The examination fee will not be returned for any reason.
- (4) Any forgery or falsification of the documents and/or academic fraud would result in cancellation of acceptance even after passing examination or admission.
- (5) If an applicant could not graduate from the university before the admission date, he/she would lose the eligibility to enter our graduate school in this session.
- (6) Application Guidelines and other related documents can be downloaded from the website of the Graduate School of Biosphere Science/Integrated Sciences for Life, Hiroshima University. However, the bank transfer slip for examination fee cannot be downloaded. Please request the bank transfer slip to the student support office.
- (7) For further information, please contact the following office:

Preparatory Office for the Establishment of Graduate School of Integrated Sciences for Life  
(Graduate School of Biosphere Science, Hiroshima University)  
1-4-4 Kagamiyama, Higashi-Hiroshima, Hiroshima Prefecture 739-8528 Japan  
TEL: +81-(0) 82-424-7908  
E-mail: [sei-daigakuin-sien@office.hiroshima-u.ac.jp](mailto:sei-daigakuin-sien@office.hiroshima-u.ac.jp)

**List of Academic Supervisors (Program of Food and AgriLife Science: . . . . . )**

Specialized Subject	Faculty Member		Research
Food Physical Chemistry and Food Engineering	Prof.	Satoru UENO	Characterization of Physical properties and Clarification of kinetics for edible lipids
	Prof.	Yoshio HAGURA	Analysis of mechanical and electrical properties of the food, and development of food processing and measurement techniques using those properties
	Assoc. Prof.	Kiyoshi KAWAI	Food processing, preservation, and texture analysis
Bioactive Natural Products Chemistry	Prof.	Manabu ASAKAWA	Studies on marine biotoxins, and marine bioactive substances, based on safety and security of food
	Prof.	Shinji OHTA	Studies on structures and functions of biologically active natural compounds
	Assoc. Prof.	Hisashi OMURA	Studies on chemical interactions between plants and insects
Microbiology for Food Safety	Prof.	Hiroyuki NAKANO	Development of technology for controlling the growth of harmful bacteria in food
	Prof.	Tadashi SHIMAMOTO	Analysis of pathogenicity-related genes and drug resistance genes of foodborne pathogenic bacteria and development of norovirus inactivation method
	Assoc. Prof.	Yasushi OKINAKA	Studies on the interactions between aquatic organisms and their pathogens
Animal Life Science	Prof.	Hiroyuki HORIUCHI	Basic and applied study using avian stem cells and genome editing technology in the agriculture field
	Prof.	Masayuki SHIMADA	The study for understanding molecular and endocrine mechanisms of reproductive functions and developing novel reproductive technologies
	Assoc. Prof.	Masahide NISHIBORI	Studies on Mammalian and Avian Molecular Evolution, Phylogenetics and Geography using Their Information of Animal Genome, and Their Application to Agricultural Sciences
Nutrition and Food Functions	Prof.	Takuya SUZUKI	Physiological functions of nutrients and food factors
	Assoc. Prof.	Noriyuki YANAKA	Molecular mechanisms of lifestyle-related diseases and nutritional science
Applied Molecular Cell Biology	Prof.	Noriaki SHIMIZU	Genome engineering based on the genome plasticity and expression
	Prof.	Yoshihiro SAMBONGI	Studies on structure and function of microbial energy metabolism proteins
	Assoc. Prof.	Kouichi FUNATO	Molecular genetic studies of lipid dynamics and functions
	Assoc. Prof.	Hisato KUNIYOSHI	Physiological and biochemical studies on metamorphosis and reproduction in aquatic animals
Food Resource Economics	Assoc. Prof.	Kenji HOSONO	Socio-economic Agricultural Study about Sustainable Food Resource and Supply Chain
Applied Environmental Life Science	Prof.	Takeshi NAGANUMA	Study on applications of environmental biological resources
Brewing Science and Technology	Visiting Prof.	Masaki OKUDA	Research for production and utilization of high quality rice for sake making

