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n in this program, the student is required to acquire:

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Students study the fundamental subjects for one year after entering the university to acquire the basic knowledge required for studying the expertise. Then they mainly study the specialized fundamental subjects common for the all students of School of Applied Biological Science in the second semester of the second year. Particularly, they take the subjects of Laboratory Work in General Chemistry, Laboratory Work in General Physics, and Laboratory Work in General Biology I & II (including computer exercise) as those regarding experiments that are common for all students of the School of Applied Biological Science that consist of to get basic training for experiments in a wide area that is commonly required for the students of the School of Applied Biological Science, understanding for bioethics and ethics of science by the first semester of the School of Applied Biological Science, understanding for bioethics and ethics of science by the first semester of the second year to allow themselves to understand the aim and characteristics of each major program and select the most appropriate program.

6. Available qualification

(1) Educational personnel certification: Type 1 License for High School Teacher (science)

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Table of Registration Standards (Liberal Arts Education Subjects)

(Integrative Hydrospheric Science Program, Applied Animal and Plant Science Program,

Food Science Program, Molecular Agro-Life Science Program)

									1 st a	Year	in wh	ich th	e subj	ect is t	taken	rada
Туре		Su	bject 1	уре	Required No. of credits	Class subjects	No. of credits	Type of course registration	Springs 00	Fall	Springs	Fall	ں Springs	Fall	Springs	Fall
	Pea	ace S	cience	e Courses	2		2	Required	0							
	trses in Mucation	Intr	oduct for Fi Stu	ory Seminar irst-Year idents	2	Introductory Seminar for First-Year Students	2	Required	0							
	Basic Cou iversity F	Uni	Introd versit	uction to y Education	2	Introduction to University Education	2	Required	0							
	[n]]]	Deve Sei	lopment ninar	0	(Note3)	1		0	0	0	0	0	0		
				Basic		Communication Basic I	1		0							
			te2)	English Usage	2	Communication Basic II	1	Required		0						
			h(No	Communic	2	Communication I A	1	Required	0							
			nglis	ation I	2	Communication I B	1	Required	0							
		ges	Ē	Communic	2	Communication II A	1	Required		0						
		ngua		ation II		Communication II B	1			0						
cation		eign La	Non	-English zign		I	1	-	0							
rts Edu		For	Fore Lang	ign guages	4	Basic Foreign Language II	1	Elective	0							
iberal ⊿	ıbjects		(Sele lar	ct one nguage)	7	Basic Foreign Language III	1	Required		0						
Ι	nmon Sı		(Note	e2)		Basic Foreign Language IV	1			\bigcirc						
	Coi	Info	ormati	on and Data	4	Introduction to Information and Data Sciences(Note3)	2	Required	0							
		S	cienc	e Courses		Fundamental Data Science(Note3)	2	Required		0						
			Area	Courses	12	(Note3)	1 or 2	Elective/ Required	0	0	0	0	0	0		
		社会 So	会連携 cial C Cc	等科目 Eng? Cooperation purses		(Note3)	0		0	0	0	0	0	0		
		Н	ealth Cc	and Sports ourses	2	(Note4)	1 or 2	Elective Required	0	0						
	Found	ation	Cour	565	6	Organic Chemistry	2			\bigcirc						
	Foundation Courses		6 Cell Science		2			\bigcirc								

		"Basic Laboratory Work in Chemistry" or "Experimental Methods and Laboratory Work in Chemistry I" (Note5)	1		Ø	O			
		"Experimental Methods and Laboratory Work in Biology I"	1	Required		0			
Total	40								

Table of Registration Standards (Specialized Fundamental Subjects)

(Integrative Hydrospheric Science Program, Applied Animal and Plant Science Program, Food

