履　修　要　項

平成31年度

Study Guideline

2019/2020

千葉大学大学院園芸学研究科

Graduate School of Horticulture
Chiba University

2019年度(平成31年度)学年暦

期		授業日程 Class Schedule	行事予定 Schedule of Events	備考 Notes
前期(春期)	Spring Semester		4月5日（金） Apr.5 (Fri.) 入学式・新入生ガイダンス Enrollment Ceremony in Spring Guidance for New Students	4月1日（月） Apr. 1 (Mon.) 〜 4月7日（日） Apr. 7 (Sun.) 春季休業期間 Spring Vacation
		4月8日（月） Apr. 8 (Mon.) 第1ターム Term 1 6月10日（月） Jun. 10 (Mon.)		4月8日（月） Apr. 8 (Mon.) 〜 4月19日（金） Apr. 19 (Fri.) 履修登録期間・修正期間 (通年科目含む) Registration Period(Including Full Year Courses)
		6月11日（火） Jun. 11 (Tue.) 第2ターム Term 2 8月6日（火） Aug. 6 (Tue.)		6月11日（火） Jun. 11 (Tue.) 〜 6月24日（月） Jun. 24 (Mon.) 履修登録期間・修正期間 Registration Period
				8月7日（水） Aug. 7 (Wed.) 〜 9月30日（月） Sep. 30 (Mon.) 第3ターム（夏季休業期間） Term 3 (Summer Vacation)
後期(秋期)	Fall Semester		10月1日（火） 入学式 Oct. 1 (Tue.) Enrollment Ceremony in Fall	
		10月2日（水） Oct. 2 (Wed.) 第4ターム Term 4 12月2日（月） Dec. 2 (Mon.)	10月31日（木） Oct. 31 (Thu.) 〜 11月3日（日） Nov. 3 (Sun.) 大学祭 University festival	10月2日（水） Oct. 2 (Wed.) 〜 10月16日（水） Oct. 16 (Wed.) 履修登録期間・修正期間 Registration Period
				11月5日（火） Nov. 5 (Tue.) 創立記念日 Foundation Day
		12月3日（火） Dec. 3 (Tue.) 第5ターム Term 5 2月5日（水） Feb. 5 (Wed.)		12月3日（火） Dec. 3 (Tue.) 〜 12月16日（月） Dec. 16 (Mon.) 履修登録期間・修正期間 Registration Period
				12月28日（土） Dec. 28 (Sat.) 〜 1月5日（日） Jan. 5 (Sun.) 冬季休業期間 Winter Vacation
				1月17日（金）臨時休業日（大学入試センター試験準備） Jan. 17(Fri.) Special Holiday (Prepararion for National Center Test for University Admissions)
			3月25日（水） 修了式 Mar. 25(Wed.) Graduation Ceremony	2月6日（木） Feb. 6 (Thu.) 〜 3月31日（火） Mar. 31 (Tue.) 第6ターム（臨時休業期間） Term6 (Extra Vacation)

2019年度（平成31年度）授業カレンダー

2019/2020 Calendar for the Graduate School of Horticulture

前期
Spring Semester

	日 Sun.	月 Mon.	火 Tue.	水 Wed.	木 Thu.	金 Fri.	土 Sat.
4月 Apr.		1	2	3	4	⑤	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30				
5月 May.				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	
6月 Jun.							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30						
7月 Jul.		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16(月)	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	31			
8月 Aug.					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31
9月 Sep.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	(27)	28
	29	30					

T1		8	8	8	8	8	
T2		8	8	8	8	8	
T3	8～9月（集中講義、留学生受入れプログラム等）						

7月16日（火）は、月曜日の授業を行います。

On Jul. 16 (Tue.), all classes are conducted as Monday class schedule.

後期
Fall Semester

	日 Sun.	月 Mon.	火 Tue.	水 Wed.	木 Thu.	金 Fri.	土 Sat.
10月 Oct.			①	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16(月)	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31		
11月 Nov.						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
12月 Dec.	1	2	3	4	5	6	7(火)
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
1月 Jan.				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14(月)	15(金)	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	
2月 Feb.							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
3月 Mar.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	(25)	26	27	28
	29	30	31				

T4		8	8	8	8	8	
T5		8	8	8	8	8	
T6	2～3月（集中講義、留学生受入れプログラム等）						

10月16日（水）は、月曜日の授業を行います。
1月14日（火）は、月曜日の授業を行います。
1月15日（水）は、金曜日の授業を行います。

On Oct. 16 (Wed.), all classes are conducted as Monday class schedule.
On Jan. 14 (Tue.), all classes are conducted as Monday class schedule.
On Jan. 15 (Wed.), all classes are conducted as Friday class schedule.

予備日 / Preliminary Date

補講週間（補講は6限目に実施。通常授業あり。）/
Supplementary Lecture Week (Lecture will be held in 6 period.)

入学式 / Enrollment Ceremony

修了式/Graduation Ceremony

1． Education and Research Objectives

Guiding Education Principles

The School of Horticulture's graduate courses in horticulture are integrated graduate courses in "food, horticulture and landscape." Employing an integrated approach that combines not just the natural sciences but also the social sciences and humanities, our programs provide students with education and research from a broad and interdisciplinary perspective and with international applications. With a focus on important broad-application issues that directly impact people's daily lives, the areas available for study span a wide spectrum, including the cultivation, growth, use and distribution of food resources; the creation of living environments that emphasize the connectedness between people and the environment, people's health and welfare, and geo-environmental sciences.

Owing to the Graduate School's extensive interdisciplinary collaboration with other faculties including the Graduate School of Science and Engineering, the education that we offer in molecular life sciences in particular leads in its field. The Graduate School is also working actively to raise the bar for the quality of its courses through the joint education programs that it conducts in collaboration with the Graduate School of Science and Engineering. At the same time these programs also contribute to raising the overall caliber of the education offered by graduate schools of natural sciences.

Education Objectives

The Graduate School aims to foster students with a deep, wide-ranging knowledge, the ability to put things into practice and a sense of ethics who are capable of engaging in independent research pertaining to horticulture and addressing diverse social issues. By deepening students' learning in their chosen field of specialization, the Master's Course aims to cultivate the sort of broadly applicable knowledge that will be needed in professions where a high level of expertise is required, as well as a strong set of technical and research capabilities that will result in an ability to apply knowledge in practice in a wide range of areas. By further deepening students' accumulated learning in their fields of specialization and by providing students with an interdisciplinary, integrated perspective, the Doctoral Program aims to foster personnel equipped with the high level of skills and ethical standards needed in order to work as researchers in independent research activities or as leading members of management in research and regulatory organizations.

Education Courses

The Graduate School of Horticulture consists of a single division – the Division of Environmental Horticulture. In order to foster professionals to respond accurately to problems pertaining to "food, horticulture and landscape," which strongly requires an integrated insight of the issues involved as well as a comprehensive array of solutions, it is essential that the Graduate School of Horticulture harnesses all that it has to offer in order to equip students with a high-level of specialized knowledge in a variety of fields. In order to further that interest, we employ a single division with a structure that is flexible and organic for effective education programs.

The guiding education principle of the Graduate School's Division of Environmental Horticulture is to foster talented individuals with high-level organizational and executive abilities for conducting holistic management, through the integrated management of programs covering the spectrum of "food, horticulture and landscape." In order to realize this principle, the Division has created three courses in the form of the Bioresource Science Course, the Environmental Science and Landscape Architecture Course, and the Food and Resource Economics Course. The Division has also integrated the course structures available to students who take the Master's Program and the Doctoral Program. For the Master's Program there is an integrated course structure between the Faculty and the Master's Program in the form of sub-courses (programs) that are directly linked to study programs offered by the Faculty of Horticulture. These integrated structures will be effective in providing Master's Program students with a high level of specialized knowledge and skills and Doctoral Program students with additional interdisciplinary competencies in "food, horticulture and landscape."

（1） Bioresource Science Course

Graduate studies of Bioresource Science offer three programs: i.e. Horticultural Plant Production and Breeding, Environmental Science for Bioproduction, and Applied Biological Chemistry, leading to Master's and Doctoral degrees. The Master's Program provides essential education and various research opportunities in the areas of biological production and bioresource management. On the basis of the Master's program, the Doctoral Program offers interdisciplinary subjects, training to meet international standards, and education for scientific ethics. These programs build up expertise of a candidate not only in the research and development of bioresources but also in the practical skills to achieve internationally with high ethical standards.

（2） Environmental Science and Landscape Architecture Course

This course fosters experience- and practice-oriented researchers who are able to use their specialized research abilities and advanced technical capabilities in environmental science and landscape architecture with regard to issues pertaining to the range of interactions between people and open space environments. These issues include the preservation, remediation and management of natural environments; the reconstruction, regeneration and management of urban and rural community environments; and measures to deal with stress-related physical or emotional illness and maintaining the health of senior citizens. This course places particular emphasis on fostering abilities and skills for tackling issues from a practical perspective based on cross-industry and cross-disciplinary collaboration, as well as on cultivating a practice-based competency in coordination when working on issues with a variety of sectors in cross-industry and multi-disciplinary collaborations.

（3） Food and Resource Economics Course

Starting with a basic grounding in natural sciences pertaining to food, horticulture and landscape, this course provides students with analytical methods and expert knowledge of social science that will develop abilities for identifying issues and formulating practical policies from an interdisciplinary perspective and a wide view spanning the entire food system from agricultural production to consumption. This course fosters students to become trained professionals who are equipped with knowledge of both the science and the humanities and have ability to be principal authors of solutions for today's specific issues including the evaluation and management of diverse resources available to rural communities, the preservation of natural environments, and sustainable economic development in the context of globalization.

