

Overview of the Course 2016



International Development Research Course

**Graduate School of
Bioresource and Bioenvironmental Sciences
Kyushu University**

Introduction

The Graduate School of Bioresource and Bioenvironmental Sciences emphasizes the role of agricultural sciences in overcoming challenges related to global food security and the environment, contributing to global progress in maintaining a stable supply of food and resources, environmental conservation, and promotion of health and welfare. To this end, the school's leading researchers and specialists are highly knowledgeable in the fields of life science, environmental science and socioeconomics.

The International Development Research Course strives to build on the capacity attained in the above fields for international students from developed and developing countries aiming to contribute to global sustainable development. The master's program emphasizes acquisition of synthetic and practical abilities, while the doctoral program promotes specialty-specific and creative scientific abilities.

Program Description

The Graduate School of Bioresource and Bioenvironmental Sciences has two graduate education programs: the standard and special courses. The special course, which focuses on international development research, is geared toward international students. The International Development Research Course follows a two-semester system, starting with the autumn term in October, followed by the spring term, unlike the standard course, which is taught in Japanese and commences in April. Upon completing the courses, students will be awarded a Master of Science (M.Sc) or Doctor of Philosophy (Agricultural Science). The following are common features of the master's and doctoral programs:

- (1) All course work is conducted in English as the course is geared toward international students.
- (2) The thesis should be based on research conducted during the course, and upon completion, should be submitted to the Division of Agriculture, Graduate School of Bioresource and Bioenvironmental Sciences. An appropriate degree is awarded when the examiners' requirements are satisfied.
- (3) Students are expected to learn the Japanese language during the course of their studies, and while not compulsory, this is aimed at improving their communication in daily life.

Master's Course

Students will be awarded a Master of Science (M.Sc) upon satisfactory completion of a thesis. Students are also required to complete four semesters of coursework over a two-year period.

The course consists of lectures, practical work, seminars, and tutorials. Students must obtain 30 credits with a minimum passing grade of 60%. The master's course curriculum is presented in Table 1.

Table 1. Master's Course Curriculum

Code *	Subject	Credit	Term **			
			I (A)	II (S)	III (A)	IV (S)
C01	Master's Thesis Research I	6	6			
C02	Master's Thesis Research II	6			6	
C03	Seminar in a Specified Field I	2	2			
C04	Seminar in a Specified Field II	2		2		
C05	Seminar in a Specified Field III	2			2	
	(Subtotal)	(18)				
P01	Agricultural Problem-Based Learning I	1		1		
P02	Agricultural Problem-Based Learning II	1				1
	(Subtotal)	(2)				
M01	Fundamentals of Agricultural Sciences I (Basic Statistics)	2	2			
M02	Fundamentals of Agricultural Sciences II (Advanced Statistics)	1			1	
M03	Biological Resources: Utilization and Conservation	2	2			
M04	Soil and Water Environment	2	2			
M05	Current Topics in Agriculture and Food Environment	1	1			
M06	Agricultural English I (Presentation Skill)	1	1			
M07	Agricultural English II (Paper Writing Skill)	1	1			
M08	Special Lecture on International Development I	1		1		
M09	Special Lecture on International Development II	1		1		
M10	International Rural Development	2	2			
M11	Rural Survey Methodology	2	2			
M12	Advanced Technology in Agriculture	2	2			
M13	Food Science and Food System	2	2			
	(Subtotal)	(20)				
S01	Agricultural Bioresource Sciences	2		2		
S02	Animal & Marine Bioresource Sciences	2		2		
S03	Forest and Forest Products Sciences	2		2		
S04	Bioproduction Environmental Sciences	2		2		
S05	Agronomy and Environmental Sciences	2		2		
S06	Agricultural and Resource Economics	2		2		
S07	Molecular Biosciences	2		2		
S08	Systems Biology	2		2		
S09	Applied Molecular Microbiology and Biomass Chemistry	2		2		
S10	Food Science & Biotechnology	2		2		
	(Subtotal)	(20)				
J01	Business Japanese I	1			1	
J02	Business Japanese II	1			1	
	(Subtotal)	(2)				
	Total	62				

* C: compulsory subjects ; M: module subjects ; S: specialized subjects; P: Problem-based learning (PBL) is a student-centered pedagogy in which students learn about a subject through the experience of solving an open-ended problem; J: Business Japanese

** A = Autumn term; S = Spring term.

An outline of the Master's course subjects is given in Table 2. Compulsory subjects consist of the thesis (12 credits) and laboratory seminars (6 credits); 5 out of 13 module subjects plus 2 PBL subjects (equal to or more than 10 credits); and specialized subjects of one specific subject (2 credits) given by the department to which the student belongs.

