

**2019 Academic Years**

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

**Application Guidelines**

**Master's Course**

**For April 2019 Admissions**

**Examination 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. 19 (Tue) 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**

## **Admissions Policy (Master's Course)**

The Graduate School of Integrated Sciences for Life, based on its Diploma Policy and Curriculum Policy, expects to admit master's students as described below.

Students who:

1. Have strong eagerness to learn, who wish to acquire deep expertise and understanding in a wide range of fields from the basics to applications that include medical treatment in the areas of study related to biology and life sciences, and who have basic academic knowledge for that purpose;
2. Wish to acquire interdisciplinary problem-searching and problem-solving abilities, which can integrate and link different fields, along with broad general education, without being constrained by conventional frameworks of research fields, and to create "science that can guide sustainable development"; and
3. Are aware of both academic fields and the real world, and who wish to acquire international and interdisciplinary communication skills as well as practical capabilities in society.

### **[Program of Food and AgriLife Science]**

Based on its Diploma Policy and Curriculum Policy, this program expects to admit students as described below.

Students who:

1. Have a high level of interest in theories and methods of understanding and utilizing foods and biological functions from the perspective of molecules and cells;
2. Have a high interest in finding and solving problems from a scientific perspective regarding creatures' diverse functions and the advanced use of food resources;
3. Have acquired a command of English at the level of completing an undergraduate of university course or higher;
4. Have acquired abilities at the level of completing a university course or higher regarding the knowledge, attitude, and skills related to their desired foods and life science fields; and
5. Have acquired common sense and ethical standards as a working member of society.

### **[Program of Bioresource Science]**

Based on its Diploma Policy and Curriculum Policy, this program expects to admit students as described below.

Students who:

1. Have a high level of interest in systematically understanding life phenomena related to the production and use of biological resources based on the studies from the molecular level to ecosystems basis;
2. Have a high interest in understanding and dissolving various problems in the production of biological resources from regional to global scopes regarding roles and trends of biological resources in food production, their application to human life, and their relationships with the natural environment;
3. Have acquired a command of English at the level of completing an undergraduate of university course or higher;
4. Have acquired abilities at the level of completing a university course or higher regarding knowledge, attitude, and skills related to their desired biological resources and science fields; and
5. Have acquired common sense and ethical standards as a working member of society.

### **[Program of Life and Environmental Sciences]**

Based on its Diploma Policy and Curriculum Policy, this program expects to admit students as described below.

Students who:

1. Have a broad interest in the life science fields from the molecular level to whole environments and ecosystems, and who wish to acquire basic research abilities for a specific field and to learn the theories and methods of understanding and utilizing these abilities from a comprehensive perspective supported by related expertise and skills;
2. Wish to understand various problems existing in life science and environmental science, and to solve them in cooperation with organizations outside the university and the international community;
3. Wish to play an active role as a generalist who covers areas outside life science and environmental science without being constrained by their own expertise;
4. Have acquired a command of English at the level of completing an undergraduate of university course or higher;
5. Have acquired abilities at the level of completing a university course or higher regarding knowledge, attitude, and skills related to their desired specialized fields; and
6. Have acquired common sense and ethical standards as a working member of society.

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

April 2019 Admission

Program	To Be Recruited	Examination Venue
Food and AgriLife Science	Several	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	Several	
Life and Environmental Sciences	Several	

## 2. For Applicants with Physical Disabilities

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 last attended
- [7] Please describe your typical daily life dealing with your physical disabilities.

## 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.

## 4. Applicant Eligibility

Applicants must have English ability equivalent to or higher than the scores shown below.

TOEIC® 400, TOEFL®-PBT ITP 434, TOEFL®-iBT 41

The score is valid for two years before the day of the entrance examination.

Applicants must satisfy one of the following qualifications:

- (1) have graduated from a Japanese university;
- (2) have completed a 16-year educational program at a school 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 Student Support Office of 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 having completed an undergraduate course at a university, even though you have not received any of the above-mentioned qualifications.

