

【Important】 Implementation of the entrance examination

The current natural disaster caused by torrential rain may affect implementation of the entrance examination.

Any updates regarding changes to the start time of the examination, cancellation or postponement of the examination, changes to the selection method, etc., will be posted on the UGAS-EU website (<http://rendai.agr.ehime-u.ac.jp/english/>).

Please check the website regularly for the latest information.

SPECIAL THREE-YEAR DOCTORAL PROGRAM

**for INTERNATIONAL STUDENTS
in TROPICAL and SUBTROPICAL
AGRICULTURE
and RELATED SCIENCES**

October 2024/September 2027



**The United Graduate School of Agricultural Sciences
Ehime University**

Admission Policy

<Ideal Applicants>

Agricultural science brings together a broad range of academic disciplines covering biology, chemistry, physics, engineering, economics and biotechnology to improve the efficiency and productivity of biological processes. To achieve these agricultural objectives, it is necessary to adopt an interdisciplinary perspective and build a balanced, sustainable relationship between nature and society. It is equally important to develop and train people to deepen their understanding of biological functions by applying broad knowledge and a flexible mindset unconstrained by conventional academic thinking. They will explore agriculture of the future that goes beyond a simple regional focus and seeks to preserve the global environment. Based on these principles, The United Graduate School of Agricultural Sciences, Ehime University (a consortium of the graduate schools of agriculture at Ehime and Kagawa Universities, and Agriculture and Marine Science, Graduate School of Integrated Arts and Sciences, Kochi University) established a three-year doctoral program offering three majors: Bioresource Production Science, Applied Bioresource Science and Life Environment Conservation Science. These majors accept students with master's degrees from universities in Japan. There are also two courses for outstanding international students to pursue research in specific countries and regions. Agriculture is an academic field rich in future potential and vital for environmental and ecological conservation and improvement for sustaining a healthy life. We welcome applicants who are motivated to lead and explore the many possibilities of agricultural science from diverse perspectives. The Special Program for International Students in Tropical and Subtropical Agriculture and Related Sciences is aimed at research and education in the various sciences related to the production and use of biological resources and the environment that supports such activities in the tropics and subtropics. Centered on such regions, this program accepts outstanding mid-level scientists engaged in research or teaching in all parts of the world and aspires to train scientists and engineers who can positively contribute to their home countries. The Special Doctoral Course Program in Agricultural Sciences for Students from Asia, Africa and the Pacific Rim (AAP) is a unified master's course and doctoral program. The doctoral program accepts students from countries in Asia, Africa and the Pacific Rim who have completed the master's component of this program at the graduate school in Ehime university, Kagawa university or Kochi University and has the goal of training advanced researchers and engineers.

(Knowledge · Discovery · Understanding)

1. Have general expertise in agriculture, the environment, and related sciences; have the ability to collect and analyze information in their respective fields to identify, understand, and solve problems in their area of expertise; and have the technical ability to conduct research independently or in groups.

(Ethics · Practice)

2. Have high ethical standards based on an understanding of research in Bioresource Production Sciences, Applied Bioresource Sciences, Life Environment Conservation Sciences, and related sciences, and be able to conduct research and education in agriculture, the environment, and related sciences based on a solid scientific foundation.

(Information dissemination)

3. Be able to proactively work on global issues on their own and to disseminate the results of their research to the wider world.

(Thought · Judgment · Expression · Communication)

4. Possess the ability for scientific reasoning and objective judgment, be able to see and think broadly, be able to express themselves well, and have advanced presentation and communication skills.

<Admissions Policy>

Applicants are interviewed (includes a presentation and oral examination) to evaluate the knowledge and skills they have acquired through their bachelor's and master's programs, the ability to use that knowledge and skills, and their attitude toward learning independently and collaboratively. In addition, a system is in place for international students to be admitted prior to arriving in Japan, opening the door to motivated applicants with diverse backgrounds. Applicants for Working Student Special Admission are interviewed (includes a presentation and oral examination) to evaluate the knowledge and experience they have gained through employment at companies and organizations. UGAS also offers two special courses for international students. Applicants for the Tropical and Subtropical Agriculture and Related Sciences Course are interviewed by a prospective supervisor and two or more members of faculty to evaluate the following: (1) Master's thesis or equivalent research, (2) research plan after enrollment, (3) professional expertise, (4) aptitude and motivation to learn, and (5) communication skills in English. The Special Doctoral Course Program in Agricultural Sciences for Students from Asia, Africa and the Pacific Rim (AAP) is a five-year course that begins with a master's degree and is evaluated based on the research plan for the doctoral course and a recommendation from the supervisor.

