

International Undergraduate Program at the Department of Bioresource and Bioenvironment

Education and research in bioresource and bioenvironment encompasses basic, applied and social sciences. This academic program targets the acquisition of extensive knowledge related to bio-production, bio-function and bio-environmental sciences. Students gain the knowledge and skills needed for their professional activities after graduation, enabling them to deliver broad based and balanced solutions to problems in these fields.

WHY Kyushu University?

1 An English-based degree program

2 Friendly instructors teaching in small-groups

3 A new campus

4 Exciting international social encounters

5 A high-tech learning environment in Japan



Four Year Timeline —Leading up to a Bachelor of Science degree



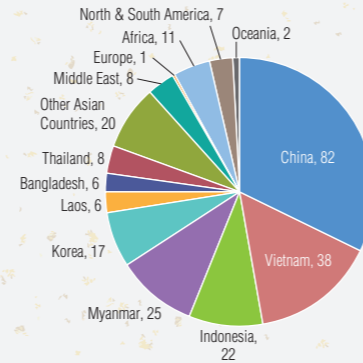
The program covers extensive research areas: from molecules to biosphere, from sea to forests and from microbes to higher plants and animals. It is for this reason that we have set in place a program that requires all participants to take classes in various liberal arts and basic natural sciences as well as fundamentals of bioresource and bioenvironmental sciences for the first year. Then, having been equipped with the necessary knowledge to decide which research area they would like to concentrate on, students will be required by the first semester of their junior year to select their special research area (see inside for details) under the guidance of the academic coordinator and devote their time and energy to completing their bachelor's thesis for the remainder of their studies.



Stats on International Students (As of May, 2018)

Current Number of International Students: 253
 Undergraduate course: 40
 Graduate course: 194
 Research students: 15
 Special Auditors: 4

The Department of Bioresource and Bioenvironment and Graduate School of Bioresource and Bioenvironmental Sciences both have a long history of educating international students, particularly from Asia, and have produced a number of notable alumni.



Admissions

<http://www.kyushu-u.ac.jp/en/admission/faculty/foreign/foreign10/>



Applications will be accepted at the end of January. Only one application will be allowed in any given year. The evaluation process for the International Undergraduate Program consists of two screenings: preliminary and secondary. The preliminary screening is based on a comprehensive evaluation of the documents submitted. The secondary screening will include an interview, a review of submitted documents, and (in some cases) written tests.

Scholarships

Japanese Government (MONBUKAGAKUSHO: MEXT) Scholarship
 A few successful applicants in the International Undergraduate Programs who meet the eligibility criteria set by the MEXT may apply for this scholarship.

Kyushu University International Undergraduate Scholarship
 A few successful applicants (excluding the MEXT Scholarship recipients) may receive this scholarship each year.

Other Scholarships
 Various scholarship opportunities are granted by private foundations, international associations, and local governments.

<http://www.isc.kyushu-u.ac.jp/intlweb/en/admission/scholarship-information>

Availability of all scholarships depends on the awarding body and may change in the future.

Contact

Kyushu University
 Department of Bioresource and Bioenvironment
 School of Agriculture
<http://www.agr.kyushu-u.ac.jp/english/>

Ito Campus- WEST ZONE 5
 744 Motooka Nishi-ku Fukuoka, 819-0395, Japan



KYUSHU UNIVERSITY

International Undergraduate Program in English

DEPARTMENT OF BIORESOURCE AND BIOENVIRONMENT
SCHOOL OF AGRICULTURE



FOREWORD

“Innovation for Global challenges”



Kyushu University is one of the top universities in Japan (Currently ranked at 5 in the TIMES Japan University Rankings in 2018). The Faculty of Agriculture, which celebrates its 100-year Anniversary in 2019, has a long history of both research and teaching to distribute the knowledge gained to its students. Neither research nor teaching can remain static but have to change and evolve to accommodate new challenges and ideas. Nowhere is this truer than in Bioresource and Bioenvironment where the issues of world population and food security, food safety and integrity, water resources, the environment and energy are more significant than ever before. However, these topics are no longer local but are now global concerns. Kyushu University therefore began teaching its degree course in Bioresource and Bioenvironment entirely in English to enable it to spread its knowledge and expertise in the study of natural resources and the environment and their utilisation by humans both to undergraduates from countries outside of Japan and to Japanese students who want the benefits of studying entirely in English for a degree at Kyushu University in a truly international environment where the exchange of views and ideas will encourage the development of the skills and knowledge in a new generation to meet tomorrow's challenges.



Professor
Susumu Fukuda
 Dean, Department of Bioresource and Bioenvironment,
 School of Agriculture



ACCESS

Ito Campus



<http://www.kyushu-u.ac.jp/en/campus>

Subway+Bus

▶ JR Hakata Station→(Subway Kuko Line)
 →Meinohama Station (Transfer JR Chikuh Line)
 →Kyudai-Gakkentoshi Station→(Showa Bus)→Ito Campus
 ※Alternatively, board a train bound for Nishi Karatsu or Chikuzen-Maebaru, which eliminates the need to transfer at Meinohama Station.

Bus

▶ JR Hakata Station→(Nishitetsu Bus)→Ito Campus

Research Areas

International Undergraduate Program - School of Agriculture

Category
A

Agricultural Resources, Engineering and Economics



Agronomy

This area is primarily concerned with scientific analysis of the life phenomena of bioresource organisms from the viewpoint of heredity, environment, and interrelations among organisms, so as to contribute to the resolution of global environmental issues. In our laboratories, students conduct research on edible crops such as rice and beans; garden crops such as vegetables and flowers; and bioproduction-related microorganisms, including phytopathogens, and various insects. Each laboratory seeks to improve productivity and product quality, the biological control of pests, the development of biological pesticides and methods of using natural enemies, and the discovery and utilization of new functions hidden in living creatures. Responding to the remarkable progress of the life sciences, we are engaged in education and research that makes good use of gene expression control and tissue culture methods.