Education and Research Objectives for the Programs and Fields

1．Bioresource Science Course

（1） Horticultural Plant Production and Breeding Program

This program offers advanced knowledge and skills for plant cultivation and management as well as breeding and genetic engineering techniques of not only horticultural crops but also medical and functional food plants. This program also offers education and research on breeding program and strategy that meet social needs as well as plant cultivation techniques with environmentally sustainable manners for the horticultural plant production. Development of highly skilled engineers and researchers with global view, wide perspective and creativity is also aimed in this program through acquiring practice-based skills and knowledge on areas that overlap the boundaries between related programs.

Field of Horticultural Plant Production: Students engage in the research and survey of physiological and ecological analyses and utilization of genetic resources of horticultural plants such as fruit, vegetable and floricultural crops as well as medical and functional food plants. With these fundamental backgrounds, students also learn about systemization of plant cultivation theories, development and prevailing of novel cultivation technologies to control and yield the products with high productivity and high quality in harmony with environmental safety. This course also provides active training to produce the experts and researchers of plant cultivation technologies, through which they can play a leading role in horticultural industry.

Field of Breeding: Students engage in the study and research on the fundamental aspects of plant breeding such as analysis and utilization of genomic information by clarifying and comparing the structure and function of genomes in horticultural plants and their wild relatives. Based on the genomic information, students also learn about conventional and novel breeding methods by utilizing plant biotechnologies such as tissue culture, cell fusion and genetic transformation. This course aims to foster the technologists and researchers on plant breeding with high ability to utilize the high level of acquired knowledge and experiences on genomic sciences, biotechnologies and breeding science, in order to serve for the present and future social needs.

（2） Environmental Science for Bioproduction Program

This program offers education and research on systematic theory on physical, biological and chemical environmental factors affecting bioresource production such as climate, soils, cultivation facilities and fields for the production of plants; the behavior and cyclings of the bioproducts and substances used in those environments; physiology, ecology, pathology and utilization of cultivated plants; and the insects and microorganisms that inhabit those environments. Through these educational programs, we aim to foster engineers and researchers with enough background of physical, biological and chemical aspects of environmental science, who have the technical capabilities and applied skills to create and control suitable production environments.

Field of Physical Environment: Students engage in the study and research on the whole environment of agricultural ecosystem, as a dynamic system consisting of the elements each correlating dynamically, through field observation and micrometeorological observation methods. Students also conduct studies and research on environment-controlled innovative plant production systems under greenhouse and closed plant production facilities to save energy and the cost of production, as well as on the development of post-harvest technologies and instrumentation engineering for harvesting and storage with maintenance of fresh quality of harvested agricultural products.

Field of Biological Environment: This field concerns the scientific and technical issues relating to biological environments in the production of plants. Students learn the mechanisms and functions of the mutual interactions between plants and other biological environmental factors such as pests and disease causing as well as useful microorganisms as the common basis for the production of horticultural, landscape and timber plants. Based on these studies, students conduct research on the development of novel technologies for controlling these organisms for achieving high yield and quality plants.

Field of Chemical Environment: Students engage in research and study to establish optimum plant production environments by revealing, controlling and strengthening the elements of the chemical environments involved in the production of plants. Specifically, students conduct the following research and study: to reveal the cycling mechanism of mineral elements in soil-plant ecosystems and develop the methods for controlling the plant growth using soil microorganisms; to clarify and develop the suitable plant nutrition environments which contribute to stabilize the production and raising the quality of horticultural crops; to clarify the function and structure of the chemical substances involved in communications between living organisms and develop effective techniques for protecting the desired plants.

（3） Applied Biological Chemistry Program

For the purpose of achieving effective applications of bioresources using animals, plants and microorganisms, students analyze the functions, substances of cell constituents and metabolites of these living organisms using methods in biochemistry and molecular biology. Students also study basic scientific principles and theories of applied technology relating to subjects including related genes, functional proteins such as enzymes both inside and outside cells, functional carbohydrates, and functional lipids. This program fosters professionals who will be able to contribute to solutions for the problems currently facing humanity in areas such as food production, natural resources, and environmental issues.

Field of Biomolecular Chemistry: By investigating and discovering new life phenomena at the individual organism and cell level, students make interpretations at the molecular level using biochemical, molecular biology and organic chemistry methods. Based on the fundamental research that they conduct, students will aim to design and create cells and biomolecules with enhanced and altered functions.

Field of Bioresource Chemistry: With the aim of achieving the effective use of the planet's bioresources, students investigate and discover new effective organisms and physiologically functional molecules, and identify their properties. Using chemical methods to focus on an individual organism and its habitat, students also investigate the mechanisms involved in the function and expression of those molecules and organisms.

２．Environmental Science and Landscape Architecture Course

（１） Landscape Architecture Program

With the aims of regenerating cities and regions and building recycling societies with reduced environmental loads, students study and research theories and techniques to enable the safe and beautiful organization and management of living environments where we live with nature. This program uses the Graduate School's accumulated knowledge of landscape architecture, which has the longest history of its kind in Japan, to build an integrated framework of education that incorporates the diversification of environmental issues within its perspective, in order to produce specialized engineers and researchers instilled with the theories and technical skills involved in the design and management of landscapes based on open areas.

Field of Landscape Planning: Focusing on cities, rural communities and natural areas, students interpret the contradictions that occur between the daily lives of people in those areas and the spaces and natural environments that support those lives. Students also investigate both the direction of their development as well as the plans, systems and methods for realizing the comfortable and ecological living environment. The spaces principally examined range from urban spaces such as town precincts and pedestrian walkways to wilderness areas such as national parks, mountains and forests. Spaces also include residential places such as small towns and villages and rural spaces such as farming communities.

Field of Landscape Design: Students undertake research on open spaces ranging from private gardens to urban-scale spaces from the perspectives of history, community and culture in order to deepen their examination of the design of open spaces as environmental facilities. Specifically, students analyze and interpret the structure of spaces, including historical gardens in Japan and overseas, gardens in private homes, public parks, and open spaces in residential areas. Students also research landscape systems and policy theories. Based on this research students investigate the planning, design methods and cultural context of those particular open spaces that modern communities regard as useful.

Field of Landscape Management: Students undertake study and research on the appropriate structures and management as well as techniques and policies for landscaped environments, along with basic education and research on the management of environments. This study and research will take place against a backdrop of perspectives ranging from landscape planting, which encompasses the function, decorative design, structural design, implementation and management of landscape plants (the principal element in landscaped spaces), to landscape management for reducing environmental loads and for developing sustainable regional communities based on open spaces.

（２） Landscape Science Program

This program is made up of the fields of Landscape System Science and Landscape Resource Science. Landscape System, Science is based on research of landscaped spaces from an ecological and earth sciences perspective, and in which students prepare models of systems and investigate engineering techniques pertaining to the formation of landscaped spaces. Studies in Landscape Resource Science gain an understanding of the diversity of resources such as living organisms and soils and analyze their complex functions, as well as investigate techniques pertaining to the creation and management of landscapes. This Program produces landscape architecture engineers and researchers with high levels of expertise by teaching its students these mutually complementary bodies of knowledge in an integrated fashion and by arranging for practical training and research on the investigation, analysis, synthesis and skills development relevant to landscaped environments.

Field of Landscape System Science: Based on analyses of landscape environments from earth science and ecological perspectives and by studying modeling of those systems, students forecast and evaluate changes to landscaped environments caused by environmental changes such as global warming and urbanization, regional development, and increases in specific biopopulations. Students also investigate and develop techniques for forming sustainable systems appropriate for regional human and ecological environments.

Field of Landscape Resource Science: Based on research from biological and ecological perspectives of the animals, plants, soils and water that constitute terrestrial and marine landscaped environments, students study the multiscale synchronic structures, diatonic changes and functional relationships within those environments and investigate and develop skills for using, preserving and recycling landscaped environment resources in specific contexts such as urban beautification and waste land beautification, natural environment assessments, nature remediation, and habitat management.

（３） Environment and Human Health Sciences Program

The issues taken up by this program relate to well-being and health-related issues such as creating better relationships between people and the environment, raising people’s QOL (Quality of Life), mitigating their stress and enabling mental calm, for healthy people alike and not just for those requiring care for an illness or injury. This program’s perspectives encompass open spaces and horticulture, medicine, pharmacology, well-being and education, and its education and research extend to: the therapeutic, physical and emotional welfare uses of plants in areas such as horticultural therapies and aromatherapy; the use of elements in nature to beautify medical and welfare facilities; plants as medicinal resources; plant- and environment-based culture; environmental education; and education on and the dissemination of agricultural and environment-related fields.

３．Food and Resource Economics Course

（１） Food and Resource Economics Program

Field of Food System: By gaining an accurate understanding of food systems in their entirety from the production of food resources to consumption in the home from a social science perspective, students acquire the ability to make proposals and recommendations for communities. In order to foster specialized personnel with the management skills and knowledge to become leaders in the food industry and in local communities, students undertake education and research on business administration, marketing, economic theory and applied methods in particular so that they can contribute to the design of efficient food systems with high levels of safety and make proposals on business strategy.

Field of Resource and Environmental Economics: In order to offer solutions for complex current issues connected with food resources and the environment, students acquire the ability to formulate and evaluate policy and economic projects relating to resource and environment issues, as well as the ability to provide practical solutions for issues with an international perspective. In particular, with the aim of acquiring a basic grounding in natural sciences concerning the management of local agricultural and rural community resources, in the evaluation of environmental resources and in development in overseas rural communities, students study and research advanced scientific analysis methods from social science sources, including fundamental theories in economics and statistics in particular.