The Three-Year Special Program for International Students in Tropical and Subtropical Agriculture and Related Sciences

The United Graduate School of Agricultural Sciences, Ehime University (UGAS-EU; also known as Ehime Rendai) is a graduate school comprising the Graduate School of Agriculture at Ehime University and Kagawa University, and the Agriculture and Marine Science Program, Graduate School of Integrated Arts and Sciences at Kochi University, located in Shikoku, Japan. UGAS-EU considers it necessary that students of agricultural sciences broaden their perspectives and deepen their expertise. Accordingly, to meet the growing needs in the fields of environmental studies and resource studies in tropical regions, “The Three-Year Special Program for International Students in Tropical and Subtropical Agriculture and Related Sciences” was established in 1990. Applications are now being accepted for the October 2024–September 2027 program in accordance with the UGAS-EU admission policy.

Application Guidelines

1. Field of Study, Number of Applicants Accepted, and Supervisor

(1) Field of Study

Applications are accepted for any field in tropical and subtropical agriculture and related sciences.

(2) Number of Applicants Accepted

Not fixed. Successful applicants will be notified by the end of May 2024.

(3) Supervisor

An application without a nominated prospective supervisor will not be considered. Before applying, you must contact your preferred supervisor about your research topic. Refer to the list of supervisors in “**Field of Instruction and Supervising Professors**”. After admission, two co-supervisors (selected from “**Co-Supervising Professors**”) are assigned to each student. A Doctor of Philosophy degree is conferred on those who satisfactorily complete all the requirements within three years.

2. Qualifications

(1) Eligibility

International students at the graduate level who are engaged in research at a university or other research institution in Japan or overseas.

(2) Nationality

Applicants must have the nationality of a country recognized by the Japanese government.

(3) Age

There is no age restriction as long as the applicant meets the academic qualifications and other requirements.

(4) Academic Career

Applicants should possess a master’s degree or an equivalent degree as of September 30, 2024. If the applicant does not have a master’s degree but has conducted research equivalent to a master’s degree, they can submit their research achievements for evaluation. If the applicant’s research work is deemed acceptable, the application will be considered.

Applicants who wish to have their qualification reviewed for eligibility should contact the UGAS-EU office by January 12, 2024. If a successful applicant is unable to obtain a master’s degree or an equivalent degree by the end of September 2024, their acceptance will be revoked.

(5) Language

Applicants must be able to read and write English.

(6) Arrival in Japan

In principle, successful applicants should plan to arrive in Japan between September 18 and October 1, 2024.

Note: For government-sponsored international students (Research Students - General Category) recommended by universities and government-sponsored international students (Research Students) recommended by embassies, it is also necessary to meet the qualifications and conditions specified in each application guideline under “Qualifications and Conditions for Applicants”.

3. Application

All the documents listed below should be submitted by registered mail to the Dean of UGAS-EU by the head of the applicant’s institution by April 15, 2024. (Applications received after April 15, 2024 will not be accepted.) Applications sent directly by an applicant will not be accepted. Incomplete documents and documents arriving at UGAS-EU after the deadline will not be accepted. If any false information is found in the application documents, admission may be revoked even after a student has been admitted.

yen). UGAS-EU will provide the bank account details when needed

The application fee will be refunded under the following conditions. If you are eligible for a refund, please contact the UGAS-EU office. However, the applicant is responsible for all fees associated with refunding the application fee via overseas remittance

- (1) If an applicant has paid the application fee but did not submit an application
- (2) If an applicant has mistakenly paid the application fee twice or paid more than the prescribed amount
- (3) If an application is not accepted
- (4) If an applicant in **3. Application m.** (1)–(4) above has mistakenly paid the application fee
- (5) If an applicant has been granted an extension to a Japanese government scholarship

4. Interview

Applicants will be individually interviewed by their prospective supervisor and at least two other faculty members (selected by the prospective supervisor). The interview may take place in person or via an on-line conferencing system. In preparation for the interview, applicants must submit the following to the prospective supervisor before the date of the interview:

- (a) Summary of their master's thesis
- (b) Research proposal

The prospective supervisor will oversee this process, conduct the interview, and evaluate the applicant based on the results of the interview. The results of the evaluation will be used to assess the applicant's suitability and a student admission report will be prepared. The selection criteria for applicants include the following:

- (1) Master's thesis or equivalent research work
- (2) Proposed research plan including its relevance to the applicant's recent research activities at their current institution
- (3) Specialized knowledge in the applicant's field of study
- (4) Motivation and aptitude for learning
- (5) Proficiency in English

5. Admission Period: September 11–13, 2024

*The admission and tuition fees for 2023 are as stated below. However, the fees for 2024 may be revised.