					Year in which the subject is taken							
		Required			1st g	rade	2 nd g	rade	3 rd g	rade	4 th gi	rade
Туре	Subject type	No. of Class subjects credits		No. of credits	Springs	Fall	Springs	Fall	Springs	Fall	Springs	Fall
			Introduction to Applied	2	0							
			Biological Sciences									
			Introduction to	2	0							
			Microbiology									
			Introduction to Molecular	2		\bigcirc						
			Biochemistry									
	10		Agricultural Production	2		\bigcirc						
	ects		Resources									
S	įdu		Physics for Applied	2		0						
ject	al S		Biological Science									
Sub.	enta		Ethics of Science and	2		0						
ted	Idam	24	Technology									
aliz	Fur		Statistics in Biology	2			0					
ecia	zed		Environmental Sciences	2			0					
Sp	ali		for Bioproduction									
	Deci		Laboratory Work in	1			0					
	Š		General Biology I				(
			Laboratory Work in	1			0					
			General Biology II				(
			Laboratory Work in	1			0					
			General Chemistry	1			0					
			Laboratory Work in	1								
			General Physics	rod Sub:	octo:	Tota	J 20 /	mdit	·c			
		l	Requi	ieu Subj	eus.	1016	ai 20 (real	ఎ			

Science Program, Molecular Agro-Life Science Program)

Seminar in Field Science	2		0						
Research Front of	2		\bigcirc						
Bioresource Sciences									
Research Front of Food	2		\bigcirc						
and AgriLife Science									
Introduction to	2			0					
Physiology									
Public Health	2						\bigcirc		
	Elective	Requir	red Su	bjects					
Tal	ke 6 credi	ts from	abov	e subj	ects				
(Redundant credits over 6	credits	move	to E	lective	Subje	ects in	each l	Progra	am)

O Instruction regarding credits

- Note 1: The year indicated with a circle mark represents that in which students typically take the subject. The year with a double circle mark indicates the year in which students are highly recommended to take the subject. Students are allowed to take the subject in any year after that indicated with a circle or double circle mark. It is required to confirm the semester in which the subject is provided in the class schedule for liberal arts education subjects in the Students' Handbook because some subjects might be provided in different semester from that which is provided in this document.
- Note 2: The credit for "Field Research in the English-speaking World" that is earned through such as a short-term study abroad and that for "Online English Seminar I," "Online English Seminar II," and "Online English Seminar III" that is earned through a self-study, are accepted as the credit for English required for graduation. Achievement in a foreign language skill test and language training might be accepted as a credit. For further information, refer to the description regarding English subjects in the liberal arts education and the item "Credit based on Achievement in Foreign Language Skill Test" in the Students Handbook.

(PP. 30 - 31, Liberal Arts)

Note 3: It is required to earn 4 credits or more for the natural science subjects and 4 credits or more for the human & social science subjects.

However, "Fundamentals of Biology" of the natural science subjects is a subject for which students are requested to take if he/she did not take biology subjects in the entrance exam (including the University Testing Center Examination).

For the other students, the credit for the subject "Fundamentals of Biology" is not accepted as that for graduation.

It is allowed to include up to 4 credits for society-related subjects as credits for the Human & Social Science Subjects.

Note 4: For health & sports subjects, it is recommended to take a practicum in sports.

Note 5: It is required to take "Basic Laboratory Work in Chemis

Table of Registration Standards (Specialized Fundamental Subjects)

(Integrative Hydrospheric Science Program, Applied Animal and Plant Science Program, Food

					Year in which the subject is taken							
		Required			1st g	rade	2 nd g	rade	3 rd g	rade	4 th gi	rade
Туре	Subject type	No. of Class subjects credits		No. of credits	Springs	Fall	Springs	Fall	Springs	Fall	Springs	Fall
			Introduction to Applied	2	0							
			Biological Sciences									
			Introduction to	2	0							
			Microbiology									
			Introduction to Molecular	2		\bigcirc						
			Biochemistry									
	10		Agricultural Production	2		\bigcirc						
	ects		Resources									
S	įdu		Physics for Applied	2		\bigcirc						
ject	al S		Biological Science									
Sub.	enta		Ethics of Science and	2		0						
ted	ıdam	24	Technology									
aliz	Fur		Statistics in Biology	2			0					
ecia	zed		Environmental Sciences	2			0					
Sp	ali		for Bioproduction									
	Deci		Laboratory Work in	1			0					
	Š		General Biology I				(
			Laboratory Work in	1			0					
			General Biology II				(
			Laboratory Work in	1			0					
			General Chemistry	1			0					
			Laboratory Work in	1								
			General Physics	rod Sub:	octo:	Tota	J 20 /	mdit	·c			
		l	Requi	ieu Subj	eus.	1016	ai 20 (real	ఎ			

