**2019 Academic Years** 

# Graduate School of Integrated Sciences for Life Hiroshima University

# **Application Guidelines**

# **Master's Course**

# (For April 2019 Admissions)

**Examination Schedule** 

Program	Application Period	Examination Date	Results Announcement
<ul> <li>Food and AgriLife Science</li> <li>Bioresource Science</li> <li>Life and Environmental Sciences</li> </ul>	Jan. 15 (Tue)– 21 (Mon)	Feb. 19 (Tue)	Mar. 6 (Wed)
	2019	2019	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
Bioresource Science	Several	(Graduate School of Biosphere Science,
Life and Environmental Sciences	Several	Hiroshima University) TEL: +81-(0) 82-424-7908

### 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

A	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
I	Academic Transcripts	Should be prepared and signed by the president/dean of the university from which you have graduated and sealed securely.

С	Certificate of (Expected) Graduation	<ul> <li>Should be prepared and signed by the president/dean of the university from which you have graduated.</li> <li>*If you are a graduate or a current student of a university in China, please obtain the following document by requesting it at "中国高等教育学历证书查询 (CHSI)" (http://www.chsi.com.cn/xlcx/bgys.jsp), and submit it to us together with "毕业证书(Certificate of Graduation" and "学士 (硕士) 学位证书 (Bachelor/Master's Diploma)".</li> <li>Graduates: Online Verification Report of Higher Education Qualification Certificate (教育部学历证书电子注册备案表)</li> <li>Expected Graduates: Online Verification Report of Student Record (教育部学籍在线验证报告)</li> <li>Please note that applicants must pay the issuing fee for the Online Verification Report (2 元/ 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.</li> </ul>		
D	Score Certificate of TOEIC®/TOEFL® (The certificate will be returned to you after confirmation by the office.)	Submit a score certificate (original) of either the TOEIC® or the TOEFL® test, taken in past two years from the day of the entrance examinations.         The types of tests should be any of the following:         - TOEIC®Test         - TOEIC®-IP (including College TOEIC®)         - TOEFL®-PBT         - TOEFL®-iBT         If you have score certificates of more than one test, you may submit them all. In that case, the highest score will be adopted.		
E	Reason for Application	(Use the official form) About 400 English words		
F	Return Envelope	A self-addressed standard-size envelope with appropriate postage (stamps)		
G	Examination Fee (30,000 yen)	(Only applicants from inside Japan) (Use the specified form.) Use the specified form "Hiroshima University Bank Transfer Slip for the Entrance Examination Fee (広島大学入学検定料振込依頼書)". 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). 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 within the periods below. Examination period Period of Bank transfer for the Entrance Examination Fee February 2019 examination January 4 (Fri) – January 21 (Mon), 2019 (Applicants from outside Japan)		
Н	Certificate of Examination Fee Payment	Please ask the office about the method of payment. (Only applicants from inside Japan) The left part (入学志願票貼付用) of the "Hiroshima University Bank Transfer Slip for the Entrance Examination Fee (広島大学入学検定料振込依頼書)" 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.		

#### (4) Application Procedures

- [1] Prepare documents A to H, and submit them together during the application period.
  - (Note) <u>Applicants who graduated (expected to graduate) from the Faculty of Applied Biological Science,</u> <u>Hiroshima University do not need to submit documents B or C.</u>
- [2] If you have specific reasons for being unable to submit documents B and/or C, you may submit alternative documents.
- [3] International students who have taken a Japanese proficiency test are strongly encouraged to submit their grade certificate(s).

### 6. Examination Date and Time

#### February 2019 Examination

Examination Date	Examination	Time
February 19 (Tue), 2019	Specialized Subject (writing)	10:00 - 11:30
	Interview (oral) (about 15 minutes/person)	13:00 -

### 7. Details of Examinations

#### (1) Written Examination

Program	Subject of Written Examination (score)
<ul> <li>Food and AgriLife Science</li> <li>Bioresource Science</li> <li>Life and Environmental Sciences</li> </ul>	One Specialized subject (200 points)

Note 1) To select a specialized subject, please firstly determine the faculty member under whom you wish to study by referring to the list of academic supervisors of the "Graduate School of Integrated Sciences for Life"(pp.7 - 9), and then, select the subject that the academic supervisor teaches.,

Note 2) The examination of a specialized subject will include basic questions relating to the academic field concerned.

#### (2) Interviews

Details will be given on the examination day.

#### 8. Screening Criteria

Screening will be based on the results of examinations (written examination and interview) and foreign language proficiency.