# List of Academic Supervisors (Program of Bioresource Science: )

Specialized Subject	Faculty Member		
Fish Biology and Fisheries	Prof.	Yoichi SAKAI	Behavioral ecology of fish reproduction
	Assoc. Prof.	Takeshi TOMIYAMA	Fish life history and stock dynamics
Aquaculture	Prof.	Tetsuya UMINO	Stock enhancement and conservation resources of aquatic animal
	Assoc. Prof.	Masayuki YOSHIDA	Biological basis of emotion, learning, and mind in animals
Aquatic Ecology	Prof.	Koichiro KAWAI	Study on utilization of valuable information from aquatic animal ecology
	Prof.	Kazuhiko KOIKE	Coastal biological processes of Seto-Inland Sea, coral reefs and mangrove swamps based on primary producers (various microalgae)
	Assoc. Prof.	Hidetoshi SAITOU	Researches on population ecology of macrobenthos in freshwater and shallow seawater zones
	Assoc. Prof.	Lawrence M. Liao	Taxonomy, phylogenetic systematics and biogeography (phytogeography) of marine algae in the tropics and subtropical regions; English education for scientific communication
Fisheries Oceanography	Prof.	Susumu OHTSUKA	Phylogeny, Evolutionary Biology and Conservative Ecology of Marine Invertebrates
	Assoc. Prof.	Aki KATO	Aquaculture and conservation of algal resources
	Assoc. Prof.	Toshiya HASHIMOTO	Understanding of the marine environment using the filed observation and numerical simulation model
Plant Production Science	Prof.	Hirofumi SANEOKA	Nutritional and physiological studies on improvement of plant production and quality
	Assoc. Prof.	Akihiro UEDA	Studies on improvement of abiotic stress tolerance in higher plants and isolation of plant growth promoting bacteria
	Assoc. Prof.	Toshinori NAGAOKA	Studies on soil functions in plant production
	Assoc. Prof.	Rumi TOMINAGA	Studies on cell differentiation and development in higher plants
Animal Production Science	Prof.	Yukinori YOSHIMURA	Studies on the innate immune functions in the digestive and reproductive systems in chickens
	Prof.	Masaoki TSUDZUKI	Genetic studies on qualitative and quantitative traits of poultry
	Assoc. Prof.	Naoki ISOBE	Immunology and endocrinology in mammary gland of ruminants
Animal Nutrition and Physiology	Prof.	Taketo OBITSU	Nutrition and feed utilization in ruminants
	Prof.	Takashi BUNGO	Studies on nutritional, environmental and behavioral physiology in Livestock
	Assoc. Prof.	Toshihisa SUGINO	The study on Dairy cattle health and feeding management
	Assoc. Prof.	Shin-ichi KAWAKAMI	Research of the brain mechanisms of feeding, drinking, and aggressive behavior in avians
Terrestrial Field Science	Prof.	Hajime TANIDA	Study on human-animal (farm animals, companion animals, wild animals and zoo animals) relationships aiming for the symbiotic relation
	Assoc. Prof.	Yuzo KUROKAWA	Research on healthy life cycle of dairy cows

## List of Academic Supervisors

### (Program of Life and Environmental Sciences:

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Specialized Subject	Faculty Member		Research
Functional Organization of the Brain	Prof.	Kazuyoshi UKENA	Study on the physiological functions of neuronal substances regulating appetite and energy homeostasis
Biodiversity Science(Basic studies for Environmental Sciences)	Prof.	Toshinori OKUDA	Biodiversity stability in relation to environmental changes
Symbiotic Microbiology	Prof.	Yukari KUGA	Plant and microbe symbioses in soil ecosystem
Molecular Neurobiology	Prof.	Yumiko SAITO	Understanding of the diversity of brain function by identifying and studying novel molecules which mediate synaptic and primary cilia transmission
Ecosystem Ecology	Prof.	Takayuki NAKATSUBO	Roles of plants and microorganisms in terrestrial ecosystems
Biological Basis of Neuronal Regulation	Prof.	Yasuo FURUKAWA	Study on the functional elements and plasticity of the nervous system
Metabolic Biochemistry	Prof.	Takeshi YAMAZAKI	Synthetic mechanisms and physiological functions of neurosteroids
Conservation Ecology	Prof.	Toshihiro YAMADA	Conservation of organisms based on ecology
Evaluation of Plant Environment	Prof.	Jun WASAKI	Plant-Microbial Interactions in the Vicinity of Root and Nutrient Dynamics
Physical Chemistry of Interfaces	Assoc. Prof.	Masumi VILLENEUVE	Thermodynamic studies on interfacial behavior of bio-related substances using model cell membranes
Advanced Molecular and Cellular Neurobiology	Assoc. Prof.	Akiko SATO	The mechanism of the polarized vesicle trafficking in neurons
Environmental Analytical Chemistry	Assoc. Prof.	Kazuhiko TAKEDA	Study on the physiological functions of neuronal substances regulating appetite and energy homeostasis
Climatic Environments & Ecology	Assoc. Prof.	Akio TSUCHIYA	Natural environments and tree-ring characteristics in humid tropics and semi-arid savannas.
Chiral Organic Chemistry	Assoc. Prof.	Tatsuo NEHIRA	Research of structural organic chemistry in life science
Metazoan Evolutionary Biology	Assoc. Prof.	Akira HIKOSAKA	Evolutionary Genomics and Evolutionary Developmental Biology of Metazoa

Applicant  
ID No.