Academic Guidance and Counseling System

Academic guidance and counselling at the Graduate School of Horticulture is conducted by the student's main academic advisor and one or more co-academic advisors. Students will hold periodic discussions with their academic advisors on their study plans and the state of their progress, and the academic advisors will report the content of those discussions to the dean of the Graduate School.

Course Syllabuses

Course syllabuses are available online via the Syllabus link on Chiba University's website or via the Graduate School's website. Syllabuses can also be accessed through the Course Registration site. In addition to course dates, times, faculty members and outlines, syllabuses also contain course plans, content, goals and objectives; methods and criteria for student evaluation; and faculty contact details and appointment times.

２． Completion Requirements, Etc.

Study Guide

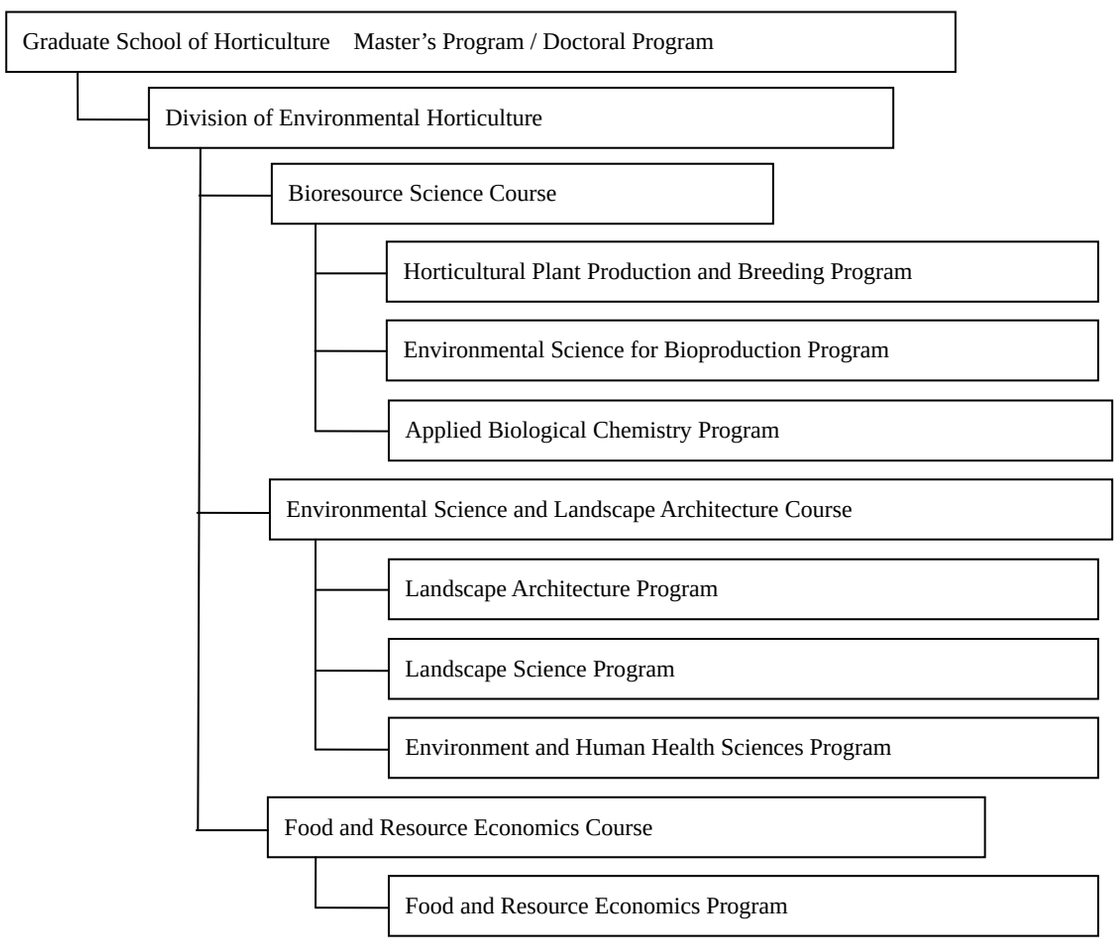
Introduction

This Study Guide explains procedures that students enrolled in a graduate program most follow in order to take courses and earn an academic degree.

The Graduate School is managed by a faculty council and various committees comprising faculty members; administrative procedures are handled by the Faculty of Horticulture Academic Affairs Group. Should you experience any changes in your personal status, or, should you have any questions or concerns regarding your studies, including career guidance, please do not hesitate to contact and discuss them with your academic advisors.

１． Divisions and Courses

The Graduate School of Horticulture offers Master's and Doctoral Programs through the following division, which comprises three courses and seven programs (encompassing 14 fields)



In addition to earning a master's or doctoral degree on a regular program by following the rules for taking courses described below and earning the prescribed credits, the Graduate School also offers master's and doctoral degrees through three special programs: an Environmental Horticulture Expert Program; an International Program in Environmental Horticulture (Special Doctoral Program for International Students); an Environmental Horticulture Expert (Asia) Program: and a Plant Environment Designing Program.

The Expert Program, in addition to conferring a master's or doctoral degree upon students completing their course of study, can also confer the qualification of "Environmental Horticulture Expert" upon students completing a Master's Program, and "Environmental Horticulture Multiexpert" upon those completing a Doctoral Program; students can choose which qualification(s) they wish to earn after enrolling on the program. Students wishing to enroll on this program should read 2. Rules for Taking Courses, sections 1) ~ 6) for the regular program as well as section 7) Rules for Taking Courses on the Expert Program before consulting their academic advisors and the program organizer.

International students wishing to enroll on either the International Program or the Expert (Asia) Program should read 2. Rules for Taking Courses, sections 1) ~ 6) for the regular program as well as sections 8) ~ 9) before consulting their academic advisors and the faculty in charge of these programs.

International students wishing to enroll on the Plant Environment Designing Program should read 2. Rules for taking Courses, sections 1) ~ 6) for the regular program as well as section 11) before consulting their academic advisors and the faculty in charge of this program.

２．Rules for Taking Courses

１）Outline of the Rules for Taking Courses

- To complete a Master's Program, you need to earn a total of 30 or more credits comprising compulsory courses for graduate seminar I (4 credits) and graduate research I (6 credits); and 20 or more credits for specialized courses, Including specialized courses corresponding to your course of study (10 or more credits) and basic courses, common courses. In completion, you must submit and defend a master's thesis (depending on the course, this could involve producing something, etc.).

Completion Requirements for a Master's Program

＜Bioresource Science Course＞

No. of Credits Required for Completion	Course Categories	No. of Credits
３０	Specialized Courses in Bioresource Science	１０
	Specialized / Basic / Common Courses	１０
	Graduate Seminar I	4
	Graduate Research I	6

＜Environmental Science and Landscape Architecture Course＞

No. of Credits Required for Completion	Course Categories	No. of Credits
３０	Specialized Courses in Environmental Science and Landscape Architecture	１０
	Specialized / Basic / Common Courses	１０
	Graduate Seminar I	4
	Graduate Research I	6

※ The sum of credits of Projects, Studios and Internships are not allowed more than 16 as credits required for completion.

＜Food and Resource Economics Course＞

No. of Credits Required for Completion	Course Categories	No. of Credits
３０	Specialized Courses in Food and Resource Economics	１０
	Specialized / Basic / Common Courses	１０
	Graduate Seminar I	4
	Graduate Research I	6

- To complete a Doctoral Program, you need to earn a total of 14 or more credits comprising compulsory courses for graduate seminar II (2 credits) and graduate research II (4 credits); and 8 or more credits for specialized courses, including specialized courses corresponding to your course of study (4 or more credits) and basic courses, common courses. In completion, you must submit and defend a dissertation. If you take the same class you took in Master's Program while you are in Doctoral Program, those class credits will not count as credits required for completion.

Completion Requirements for a Doctoral Program

＜Bioresource Science Course＞

No. of Credits Required for Completion	Course Categories	No. of Credits
１４	Specialized Courses in Bioresource Science	4
	Specialized / Basic / Common Courses	4
	Graduate Seminar Ⅱ	2
	Graduate Research Ⅱ	4

＜Environmental Science and Landscape Architecture Course＞

No. of Credits Required for Completion	Course Categories	No. of Credits
１４	Specialized Courses in Environmental Science and Landscape Architecture	4
	Specialized / Basic / Common Courses	4
	Graduate Seminar Ⅱ	2
	Graduate Research Ⅱ	4

＜Food and Resource Economics Course＞

No. of Credits Required for Completion	Course Categories	No. of Credits
１４	Specialized Courses in Food and Resource Economics	4
	Specialized / Basic / Common Courses	4
	Graduate Seminar Ⅱ	2
	Graduate Research Ⅱ	4

Specialized courses corresponding to course of study refer to specialized courses designated by the course to which a student is affiliated. Master's Program students must earn 10 or more credits from courses designated by their course of study; likewise, Doctoral Program students must earn 4 or more.

Specialized courses refer to specialized courses designated by the Graduate School. These include specialized courses corresponding to students' course of study. Basic courses refer to courses designated by the Graduate School as being common to all courses. Master's Program students must earn a total of 20 or more credits from specialized and basic and common courses designated by the Graduate School including 10 or more from the aforementioned specialized courses corresponding to their course of study. Likewise, Doctoral Program students must earn a total of 8 or more credits from specialized and basic and common courses designated by the Graduate School including 4 or more from the aforementioned specialized courses corresponding to their course of study.(*)

Graduate seminar and Graduate research are compulsory courses and are supervised by academic advisors.