Your grade transcripts and Reason for Application will be reflected in the interview.

- (1) 200 points will be allocated to the test in a specialized subject.
- (2) 150 points will be allocated to foreign language proficiency.

Your foreign language proficiency will be evaluated, based on your Score Certificate of TOEIC®/TOEFL®, submitted at the time of application. Your points will be first converted into a score in the TOEIC® Open Test, and then converted again, this time into points earned out of 150 points (perfect score).

(3) In the interview, your understanding of your own graduation thesis, motivation for studying at the Graduate School, and purpose of research will be discussed and evaluated.

### 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)

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 fees cannot be downloaded. Please request the bank transfer slip to the office.
- (7) Fur 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

# List of Academic Supervisors (Program of Food and AgriLife Science: 食品生命科学プログラム)

専門科目 Specialized Subject		担当教員 Faculty Member	研究内容 Research
	教授	上野 聡	食品脂質の物性評価および動的性質の解明
	Prof.	Satoru UENO	Characterization of Physical properties and Clarification of kinetics for edible lipids
			食品の力学物性・電気物性の解析とそれらの物性を利用した
食品物理工学	教 授	羽倉 義雄	新規加工・計測技術の開発に関する研究
Food Physical Chemistry and Food	Prof.	7月 我年 Yoshio HAGURA	Analysis of mechanical and electrical properties of the food, an
Engineering	1101.	rosmo micerar	development of food processing and measurement techniques
	准教授	川井 清司	<u>using those properties</u> 食品の加工、保存、食感に関する工学的研究
	Assoc. Prof.	Kiyoshi KAWAI	Food processing, preservation, and texture analysis
	講師	本同 宏成	油脂食品の構造形成過程の理解と制御
	Lecturer	Hironori HONDO	Understanding and controlling the structure in foods
	***	NN 111 - 204	水圏生物に含まれる生理活性天然物質、特に、有毒成分に
	教 授 Prof.	浅川 学 Manabu ASAKAWA	する研究 Studies on marine biotoxins, and marine bioactive substances,
	F101.	Manabu ASAKAWA	based on safety and security of food
生理活性天然物化学	教 授	太田 伸二	生理活性天然物質の構造と機能解析に関する研究
Bioactive Natural Products	教 1交 Prof.	☆□ 1Ψ Shinji OHTA	Studies on structures and functions of biologically active natur
Chemistry		5	compounds
	准教授 Assoc. Prof.	大村 尚 Hisashi OMURA	情報化学物質を媒介とした生物間相互作用に関する研究 Studies on chemical interactions between plants and insects
			海洋生物由来生理活性物質の機能解析とその有効利用
	講 師	平山 真	Studies on function and application of bioactive compounds
	Lecturer	Makoto HIRAYAMA	from marine organisms
	教授	中野 宏幸	食中毒細菌・食品腐敗細菌の殺菌・増殖制御技術の開発
	Prof.	Hiroyuki NAKANO	Development of technology for controlling the growth of
			harmful bacteria in food 食中毒細菌の病原性関連遺伝子と薬剤耐性遺伝子の解析:
合日焦升御井暢兴	***	白卡····	よびノロウイルス失活法の開発
食品衛生微生物学 Microbiology for Food Safety	教 授 Prof.	島本 整 Tadashi SHIMAMOTO	Analysis of pathogenicity-related genes and drug resistance