Science Program, Molecular Agro-Life Science Program)

Seminar in Field Science	2		0						
Research Front of	2		\bigcirc						
Bioresource Sciences									
Research Front of Food	2		\bigcirc						
and AgriLife Science									
Introduction to	2			0					
Physiology									
Public Health	2						\bigcirc		
	Elective	Requir	red Su	bjects					
Tal	ke 6 credi	ts from	abov	e subj	ects				
(Redundant credits over 6	credits	move	to E	lective	Subje	ects in	each l	Progra	am)

Table of Registration Standards(Specialized Subjects)

(Applied Animal and Plant Science Program)



		Environmental Animal Physiology				0	
		Topics in Applied Animal and Plant Science				0	
		П					
		Topics in Applied Animal and Plant Science				0	
		ш					
		Elective Required Subjects:	Take 14	credits fror	n above sub	ojects	
		(Redundant credits over 14	credits r	nove to Ele	ective Subje	cts)	
		Elective Subjects At lea	ast 15 cre	edits must l	be obtained.		
		Specialized subjects from other Applied Biologica	l Science	programs ca	an be included	l in the electiv	ve subjects.
		• Up to 10 credits obtained from specialized subject	s at anoth	er School an	d from subjec	cts offered by	the AIMS
		Program completed at the dispatch destination can	n be incluc	led in the cre	edits required	for graduation	n.
		Credits obtained from Liberal Arts Education Sub	jects and	subjects rela	ted to the teac	hing program	n cannot be
		included in the credits required for graduation.					
	124						

[Credits required for graduation] 124 credits (40 credits for liberal arts education subjects + 26 credits for specialized fundamental subjects + 58 credits for specialized subjects)

Attachment 2

Results of study in Applied Animal and Plant Science Program

Relation between evaluation items and evaluation criteria

		Study achievement		Evaluation criteria	
		Evaluation items	Excellent	Very Good	Good
n o w l e d	 Ability for comprehensive and cross- disciplinary thinking and knowledge / understandings required to see a pheno from a broad, top-down perspective ar take action for solving problems regar- the specialized area. 		Has superior ability for comprehensive and cross- disciplinary thinking and capability to see a phenomenon from a broad, top-down perspective and to take action for solving problems regarding the specialized area.	Has sufficient ability for comprehensive and cross- disciplinary thinking and capability to see a phenomenon from a broad, top-down perspective and to take action for solving problems regarding the specialized area.	Has basic ability for comprehensive and cross- disciplinary thinking and capability to see a phenomenon from a broad, top-down perspective and to take action for solving problems regarding the specialized area.
g e &	(2)	Basic knowledge and understanding required for acquiring expertise	Has fundamental knowledge and profound understanding required for acquiring expertise, and is capable of explaining this knowledge while associating it with items related to other areas.	Has fundamental knowledge and profound understanding required for acquiring expertise, and is capable of sufficiently explaining this knowledge while associating it with items related to other areas.	Has fundamental knowledge and profound understanding required for acquiring expertise, and is capable of providing basic explanation of this knowledge while associating it with items related to other areas.
u n d e r s	(3)	Knowledge and understanding regarding natural phenomena related to animal and plant production in levels of molecule, cell, and individual organism and production environment that supports the phenomena	Capable of providing detailed explanation regarding natural phenomena related to animal and plant production in levels of molecule, cell, and individual organism and production environment that supports the phenomena.	Capable of providing explanation regarding natural phenomena related to animal and plant production in levels of molecule, cell, and individual organism and production environment that supports the phenomena.	Capable of providing basic explanation regarding natural phenomena related to animal and plant production in levels of molecule, cell, and individual organism and production environment that supports the phenomena.
t a n d i n	(4)	Knowledge and understanding regarding the mechanism of animal and plant production in fields and relation between animals and the human society and natural environment.	Sufficiently understands the mechanism of animal and plant production in fields and relation between animals and the human society and natural environment.	Understands the mechanism of animal and plant production in fields and relation between animals and the human society and natural environment.	Substantially understands the mechanism of animal and plant production in fields and relation between animals and the human society and natural environment.
	(1)	Basic ability in communication, information processing, and physical activities required for acquiring expertise	Has superior ability in all the elements regarding communication, information processing, and physical activities required for acquiring expertise.	Has sufficient ability in all the elements regarding communication, information processing, and physical activities required for acquiring expertise.	Has basic ability in all the elements regarding communication, information processing, and physical activities required for acquiring expertise.