If the tuition fee is revised during your period of enrollment, the revised tuition fee will apply.

(1) Admission fee: 282,000 yen

Note: The following applicants are not required to pay the admission fee:

1. Those who are continuing their studies after completing the master's program at Ehime University, Kagawa University, or Kochi University
2. International students receiving a Japanese government (MEXT) scholarship
3. Those who have applied for a Japanese government (MEXT) scholarship

(2) Tuition fee (per semester): 267,900 yen (535,800 yen per year)

Note: International students receiving a Japanese government (MEXT) scholarship and those newly selected MEXT scholarship recipients are not required to pay the tuition fee

(3) 1. Students are required to pay 3,620 yen for Personal Accident Insurance for Students Pursuing Education and Research (Gakkensai) and Liability Insurance (coverage for three years)

2. Comprehensive Insurance for Students Lives Coupled with Gakkensai for International Students: 33,370 yen (coverage for three years) including tenant liability

Note: The above insurance premiums are for the 2023 academic year. However, the fees for 2024 may be revised

(4) Medical insurance

Students are required to take out "National Health Insurance" (Japan), which covers most medical costs up to 70%

(5) Documents

1. Pledge
2. Letter of guarantee
3. Curriculum vitae
4. Four 4×3 cm photographs

*The forms will be sent to you two weeks before the admission period

(6) Japanese language

Applicants are encouraged to learn some Japanese because it will be necessary for everyday life. If it is not possible to study Japanese before coming to Japan, classes are offered at all three universities.

6. Selection Method

Selection is based on the results of the interview outlined in 4 above and evaluating the applicant's academic transcript and other submitted documents.

7. Notes

Admission may be revoked if there is any false information or misrepresentation found in the submitted application documents.

8. Scholarship Information

Successful applicants may apply for the following scholarships. Please consult your prospective supervisor for further details.

- (1) Reservation Program for Monbukagakusho Honors Scholarship for Privately-Financed International Students by Pre-arrival Admission (university recommendation)

Eligibility: Privately financed international students who are planning to enroll with pre-arrival admission and are not receiving a Japanese government (MEXT) scholarship or any foreign government-sponsored scholarship

Amount: 48,000 yen per month (subject to change from year to year)

Period: 6 months (from October in the year of selection to the following March)

- (2) The Monbukagakusho Honors Scholarship for Privately-Financed International Students

Eligibility: Privately financed international students who are not receiving a Japanese government (MEXT) scholarship or any foreign government-sponsored scholarship. One student from the April or October intake in this special program will be preferentially selected

Amount: 48,000 yen per month (subject to change from year to year)

Period: 6 months (from October in the year of selection to the following March)

Please note that other scholarships are available for privately financed international students.

9. Personal Information

Personal information such as name and address provided in an application is used solely for the purposes of processing the application, notifying an applicant if the application is incomplete, announcing the results of acceptance, and sending documents related to the admission procedure if an applicant is accepted.

All correspondence relating to the application should be sent by airmail to the address below (enquiries can be made by email):

UGAS-EU Office

The United Graduate School of Agricultural Sciences, Ehime University

3-5-7 Tarumi, Matsuyama, Ehime 790-8566, Japan

Email: rendai@stu.ehime-u.ac.jp

<http://rendai.agr.ehime-u.ac.jp/english/>

10. Reasonable Consideration Requests by Prospective Students

For applicants who require consideration for examinations and during their studies, please inform the UGAS-EU office before submitting the application.

Note

This preliminary consultation is used to familiarize applicants requesting reasonable consideration about the current situation at the three UGAS-EU campuses beforehand to determine how best to accommodate their needs for both examinations and studying. The preliminary consultation is not intended to restrict applicants who wish to receive reasonable consideration from taking examinations or studying at UGAS-EU.

Fields of Instruction and Supervising Professors

EH : Ehime University

KG : Kagawa University

KC : Kochi University

Note: The underlined professors will retire before September, 2027.