viterobiology for Food Safety	F101.		genes of foodborne pathogenic bacteria and development of
			norovirus inactivation method
	准教授	冲中 泰	水産生物とその病原体との相互作用に関する研究 Studies on the interactions between aquatic organisms and the
	Assoc. Prof.	Yasushi OKINAKA	pathogens
			鳥類の幹細胞研究とゲノム編集技術を用いた農学分野での
	教 授	堀内 浩幸	礎から応用研究への展開
	Prof.	Hiroyuki HORIUCHI	Basic and applied study using avian stem cells and genome
			editing technology in the agriculture field 生殖機構の分子内分泌学的解析による生殖工学技術の開発
			上2個級術のカゴア9万巡子の解析による 上増工子12柄の用9 に関する研究
芯用動物生命科学	教授 島田 昌之 Prof. Masayuki SHIMADA		The study for understanding molecular and endocrine
Animal Life Science		Masayuki SHIMADA	mechanisms of reproductive functions and developing novel
			reproductive technologies
			動物ゲノム情報を利用した哺乳類および鳥類の分子進化, タ 子系統および分子地理学的研究とその農学への応用研究
	准教授	西堀 正英	Studies on Mammalian and Avian Molecular Evolution,
	Assoc. Prof. Masahide NISHIBORI	Masahide NISHIBORI	Phylogenetics and Geography using Their Information of Anin
			Genome, and Their Application to Agricultural Sciences
	教授	鈴木 卓弥	食品成分による生体調節作用に関する研究
	Prof.	Takuya SUZUKI	Physiological functions of nutrients and food factors           生活習慣病発症の分子メカニズムの解明と有効な食品因子(
	准教授	矢中 規之	生活習慣病発症の分子メルーズムの脾明と有効な良血因子の探索
食品栄養機能学	Assoc. Prof.	Noriyuki YANAKA	Molecular mechanisms of lifestyle-related diseases and
Nutrition and Food Functions			nutritional science
	助 教	Thanutchaporn	骨格筋、および脳の疾病予防効果を有する食品因子に関す
	Assist. Prof.	KUMURUNGSEE	研究 Food footors with muscle and havin disease movention
			Food factors with muscle and brain disease prevention 動物細胞におけるゲノムの安定維持と発現をもとにしたゲノム
	教授	清水 典明	工学
	Prof.	Noriaki SHIMIZU	Genome engineering based on the genome plasticity and
応用分子細胞生物学 Applied Molecular Cell Biology			expression
	教授	三本木 至宏	微生物のエネルギー代謝蛋白質の構造と機能に関する研究 Studies on structure and function of microbial energy
	Prof.	Yoshihiro SAMBONGI	metabolism proteins
	准教授	船戸 耕一	リピッドの動態と機能に関する分子遺伝学的研究
	Assoc. Prof.	Kouichi FUNATO	Molecular genetic studies of lipid dynamics and functions
	准教授	国吉 久人	水圏動物の変態・生殖に関する生理化学的研究
	Assoc. Prof.	Hisato KUNIYOSHI	Physiological and biochemical studies on metamorphosis and
	講 師	藤川 愉吉	reproduction in aquatic animals 植物を用いた有用物質生産・利用に関する研究
	講 即 Lecturer	滕川	Studies of the production and utilization of useful
	Lecturer		<u>materials using plant</u> 持続的な食料資源の確保とフード・サプライ・チェーンの構造
食料資源経済学	准教授	細野 賢治	特続的な良料質源の確保とノート・リノノイ・リェーンの構造に関する社会経済農学の視点からの研究
長科頁你裡伢子 Food Resource Economics	Assoc. Prof.	Kenji HOSONO	Socio-economic Agricultural Study about Sustainable Food
		5	Resource and Supply Chain
芯用環境生命科学	教授	長沼 毅	環境生物資源の応用に関する研究
Applied Environmental Life Science	Prof.	Takeshi NAGANUMA	Study on applications of environmental biological resources
11			
醸造資源開発学 Brewing Science and Technology	客員教授	奥田 将生 6	酒類原料の特性及び利用に関する研究開発 Research for production and utilization of high quality rice for