(2) Basic experimentation abilities and skills required for acquiring expertise

Has sufficient basic experimentation abilities and skills required for acquiring expertise, and is capable of autonomously applying them. Has sufficient basic experimentation abilities and skills required for acquiring expertise, and is capable of autonomously applying them under instruction. Generally has sufficient basic experimentation abilities and skills required for acquiring expertise, and is capable of supporting their execution.

Ability for basic biological analysis and

(3)

		Ability to identify issues that he/she should	Has advanced capabilities regarding elements of	Has capabilities regarding elements of	Has basic capabilities regarding elements of
с		pursue for a specific phenomenon related to	comprehensive ability and skills for such as	comprehensive ability and skills for such as	comprehensive ability and skills for such as
a "		animal and plant production, organize	identification of targeted issues, information	identification of targeted issues, information	identification of targeted issues, information
p		his/her own opinion, logically publish them	processing, statistical analysis, and responsive	processing, statistical analysis, and responsive	processing, statistical analysis, and responsive
s a		orally and/or in writing, and discuss the	communication.	communication.	communication.
^a i	(1)	topic			
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Role of liberal arts education in this program

The liberal arts education in this program aims to build both the language skills and the academic foundation required for the specialized education. It develops not only a capability for studying autonomously and a scientific intelligence based on the ability to collect, analyze and criticize data, but also language skills that allow the student to exchange ideas with others in English. Also, it enhances insight from a broad perspective for the essentials and the background of phenomena, and the linguistic ability and concern for peace which are required for a citizen of the world. It enables students to acquire the ability to integrate findings and establish a "knowledge system" that is really useful for problem solving, and to examine phenomena using a top-down perspective based on this integrated knowledge.

