[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

April 2025/March 2028



The United Graduate School of Agricultural Sciences Ehime University

The United Graduate School of Agricultural Sciences, Ehime University

Admission Policy

Agricultural science encompasses a broad range of academic disciplines, including biology, chemistry, physics, engineering, economics, and biotechnology. Consequently, an interdisciplinary approach is required to build balanced and sustainable relationships between nature and society. Therefore, it is essential to develop and train people with broad knowledge and a flexible mindset unconstrained by conventional academic thinking, who can deepen our understanding of biological functions, improve agricultural productivity, enhance the efficient use of agricultural products, and explore the agriculture of the future with a focus on both regional and global environmental conservation.

Based on this philosophy, The United Graduate School of Agricultural Sciences, Ehime University (UGAS-EU) (three-year doctoral program only) established three majors: Bioresource Production Science, Applied Bioresource Science, and Life Environment Conservation Science. UGAS-EU accepts students with master's degrees from universities in Japan but also offers special courses for outstanding international students to pursue research relevant to their respective countries and regions.

Agricultural science is a promising field of study with enormous potential and is vital for ensuring the conservation and enhancement of the environment and ecosystems, as well as improving the quality of people's lives. Therefore, 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-career scientists engaged in research or education in all parts of the world and trains them to become advanced researchers and engineers who can contribute to the future of their home countries.

The Special Doctoral Course Program in Agricultural Sciences for Students from Asia, Africa, and the Pacific Rim (AAP) is an integrated master's course and doctoral program. The program aims to foster students who have graduated or are scheduled to graduate from universities in various countries through a comprehensive education program starting from the master's level, with the goal of training them to become advanced researchers and engineers.

1. Knowledge, Discovery, and Understanding

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

2. Ethics and Practice

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 fields based on a solid scientific foundation.

3. Information Dissemination

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

4. Thought, Judgment, Expression, and Communication

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.

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. Applicants for the Tropical and Subtropical Agriculture and Related Sciences Course are interviewed by a prospective supervisor and two or more members of faculty from the graduate school to evaluate the following: (1) master's thesis or equivalent research, (2) research plan after enrollment, (3) specialized knowledge, (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 integrated master's and PhD program. Applicants for this course are assessed based on their research plan for the doctoral program 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 April 2025–March 2028 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 November 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 March 31, 2025. 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 July 22, 2024. If a successful applicant is unable to obtain a master's degree or an equivalent degree by the end of March 2025, their acceptance will be revoked.

(5) Language

Applicants must be able to read and write English.

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 October 15, 2024. (Applications received after October 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.

- **a.** Application form for UGAS-EU (Application for Special Program for International Students in Tropical and Subtropical Agriculture and Related Sciences (Three-Year Doctoral Course) April 2025–March2028*)
- **b.** Field of study and research plan (*Field of Study and Study Program**)
- **c.** Applicant's master's degree certificate or an official document issued by the applicant's graduate school indicating that the applicant is expected to receive a master's degree
- d. Official transcripts of the applicant's academic records for the master's program

- e. Certificate of citizenship issued by a government authority or a copy of your passport
- f. Four passport-sized photographs $(4.5 \times 3.5 \text{ cm}: \text{head} \text{ and shoulders}, \text{ facing forward}, without any headwear except for religious or medical reasons}) taken within the past six months. On the back of each photograph, write your name and nationality. Attach one photograph to the application form and enclose the other three in an envelope.$

A single jpg file may be submitted (maximum size: 3MB) but do not change the aspect ratio.

- g. List of publications (master's thesis, books, and academic papers) (List of publications*)
- **h.** One copy of the master's thesis or equivalent (submit an abstract in English if the thesis is not in English). If the master's thesis is lengthy, a summary (2–3 A4 pages) is acceptable. Applicants who have not yet received a master's degree should submit a report or documentation (in English) of their current research project.
- i. Copies of the main academic papers and books listed in g. *List of Publications*, except the master's thesis, must be submitted.

Note: A summary in English (2–3 A4 pages) is required if the papers or books are not in English.

- j.**One copy of the official results of a TOEFL, TOEIC, IELTS, EF-SET or other internationally recognized English language proficiency test that the applicant has achieved in the past two years
- **k.** A letter of recommendation written by the head of the applicant's current institution addressed to the President of Ehime University (*Letter of Recommendation**)
- L**Record of contact with the prospective supervisor (Record of Contact with the Prospective Supervisor*) detailing any interactions, discussions, or meetings between the applicant and the prospective supervisor, including the content of the interview
- m. Application fee: 30,000 yen

Request an application fee payment slip from the UGAS-EU office.