## 5. 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.

**C** Certificate of (Expected)

**(4) Application Procedures**

[1] Prepare documents A to H, and submit them together during the application period.

(Note) Applicants who graduated (expected to graduate) from the Faculty of Applied Biological Science, Hiroshima University do not need

## 9. Announcement of Successful Applicants

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

- (1) 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, Hiroshima University and the website of the Graduate School of Integrated Sciences for Life, Hiroshima University.
- (2) The Graduate School will send letters of acceptance to successful applicants.

\*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. 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.

## 11. Additional Notices

- (1) **Prior to application, please consult about your research programs with a faculty member under whom you wish to study.**

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)



**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
	Lecturer	Hironori HONDO	Understanding and controlling the structure in foods
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
	Lecturer	Makoto HIRAYAMA	Studies on function and application of bioactive compounds from marine organisms
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
	Assist. Prof.	Thanutchaporn KUMURUNGSEE	Food factors with muscle and brain disease prevention
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.	Kouchi FUNATO	Molecular genetic studies of lipid dynamics and functions
	Assoc. Prof.	Hisato KUNIYOSHI	Physiological and biochemical studies on metamorphosis and reproduction in aquatic animals
	Lecturer	Yukichi FUJIKAWA	Studies of the production and utilization of useful materials using plant
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 6	Research for production and utilization of high quality rice for sake making

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

### Specialized Subject

Prof.	Yoichi SAKAI	Behavioral ecology of fish reproduction
Assoc. Prof.	Takeshi TOMIYAMA	Fish life history and stock dynamics
Prof.	Tetsuya UMINO	Stock enhancement and conservation resources of aquatic animal
Assoc. Prof.	Masayuki YOSHIDA	Biological basis of emotion, learning, and mind in animals
Assist. Prof.	Kaori WAKABAYASHI	Reproduction and growth of marine aquatic invertebrates
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
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 field observation and numerical simulation model
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
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
Assist. Prof.	Yumi HOSHINO	Development of reproductive technology based on elucidation of reproductive phenomena of mammals
Assist. Prof.	Yoshiaki NAKAMURA	Preservation of mammalian and avian genetic resources on the basis of germ cell manipulation
Prof.	Taketo OBITSU	Nutrition and feed utilization in ruminants
Prof.	Takashi BUNGO	Studies on nutritional, environmental and behavioral physiology in Livestock
Assoc. Prof.		

Specialized Subject			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-req 318.48 0 12 32E0EEC13DB5(s)7 Assoc. Prof.

## AY 2019: Application Form for Master's course of the Graduate School of Integrated Sciences for Life, Hiroshima University

### February 2019 Exam

		Applicant ID No.	
Katakana			
Name			
Date of birth	Year	Month	Day
M/F	Male / Female	Age	years old
Program in which you wish to enroll	Food and AgriLife Science Bioresource Science Life and Environmental Sciences		
Specialized Subject			
Expected academic supervisor			
Enrollment period	April 2019		
Examination subject	Specialized subject		
Educational background	Department/ Course name		
	Graduate School/ Faculty name		
	University/ College/ Junior College name		
	Graduated/expected to graduate on:      /      /      Graduated      Expected (YYYY / MM / DD)		
Contact information	For sending the result of the screening	Zip code	
		(Address)	
		TEL	
		e-mail	
	Other contact information	Zip code	
		(Address)	
		TEL	
		e-	

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

### Notices in filling the Application Form

- 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  Location		From(YYYY.MM)  To (YYYY.MM)	years  months	
Elementary School					

**AY 2019: General Screening for Master's 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 Master's Course of the Graduate School of Integrated Sciences for Life, Hiroshima University**

**<ID Photograph Card >**

**(February Exam)**

**Examination Date and Time**

Examination Date	Examination	Time
(February Exam)	Specialized subject (writing)	
February 19 (Tue), 2019	Interview (About 15 minutes/person)	

# Reason for Application

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	
[Large empty area for writing the reason for application, with horizontal dashed lines for guidance.]			

\*Do not fill in the box marked with . If you need more space, copy this form and attach the copy to this sheet. Please limit your statement to 400 words.