Environmental Engineering

Establishing the foundations for bioproduction is the basic target of this special area. We conduct research and education aimed at improving bioresource output and creating affluent rural areas through the utilization, control and preservation of the natural environment, and creation of new technologies. This area covers an extensive array of subjects, including those that involve soil, water, living creatures, weather, and our society. Our research goal is to explore the best ways to optimize these vast systems. To this end, we have established a uniquely broad academic system that covers both basic and applied fields. This comprehensive approach to academics and engineering allows us to play an important role in fulfilling the increasingly diversified needs of society.

Bioproduction System Engineering

In this area, research is conducted in pursuit of improving productivity and product quality, centering on the mechanization and systematization of each product cycle process, from bioresource production to distribution. This means that we work toward the development of machines related to crop cultivation as the primary step of bioproduction, technologies that boost productivity, improvements in processing, storage, and distribution technologies, as well as improved safety and systemization for the handling of the crops produced. Beyond this, we are making solid inroads in the pursuit of human safety and comfort, as well as in robotization and automation. On the utilization and management sides, improvements in efficiency using the system engineering approach are being achieved.

Agricultural Economics

Bioresource and Bioenvironmental economics covers the socioeconomic issues involved in the international food system, mainly in Asia, to contribute to the stable supply of safe food and to the environmentally sustainable development of domestic and foreign food industries and regional economies. Attaining these objectives requires not only basic knowledge of bioresource and bioenvironmental economics, but also knowledge of natural science and technological knowledge of food, the environment, and rural economies as well as an international sensibility. Therefore, students are required to complete basic subjects in natural sciences and technological sciences and to nurture an international awareness through close exchanges with students and researchers from Asia, Europe, and America. In this way, they can obtain sufficient knowledge in both natural sciences and technological sciences in addition to social sciences.

Agricultural Chemistry

This research area is geared to nurture students understanding of the structure-function relationships of biomolecules involved in various biochemical reactions. Students can opt to engage in research in a wide range of molecular biosciences, including organic chemistry, biochemistry, cell biology, gene technology, bio-energy, genetic engineering and many others. We conduct research and studies that seek to clarify the various life phenomena engaged-in by living creatures, chemically breaking down the structures and functions of the diverse substances they produce and analyzing the interaction between the creatures and their environment from a physical standpoint. We use this knowledge to enhance our own primary and secondary production processes and ultimately aim to contribute to the welfare and prosperity of humankind.

Food Science and Technology

This research area carries the banner for bioscience based on life science and its technologies. Therefore, the kind of study we shall engage in is not just a parallel of biology, chemistry, and engineering, but rather a truly interdisciplinary domain that unifies these three subjects. Our research and education involve: (1) the advanced utilization of the functions of food materials and their by-products, the conversion of unused resources into food, and the development of new bioresources; (2) confirming the safety, quality and nutritional status of secondary and tertiary products of food; (3) clarifying the physical, chemical, and biochemical changes that occur in the production processes and their controls; and (4) the principles of food processing, related machinery, and the biological treatment of organic waste products.

Category
C

Animal Resources

Fisheries Science

With growing populations and increased food demands in the world, fishery resources have a vital role to play in the supply of bioresources. Aquatic organisms living in marine and freshwater environments are important bioresources providing not only food but also unique compounds that can be used as medical and industrial materials for human welfare and environmental conservation. Studies in aquatic biosciences include advanced lectures and various field and laboratory activities in marine biosciences and biotechnology to produce experts on fisheries and related biosciences.

Animal Science

Animal science provides methods for production of high-quality protein sources, including milk, meat, and eggs, originating from domestic animals. Although the remarkable increase in the world's population requires the effective production of animal products, sustainable production in harmony with the environment is also essential. This research area comprises anatomy, physiology, biochemistry, and biotechnology of domestic and wild animals, aimed at optimized utilization of animal resources, development of animal food processing, evaluation of feed resources, and animal protection.

Category
D

Forestry and Forest Products

Forest Environmental and Management Sciences

Seeking to achieve the preservation of the global environment and the sustainable production of forest resources, this study area covers a wide range of research topics, including preservation of the natural environment and land; elucidation of forest functions to prevent natural disasters; the development of new technologies related to measurements of forest resources; and optimization of the policies related to forest management that harmonize wood productivity, public interest, and the natural environment.

Forest Biosciences

In this specialist area, extensive research and education are conducted on subjects ranging from the molecular and material to the ecological level, all aimed at actively developing the various functions of forest creatures and their complex environment for new applications, preserving and restoring the global environment, and making optimal use of forest resources in harmony with nature. Students concentrating on this area will acquire expertise in forest function development science, which comprises silviculture, plant metabolism control science, ligneous resource science, and its peripheral domains.

Biomaterial Sciences

This specialised area covers research on the advanced use of biomaterials, especially wood products. The research topics include advanced physical and chemical utilization of forest bioresources and highly organized engineering of forest-related environmental issues. All of this research is done with the goal of realizing the coexistence of an affluent society with the preservation of the global environment, thus requiring the wide-ranging education we offer. Students concentrating on this area will be able to choose from an array of lectures, experiments, practices, and exercises to further develop their expertise in biomaterial function science and its related areas.

Category
B

Applied Biosciences