## List of Academic Supervisors (Program of Bioresource Science: 生物資源科学プログラム)

専門科目 Specialized Subject		担当教員 Faculty Member	
水産資源管理学	教 授 Prof.	坂井 陽一 Yoichi SAKAI	魚類の社会や繁殖に関する行動生態学的研究 Behavioral ecology of fish reproduction
Fish Biology and Fisheries	准教授	富山 毅	魚介類の生活史や資源変動に関する研究
	Assoc. Prof.	Takeshi TOMIYAMA	Fish life history and stock dynamics 水圏生物の増養殖と保全生態に関する研究
	教授	海野 徹也	Stock enhancement and conservation resources of aquatic
<b>水産増殖学</b>	Prof.	Tetsuya UMINO	animal
Aquaculture	准教授 Assoc. Prof.	吉田 将之 Masayuki YOSHIDA	こころの生物学的基盤に関する研究 Biological basis of emotion, learning, and mind in animals
	Assoc. FIOI. 助教	若林 香織	自然と調和した魚介類増養殖技術の開発
	Assist. Prof.	Kaori WAKABAYASHI	Reproduction and growth of marine aquatic invertebrates
	教 授	河合 幸一郎	水生動物のささやきに耳を傾け、人間生活に役立たせる研 Study on utilization of valuable information from aquatic anin
	Prof.	Koichiro KAWAI	ecology
			基礎生産者(微細藻・植物プランクトン)からの沿岸環境(瀬) 内海、サンゴ礁、マングローブ域)の評価
	教 授	小池 一彦	Coastal biological processes of Seto-Inland Sea, coral reefs an
	Prof.	Kazuhiko KOIKE	mangrove swamps based on primary producers (various
k族生態学			microalgae)
Aquatic Ecology	准教授	斉藤 英俊	河川や浅海域における底生動物の個体群生態に関する研究 Researches on population ecology of macrobenthos in
	Assoc. Prof.	Hidetoshi SAITOU	freshwater and shallow seawater zones
			熱帯・亜熱帯域における海藻類の系統分類と生物地理に関
	准教授	Lawrence M. Liao	する研究;科学コミュニケーションのための英語教育 Taxonomy, phylogenetic systemtics and biogeography
	Assoc. Prof.	Lawrence W. Liao	(phytogeography) of marine algae in the tropics and subtropic
			regions; English education for scientific communication
	教授	大塚 攻	海洋無脊椎動物の系統分類、進化、保全生態に関する研 Phylogeny, Evolutionary Biology and Conservative Ecology of
	Prof.	Susumu OHTSUKA	Marine Invertebrates
水産生物海洋学	准教授	加藤 亜記	海藻類の増養殖・保全に関する系統分類および生理生態
Fisheries Oceanography	Assoc. Prof.	Aki KATO	的研究 Aquaculture and conservation of algal resources
	V1.+11.155		現場観測や数値モデルなどを用いた、海洋環境問題の解明
	准教授 Assoc. Prof.	橋本 俊也 Toshiya HASHIMOTO	Understanding of the marine environment using the filed
	713500.1101.	Toshiya In tornivio To	observation and numerical simulation model
	教授	実岡 寛文	植物の生産性および品質の向上に関する栄養生理学的研
	Prof.	Hirofumi SANEOKA	Nutritional and physiological studies on improvement of plan production and quality
			植物の環境ストレス耐性の向上と植物生育促進細菌に関す
直物生産機能学	准教授	上田 晃弘	植物の環境ペトレス耐性の向上と植物生育促進神困に関す研究
Plant Production Science	Assoc. Prof.	Akihiro UEDA	Studies on improvement of abiotic stress tolerance in higher
	¥4-#4+152	<b>三回 </b>	plants and isolation of plant growth promoting bacteria 植物生産における土壌の機能に関する研究
	准教授 Assoc. Prof.	長岡 俊徳 Toshinori NAGAOKA	植物生産にわける工場の機能に対する研先 Studies on soil functions in plant production
	准教授	冨永 るみ	高等植物の細胞分化と形態形成に関する研究
	Assoc. Prof.	Rumi TOMINAGA	Studies on cell differentiation and development in higher plan
	教 授	吉村 幸則	鳥類消化管と生殖器における自然免疫機能の解明とその強化法に関する研究
	Prof.	Yukinori YOSHIMURA	Studies on the innate immune functions in the digestive and
			reproductive systems in chickens
	教 授	都築 政起	家禽における質的および量的形質を対象とした遺伝育種学的研究
家畜生産機能学	Prof.	Masaoki TSUDZUKI	Genetic studies on qualitative and quantitative traits of poultr
Animal Production Science	准教授	磯部 直樹 Nachi ISOPE	反芻動物乳腺の免疫・内分泌機能 Immunology and endocrinology in mammary gland of
	Assoc. Prof.	Naoki ISOBE	生殖細胞の細胞生物学的研究と高度利用技術の開発
	助教 Assist. Prof.	星野 由美 Yumi HOSHINO	Development of reproductive technology based on elucidation
			of reproductive phenomena of mammals 生殖細胞の操作技術を基盤としたほ乳類・鳥類の保存
	助教	中村 隼明	Preservation of mammalian and avian genetic resources on th
	Assist. Prof.	Yoshiaki NAKAMURA	basis of germ cell manipulation
家畜飼養管理学 Animal Nutrition and Physiology	教授	小櫃 剛人 Taketo OBITSU	反芻家畜の飼料利用と栄養代謝に関する研究
	Prof.		Nutrition and feed utilization in ruminants 家畜の環境生理学、行動生理学、栄養生理学、神経生理学
	教 授	豊後 貴嗣	および行動遺伝学に関する研究
	Prof.	Takashi BUNGO	Studies on nutritional, environmental and behavioral
	准教授	杉野 利久	physiology in Livestock 健全性を担保した乳牛飼養管理の追究
	Assoc. Prof.	Toshihisa SUGINO	The study on Dairy cattle health and feeding management
	准教授	河上 眞一	家禽を用いた摂食・飲水・攻撃行動等の神経行動学的解析 Pagagarch of the brain machanisms of feeding drinking and
	Assoc. Prof.	Shin-ichi KAWAKAMI	Research of the brain mechanisms of feeding, drinking, and aggressive behavior in avians
	1		人と家畜・野生動物・ペットとの共存を目指したフィールド研
	教 授	谷田 創	Study on human-animal (farm animals, companion animals,
幸域生物圏フィールド科学	Prof.	Hajime TANIDA	wild animals and zoo animals) relationships aiming for the
Ferrestrial Field Science			symbiotic relation
	准教授	黒川 勇三	乳牛の健康的ライフサイクルに関する研究
	Assoc. Prof.	Yuzo KUROKAWA	Research on healthy life cycle of dairy cows