Table 2. Features of the Master's Course Subjects

	Aim	Lecture methods	Choice	Professors	Required
Compulsory subjects	Research practice	Conventional form	5 subjects	Laboratory Prof.	18 credits
Module subjects	Improvement of basic academic abilities focusing on agricultural administration and rural development	Block module	13 subjects	Special team	10 credits
	Cross-cutting or interdisciplinary research				
PBL subjects	Problem based learning	Block module	2 subjects	Special team	
Specialized subjects	Improvement of expertise	Block module	10 subjects	Your departments	2 credits

Lectures are given in a **block module format**. Each semester comprises three blocks, each of which includes 1 to 2 module subjects.

The topic of the thesis research is specified after discussion with your supervisor. Students **must submit their master's thesis in English** to the appropriate departmental examination board comprising the teaching staff. Students are required to give an **oral presentation of their thesis during the spring semester of the second year. A committee will evaluate the student's overall performance based on a report by the department committee.** Satisfactory performance will lead to an award of a Master of Science from Kyushu University.

Doctoral Course

Students will be awarded the Doctor of Philosophy (Agricultural Science) upon completion of a satisfactory dissertation. To be awarded a Ph.D., students must complete a six semesters of coursework over a three-year period. The course consists of tutorials and tutorial exercises, usually given in a seminar format. Students must conduct thesis research under the supervision of advisory faculty members, and will be expected to have some of their work published in scientific journals.

Students must submit their dissertation in English to the course committee. An oral presentation of their dissertation is required in the spring semester of the final year.

Table 3. Doctoral Course Curriculum

I. Bioresource Sciences	Cr	III. Agricultural and Resource Economics	Cr	V. Innovative Science and Technology for Bio-industry	Cr
Research training on Agricultural Bioresource Sciences	2	Research training on Agricultural and Resource Economics	2	Research training on Bio-System Design	2
Research training on Animal & Marine Bioresource Sciences	2	Teaching practice	2	Research training on Functional Biomaterials Design	2
Teaching practice	2	Presentation skill for academic meeting	2	Teaching practice	2
Presentation skill for academic meeting	2	Internship	2	Presentation skill for academic meeting	2
Internship	2	Project research	2	Internship	2
Project research	2	Advanced topics on Agricultural and Resource Economics	5	Project research	2
Advanced topics on Agricultural Bioresource Sciences	5	Tutorial on Agricultural and Resource Economics	5	Advanced topics on Bio-System Design	5
Advanced topics on Animal & Marine Bioresource Sciences	5	Business Japanese I	1	Advanced topics on Functional Biomaterials Design	5
Tutorial on Agricultural Bioresource Sciences	5	Business Japanese II	1	Tutorial on Bio-System Design	5
Tutorial on Animal & Marine Bioresource Sciences	5	IV. Bioscience and Biotechnology		Tutorial on Functional Biomaterials Design	5
Business Japanese I	1	Research training on Molecular Biosciences	2	Business Japanese I	1
Business Japanese II	1	Research training on Systems Biology	2	Business Japanese II	1
II. Agro-environmental Sciences		Research training on Applied Molecular Microbiology and Biomass Chemistry	2		
Research training on Forest Sciences	2	Research training on Food Science & Biotechnology	2		
Research training on Bioproduction Environmental Sciences	2	Teaching practice	2		
Research training on Agronomy and Environmental Sciences	2	Presentation skill for academic meeting	2		
Research training on Sustainable Bioresources Science	2	Internship	2		
Teaching practice	2	Project research	2		
Presentation skill for academic meeting	2	Advanced topics on Molecular Biosciences	5		
Internship	2	Advanced topics on Systems Biology	5		
Project research	2	Advanced topics on Applied Molecular Microbiology and Biomass Chemistry	5		
Advanced topics on Forest Sciences	5	Advanced topics on Food Science & Biotechnology	5		
Advanced topics on Bioproduction Environmental Sciences	5	Tutorial on Molecular Biosciences	5		
Advanced topics on Agronomy and Environmental Sciences	5	Tutorial on Systems Biology	5		
Advanced topics on Sustainable Bioresources Science	5	Tutorial on Applied Molecular Microbiology and Biomass Chemistry	5		
Tutorial on Forest Sciences	5	Tutorial on Food Science & Biotechnology	5		
Tutorial on Bioproduction Environmental Sciences	5	Business Japanese I	1		
Tutorial on Agronomy and Environmental Sciences	5	Business Japanese II	1		
Tutorial on Sustainable Bioresources Science	5				
Business Japanese I	1				
Business Japanese II	1				

Doctoral course students must obtain 16 compulsory credits from the department to which the student belongs, including: research training (2 credits), advanced topics (5 credits), and tutorial (5 credits), and 2 subjects out of 4 subjects (Teaching practice, Presentation skill for academic meeting, Internship and Project research) (4 credits). A detailed schedule will be announced by each department.