The Graduate School offers courses on a term system. In other words, students take courses for each term. Term notation may not be consistent throughout the syllabus, outlines of course syllabuses and timetables due to the system, so please exercise due caution.

* For classes listed from P52~P58 and say [Open for Master's Program], we will accept up to 4 credits as credits required for completion only if you hadn't taken the same class(es) in Master's Program.

２）Recommended Courses

Of courses offered by the Graduate Schools of Science and Engineering, Nursing, Master's Program students may, with their academic advisor's approval, earn up to 10 credits for taking courses designated by each course; likewise, Doctoral Program students may earn up to 2 credits for such courses. These recommended courses can be counted as a specialized course corresponding to their course of study or as an specialized course. Please refer to P68~70 for the List of Recommended Courses.

３）Common Courses

Of courses offered by the other Graduate Schools, Master's Program students may earn up to 4 credits for taking courses designated as common courses; likewise, Doctoral Program students may earn up to 2 credits. Please refer to P70 for the List of Common Courses.

４）Preparation of Study Plans and Course Registration

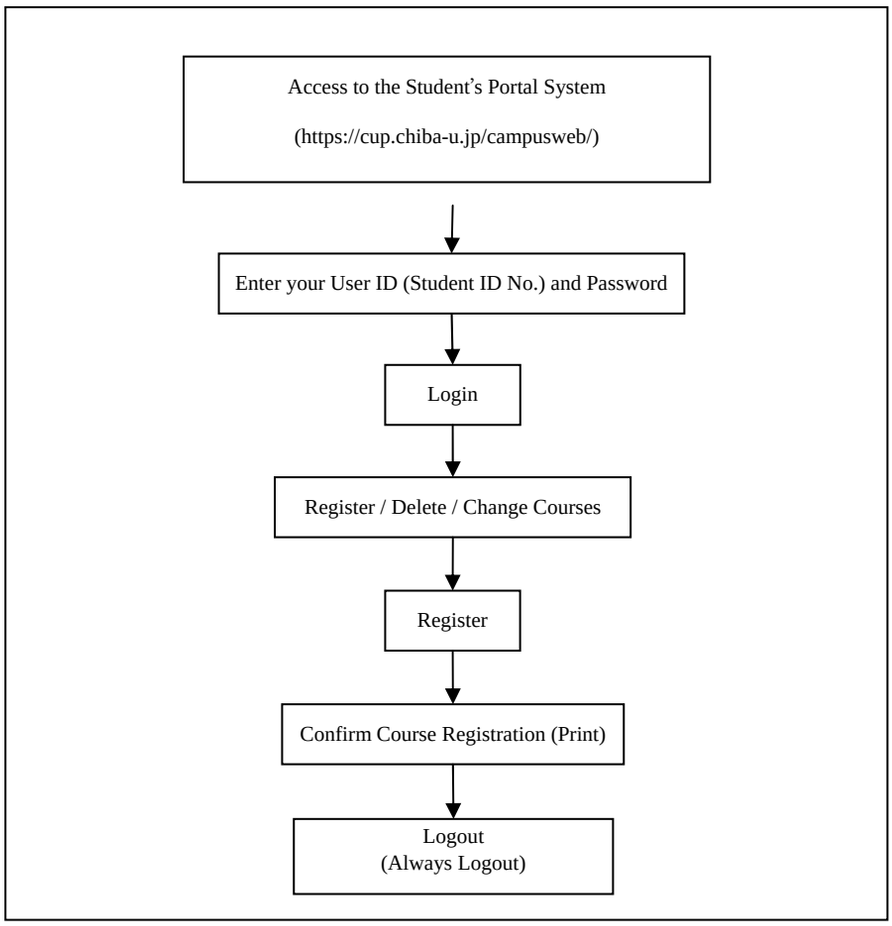
Upon enrollment, when determining which courses to study, Year 1 students should take the following procedures to formulate a plan that will enable them to earn the required number of credits (with regard to the course categories explained in section 1) within their period of enrollment (2 years for a Master's Program and 3 years for a Doctoral Program (regular program))

（１）After attending Guidance, each student should consult their academic advisors and formulate a plan of which courses they are going to take and how many credits they will earn for each. For each academic year of study, prepare a "Study Plan", get their academic advisor's signature/seal of approval, and submit it to the Academic Affairs Group by April 30th (October 31st for October enrollment).

（２）The first class for each course is held within a week of the starting date for classes each semester. Class locations are posted on the first floor of Faculty of Horticulture's C Building, so please follow the information contained therein. Please attend the first class before deciding whether you will take that course. Schedules, etc. for intensive courses are announced by posting notices.

（３）Online Course Registration (available at the Japanese website)

Course registration is completed online from a computer. The procedure for online registration is largely in line with the following. Please ensure you register for courses within the designated period.



５）Notification of Academic Grades, and Inquiries

Academic grades are processed for each semester, and the grade report is distributed to students via their main academic advisor at the end of September for the spring semester (1st term) and at the end of March for the fall semester (2nd term). Students with questions about their academic grades may request an investigation at the Faculty of Horticulture Academic Affairs Group within 15 days after the start of the new semester.

Should an error be confirmed as a result of investigation, procedures to correct the error can be taken. Moreover, students wishing to have their grades reconfirmed may ask the Academic Affairs Group to do so within 15 days after receiving a reply to their initial inquiry.

Students are evaluated based on a combination of their attendance, reports, term-end tests, and more. The specific method of evaluation for each course is described in the syllabus posted on the Chiba University website at http://www.chiba-u.jp/campus-life/syllabus/index.html

Student performance is evaluated according to a 5-level system: “S” (90-100 points), “A” (80-89 points), “B” (70-79 points), “C” (60-69 points), and “Fail” (59 points or less).

６）Completion

Depending on the course taken, master’s and doctoral degrees are conferred upon students completing their studies at the Graduate School. The standard period of enrollment for a Master’s Program is 2 years, and cannot exceed 4 years. The standard period of enrollment for a Doctoral Program is 3 years, and cannot exceed 6 years. Students wishing to use the programs for “Early Completion” or “Long-term Student” should consult with their academic advisors.

Students other than those wishing to study under special education programs, please go to p.32.

Special education programs offered by the Graduate School of Horticulture are explained in sections 7) ~ 11).

７）Environmental Horticulture Expert Program (Master's Program/Doctoral Program)

The Expert Program uses modules (study units comprising a set of lectures, seminars, exercises, laboratory experiments and research) to enable individual students to put together a curriculum that corresponds to their career plans for after earning a degree. By focusing on the study of seminar/practice and basic courses, this program aims to foster specialists with wide-ranging knowledge and technical skill, a high degree of specialization and the ability to come up with flexible ideas who will play an active role in society. In particular, the Doctoral Program requires students to choose courses not only from their course and program of study, but also from other courses and programs.

In addition to an academic degree, the Graduate School of Horticulture confers the qualification of Environmental Horticulture Expert or Environmental Horticulture Multiexpert upon students who have completed a Master's or Doctoral Programs respectively and attained a certain academic grade or above on all courses required by this program.

Students wishing to participate in this program should consult with the program organizer and submit the prescribed application to the Academic Affairs Group within one month of enrollment.

<Environmental Horticulture Expert (Master's Program)>

- In order to qualify as an Environmental Horticulture Expert, students must earn a total of 34 or more credits by selecting and successfully completing specialized courses corresponding to their course of study (8 credits), specialized courses from any course (4 credits), expert seminar/practice (4 credits) and basic courses (8 credits); as well as required courses for graduate seminar Ⅰ (4 credits) and graduate research Ⅰ (6 credits).

Requirements for Qualifying as an "Environmental Horticulture Expert"

＜Applies to all courses＞

No. of Credits Required for Completion	Course Categories	No. of Credits
34	Specialized Courses Corresponding to your Course of study	8
	Specialized Courses from any Course	4
	Expert Seminar / Practice (*1)	4
	Basic Courses	8
	Graduate Seminar Ⅰ	4
	Graduate Research Ⅰ	6

※1 : Students must earn 2 or more credits for Expert Seminars/Exercises/Laboratory Experiments corresponding to their course of study.

<Environmental Horticulture Multiexpert (Doctoral Program)>

- In order to qualify as an Environmental Horticulture Multiexpert, students must earn a total of 18 or more credits by selecting and successfully completing basic courses (4 credits) specialized courses corresponding to their course of study (4 credits), specialized courses from any course (2 credits), and multiexpert seminar/practice (2 credits); as well as required courses for graduate seminar Ⅱ (4 credits) and graduate research Ⅱ (4 credits).

Requirements for Qualifying as an "Environmental Horticulture Multiexpert"

＜Applies to all courses＞

No. of Credits Required for Completion	Course Categories	No. of Credits
18	Basic Course	4
	Specialized Course Corresponding to your Course of study	4
	Specialized Course from any Course	2
	Multiexpert Seminar / Practice / Laboratory Experiments (*1)	2
	Graduate Seminar Ⅱ	2
	Graduate Research Ⅱ	4

※1 : Please decide your study plan in consultation with your academic advisors and the program organizer.