#### List of Academic Supervisors (Program of Life and Environmental Sciences: 生命環境総合科学プログラム)

専門科目	•	王当教員	NTAI SCIENCES: 生命環境総合科学プログラム) 研究内容
Specialized Subject		aculty Member	WI 元 PI 谷 Research
III機能解析学 Functional Organization of the Brain	教 授	浮穴 和義 Kazuyoshi UKENA	食欲やエネルギー代謝調節に関わる脳内物質の生理 作用に関する研究 Study on the physiological functions of neuronal
生物多様性科学(環境科学入門) Biodiversity Science(Basic studies for Environmental Sciences)	教 授 Prof.	奥田 敏統 Toshinori OKUDA	substances regulating appetite and energy homeostasis 生物多様性と環境の関わり合いに関する研究 Biodiversity stability in relation to environmental changes
共生微生物学 Symbiotic Microbiology	教 授 Prof.	久我 ゆかり Yukari KUGA	土壤生態系における植物と微生物の共生に関する研究 Plant and microbe symbioses in soil ecosystem 食欲・うつ・不安に関与する脳内情報伝達機構の追及
神経分子薬理学 Molecular Neurobiology	教 授 Prof.	斎藤 祐見子 Yumiko SAITO	Understanding of the diversity of brain function by identifying and studying novel molecules which mediate synaptic and primary cilia transmission
生態系生態学 Ecosystem Ecology	教 授 Prof.	中坪 孝之 Takayuki NAKATSUBO	陸域生態系における植物・微生物の役割 Roles of plants and microorganisms in terrestrial ecosystems
神経情報制御論 Biological Basis of Neuronal Regulation	教 授 Prof.	古川 康雄 Yasuo FURUKAWA	神経機能素子と神経系の可塑性に関する研究 Study on the functional elements and plasticity of the nervous system
代謝生化学 Metabolic Biochemistry	教 授 Prof.	山崎 岳 Takeshi YAMAZAKI	脳内ステロイドホルモンの生合成と機能の研究 Synthetic mechanisms and physiological functions of neurosteroids
保全生態学 Conservation Ecology	教 授 Prof.	山田 俊弘 Toshihiro YAMADA	生態学を基礎とした生物を保全する研究 Conservation of organisms based on ecology
植物環境評価論 Evaluation of Plant Environment	教 授 Prof.	和崎 淳 Jun WASAKI	根の周りにおける植物一微生物間相互作用と養分動態 Plant-Microbial Interactions in the Vicinity of Root and Nutrient Dynamics
界面物理化学 Physical Chemistry of Interfaces	准教授 Assoc. Prof.	ヴィレヌーヴ 真澄美 Masumi VILLENEUVE	生体モデル膜と生体関連物質の界面挙動に関する熱 力学的研究 Thermodynamic studies on interfacial behavior of bio- related substances using model cell membranes
先端的神経細胞科学 Advanced Molecular and Cellular Neurobiology	准教授 Assoc. Prof.	佐藤 明子 Akiko SATO	神経細胞における膜タンパク質の選別輸送システムの 研究 The mechanism of the polarized vesicle trafficking in neurons
環境分析化学 Environmental Analytical Chemistry	准教授 Assoc. Prof.	竹田 一彦 Kazuhiko TAKEDA	水圏における微量汚染物質、活性酸素の高感度定量 とその動態解明 Study on the physiological functions of neuronal substances regulating appetite and energy homeostasis
気候環境生態学 Climatic Environments & Ecology	准教授 Assoc. Prof.	土谷 彰男 Akio TSUCHIYA	湿潤熱帯および半乾燥地域の自然環境と年輪解析 Natural environments and tree-ring characteristics in humid tropics and semi-arid savannas.
キラル有機化学 Chiral Organic Chemistry	准教授 Assoc. Prof.	根平 達夫 Tatsuo NEHIRA	生命現象における構造有機化学的研究 Research of structural organic chemistry in life science
後生動物進化学 Metazoan Evolutionary Biology	准教授 Assoc. Prof.	彦坂 暁 Akira HIKOSAKA	動物の進化に関するゲノム・発生生物学的研究 Evolutionary Genomics and Evolutionary Developmental Biology of Metazoa
生態系物質循環学 Ecosystem ecology	講 師 Lecturer	戸田 求 Motomu TODA	森林生態系のエネルギー・炭素循環 Energy, water and carbon exchange between atmosphere and forest ecosystems