Attach

Relation between evaluation items and class subjects

					Evalu	ation i	tem						-														
Subject	Name of class	Numbe	Required	Semester when	Know	ledge	& unde	erstand	ing				Abilit	y & sk	tills										Comp sive capab	rehen ility	Total of weightings for
category	subject	r or crodite	or Electivee	the class is	(1)		(2)		(3)		(4)		(1)		(2)		(3)		(4)		(5)		(6)		(1)		evaluation
		cicults		× ·	Weightin g for evaluatio n item for the subject	Weightin g for evaluatio n item	Weightin g for evaluatio n item for the subject	Weightin g for evaluatio n item	Weightin g for evaluatio n item for the subject	Weightin g for evaluatio n item	Weightin g for evaluatio n item for the subject	Weightin g for evaluatio n item	Weightin g for evaluatio n item for the subject	Weightin g for evaluatio n item	Weightin g for evaluatio n item for the subject	Weightin g for evaluatio n item	Weightin g for evaluatio n item for the subject	Weightin g for evaluatio n item	Weightin g for evaluatio n item for the subject	Weightin g for evaluatio n item	Weightin g for evaluatio n item for the subject	Weightin g for evaluatio n item	Weightin g for evaluatio n item for the subject	Weightin g for evaluatio n item	Weightin g for evaluatio n item for the subject	Weightin g for evaluatio n item	items for the subject
Liberal arts education subjects	Peace Science Courses	2	Required	1st semester	100	1																					100
Liberal arts education subjects	Introductory Seminar for First-Year Students	2	Required	1st semester	100	1																					100
Liberal arts education subjects	Introduction to University Education	2	Required	1st semester	100	1																					100
Liberal arts education subjects	Foreign Languages	10	Required / Elective required	1st - 2th semesters									100	1													100
Liberal arts education subjects	Information and Data Science Courses	4	Required	1st - 2th semesters									100	1													100
Liberal arts education subjects	Area Courses	10	Elective required	1st - 6th semesters	100	1																					100
Liberal arts education subjects	Health and Sports Courses	2	Elective required	1st - 2nd semesters									100	1													100
Liberal arts education subjects	Organic Chemistry	2	Required	2nd semester			100	1																			100
Liberal arts education subjects	Cell Science	2	Required	2nd semester			100	1																			100
Liberal arts education subjects	Basic Laboratory Work in Chemistry	1	Required	1st semesters											100	1											100
Liberal arts education subjectsLiberal arts education subjects	"Experimental Methods and Laboratory Work in Biology I"	1	Required	2nd semesters											100	1											100
Specialized subjects	Introduction to Applied Biological Science	2	Required	1st semester	10	1	60	1	10	1	10	1													10	1	100
Specialized subjects	Introduction to Microbiology	2	Required	1st semester			80	1	20	1																	100
Specialized subjects	Introduction to Molecular Biochemistry	2	Required	2nd semester			80	1	20	1																	100

ment 3

Specialized subjects	Agricultural Production Resources	2	Required	2nd semester\	10	2	70	1			10	1													10	1	100
Specialized subjects	Physics for Applied Biological Science	2	Required	2nd semester			80	1	20	1																	100
Specialized subjects	Ethics of Science and Technology	2	Required	2nd semester	10	2	70	1			10	1													10	1	100
Specialized subjects	Statistics in Biology	2	Required	3rd semester			70	1					20	3	10	3											100
Specialized subjects	Environmental Sciences for Bioproduction	2	Required	3rd semester			80	1	10	1	10	1															100
Specialized subjects	Laboratory Work in General Biology I	1	Required	3rd semester			10	1							80	1									10	1	100
Specialized subjects	Laboratory Work in General Biology II	1	Required	3rd semester			10	1							80	1									10	1	100
Specialized subjects	Laboratory Work in General Chemistry	1	Required	3rd semester			10	1							80	1									10	1	100
Specialized subjects	Laboratory Work in General Physics	1	Required	3rd semester			10	1							80	1									10	1	100
Specialized subjects	Seminar in Field Science	2	Elective required	2nd semester	10	2	60	1			10	1			10	2									10	1	100
Specialized subjects	Research Front of Bioresource Science	2	Elective required	2nd semester	10	1	60	1	10	1	10	1													10	1	100
Specialized subjects	Research Front of Food and AgriLife Science	2	Elective required	2nd semester	10	1	60	1	10	1	10	1													10	1	100
Specialized subjects	Introduction to Physiology	2	Elective required	3rd semester			80	1	10	1	10	1															100
Specialized subjects	Public Health	2	Elective required	6th semester	10	3	60	1			20	1													10	1	100
Specialized subjects	Plant Nutritional Physiology	2	Required	4th semester					80	1	10	1													10	1	100
Specialized	Agricultural Soil	2	Required	4th semester					80	1	10	1													10	1	100
Specialized subjects	Animal Breeding and Genetics	2	Required	4th semester					80	1	10	1													10	1	100
Specialized subjects	Animal Nutrition	2	Required	4th semester					80	1	10	1													10	1	100
Specialized subjects	Animal Functional Anatomy	2	Required	4th semester					80	1	10	1													10	1	100
Specialized subjects	Introduction to Applied Animal and Plant Science	2	Required	4th semester	10	1	60	1	10	1	10	1													10	1	100
Specialized subjects	Laboratory and Field Works in Applied Animal and Plant Science	1	Required	4th semester					10	1							30	1	30	1	30	1					100
Specialized subjects	Laboratory and Field Works in Animal Production I	1	Required	4th semester					10	1					5	3	75	1							10	1	100
Specialized subjects	Reading of Foreign Literature in Applied Animal and Plant Science	2	Required	5th semester									50	1									50	1			100
Specialized subjects	Reproductive Biology	2	Required	5th semester					80	1	10	1													10	1	100