<Steps from Participation in the Program through Qualification (Master's Program)>

- Guidance (scheduled for Mid-April for April enrollment; Early October for October enrollment): An outline of the Expert Program is explained to all newly enrolled students.
- Provisional Application: Students wishing to receive a more detailed explanation of the Expert Program should email a provisional application to the program organizer within 7 days of the abovementioned Guidance.
- Explanatory Meeting: Please attend the explanatory meeting for the Expert Program which is held within one month of enrollment to get a more detailed explanation.
- Individual Interviews: Individual interviews with the program organizer begin after the explanatory meeting and study plans are formulated.
- Course Registration: Course registration is completed online. Application Submission: Please submit an application for the Expert Program to the program organizer.
- Progress Interviews: You can consult the program organizer as and when you need to discuss how your studies are going, etc. and receive advice as needed.
- Certification Review/Qualification: Once you have achieved a certain grade or above for all courses required for completion of the Expert Program and your thesis review has been completed, you will be subjected to a certification review. If you pass this, you will qualify as either an Environmental Horticulture Expert or an Environmental Horticulture Multiexpert.

８） International Program in Environmental Horticulture (English Program) (Doctoral Program)

The International Program was established to provide an educational environment for international students from overseas, and, at the same time to promote joint education with partner schools and institutions overseas. This program targets international students enrolling in Doctoral Programs in October and can be completed by attending lectures, etc. that are conducted in English.

Following are completion requirements for "International Program in Environmental Horticulture".

No. of Credits Required for Completion	Course Categories	No. of Credits
14	Doctoral English Program Courses	8
	Graduate Seminar Ⅱ	2
	Graduate Research Ⅱ	4

Please direct any questions to your academic advisors or the faculty in charge of international exchange (Assoc. Prof. Shimoda: r.shimoda@chiba-u.jp)

９）Environmental Horticulture Expert (Asia) Program (Master's Program)

The Environmental Horticulture Expert (Asia) Program is a program conducted in English that was launched with the aim of fostering experts and building education and research networks in the fields of protected horticulture and landscape architecture in Asia. It targets international students enrolling on Master's Program in October.

Following are completion requirements for " Environmental Horticulture Expert (Asia) Program ".

No. of Credits Required for Completion	Course Categories	No. of Credits
30	Master's English Program Courses	20
	Graduate Seminar Ⅰ	4
	Graduate Research Ⅰ	6

Courses comprise basic courses, specialized courses, graduation seminar I and graduate research I. Details of these courses are listed on p.48. Students wishing to participate in this program should consult the faculty in charge (Assoc. Prof. Shimoda: r.shimoda@chiba-u.jp).

１０）Double Degree Program

The Graduate School of Horticulture launched a Double Degree Program for students enrolling with Tsinghua University School of Architecture (China), Graduate School of Bogor Agricultural University (Indonesia) , Shanghai Jiao Tong University School of Agriculture and Biology(China), University of Padjadjaran(Indonesia) , Mahidol University Faculty of Science (Thailand), College of Horticulture of Nanjing Agricultural University(China), The School of Agro-Industry, Mae Fah Luang University(Thailand), and School of Landscape Architecture of Beijing Forestry University(China) for Master's Program, and Mahidol University Faculty of Science (Thailand), Shanghai Jiao Tong University School of Agriculture and Biology (China) for Doctoral Programs in the Horticultural Plant Production and Breeding Program.

This program, based on the agreement of partner universities overseas, enables students to earn degrees from both Chiba University and the partner university. Chiba University students participating in this program are required to spend a period of one or more years at the partner university, and to earn sufficient credits to fulfill completion requirements.

Since the application periods differ with the universities, students wishing to participate in this program should contact the faculty in charge (Assoc. Prof. Shimoda: r.shimoda@chiba-u.jp) promptly.

１１）Plant Environment Designing Program

The Environmental Science and Landscape Architecture Course in the Graduate School of Horticulture, the Design Science Course in the Graduate School of Engineering, the Center for Environment, Health and Field Sciences, collaborate to foster personnel who can manage projects on plant environment. In addition to the basic and specialized courses of a regular program, students can take special practical courses such as International Internship and Project Seminar/Practice.

Students wishing to enroll on this program should consult with the program organizer (Prof. Takagaki: mtgaki@faculty.chiba-u.jp).

List of Courses (Plant Environment Designing Program)

Master's Program (Credits Required for Completion: 40 Credits)

Plant Environment Designing Program / Courses		Graduate School of Horticulture Corresponding Course (P47-50)	Credits
Specialized Course・Basic Course (18 Credits)	Elective	Master's English Program Specialized Course・Basic Course	
	Compulsory	Project Management	2
Project Based Learning 1-3 (8 Credits)	compulsory elective	Protected Horticulture Project Seminar/Practice Ⅰ	2
		Protected Horticulture Project Seminar/Practice Ⅱ	2
		Protected Horticulture Project Seminar/Practice Ⅲ	2
		Protected Horticulture Project Seminar/Practice Ⅳ	2
		Landscape Architecture Project Studio-A (Semi English Program)	2
		Landscape Architecture Project Studio-B (Semi English Program)	2
		Landscape Architecture Project Studio-C	2
		Landscape Architecture Project Studio-D	2
		Landscape Architecture Project Studio-E	2
		Expert Seminar/Practice Ⅰ	2
		Expert Seminar/Practice Ⅱ	2
		Expert Seminar/Practice Ⅲ	2
Internship (4 Credits)	compulsory elective	International internship Ⅰ	2
		International internship Ⅱ	3
		International internship Ⅲ	4

Doctoral Program (Credits Required for Completion: 28 Credits)

Plant Environment Designing Program / Courses		Graduate School of Horticulture Corresponding Course (P59-62)	Credits
Basic Course (10 Credits)	Elective	Doctoral English Program Specialized Course・Basic Course	
	Compulsory	Project Management	2
Project Based Learning (8 Credits)	Compulsory	Special Seminar/Practice in International Course Ⅰ	2
		Special Seminar/Practice in International Course Ⅱ	2
		Special Seminar/Practice in International Course Ⅲ	2
		Special Seminar/Practice in International Course Ⅳ	2
Internship (4 Credits)	compulsory elective	International internship Ⅰ	2
		International internship Ⅱ	3
		International internship Ⅲ	4

Students wishing to enroll on this program should consult with the program organizer

(Prof. Takagaki : mtgaki@faculty.chiba-u.jp)

Steps Toward Earning an Academic Degree

Reference page numbers and the names of all necessary forms included in this booklet have been noted. They can also be downloaded from the Graduate School of Horticulture website. (http://www.h.chiba-u.jp)

（1） For April Enrollment on a Master's Program

Year	Semester	Details	Submission Deadline	Submitted To	Ref. Page
Year 1	Spring Semester	①Decision on Academic Advisors	At enrollment		
		②Submission of Personal Information	At Guidance		
		③Submission of Study Plan	By Apr. 30	Academic Affairs Desk Academic Advisor	
		④Registration for Spring Semester/Full Year Courses	Designated day	Register online	
	Fall Semester	⑤Registration for Fall Semester Courses	Designated day	Register online	
		⑥Submission of Research Progress Report	By Mar. 31	Academic Advisor →Academic Affairs Group	
Year 2	Spring Semester	⑦Registration for Spring Semester/Full Year Courses	Designated day	Register online	
	Fall Semester	⑧Registration for Fall Semester Courses	Designated day	Register online	
		⑨[Submission of Documents for Review of Thesis] ・Application for Review of Thesis (Form 1)	Designated day in early Nov.	Academic Affairs Group	p.96
		⑩Thesis Review ・Thesis (for Review)	Early Jan.~Early Feb.	Review Committee	
		⑪Master's Thesis Presentation Meeting	Mid-Feb.		
		⑫Submission of Bound Thesis *	Early Mar.	Program Director, Academic Advisor *	
		⑬Conferment Ceremony	End of Mar.		

* conforming to each division's rule

（2） For October Enrollment on a Master's Program

Year	Semester	Details	Submission Deadline	Submitted To	Ref. Page
Year 1	Fall Semester	①Decision on Academic Advisors	At enrollment		
		②Submission of Personal Information	At enrollment procedure		
		③Submission of Study Plan	By Oct. 31	Academic Affairs Desk Academic Advisor	
		④Registration for Fall Semester Courses	Designated day	Register online	
	Spring Semester	⑤Registration for Spring Semester/Full Year Courses	Designated day	Register online	
		⑥Submission of Research Progress Report	By Sep. 30	Academic Advisor →Academic Affairs Group	
Year 2	Fall Semester	⑦Registration for Fall Semester Courses	Designated day	Register online	
	Spring Semester	⑧Registration for Spring Semester Courses	Designated day	Register online	
		⑨[Submission of Documents for Review of Thesis] ・Application for Review of Thesis (Form 1)	Designated day in early May	Academic Affairs Group	p.96
		⑩Thesis Review ・Thesis (for Review)	Late Jun. ~ Late Jul.	Review Committee	
		⑪Master's Thesis Presentation Meeting	Late Jul. ~ Early Aug.		
		⑫Submission of Bound Thesis*	Late Aug.	Program Director, Academic Advisor*	
		⑬Conferment Ceremony	End of Sep.		