(rendai@stu.ehime-u.ac.jp)

- Note: The following applicants are not required to pay the application fee:
- (1) Those who are scheduled to complete the master's program at Ehime University, Kagawa University, or Kochi University in March 2025
- (2) International students receiving a Japanese government (MEXT) scholarship
 *Excluding international students who have applied for or are intending to apply for an extension of the scholarship payment period as a Japanese government (MEXT) scholarship student
- (3) Those who have applied for a Japanese government (MEXT) scholarship
- (4) Those who are applying for admission to UGAS-EU through the pre-arrival admission system
- **n.** Check list (*Check List**) Applicants should check the many requirements for application documents using the check list. Carefully review the check list to ensure all the items have been prepared and place a check mark against each completed item before submitting the application.
 - * Download the forms from the UGAS-EU website: http://rendai.agr.ehime-u.ac.jp/english/annai/
 - **Applicants who have completed the master's course at Ehime University, Kagawa University, or Kochi University do not need to submit documents **j** and **l**

Notes

- Do not staple any of the application documents
- Documents **a**, **b**, **g**, **k**, **l**, and **n** should be prepared on A4 paper (29.5 \times 21 cm) either typed or neatly handwritten in English or Japanese using the forms provided
- If any document for submission is written in a language other than Japanese or English, an English translation should be submitted. The English translation should be provided by the issuing institution. If the issuing institution is not able to provide a translation, applicants should have the document translated (accurately reflecting the content of the original document) and have the issuing institution certify its accuracy. Submit both the English translation and the original document
- Incomplete documents or documents received after the deadline will not be accepted
- The submitted documents will not be returned to the applicant
- If you are paying the application fee from overseas, please pay via a bank transfer in Japanese yen (30,000 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: March 10–17, 2025

*The admission and tuition fees for 2024 are as stated below. However, the fees for 2025 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 2024 academic year. However, the fees for 2025 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.

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: 12 months (from April in the year of selection to the following March)

Note: Other scholarships are available for privately financed international students. Please email the UGAS-EU Office for more information.

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

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	Ecophysiological responses to environmental stresses in tropical and temperate 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 Science	Yield production and physiology 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

Professor (Affiliation)	Research Field	Main Subject
HATOU Kenji (EH)	Information Systems for Plant Factory	Research on measurement and artificial intelligence for smart agriculture

KAWANO Toshio (KC)	Post-harvest Process Engineering	Processing, handling and distribution technology for agricultural products
MORI Makito (KC)	Applied Meteorology	Climatological studies on agricultural ecosystems
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

Professor (Affiliation)	Research Field	Main Subject
FUKADA Haruhisa (KC)	Fish Nutritional 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 on epidemiology and prevention of fish diseases caused by viruses, bacteria and parasites
KAWASAKI Kiyonori (KG)	Animal Nutrition	Study of the effects of using underutilized resources and insect into feed on the nutritional and physiological responses of animals (i.e. rabbits, pigs, and poultry)
MIURA Takeshi (EH)	Fish Reproductive Physiology	Development of a new efficient aquaculture system based on reproductive physiology, and study on insect feed for aquaculture and its physiological function for fish and shellfish
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

Professor (Affiliation)	Research Field	Main Subject
MATSUOKA Atsushi (EH)	Resources and Environmental Management	Economical studies on management and preservation of agricultural land
TAKENOUCHI 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 ScienceDepartment

a. Food Science

Professor (Affiliation)	Research Field	Main Subject
KASHIWAGI Takehiro (KC)	Food Functional Chemistry	Isolation and identification of functional compounds in foods, agricultural products, and medical plants
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

b. Bioresource Science for Manufacturing

Professor (Affiliation)	Research Field	Main Subject
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
KAWADA Miyuki (EH)	Molecular Microbiology	Biochemistry and molecular biology of membrane transporters
NISHI Kosuke (EH)	Molecular pharmacology of bioactive compounds	Functional molecular analysis of naturally occurring and synthetic bioactive compounds
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
SUGIMOTO Hiroyuki (EH)	Physics of Wood and Engineered wood	Development of the novel wood and wood based materials
SUZUKI Toshisada(KG)	Biomass Chemistry	Organic chemistry, biosynthesis, biodegradation and utilization of wood components

TABUCHI Mitsuaki (KG)	Applied Molecular Cell Biology	Analysis of the regulatory mechanism of sphingolipid metabolism using yeast and functional analysis of plant pathogen effectors using yeast expression system
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: eg. isolation and identification of medical agents from folklore medical plants. Screening for pesticidal agents form 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