Specialized subjects	Production System in Livestock	2	Required	5th semester					10	1	80	1													10	1	100
Specialized subjects	Laboratory and Field Works in Plant Production	1	Required	5th semester					10	1							30	1	30	1	30	1					100
Specialized subjects	Laboratory and Field Works in Animal Production II	1	Required	5th semester					10	1									75	1	5	3			10	1	100
Specialized subjects	Farm Practice	1	Required	5th semester							10	1							10	3	70	1			10	1	100
Specialized subjects	Agricultural Plant Production and Biotechnology	2	Elective required	5th semester					80	1	20	1															100
Specialized subjects	Animal Welfare	2	Elective required	5th semester	10	3					80	1													10	1	100
Specialized subjects	Animal Physiology and Production	2	Elective required	5th semester					20	1	70	1													10	1	100
Specialized subjects	Grassland and Feed Science	2	Elective required	5th semester					10	1	80	1													10	1	100
Specialized subjects	Plant Molecular Biology	2	Elective required	5th semester					90	1	10	1															100
Specialized subjects	Training for Animal Food Processing	1	Elective required	5th semester							80	1			20	1											100
Specialized subjects	Seminar in Dairy Field Science	2	Elective required	5th semester							10	1							10	3	70	1			10	1	100
Specialized subjects	Topics in Applied Animal and Plant Science I	1	Elective required	5th semester					20	1	80	1															100
Specialized subjects	Food Hygiene	2	Elective required	6th semester	10	1	10	1	10	1	70	1															100
Specialized subjects	Food Biochemistry	2	Elective required	6th semester					80	1	10	1													10	1	100
Specialized subjects	Environmental Animal Physiology	2	Elective required	6th semester					10	1	80	1													10	1	100
Specialized subjects	Topics in Applied Animal and Plant Science II	1	Elective required	6th semester					20	1	80	1															100
Specialized subjects	Topics in Applied Animal and Plant	1	Elective required	6th semester					20	1	80	1															100
Specialized subjects	Graduate Thesis I -III	6	Required	6th-8th semester	10	3	5	3					5	3	5	3							10	3	65	10	100

Attachment 4

Curriculum map for Applied Animal and Plant Science Program

a	Study achievementStudy chievementStudy achievement	1st	year	2nd	year	3rd	year	4th	year
	Evaluation items	1st semester	2nd semester	3rd semester	4th semester	5th semester	6th semester	7th semester	8th semester
		Peace Science Courses (©)	Research Front of Bioresource Science (O)			Animal Welfare(O)	Graduate Thesis I (©)	Graduate Thesis II (©)	Graduate Thesis III (◎)
①Know understa	①Knowledge and	Seminar for developing intelligence (©)	Research Front of Food and AgriLife Science (O)		Introduction to Applied Animal and Plant Science(©)		Public Health(O)		
	phenomenon from a broad, top- down perspective and for action based on comprehensive and	Introduction to University Education (©)	Ethics of Science and Technology(©)				Food Hygiene(O)		
	cross-disciplinary thinking	Introduction to Applied Biological Science(©)	Agricultural Production Resources(©)						
			Seminar in Field Science(○)						