* conforming to each division's rule

（3） For April Enrollment on a Doctoral Program

Year	Semester	Details	Submission Deadline	Submitted To	Ref. Page
Year 1	Spring Semester	①Decision on Academic Advisors	At enrollment		
		②Submission of Personal Information	At Guidance		
		③Submission of Study Plan	By Apr. 30	Academic Affairs Desk Academic Advisor	
		④Registration for Spring Semester/Full Year Courses	Designated day	Register online	
	Fall Semester	⑤Registration for Fall Semester Courses	Designated day	Register online	
		⑥Submission of Research Progress Report	By Mar. 31	Academic Advisor →Academic Affairs Group	
Year 2	Spring Semester	⑦Registration for Spring Semester/Full Year Courses	Designated day	Register online	
	Fall Semester	⑧Registration for Fall Semester Courses	Designated day	Register online	
		⑨Submission of Research Progress Report	By Mar. 31	Academic Advisor →Academic Affairs Group	
Year 3	Spring Semester	⑩Registration for Spring Semester/Full Year Courses	Designated day	Register online	
	Fall Semester	⑪Registration for Fall Semester Courses	Designated day	Register online	
		⑫[Submission of Documents for Preliminary Thesis Review] ・Application for a Thesis Review 1 Copy (Preliminary Form 1) ・Thesis (for Preliminary Review) 4 Copies (Form 2) ・List of Papers (for Preliminary Review) 4 Copy (Form 3) ・Summary of Thesis Contents 4 Copies ・Reference Papers and Publications 4 Copies	Designated day in Late Oct.	Academic Affairs Desk	p.111～ p.114
		⑬[Documents for Submission for a Thesis Review] ・Application for a Thesis Review 1 Copy (Form 1) ・Thesis 5 Copies for Reviews ・List of Papers 5 Copies (Form 2) ・Summary of Thesis Contents 5 Copies (Form 3) ・Curriculum Vitae 5 Copies (Form 4) ・Reference Papers and Publications 5 Copies ・Letters of Consent (Form 5) (Submission of non-applicable documents is not required)	Designated day in early Jan.	Academic Affairs Desk	p.112～ p.116
		⑭Submission of Final Thesis（CD-R） (1 Copies) Confirmation of Internet Publication of Doctoral Dissertation（1Copies）	Late Feb.	Academic Affairs Desk	
		⑮Decision on Completion of Studies	Early Mar.		
		⑯Conferment Ceremony	End of Mar.		

（4） For October Enrollment on a Doctoral Program

Year	Semester	Details	Submission Deadline	Submitted To	Ref. Page
Year 1	Fall Semester	①Decision on Academic Advisors	At enrollment		
		②Submission of Personal Information	At enrollment procedure	Academic Affairs Desk	
		③Submission of Study Plan	By Oct. 31	Academic Affairs Desk Academic Advisor	
		④Registration for Fall Semester Courses	Designated day	Register online	
	Spring Semester	⑤Registration for Spring Semester/Full Year Courses	Designated day	Register online	
		⑥Submission of Research Progress Report	By Sep. 30	Academic Advisor →Academic Affairs Group	
Year 2	Fall Semester	⑦Registration for Fall Semester Courses	Designated day	Register online	
	Spring Semester	⑧Registration for Spring Semester/Full Year Courses	Designated day	Register online	
		⑨Submission of Research Progress Report	By Sep. 30	Academic Advisor →Academic Affairs Group	
Year 3	Fall Semester	⑩Registration for Fall Semester Courses	Designated day	Register online	
	Spring Semester	⑪Registration for Spring Semester Courses	Designated day	Register online	
		⑫[Submission of Documents for Preliminary Thesis Review] ・Application for a Thesis Review 1 Copy (Preliminary Form 1) ・Thesis (for Preliminary Review) 4 Copies (Form 2) ・List of Papers (for Preliminary Review) 4 Copy (Form 3) ・Summary of Thesis Contents 4 Copies ・Reference Papers and Publications 4 Copies	Designated day in late Apr.	Academic Affairs Desk	p.111～ p.114
		⑬[Documents for Submission for a Thesis Review] ・Application for a Thesis Review 1 Copy (Form 1) ・Thesis 5 Copies for Reviews ・List of Papers 5 Copies (Form 2) ・Summary of Thesis Contents 5 Copies (Form 3) ・Curriculum Vitae 5 Copies (Form 4) ・Reference Papers and Publications 5 Copies ・Letters of Consent (Form 5) (Submission of non-applicable documents is not required)	Designated day in late Jun.	Academic Affairs Desk	p.112～ p.116
		⑭Submission of Final Thesis（CD-R） (1 Copies) Confirmation of Internet Publication of Doctoral Dissertation（1Copies）	Late Aug.	Academic Affairs Desk	
		⑮Decision on Completion of Studies	Late Aug.		
		⑯Conferment Ceremony	End of Sep.		

List of Courses（Master's program）

Course of study	Program	Course	Teacher's Specialized License: Science	Teacher's Specialized License: Agriculture	Year of program	Credits: Compulsory	Credits: Elective	Mode: Lecture	Mode: Seminar	Mode: Practice	Language: ◎English ○English by request	Instructor	Term	Day	Period	Course code
Bioresource Science	Horticultural Plant Production and Breeding	Advanced Fruit Tree Growing		●	1・2		2	●			○	Kondo・Ohara	Full	Intensive		HH501
		Advanced Studies of Vegetable Crop Production		●	1・2		2	●				Maruo・Tsukagoshi・Jokan	T4-5	Thu	3	HH502
		Advanced Ornamental Plant Production		●	1・2		2	●				Miyoshi・Kokubun・Watanabe	T4-5	Mon	4	HH503
		Advanced Crop Production		●	1・2		2	●			○	Isoda	T4-5	Fri	2	HH504
		Advanced Plant Cell Technology	●		1・2		2	●				Nakamura・Igawa	T1-2	Tue	4	HH505
		Plant Molecular Breeding		●	1・2		2	●			○	Sassa・Kikuchi	T4-5	Tue	2	HH506
		Special Lecture for plant culture and breeding 1			1・2		1	●				Sugaya(Kondo)	T4-5 2019	Intensive	None in 2020	HH507
		Special Lecture for plant culture and breeding 2			1・2		1	●				Ohsawa (Sassa)	T4-5 2020	Intensive	None in 2019	HH508
		Horticultural Crop Management			1・2		2	●			◎	Kondo ・ Ogawa	T4-5	Tue	4	HH555
	Environment Science for Bioproduction	Plant Physiological Information Engineering	●		1・2		2	●				Goto	T1-2	Tue	1	HH509
		Plant Ecophysiology	●		1・2		2	●				Hikosaka	T1-2	Tue	3	HH510
		Food Production and Distribution Engineering		●	1・2		2	●			○	Shiina・Ogawa	T4-5	Mon	2	HH544
		Advanced Micrometeorology	●		1・2		2	●				Matsuoka	T4-5	Wed	1	HH513
		Special lecture for Environmental Horticultural Engineering			1・2		1	●				Nakano(Shiina)	T1-2 2019	Intensive	None in 2020	HH514
		Advanced Plant Pathology	●		1・2		2	●			○	Shishido・Usami	T4-5	Thu	2	HH515
		Advanced Lectures on Pest Management	●		1・2		2	●			○	Nomura・Choh	T1-2	Mon	1	HH516
		Soil Fertility	●		1・2		2	●			○	Inubushi・Yashima	T1-2	Wed	2	HH518
		Plant Nutrient Physiology	●		1・2		2	●			○	Sakamoto	T4-5	Mon	3	HH519
		Advanced Chemistry of Agricultural Production			1・2		1	●				Minamisawa (Inubushi)	Full 2020	Intensive	None in 2019	HH521
	Applied Biological Chemistry	Advanced Enzymology	●		1・2		2	●				Kodama・Miyahara	T4-5	Intensive	Nishi-Chiba	HH522
		Advanced Food and Nutrition		●	1・2		2	●				Egashira・Hirai	T3	Intensive		HH523
		Advanced Metabolic Regulation			1・2		1	●				Kamagata (Amachi)	Full 2020	Intensive	None in 2019	HH525
		Advanced Lectures on Molecular			1・2		1	●				Nakamura・Horiuchi	T1-2 2019	Intensive	None in 2020	HH528
		Advanced Biochemistry	●		1・2		2	●				Hanaoka・Kagawa	T1-2	Intensive	Nishi-Chiba	HH529
		Science for Food Technology			1・2		1	●				Kobori	T1-2 2020	Intensive	None in 2019	HH530
		Advanced Microbial Engineering			1・2		2	●				Amachi・Soma	T1-2	Fri	2	HH531
		Theory of Microbial Industry			1・2		2	●				Miyauchi (Amachi)	T1-2	Intensive		HH533
		Advanced Lecture on Applied Biological Chemistry			1・2		2	●			◎	Watanabe・Egashira・Nishida・Kodama・Amachi・Hanaoka・Miyahara・Andoh	T4-5	Intensive		HH545
		Advanced Lecture on Molecular Plant Science		●	1・2		2	●				Watanabe・Sonoda	T1-3	Intensive		HH546
		Advanced Lecture on Gene Regulation	●		1・2		2	●				Hanaoka	T1-2	Intensive	Nishi-Chiba	HH547
		Advanced lecture on bioorganic reactions and pathways	●		1・2		2	●			○	Nishida・Matsuda	T1-2	Mon	3	HH551
		Plant Physiology of Environmental Stress			1・2		2	●				Sato・Suzuki (Kodama)	T4-5	Intensive	Nishi-Chiba	HH552
		Molecular Environmental Physiology			1・2		2	●				Miyamoto・Fukuda (Kodama)	T4-5	Intensive	Nishi-Chiba	HH553
		Advanced Biofunctional Molecular Chemistry			1・2		2	●				Dohi	T1-2	Intensive	Nishi-Chiba	HH554