Paste an identification photo, which should be upper-body, frontal and without a hat, taken within the last three months.  
(4 cm × 3 cm)

- 1: Prior to application, please consult about your research programs with the expected academic supervisor.
- 2: Do not fill in the box marked with .
- 3: In the boxes “M/F”, Program”, and “Educational background,” please choose and check the appropriate items.
- 4: For your age, write your age as of April 1, 2019 for April 2019 admission.
- 5: Please offer detailed contact information. (If you board at someone’s house, write his/her family name.)

# Curriculum Vitae

## Educational Background

	Name and Address of School	Officially Required Years for Graduation	Year and Month of Entrance and Graduation	Duration of Attendances	Diploma or Degree Awarded, skipper years/levels
Primary Education	Name		From(YYYY.MM)	years	
Elementary School	Location		To (YYYY.MM)	months	
		years			
Secondary Education	Name		From(YYYY.MM)	years	
Middle School	Location		To (YYYY.MM)	months	
		years			
High School	Name		From(YYYY.MM)	years	
	Location		To (YYYY.MM)	months	
		years			

**AY 2019: General Screening for Doctoral Course of the Graduate School of Integrated Sciences for Life, Hiroshima University**  
**Examination Admission Slip** **(February Exam)**

Applicant ID No.	
Program	Food and AgriLife Science Bioresource Science Life and Environmental Sciences
Name	
Examination venue	Graduate School of Biosphere Science, Hiroshima University (Faculty of Applied Biological Science)

(Do not cut.)

**AY 2019: General Screening for Doctoral Course of the Graduate School of Integrated Sciences for Life, Hiroshima University**  
**ID Photograph Card** **(February Exam)**

Applicant ID No.	
Program	Food and AgriLife Science Bioresource Science Life and Environmental Sciences
Name	
Examination venue	Graduate School of Biosphere Science, Hiroshima University (Faculty of Applied Biological Science)

Paste an identification photo, which should be upper-body, frontal and without a hat, taken within the last three months.  
(4 cm × 3 cm)

(Do not cut.)

AY 2019: Screening for Doctoral Course of the Graduate School of Integrated Sciences for Life,  
Hiroshima University

(General Screening)

**Slip for Certificate of Examination Fee Payment**

Applicant ID No.

Please paste securely the Certificate of Examination Fee Payment within the frame on this slip.

## Examination Date and Time

Examination Date	Examination	Time
(February Exam) February 20 (Wed.), 2019	Interview (About 60 minutes/person)	TBD*

\* Examination time will be notified individually after adjusting schedules.

# Summary of Master's Thesis

Graduate School of Integrated Sciences for Life, Hiroshima University

Program in which you wish to enroll	Food and AgriLife Science Bioresource Science Life and Environmental Sciences	Applicant ID No.
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# Research Highlights

Graduate School of Integrated Sciences for Life, Hiroshima University

Program in which you wish to enroll	Food and AgriLife Science Bioresource Science Life and Environmental Sciences	Applicant ID No.	
Expected academic supervisor		Applicant's name	

\* Do not fill in the box marked with .  
If you need more space, copy this form and attach the copy to this sheet.

(D-General)

# Detailed Descriptions of Research Highlights

Graduate School of Integrated Sciences for Life, Hiroshima University

Program in which you wish to enroll	Food and AgriLife Science Bioresource Science Life and Environmental Sciences	Applicant ID No.		
Expected academic supervisor		Applicant's name		
Academic papers, books, presentations, patent rights, etc.	Years and dates of publications/presentations	Names of publishers, journals, and/or academic meetings	Names of co-authors and/or co-presenters	

List your academic papers, books/journals, presentations, and patent rights in chronological order under the respective categories.

Please attach copies of your academic papers.

\* Do not fill in the box marked with .

If you need more space, copy this form and attach the copy to this sheet.

(D-General)

# Research Plan

Graduate School of Integrated Sciences for Life, Hiroshima University

Program in which you wish to enroll	Food and AgriLife Science Bioresource Science Life and Environmental Sciences	Applicant ID No.	
Expected academic supervisor		Applicant's name	

\* Do not fill in the box marked with .  
If you need more space, copy this form and attach the copy to this sheet.