	Area Courses subjects	(0)					
	Introduction to Applied Biological Science(©)	Organic Chemistry (©)	Statistics in Biology (©)	Introduction to Applied Animal and Plant Science(©)	Graduate Thesis I (©)	Graduate Thesis II (©)	Graduate Thesis III (©)
	Introduction to Microbiology (©)	Cell Science (©)	Introduction to Physiology (O)		Public Health(O)		
	Introduction to Applied Biological Science(©)	Research Front of Bioresource Science (O)					
(2)Basic knowledge and	Introduction to Microbiology (©)	Research Front of Food and AgriLife Science (O)	Environmental Sciences for Bioproduction(©)		Food Hygiene(O)		
understandings required for acquiring expertise		Ethics of Science and Technology(©)	Laboratory Work in General Biology I & II (©)				
		Agricultural Production Resources(©)	Laboratory Work in General Chemistry (⁽)				
		Physics for Applied Biological Science(©)	Laboratory Work in General Physics (©)				
		Introduction to Molecular Biochemistry(©)					
		Seminar in Field Science (O)					

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andingKr		Introduction to Applied Biological Science(©)	Research Front of Bioresource Science (O)	Introduction to Physiology (O)	Plant Nutritional Physiology(©)	Reproductive Biology (⊚)	Food Hygiene(O)	
k underst		Introduction to Microbiology (©)	Research Front of Food and AgriLife Science (O)	Environmental Sciences for Bioproduction(©)	Agricultural Soil Science(©)	Production System in Livestock (©)	Food Biochemistry (O)	
wledge 8			Physics for Applied Biological Science(©)		Animal Breeding and Genetics (©)	Laboratory and Field Works in Plant Production(©)	Environmental Animal Physiology (O)	
IndingKno	③Knowledge and understanding regarding natural phenomena		Introduction to Molecular Biochemistry(©)		Animal Nutrition (©)	Laboratory and Field Works in Animal Production II(©)	Topics in Applied Animal and Plant Science II(O)	
understa	related to animal and plant production in levels of molecule, cell, and individual organism				Animal Functional Anatomy(©)	Agricultural Plant Production and Biotechnology(O)	opics in Applied Animal and Plant Science III(O)	
vledge &	and production environment that supports the phenomena				Introduction to Applied Animal and Plant Science(©)	Animal Physiology and Production(O)		
Knov					Laboratory and Field Works in Applied Animal and Plant Science (©)	Grassland and Feed Science(O)		
						Plant Molecular Biology(O)		
						Topics in Applied Animal and Plant Science I(O)		

	Introduction to Applied Biological Science(©)	Research Front of Bioresource Science (O)	Introduction to Physiology (O)	Plant Nutritional Physiology(©)	Reproductive Biology (©)	Public Health(O)	
		Research Front of Food and AgriLife Science (O)	Environmental Sciences for Bioproduction(©)	Agricultural Soil Science(©)	Production System in Livestock (©)	Food Hygiene(O)	
		Ethics of Science and Technology(©)		Animal Breeding and Genetics (©)	Farm Practice(©)	Food Biochemistry (O)	
(4)Knowledge and		Agricultural Production Resources(©)		Animal Nutrition (©)	Agricultural Plant Production and Biotechnology(O)	Environmental Animal Physiology (O)	
understanding regarding the mechanism of animal and plant production in fields and relation		Seminar in Field Science (O)		Animal Functional Anatomy(©)	Animal Welfare(O)	Topics in Applied Animal and Plant Science II(O)	
society and natural environment.				Introduction to Applied Animal and Plant Science(©)	Animal Physiology and Production(O)	opics in Applied Animal and Plant Science III(O)	
					Grassland and Feed Science(O)		
					Plant Molecular Biology(O)		
					Topics in Applied Animal and Plant Science I(O)		
					Seminar in Dairy Field Science(O)		