Course of study	Program	Course	Teacher's Specialized License: Science	Teacher's Specialized License: Agriculture	Year of program	Credits: Compulsory	Credits: Elective	Mode: Lecture	Mode: Seminar	Mode: Practice	Language: ◎English ○English by request	Instructor	Term	Day	Period	Course code
		Urban Open Space Planning		●	1・2		2	●			○	Kinoshita	T1-2	Wed	2	HG503
		Regional Living Space Planning		●	1・2		2	●			○	Saito	T1-2	Tue	2	HG504
		Advanced Theory on Nature, Landscape and Imagination		●	1・2		2	●			○	Shimoda	Full	Intensive		HG505
		Garden and Environment			1・2		2	●				Mitani・Zhang	T1-2	Tue	2	HG506
		Meaning of the Garden		●	1・2		2	●				Zhang・Mitani	T4-5	Tue	2	HG507
		Nature and Landscape			1・2		2	●			○	Furuya	T4-5	Intensive		HG508
		Environment and landscape development		●	1・2		2	●				Ikebe	Full	Intensive		HG509
		Regional Green Space Planning		●	1・2		2	●				Kinoshita	T4-5	Wed	2	HG510
		Ecodesign 1		●	1・2		2	●				Kinoshita・Ueda	T1-2	Fri	2 Nishi-Chiba	HG511
		Landscape planting and Management			1・2		2	●				Omi	T4-5	Fri	4	HG513
		Land Use Planning and Management		●	1・2		2	●			○	Akita	T4-5	Thu	2	HG514
		Landscape Analysis and Assessment		●	1・2		2	●				Yanai	T4-5	Tue	2	HG515
		Core Studio in Landscape Architecture			1・2		1		●			Miyagi・Nemoto（Yanai)	Full 2020	Intensive	None in 2019	HG516
		Landscape Planning Studio			1・2		1		●			Motonaka・Okano・Mizuno (Saito)	Full 2020	Intensive	None in 2019	HG517
		Landscape Design Studio			1・2		1		●			― (Mitani)	Full 2019	Intensive	None in 2020	HG518
		Seminar for Landscape Management			1・2		1		●			Yamashita・Hiramatsu(Yanai)	T4-5 2019	Intensive	None in 2020	HG519
		Landscape Architecture Project Studio-A			1・2		2		●		○	Akita・Ikebe・Shimoda	T1	Intensive		HG557
		Landscape Architecture Project Studio-B			1・2		2		●		○	Ikebe・Akita・Shimoda	T2	Intensive		HG558
		Landscape Architecture Project Studio-C			1・2		2		●		◎	Kinoshita・Shimoda	T3	Intensive		HG559
		Landscape Architecture Project Studio-D			1・2		2		●		◎	Shimoda ・Kinoshita	T4-5	Intensive		HG560
		Landscape Architecture Project Studio-E			1・2		2		●		◎	Shimoda	T6	Intensive		HG561
		International Comparison of Landscape Planning and Design Theory			1・2		2	●			◎	Shimoda	T4-5	Intensive		HG551
		Technical Aspects of International Landscape Practices			1・2		2	●			◎	Shimoda	T1-2	Intensive		HG552
	Landscape Science	Ecohydrology	●		1・2		2	●			○	Tang	T4-5	Mon	1	HG520
		Environmental Informatics	●		1・2		2	●			○	Honjo・Umeki	T1-2	Thu	1	HG521
		Advanced Micrometeorology	●		1・2		2	●				Matsuoka	T4-5	Wed	1	HG522
		Topics on Landscape Science 1			1・2		1	●				Nishihiro (Umeki)	Full 2019	Intensive	None in 2020	HG523
		Quaternary Vegetation History	●		1・2		2	●			○	Momohara	T4-5	Wed	2	HG525
		Biodiversity and Conservation Biology			1・2		2	●				Uehara	Full	Intensive		HG526
		Development and Management of Landscape	●		1・2		2	●			○	Takahashi	T1-2	Wed	2	HG527
		Landscape Ecology	●		1・2		2	●			○	Kobayashi・Kato	T1-2	Wed	1	HG528
		Project of Landscape Science Ⅰ			1・2		4		●		○	Kobayashi・Takahashi・Umeki	T1-2	Wed	4・5	HG529
		Project of Landscape Science Ⅱ			1・2		4		●		○	Kobayashi・Takahashi・Umeki	T4-5	Wed	4・5	HG530
		Aquaenvironmental Ecology			1・2		2	●			○	Togashi・Kikuchi	Full	Intensive		HG531
		Topics on Landscape Science 2			1・2		1	●				Ishida(Tang)	Full 2020	Intensive	None in 2019	HG532
		Ecological Engineering			1・2		1	●				Sagawa (Umeki)	Full 2020	Intensive	None in 2019	HG533
		Special Lecture on Landscape Science			1・2		2	●			◎	Momohara・Honjo・Kobayashi・Umeki・Tang・Takahashi・Kato	T5	Tue	5・6	HG556

Course of study	Program	Course	Teacher's Specialized License		Year of program	Credits		Mode			Language	Instructor	Term	Day	Period	Course code
			Science	Agriculture		Compulsory	Elective	Lecture	Seminar	Practice	◎English ○English by request					
Environmental Science and Landscape Architecture	Environment and Human Health Sciences	Theory of Care Design		●	1・2		2	●				Iwasaki・[Shimomura]	T4-5	Mon	3	HG534
		People-Plant Relationships		●	1・2		2	●				Iwasaki・Mishima	T1-2	Mon	3	HG535
		Environment and Health Science			1・2		2		●			Noda	T4-5	Intensive		HG536
		Seminar for Human Health in Green Space 1			1・2		1	●				Kagawa・Iijima (Iwasaki)	Full 2019	Intensive	None in 2020	HG539
		Seminar for Human Health in Green Space 2			1・2		1	●				Shioji・Tokuyama (Iwasaki・Mishima)	Full 2020	Intensive	None in 2019	HG540
		Project of Environment and Human Health Sciences Ⅰ			1・2		4		●			Iwasaki・Mishima	T1-2	Mon	4-5	HG541
		Project of Environment and Human Health Sciences Ⅱ			1・2		4		●			Mishima・Iwasaki	T4-5	Mon	4-5	HG542
	All Programs	Risk management and field life preservation			1・2		1	●				Iwasaki・Furuya・Takahashi・Omi	Full	Intensive		HG544
		Professional Internship Ⅰ			1・2		1			●		Mishima・Honjo・Furuya・Kinoshita・Yanai・Mitani・Akita・Kato・Takahashi	Full	Intensive		HG545
		Professional Internship Ⅱ			1・2		1			●		Honjo・Furuya・Kinoshita・Yanai・Mishima・Mitani・Akita・Kato・Takahashi	Full	Intensive		HG546
		Professional Internship Ⅲ			1・2		1			●		Kinoshita・Yanai・Mishima・Honjo・Furuya・Mitani・Akita・Kato・Takahashi	Full	Intensive		HG547
		Professional Internship Ⅳ			1・2		1			●		Yanai・Mishima・Honjo・Furuya・Kinoshita・Mitani・Akita・Kato・Takahashi	Full	Intensive		HG548
Food ann Resource Economics	Food ann Resource Economics	Statistics for Economics		●	1・2		2	●				Kurihara・Maruyama	Full	Intensive		HE506
		Advanced Lecture on Comparative Agro-environment Ⅰ			1・2		1	●			○	Takagaki	T1	Mon	2	HE509
		Marketing Science		●	1・2		2	●			◎	Yano	T4-T5	Mon	4	HE513
		Stragetic Management		●	1・2		1	●				Sakurai	T4	Fri	3	HE514
		Applied Microeconomics		●	1・2		1	●				Ishida	T5	Wed	4	HE515
		Horticultural Resource Management		●	1・2		1	●				Yoshida	T4	Thu	2	HE516
		International trade in agriculture		●	1・2		1	●			○	Kobayashi	T1	Thu	3	HE518
		Economics of rural tourism		●	1・2		1	●			○	Ohe	T4	Tue	1	HE519
		Empirical Research in rural development			1・2		1	●			○	Sugino(Kobayashi)	T3	Intensive		HE520
		Trade theory and application to food systems			1・2		1	●			○	Kawagoshi(Ishida)	Full	Intensive		HE521
		Theory of Agribusiness Design			1・2		1	●				Fujii (Ishida)	Full	Intensive		HE522
		Advanced Lecture on Food-resources			1・2		1	●				Ohshima (Yoshida)	T4-5 2019	Intensive	None in 2020	HE504
		Special seminar of Ploblems for food and resources			1・2		1	●				Nakashima (Kobayashi)	T4-5 2019	Intensive	None in 2020	HE505

Course of study	Program	Course	Teacher's Specialized License		Year of program	Credits		Mode			Language	Instructor	Term	Day	Period	Course code
			Science	Agriculture		Compulsory	Elective	Lecture	Seminar	Practice	◎English ○English by request					
Basic Courses		Internship			1・2		2			●		academic advisor	Full	Intensive		HX501
		International Internship Ⅰ			1・2		2				◎	Takagaki・Shimoda	Full	Intensive		HX502
		International Internship Ⅱ			1・2		3				◎	Takagaki ・Shimoda	Full	Intensive		HX503
		International Internship Ⅲ			1・2		4				◎	Takagaki・Shimoda	Full	Intensive		HX504
		Bio-Environmental Ethics for Scientists and Engineers			1・2		2	●				Tobase (Matsuoka)	T1-2	Intensive		HX505
		English Presentation			1・2		2	●			◎	PENABAZ-WILEY (Yashima)	T1-2	Thu	3	HX506
		Venture Business			1・2		2	●				Kaku etc (Isoda)	T1-2	Wed	3	HX507
		Ability to Complete in Technology			1・2		2					Tsuzuki	T4-5	Mon	5 Nishi-Chiba	
Compulsory		Graduate Seminar I			1～2	4			●			academic advisor	Full	Intensive		
		Graduate Research I			1～2	6				●		academic advisor	Full	Intensive		