Professor (Affiliation)	Research Field	Main Subject
HARA Tadashi (KC)	Geotechnical enginering	Research on soil dynamics and liquefaction. Development of environmentally and low cost civil structures using natural materials such as wood and stone
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 chaging 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	Early warning system against Landslide, Landslide disaster due to climate change
SATO Shushi (KC)	Water Use and Environmental Engineering	The overall engineering research for achieving the management of water environment and infrastructure in river basin
YAMASHITA Naoyuki (EH)	Water Environmental Engineering	Study on securing of sanitary safety water environment

b. Environmental Science

Professor (Affiliation)	Research Field	Main Subject
ADACHI Masao (KC)	Aquatic Environmental Science	Biology, physiology and ecology of harmful algal blooms
ICHIMI Kazuhiko (KG)	Biological and Chemical Processes in Coastal Ecosystems	Biological and chemical processes in estuarine and 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
ITO Katsura (KC)	Insect Ecology	Ecology of herbivorous insects and mites
KANG Yumei (KC)	Soil Environmental Science	Mechanism of soil pollution and rehabilitation of contaminated soil
KAWASHIMA Ayato (EH)	Environmental Science for Industry	Development of analysis and treatment technologies for chemical substances in the environment and effective utilization technologies of biomass
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
OBAYASHI 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
TATARAZAKO Norihisa (EH)	Ecotoxicology/ Environmental Risk	ecotoxicity/ evaluation of environmental risk/ microplastics/ endocrine disruptors
YAENO Takashi (EH)	Plant Pathology	Molecular biology of plant-microbe interactions
YAMAGUCHI Haruo (KC)	Aquatic microbial physiology and ecology	Ecology and physiology of aquatic microorganisms including harmful algae
YAMAGUCHI Hitomi(KG)	Coastal Oceanography and Biogeochemistry	Analysis of material cycle and energy flow in coastal ecosystems
YOSHITOMI Hiroyuki (EH)	Entomology	Systematics and taxonomy of Insects, conservation of biodiversity

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

Principles and Objectives of Education

The United Graduate School of Agricultural Sciences, Ehime University (UGAS-EU) is a collaboration between 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, each of which has its own unique characteristics. UGAS-EU aims to cultivate outstanding individuals, equipped with reasoned judgement based on profound insights into people, society, and nature, and advanced expertise and skills in highly specialized fields. Through forward-thinking and innovative research to produce significant research outcomes, we aim to nurture individuals who contribute to their local communities, assume leadership roles in regional development in their fields, and serve as a driving force for progress. In addition, by actively welcoming outstanding students from around the world and training them to be core researchers who will shape the future in their respective countries, we all contribute to the sustainable development of society, a balanced relationship between humanity and the natural environment, and a more peaceful, considerate world.

Organization

UGAS-EU is based on the equal status of Ehime University, Kagawa University, and Kochi University, operating under close cooperation. UGAS-EU is an independent graduate school offering a 3-year doctoral program, which is organized as an extension of the master's programs at each constituent university.

Within the graduate school there are four departments under three majors: Bioresource Production Science, Applied Bioresource Science, and Life Environment Conservation Science.

Education and Research System

Education

The primary goal of UGAS-EU is to provide students with advanced knowledge in agricultural science from a broad perspective and cultivate their ability to continue their research activities independently after graduating. To achieve this, we implemented the Student Education Program in April 2006. This program entails research guidance by several faculty members, seminars, and an interim presentation to assess the progress of the dissertation. Additionally, a new curriculum and a course credit system were introduced in April 2009 to enhance graduate school education. The school also offers, as part of its competitive programs, funding assistance to students through open recruitment for presenting at international conferences.

Recognizing the role in the internationalization of academic disciplines and Japan's role in resource management and environmental conservation, UGAS-EU actively accepts international students. The Special Three-year Doctoral Program for International Students in Tropical and Subtropical Agriculture and Related Sciences was established in October 1990. In October 2002, the Special Doctoral Course in Agricultural Sciences for International Students from Asia, Africa, and the Pacific Rim was introduced, which allows students from 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 to transition into UGAS-EU upon completion of their master's degree.

Research

The three constituent universities each have a history of supporting the academic aspects of the Shikoku region, which has served as a base for bioresource production. Therefore, the combined resources of these universities through the graduate school covers a wide range of research fields from production technology, environment, and facilities supporting the agriculture, forestry, and fisheries industries to processing, use, and distribution of products, and even extends to issues related to human living environments.