1 Bioresource Production Science Major Bioresource Production Science Department

a. Plant Resource Production

| Professor (Affiliation) | Research Field | Main Subject |
|-------------------------|--------------------------------------|---|
| ARAKI Takuya (EH) | Crop Science | Ecophysiological studies on dry matter production and yield of crops |
| BEPPU Kenji (KG) | Pomology | Reproductive physiology of fruit trees |
| ICHIE Tomoaki (KC) | Tree Ecophysiology | Resource allocation strategies for growth, reproduction and herbivore defense of forest trees |
| KAMIYA Koichi (EH) | Forest Genetics | Molecular population genetics and conservation genetics of forest organisms |
| KAYA Hidetaka (EH) | Plant Molecular Biology | Plant Molecular genetics and physiology |
| KOBAYASHI Kappei (EH) | Plant Molecular Biology and Virology | Molecular biology of plant viruses, plant-virus interactions and plant pathogenesis |
| MIYAZAKI Akira (KC) | Crop Physiology | Physiology and function related with yield production in field crops |
| TOYOTA Masanori (KG) | Crop Ecophysiology | Ecophysiology and morphology on yield determination of crops |
| UENO Hideto (EH) | Soil Science and Plant Nutrition | Dynamics of soil nutrients and agroecological soil management for sustainable agriculture |

b. Plant and Animal Production under Structure

| | | |
|---------------------|---------------------------------------|---|
| HATOU Kenji (EH) | Information Systems for Plant Factory | Research of the various models for the speaking plant approach in a plant factory |
| KAWANO Toshio (KC) | Post-harvest Process Engineering | Processing, handling and distribution technology for agricultural products |
| SUZUKI Yasushi (KC) | Forest Engineering | Logging cable system, Forest operation system, Forest road, Effects of forest operation to residual stands, Woody biomass |

c. Aquaculture and Livestock Production

| | | |
|------------------------|--|--|
| FUKADA Haruhisa (KC) | Fish Nutrient Physiology | Studies on hormonal regulation of growth and digestion in fish |
| GOTO Rie (EH) | Fish Reproductive Physiology and Aquaculture | Studies of developmental biotechnology and reproductive physiology in aquaculture species |
| IKEJIMA Kou (KC) | Coastal and Fisheries Ecology | Ecology and Conservation of coastal ecosystems and fisheries resources |
| IMAJOH Masayuki (KC) | Fish Pathology | Studies of epidemiology and prevention of fish diseases caused by viruses, bacteria and parasites |
| MIURA Takeshi (EH) | Fish Reproductive Physiology | Studies of the molecular control mechanisms of gametogenesis in animals, and establishment of the applied techniques in aquaculture based on the basic studies |
| SAITO Taiju (EH) | Aquaculture, developmental engineering | Development of an efficient aquaculture technology by using developmental engineering methods |
| TACHIBANA Tetsuya (EH) | Poultry Nutritional Physiology | Studies on the bioactive molecules related to growth and behavior of chickens |
| TAKAGI Motohiro (EH) | Fish Breeding and Conservation Genetics | Studies on fish breeding and conservation genetics |

d. Bioresource Economics

| | | |
|-------------------------|--|--|
| MATSUOKA Atsushi (EH) | Resources and Environmental Management | Economical studies on management and preservation of agricultural land |
| TAKENOUCI Naruhito (EH) | Fisheries management and business | Study on economics and management theories of the sustainable development in the fisheries and fishing village |

2 Applied Bioresource Science Major Applied Bioresource Science Department

a. Food Science

| | | |
|-------------------------|---------------------------|---|
| KASHIWAGI Takehiro (KC) | Food Functional Chemistry | Chemicalbiology of food material / Isolation and identification of functional substance in food |
| KISHIDA Taro (EH) | Nutrition | Studies on nutritional and physiological effects of food components, especially non-nutrient |

| | | |
|------------------------|--------------------------------|--|
| MARUYAMA Koutatsu (EH) | Community Health and Nutrition | The approaches of nutritional epidemiology to do research on the association between dietary habits (i.e. food and nutrient intakes, eating behaviors, and eating foods with function claims) and human health |
| MORIMOTO Kenji (KG) | Applied Enzymology | Production of various rare sugars using microbial and enzymatic reactions |
| MORIOKA Katsuji (KC) | Fisheries Chemistry | Studies on post-harvest science and technology of fish and fisheries products / Studies on more efficient utilization of fish |
| OGAWA Masahiro (KG) | Food Protein Chemistry | Structure-function analysis of food proteins and their functional development |
| SHIMAMURA Tomoko (KC) | Food Chemistry | Studies on reaction of food components, food functionality, and food analysis |
| TAKATA Goro (KG) | Applied Enzymology | Production of Rare Sugar from bio-resources using microbial and enzymatic reactions |
| YONEKURA Lina (KG) | Food Chemistry | Bioavailability, bioaccessibility and assessment of biological activity of functional compounds in foods |