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

Febru	uary 2019 ]	Exam				plicant ) No.	*		
K	atakana								
]	Name								
Dat	te of birth	Year	Mor	nth	Da	ау			Paste an identification photo,
	M/F	$\Box$ Male / $\Box$ F	emale	Age		yea	years old which should be upper-b frontal and without a hat, within the last three mor		
	cam in which vish to enroll	□ Food and AgriLife Science □ Bioresource Science □ Life and Environmental Sciences				(4 cm × 3 cm)			
-	ecialized Subject								
Expec	cted academic upervisor								
Enroll	lment period				Apri	1 2019			
Exami	nation subject	Specialized subject							
Educational background		□Department/□	ool/□F	aculty nam		name :			
		Graduated/ex	spected t	to graduate			/ 1M / DI		Graduated • □Expected
Contact ir	For sending the result of the screening	Zip code (Address)			L ( nail :	)		_	
Contact information	Other contact information	Zip code (Address)		TF	CL ( nail :	)		_	

#### 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  $\mathfrak{K}$ .

- 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

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	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
	Name		From(YYYY.MM)		
Primary					
Education				years	
				yours	
	Location		To (YYYY.MM)		
Elementary				months	
School					
Denoor		years			
	Name		From(YYYY.MM)		
Secondary					
Education				years	
				5	
	Location		To (YYYY.MM)		
				months	
Middle School					
		years			
	Name	×	From(YYYY.MM)		
				years	
				J	
High School	Location		To (YYYY.MM)		
				months	
		years			
	Name		From(YYYY.MM)		
Tertiary					
Education	Name of Department			years	
			То (ҮҮҮҮ.ММ)		
TT 1 1 4				months	
Undergraduate	Location				
		years			
	Name		From(YYYY.MM)		
	Name of Department			years	
Graduate				4	
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	Location			monuns	
	Location				
		years			
				VODPO	
Total years of scl	hooling mentioned above			years	1
		years		months	
		years	1	monuls	J

We might check up your final educational record by contacting the school you have graduated from or you are now belonging to. Please fill out the contact information as a reference for your educational background including the name of your supervisor.

(Reference)

Address		
Phone Number	E-mail address	
Name of the person in charge	Name of your supervisor	

<b>Examination Adm</b>	iission Slip> (February Exam
Applicant ID No.	*
	□ Food and AgriLife Science
Program	□ Bioresource Science
_	□Life and Environmental Sciences
Name	
Examination venue	Graduate School of Biosphere Science, Hiroshima University (Faculty of Applied Biological Science)

	neral Screening for Master's Course of the Gr ciences for Life, Hiroshima University anh Card >	aduate School of (February Exam)
Applicant ID No.	×	
Program	<ul> <li>□ Food and AgriLife Science</li> <li>□ Bioresource Science</li> <li>□ Life and Environmental Sciences</li> </ul>	Paste an identification photo, which should be upper-body, frontal and
Name		without a hat, taken within the last three months. $(4 \text{ cm} \times 3 \text{ cm})$

AY 2019: Screening for Master's 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 the "Certificate of Examination Fee Payment" on this slip within the frame securely.

# **Examination Date and Time**

Examination Date	Examination	Time
(February Exam)	Specialized subject (writing)	10:00~11:30
February 19 (Tue), 2019	Interview (About 15 minutes/person)	13:00~

# **Reason for Application**

	Graduate School of	of Integrated Sc	iences for Life, Hiroshima University
Drogram in which	□Food and AgriLife Science	Applicant	*
Program in which	□Bioresource Science	Applicant ID No.	
you wish to enroll	Life and Environmental Sciences	ID NO.	
Expected		Applicant's	
academic supervisor		name	
		I	

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