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. For each student, three faculty members (one supervisor and two cosupervisors) provide educational and research guidance, ensuring intensive and efficient education.

Instruction

Students choose their supervisor from the list of published educational and research fields of faculty members that align with their own research interests. Upon admission, students are assigned two co-supervisors who are suitable for their research topic. The supervisor and two co-supervisors provide educational and research guidance to the student.

Majors

1. Bioresource Production Science Major

In the Shikoku region, the agricultural, forestry, fisheries, and livestock industries have developed by taking advantage of the complex geographical features on the island. The industries cover a wide range such as horticulture in open fields and greenhouses; citrus fruit and flower cultivation; and aquaculture in the inland and coastal areas. This major focusses on education and research aimed at developing fundamental studies and applied technologies for the production and management of plant and animal resources.

Bioresource Production Science Department

The Bioresource and Production Science Department aims to achieve the educational goals of this major through the four fields of study listed below, serving as the foundation for educational research.

(1) Plant Resource Production

In this field, educational research is conducted to address issues such as qualitative and quantitative improvement in the production of field crops, fruit trees, vegetables, flowers, and forestry and forestry products, as well as the improvement of genetic quality and the rationalization of production and management techniques, from an advanced perspective.

(2) Plant and Animal Production under Structure

In this field, educational research is conducted on fundamental issues such as improving productivity through facilities like greenhouses, engineering considerations for the agricultural facilities themselves, along with biological behavior and environmental characteristics under facility conditions.

(3) Aquaculture and Livestock Production

In this field, educational research is conducted to investigate the breeding, reproduction, feed, pathology, and environment of livestock and aquatic animals from biological, chemical, and physical perspectives to enhance production.

(4) Bioresource Economics

In this field, the focus is on training specialists with advanced development and applied skills in farm, forest, and fishing ground management, including measurement and planning methods; management and operation of production resources; distribution of products; socioeconomic fields including those related to the policies of farm, forest, and fishing ground management; and domestic and international market relations.

Deep Seawater Science (Joint Department)

The Deep Seawater Science Department conducts research and education on the basic research and applied technologies required for effectively using deep seawater in the fields of fisheries and marine food production by elucidating the chemical, physical, biological, and microbiological characteristics of deep seawater.

2. Applied Bioresource Science Major

The processing and storage of agricultural produce, or more specifically its effective use, is a significant sector in the national economy and also serves as a means of meeting diverse social demands for agricultural products. There is an increasing need for basic research and education in the development of new biochemical engineering technologies. This major focusses on the study of foundational techniques and applied research using these methods.

Applied Bioresource Science Department

The Applied Bioresource Science Department conducts education and research based on the two fields of study listed below to achieve the educational goals of this major.

(1) Food Science

In this field, educational research is conducted in applied biochemistry, encompassing chemistry, physics, nutrition, hygiene, use of agricultural products and aquatic products, microbiology, and other fields. The focus is on comprehensively understanding food products from production to consumption, including the structure and function of biological tissue constituents and other related aspects.

(2) Bioresource Science for Manufacturing

This field provides students with diverse research and education on biological resources, examining their chemistry, physics, physiology, and biochemistry. This study includes both theoretical and applied aspects aimed at the advanced use of biological resources. In addition, we cover fields such as chemistry and biochemistry that support the production of biological resources. Furthermore, we provide research and education in areas that contribute to what is commonly known as biotechnology.

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. Consequently, conservation and rational use of the environment, the foundation for bioresource production and human existence, are significant issues for agricultural science. This major provides education and research based on engineering and ecological methods.

Life Environment Conservation Science Department

The Life Environment Conservation Science Department focusses on the two fields of study listed below to achieve the educational goals of this major.

(1) Land Conservation and Irrigation Engineering

This field provides education and research using physical and engineering methods to develop, improve, and rationalize infrastructure, including land development, improvement, water resource use, and the development of related facilities, across various terrains ranging from forests to agricultural lands and coastlines.

(2) Environmental Science

This field provides fundamental and applied education and research on the structure and function of large ecosystems ranging from terrestrial soils to the ocean, the environmental changes caused by human activities, and the conservation and management of the environments.

Completion of the Doctoral Course

The doctoral course requires that students have been enrolled for three or more years, acquired at least 12 academic credits, and passed the doctoral dissertation presentation final examination.

However, students who have demonstrated outstanding research achievements may fulfill the requirement for a minimum enrollment of three years, including the two-year enrollment period for their master's degree. Students who successfully complete the course will be awarded the degree of Doctor of Philosophy from Ehime University.

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.