b. Bioresource Science for Manufacturing

| | | |
|----------------------------|--|---|
| AKITA Mitsuru (EH) | Applied Molecular Cell Biology | Protein transport and metabolite transport in plant organelles |
| AKIYAMA Koichi (EH) | Genetic engineering in fungi | Molecular biology and recombinant protein production in <i>Fusarium oxysporum</i> |
| ASHIUCHI Makoto (KC) | Bioengineering and Nanotechnology | Development of Multi-functional bionanomaterials and Their Applications |
| ICHIMURA Kazuya (KG) | Plant Stress Signaling | Biotic and abiotic stress signal transduction in plants |
| ICHIURA Hideaki (KC) | Material Chemistry of Forest Resources | Material Chemistry for utilization of forest resources |
| <u>ITO</u> H Kazutaka (EH) | Forest Chemistry | Chemistry for utilization of forest resources |
| KAWADA Miyuki (EH) | Molecular Microbiology | Biochemistry and molecular biology of membrane transporters |
| NISHI Kosuke (EH) | Animal Cell Technology | Functional analysis of biomolecules and elucidation of their mode of action |
| NISHIWAKI Hisashi (EH) | Bioorganic Chemistry | Structure-activity relationship and mode of action of bioactive substances |
| NOMURA Mika (KG) | Molecular Plant Nutrition | Physiology and molecular biology in plant-microbe interaction |

| | | |
|--------------------------------|---|---|
| SATO Masashi (KG) | Bioactive Natural Products Chemistry | Bio-organic chemistry of natural bioactive substances |
| SEKITO Takayuki (EH) | Genetic engineering of microorganisms | Molecular mechanism and regulation of intracellular transport |
| SUGAHARA Takuya (EH) | Animal Cell Technology | Screening and application of biofunctional substances from foodstuffs |
| <u>SUGIMORI Masatoshi (EH)</u> | Wood Science and Technology | Wood Quality |
| SUZUKI Toshisada(KG) | Biomass Chemistry | Organic chemistry, biosynthesis, and bioactivity of wood components, and woody biomass utilization |
| TABUCHI Mitsuaki (KG) | Applied Molecular Cell Biology | Studies on the regulation of vesicle trafficking and lipid metabolism in yeast and mammalian cells |
| TANAKA Naotaka (KG) | Cell Biology | Functional analysis of the Golgi apparatus and its application to protein production |
| TEBAYASHI Shinichi (KC) | Bioactive Chemistry | Organic chemical studies on bioactive chemicals from natural occurring: e.g. isolation and identification of medical agents from folklore medical plants screening for pesticidal agents from natural occurring |
| YAMAUCHI Satoshi (EH) | Chemistry and Utilization of Bioresources | Synthetic Organic Chemistry for research about function and effective utilization of bioresources |

3 Life Environment Conservation Science Major
Life Environment Conservation Science Department

a. Land Conservation and Irrigation Engineering

| | | |
|-------------------------|---|---|
| HARA Tadashi (KC) | Geotechnical and earthquake proof engineering | Study on liquefaction characteristics of soft ground |
| HARUTA Shinsuke (EH) | Rural Resources Management for Environmental Preservation | Improvement and Management of Water Quality and Resources in Rural Area |
| KOBAYASHI Noriyuki (EH) | Geotechnical and Geoenvironmental Engineering | Application of rehabilitation engineering for Hydraulic Structures |
| KUME Takashi(EH) | Soil hydrology | Study on water and solute transport in soil of irrigated land |

| | | |
|------------------------|---|---|
| OUE Hiroki (EH) | Hydrometeorology for Environmental Science | Micrometeorology of the plant canopy under changing environment, hydrological processes in forest and farmland watersheds, irrigation and drainage and integrated agricultural water use management |
| SAKAMOTO Jun (KC) | Urban Planning and Disaster Management | Urban planning in an era of Declining population |
| SASAHARA Katsuo (KC) | Erosion and Sediment Control, Landslide Engineering | Sediment and Water discharge from mountainous slope, Early warning system against landslide Mechanism of deformation of unsaturated soil |
| SATO Shushi (KC) | Water Use and Environmental Engineering | The overall engineering research for achieving the management of water environment and infrastructure in river basin |
| TAKEYAMA Emi (EH) | Rural Landscape Planning | Design and planning of agricultural landscape for sustainable rural development |
| YAMASHITA Naoyuki (EH) | Water Environmental Engineering | Study on securing of sanitary safety water environment |