	Dasic communication,	Foreign Languages (C))(©)	Statistics in Biology (©)		Literature in Applied Animal and Plant	Graduate Thesis I (◎)	Graduate Thesis II (©)	Graduate Thesis III (◎)
	physical activities	Information and Data	Sciece Courses (©)						
		Health and Sports Cou	rses (O)						
			-		Laboratory and Field Works in Animal Production I(©)	Training for Animal Food Processing (O)	Graduate Thesis I (©)	Graduate Thesis II (©)	Graduate Thesis III (©)
		"Basic Laboratory Work in Chemistry"							
	②7Basic experiment abilities		"Experimental Methods and Laboratory Work in Biology I"						
	and skills required for acquiring expertise		Seminar in Field Science (O)	Statistics in Biology (©)					
				Laboratory Work in General Biology I & II (©)					
				Laboratory Work in General Chemistry (©)					
				Laboratory Work in General Physics (©)					
& skills	③Ability for basic biological analysis and evaluation regarding production function				Laboratory and Field Works in Applied Animal and Plant Science([©])	Laboratory and Field Works in Plant Production(©)			
IIsAbility .	of animals and plants in levels of molecule, cell, and individual organism				Laboratory and Field Works in Animal Production I(©)				

Music (schoisers for her din		Laboratory and Field Works in Applied Animal and Plant Science (©)	Laboratory and Field Works in Plant Production(©)			
and testing of animals and plants and those for breeding, cultivation, and management			Laboratory and Field Works in Animal Production II(©)			
			Farm Practice(©)			
			Seminar in Dairy Field Science(O)			
		Laboratory and Field Works in Applied Animal and Plant Science (©)	Laboratory and Field Works in Plant Production(©)			
(5) Ability for basic evaluation of breeding environment in fields of animal and plant production			Laboratory and Field Works in Animal Production II(©)			
1 1			Farm Practice (©)			
			Seminar in Dairy Field Science(O)			
©Ability regarding scientific English that is required as a			Reading of Foreign Literature in Applied Animal and Plant Science(©)	Graduate Thesis I (◎)	Graduate Thesis II (©)	Graduate Thesis III (◎)
basis for understanding technical English manuals and international communication capabilities based on the						
approach method for the field						

		Introduction to Applied Biological Science(©)	Research Front of Bioresource Science (O)	Laboratory Work in General Biology I & II (©)	Plant Nutritional Physiology(©)	Reproductive Biology (©)	Graduate Thesis I (©)	Graduate Thesis II (©)	Graduate Thesis III (©)
lity			Research Front of Food and AgriLife Science (O)	Laboratory Work in General Chemistry (©)	Agricultural Soil Science(©)	Production System in Livestock (©)	Public Health(O)		
/e capabi	①Ability to identify issues that he/she should pursue for a		Ethics of Science and Technology(©)	Laboratory Work in General Physics (©)	Animal Breeding and Genetics(©)	Laboratory and Field Works in Animal Production II(©)	Food Biochemistry (O)		
prehensiv	specific phenomenon related to animal and plant production, organize his/her own opinion,		Agricultural Production Resources(©)		Animal Nutrition(©)	Farm Practice(©)	Environmental Animal Physiology (O)		
Com	logically publish them orally and/or in writing, and discuss		Seminar in Field Science (O)		Animal Functional Anatomy(©)	Animal Welfare(O)			
	the topic				Introduction to Applied Animal and Plant Science(©)	Animal Physiology and Production(O)			
					Laboratory and Field Works in Animal Production I(©)	Grassland and Feed Science(O)			
						Seminar in Dairy Field Science(O)			

(Example) Liberal arts subjects Specialized fundame Specialized subjects Graduation thesis (③) Required subjec (O) Elective required (△) Elective subjects

Name of faculty	Name of program and position	Extension number	Laboratory	Mail address
Naoki Isobe		7993	B 3 0 9	
Akihiro Ueda		7963	B111	
Taketo Obitsu	Professor	7955	B 5 0 6	
Toshihisa Sugino		7956	B 5 0 4	
Rumi Tominaga	Professor	7966	B 1 1 2	
Takahiro Yonezawa	Professor	7950	B409	
Shinichi Kawakami		3857	B 5 0 5	
Yuzo Kurokawa		7973		
Toshinori Nagaoka		7969	B111	
Yoshiaki Nakamura		7943	B409	
Takashi Umehara		7899	B 2 1 1	
Mayumi Kikuta		5754	B112	
Naoki Suzuki		4 1 8 2		naosuzuki@hiroshima-u.ac.jp
Aira Seo		4587		
Takahiro Nii		4147	B408	