b. Environmental Science

| | | |
|------------------------|------------------------------------|---|
| ADACHI Masao (KC) | Aquatic Environmental Science | Biology, physiology and ecology of harmful algal blooms |
| ICHIMI Kazuhiko (KG) | Coastal Marine Science | Biological and Chemical Processes in Coastal Ecosystems |
| ISHIBASHI Hiroshi (EH) | Ecotoxicology/Molecular toxicology | Studies on ecotoxicological effects of environmental contaminants in animals Studies on disruption mechanism of nuclear receptor signaling pathway by environmental contaminants |
| ITO Fuminori (KG) | Insect Ecology | Behavior and ecology of social insects |
| KANG Yumei (KC) | Soil Environmental Science | Rehabilitation of contaminated soil, water and grassland ecosystem |
| KAWASHIMA Ayato (EH) | Environmental Science for Industry | Development of effective utilization technology for biomass and treatment technology for hazardous pollutants |
| KIBA Akinori (KC) | Phytopathology | Analysis of plant immunity and disease development |
| MORITSUKA Naoki(KC) | Soil science and plant nutrition | Dynamics of fertilizer elements in agroecosystems for sustainable agriculture |

| | | |
|-------------------------|--|--|
| OBUYASHI Yumiko (EH) | Marine molecular ecology / Biogeochemistry | Biogeochemical cycles and related microbial ecology in marine environment |
| TAKAHASHI Shin (EH) | Environmental Analytical Chemistry, Environmental Chemistry, Ecotoxicology, Resources Recycling Engineering | Studies on development of analytical methods, elucidation of emission sources and environmental behaviors, and assessment of ecological effects for persistent bioaccumulative and toxic substances |
| YAENO Takashi (EH) | Plant Pathology | Molecular biology of plant-microbe interactions |
| YAMAGUCHI Haruo (KC) | Aquatic microbial physiology and ecology | Physiology and ecology of microalgae including harmful species |
| YOSHITOMI Hiroyuki (EH) | Entomology | Systematics and taxonomy of Insects conservation of biodiversity |

**Outline of The United Graduate School
of Agricultural Sciences, Ehime University**

Educational Principles

The United Graduate School of Agricultural Sciences, Ehime University is a consortium linking the strengths of the graduate schools of agriculture at Ehime and Kagawa Universities, and Agricultural Science, Graduate School of Integrated Arts and Sciences, Kochi University with the aim of producing exceptional people who will be leaders in the 21st century. Our educational goal is to instill a high standard of scholarship, skills and judgement based on a deep understanding of people, society and nature.

Through farsighted, original research, we hope to train talented, world-class researchers who will play a central role in the regional development of their countries, and we are actively recruiting talented students from all over the world. In this way, we hope to develop a sustainable society and contribute to world peace and harmonious balance between people and nature.

Description

1. Bioresource Production Science Major

In the Shikoku region, agricultural and livestock industries have developed by taking advantage of the complicated geographical features on Shikoku Island. The industries cover a wide range such as the horticultural production of vegetables and ornamental plants in open fields as well as under structure; the production of citrus fruits; aquaculture fisheries in the inland sea and coastal areas; forestry; and animal husbandry. This course is intended to enhance the level of fundamental research and develop applied technology for the production and management of plant and animal resources.

Bioresource Production Science Department

To achieve the educational goals of this course, study and research is developed for each of the four fields of study listed below.

(1) Plant Resource Production

This chair is intended to train specialists who would have full knowledge about rationalizing qualitative and quantitative improvement of the production of field crops, fruits and vegetables, ornamental plants and forestry and forestry products as well as plant idioplasm.

(2) Plant and Animal Production under Structure

This chair is concerned with the fields of study for understanding basic problems about the improvement of productivity by creating artificial environments such as greenhouses, and the technological examination of agricultural facilities, along with environmental and behavioral characteristics of plants and animals.

(3) Aquaculture and Livestock Production

This chair provides instruction and research programs concerning the culture, propagation (reproduction), feeding, pathology and environment of aquatic life and domestic animals from the integrated viewpoint of biology, chemistry and physics.

(4) Bioresource Economics

The research and instruction field of this chair is the following: farm, forest, and fishing ground management, including business analysis and planning of farm, forest, and fishing ground operation, and marketing of fruits, vegetables, livestock, timber, and fishery products; resource economics, including effective use of biotic resources as production factors, energies and green resources; and social economic field, including policies and strategies closely related to farm, forest, and fishing ground management, and domestic and international marketing of agricultural, forest and fishery products.

Deep Seawater Science (Joint-Department)

Basic education and research in elucidating the chemical, physical, biological and microbiological characteristics of deep seawater for the efficient use and applied technology in fisheries and marine food production.

2. Applied Bioresource Science Major

The processing and storage of agricultural produce, or more specifically its effective use, is a growing sector important for the national economy and is also a means of meeting diverse social needs for agricultural products. There is an increasing need for basic research and education in the development of new biochemical technology. This course aims to apply that basic research and education.

Applied Bioresource Science Department

To achieve the educational goals of this course, study and research is developed for each of the two fields of study listed below.

(1) Food Science

This chair is concerned with the field of study for understanding the utilization process of food from its production to ingestion. Chemistry, physics, nutrition, hygienics, manufacturing of agricultural products and aquatic products, and applied microbiology of food as well as applied biochemistry including morphology, structure, and functions of tissue contents and cell organelles are studied.

(2) Bioresource Science for Manufacturing

This chair gives the student various types of instruction and research programs concerning the fields of chemistry, biochemistry and biotechnology as a base of production of plant and animal resources as well as application of knowledge about the use of economic resources from the viewpoint of chemistry, physics, physiology and biochemistry.

3. Life Environment Conservation Science Major

The increasing world population and consumption of natural resources has reached an unprecedented level, to the extent that the limits of global resources, and human existence and activities are now recognized. Conservation and efficient use of the environment, the base for bioresource production and human existence, are major issues for agriculture. This course provides education and research based on engineering and ecological methods.

Life Environment Conservation Science Department

To order to achieve the educational goals of this course, study and research is developed for each of the two fields of study listed below.

(1) Land Conservation and Irrigation Engineering

Using physical and technological methods, students study the consolidation, maintenance and improvement of various geographical features such as forests, cultivated land, shores and coastal waters, along with the rationalization of water use, and maintenance and development of facilities related to water use.

(2) Environmental Science

This chair provides instruction and research programs concerning the basic study and applied technology of the structure and function of various ecosystems ranging from the terrestrial land to the seas, along with environmental changes caused by human activities, and conservation and management of life environments.

Education and Research

Advisory System

UGAS-EU consists of three majors and four departments, with academic staff expertise that extends beyond that of any one of the constituent universities. Three supervisors are assigned to each student: a supervisor and two co-supervisors. Students are located at the same university as their supervisor and one of the co-supervisors, which provides an efficient and effective educational system.

Instruction

Applicants can choose a supervisor by referring to the 'Fields of Instruction and Supervising Professors' pages. Once accepted by a supervisor, applicants take an examination. After acceptance, students are assigned two co-supervisors. UGAS-EU students receive direct professional guidance and instruction for their doctoral thesis from the supervisor. Students also receive further instruction from their co-supervisors. Upon entering UGAS-EU, the supervisor will review the student's research in close cooperation with the two co-supervisors and the student.

Education

The primary goal of UGAS-EU is to train top-level researchers with a broad knowledge of agricultural science who can continue their research activities on their own after graduating.

The Student Education Program was established in April 2006. This program entails research supervision by several faculty members, seminars and a mid-term review of both the dissertation and research progress. A new curriculum and a course credit system were introduced in April 2009 to enhance graduate school education.

We also offer competitive programs that provide funding for presenting at international conferences.

UGAS-EU eagerly welcomes students from foreign countries. We feel Japan and UGAS-EU should play a role in the internationalization of education and in protecting environmental resources. To further this goal, we have a Special Three-year Doctoral Program for International Students in Tropical and Subtropical Agriculture and Related Sciences.

In October 2002, Ehime, Kagawa and Kochi universities started a special master's program in agriculture for international students from Asia, Africa and the Pacific Rim that leads into our special doctoral course for Asian, African and Pacific Rim students.

Research

The three constituent universities each have a history of providing a base for bioresource production through academic research, thus promoting the growth of the Shikoku Island region. Therefore, the combined resources of these universities should have a greater impact in the fields of agriculture, forestry and fisheries. This structure supports a wider range of research from production technology, environment, and facilities; product processing, use, and distribution; and human living environments.

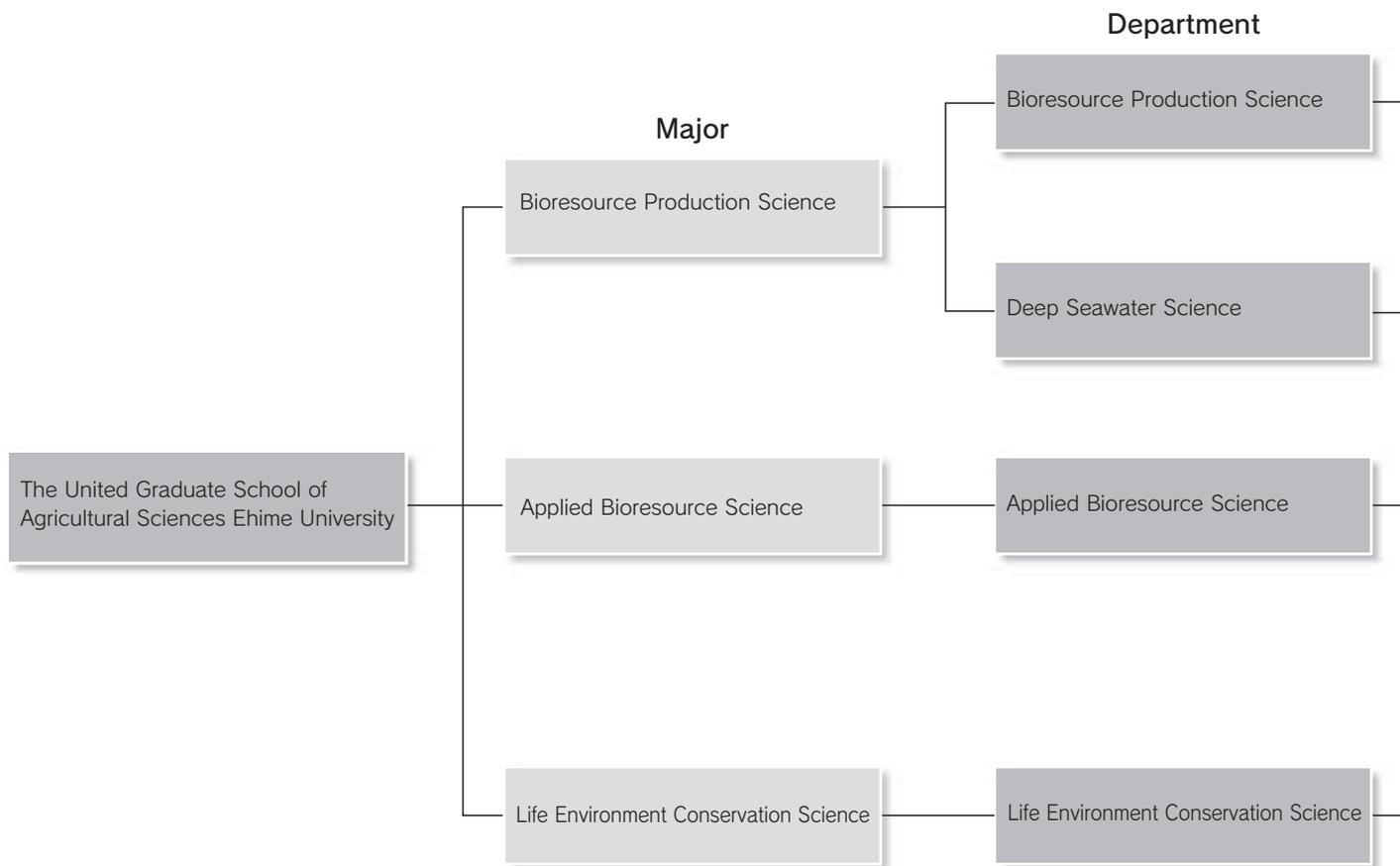
Completion of the Doctoral Course

The doctoral course requires enrollment for three or more years and acquiring at least 12 academic credits. In addition, students must pass the doctoral dissertation review along with the final examination.

Students deemed to have completed outstanding work for their master's degree may go on to complete the doctoral course in one year.

Those who successfully complete the course will receive a Doctor of Philosophy degree.

Organization



UGAS-EU is based on the equal status of Kagawa, Kochi and Ehime universities and operates with their close cooperation. Although UGAS-EU draws from the facilities and staff of the master's course of each university, it is an independent institution that operates separately under its own management and regulations.

Three majors are offered by UGAS-EU : Bioresource Production Science, Applied Bioresource Science and Life Environment Conservation Science. There are four departments.