授業科目

（Seminar / Practice-Expert program for Master's program）

Course of study	Program	Course	Teacher's Specialized License		Year of program	Credits		Mode			Language	Instructor	Term	Day	Period	Course code
			Science	Agriculture		Compulsory	Elective	Lecture	Seminar	Practice	◎English ○English by request					
		Expert Seminar/Practice I (Horticulture Plant Production)			1・2		2					academic advisor	Full	Intensive		HH534
		Expert Seminar/Practice II (Environmental Science for Bioproduction)			1・2		2					academic advisor	Full	Intensive		HH535
		Expert Seminar/Practice III (Applied Biological Chemistry)			1・2		2					academic advisor	Full	Intensive		HH536
		Expert Seminar IV (Environmental Science and Landscape Architecture)			1・2		4					academic advisor	Full	Intensive		HG549
		Expert Seminar V (Environmental Science and Landscape Architecture)			1・2		4					academic advisor	Full	Intensive		HG550
		Expert Seminar VI (Food and Resource Economics)			1・2		2					academic advisor	Full	Intensive		HE512

※Language used in the class ◎English
○English by request

List of Courses

【English Program】Master's Program

		Course	Year of program	Credits		Mode			Instructor	Term	Day	Period	Course code
				Compulsory	Elective	Lecture	Seminar	Practice					
Specialized Courses	Protected Horticulturae	Special Lecture for Protected Horticulture I - World wide Status in Protected cultivation -	1・2		2	●			Takagaki・Tsukagoshi	Full	Intensive	Kashiwanoha Campus	HH549
		Special Lecture for Protected HorticultureII - Hydroponic Technologies -	1・2		2	●			Takagaki・Tsukagoshi	Full	Intensive	Kashiwanoha Campus	HH550
		Protected Horticulture Project Seminar/Practice I	1・2		2		●	●	Takagaki・Tsukagoshi・Yashima	Full	Intensive		HH540
		Protected Horticulture Project Seminar/PracticeII	1・2		2		●	●	Takagaki・Tsukagoshi・Yashima	Full	Intensive		HH541
		Protected Horticulture Project Seminar/PracticeIII	1・2		2		●	●	Takagaki・Tsukagoshi・Yashima	Full	Intensive		HH542
		Protected Horticulture Project Seminar/PracticeIV	1・2		2		●	●	Takagaki・Tsukagoshi・Yashima	Full	Intensive		HH543
	Landscape Architecture	International Comparison of Landscape Planning and Design Theory	1・2		2	●			Shimoda	T4-5	Intensive		HG551
		Technical Aspects of International Landscape Practices	1・2		2	●			Shimoda	T1-2	Intensive		HG552
		Landscape Architecture Project Studio-C	1・2		2		●		Kinoshita・Shimoda	T3	Intensive		HG559
		Landscape Architecture Project Studio-D	1・2		2		●		Shimoda・Kinoshita	T4-5	Intensive		HG560
		Landscape Architecture Project Studio-E	1・2		2		●		Shimoda	T6	Intensive		HG561
	All Programs	Advanced Horticultural Postharvest Physiology	1・2		2	●			Kondo・Ogawa	Full	Intensive		HH555
		Advanced lectures on applied biological chemistry	1・2		2	●			Egashira	T4-5	Intensive		HH545
		Special Lecture on Landscape Science	1・2		2	●			Momohara	T5	Tue	5-6	HG556
		Marketing Science	1・2		2	●			Yano	T4-5	Mon	4	HE513
Basic Courses		Internship	1・2		2			●	Matsuoka	Full	Intensive		HX501
		International internship Ⅰ	1・2		2			●	Takagaki・Shimoda	Full	Intensive		HX502
		International internship Ⅱ	1・2		3			●	Takagaki・Shimoda	Full	Intensive		HX503
		International internship Ⅲ	1・2		4			●	Takagaki・Shimoda	Full	Intensive		HX504
		Project Management	1・2		2	●			Takagaki・Yashima	T4-5	Intensive	Kashiwanoha Campus	HX510
		Introduction to Japanese Horticulture	1・2		2	●			Yashima・Takagaki	T4-5	Wed	5	HX511
		English Presentation	1・2		2	●			Yashima・Shimoda	T1-2	Thu	3	HX506
		Japanese Ⅰ	1・2		2	●			Yashima・Takagaki	T1-2	Intensive		HX512
		Japanese Ⅱ	1・2		2	●			Yashima・Takagaki	T4-5	Intensive		HX513
Compulsory		Graduate Seminar I	1～2	4			●		academic advisor	Full	Intensive		
		Graduate Research I	1～2	6				●	academic advisor	Full	Intensive		

【Semi English Program】Master's Program

		Course	Year of program	Credits		Mode			Instructor	Term	Day	Period	Course code
				Compulsory	Elective	Lecture	Seminar	Practice					
Specialized Courses	Bioresource Science	Advanced Fruit Tree Growing	1・2		2	●			Kondo・Ohara・Ohkawa	Full	Intensive		HH501
		Advanced Crop Production	1・2		2	●			Isoda	T4-5	Thu	2	HH504
		Plant Molecular Breeding	1・2		2	●			Koba・Sassa・Kikuchi	T4-5	Tue	1	HH506
		Food Production and Distribution Engineering	1・2		2	●			Shiina・Ogawa	T4-5	Mon	2	HH544
		Advanced Plant Pathology	1・2		2	●			Shishido・Usami	T4-5	Thu	2	HH515
		Advanced Lectures on Pest Management	1・2		2	●			Nomura・Choh	T1-2	Mon	1	HH516
		Soil Fertility	1・2		2	●			Inubushi・Yashima	T1-2	Wed	1	HH518
		Plant Nutrient Physiology	1・2		2	●			Sakamoto	T4-5	Mon	3	HH519
		Advanced lecture on bioorganic reactions and pathways	1・2		2	●			Nishida・Matsuda	T1-2	Mon	3	HH551
	Environmental Science and Landscape Architecture	Landscape Architecture Project Studio-A	1・2		2		●		Akita・Ikebe・Shimoda	T1	Intensive		HG557
		Landscape Architecture Project Studio-B	1・2		2		●		Ikebe・Akita・Shimoda	T2	Intensive		HG558
		Urban Open Space Planning	1・2		2	●			Kinoshita	T1-2	Wed	2	HG503
		Regional Living Space Planning	1・2		2	●			Saito	T1-2	Tue	3	HG504
		Advanced Theory on Nature, Landscape and Imagination	1・2		2	●			Shimoda	Full	Intensive		HG508
		Nature and Landscape	1・2		2	●			Furuya	T4-5	Intensive		HG505
		Advanced Thecry on Landscape Planting	1・2		2	●			Omi	T1-2	Tue	5	HG513
		Land Use Planning and Management	1・2		2	●			Akita	T4-5	Thu	2	HG514
		Ecohydrology	1・2		2	●			Tang	T4-5	Mon	2	HG520
		Environmental Informatics	1・2		2	●			Honjo・Umeki	T1-2	Thu	2	HG521
		Quaternary Vegetation History	1・2		2	●			Momohara	T4-5	Wed	2	HG525
		Development and Management of Landscape	1・2		2	●			Takahashi	T1-2	Wed	2	HG527
		Landscape Ecology	1・2		2	●			Kobayashi・Kato	T1-2	Wed	1	HG528
		Project of Landscape Science I	1・2		4		●		Kobayashi・Takahashi・Umeki	T1-2	Wed	4・5	HG529
		Project of Landscape Science II	1・2		4		●		Kobayashi・Takahashi・Umeki	T4-5	Wed	4・5	HG530
		Aquaenvironmental Ecology	1・2		2	●			Togashi・Kikuchi	Full	Intensive		HG531
	Food and Resource Economics	Advanced Lecture on Comparative Agro-environment I	1・2		1	●			Takagaki	T1	Mon	2	HE509
		International trade in agriculture	1・2		1	●			Kobayashi	T1	Thu	3	HE518
		Economics of rural tourism	1・2		1	●			Ohe	T4	Tue	1	HE519
		Trade theory and application to food systems	1・2		1	●			Kawagoshi	Full	Intensive		HE521
		Empirical Research in rural development	1・2		1	●			Sugino	T3	Intensive		HE520

List of Courses（Doctoral program）

Course of study	Program	Course	Year of program	Credits		Mode			Language	Instructor	Term	Day	Period	Course code
				Compulsory	Elective	Lecture	Seminar	Practice	◎English ○English by request					
Bioresource Science	Horticultural Plant Production and Breeding	Physiology of Plant Resources	1・2・3		2	●			○	Kondo・Ohara	Full	Intensive		HH700
		Ecological Plant Resources	1・2・3		2	●			○	Maruo・Tsukagoshi・Jyokan	T4-5	Intensive		HH701
		Development of Plant Resources	1・2・3		2	●			○	Miyoshi・Kokubun・Watanabe	T1-2	Fri	2	HH702
		Cultivation Science of Plant Resources	1・2・3		2	●			○	Isoda	T4-5	Intensive		HH703
		Special Seminar for Plant Culture and Breeding	1・2・3		1	●				Moriguchi・Iwasaki (Kondo・Jyokan)	T4-5 2019	Intensive	None in 2020	HH704
		Plant Genome Science	1・2・3		2	●			○	Sassa・Kikuchi	T1-2	Fri	1	HH705
		Plant Genome Breeding	1・2・3		2	●				Komatsuda (Sassa)	Full	Intensive		HH706
		Plant Cellular Breeding	1・2・3		2	●			○	Nakamura・Igawa	T1-2	Mon	4	HH707
		Functional Genomics	1・2・3		1	●				Kawakami (Nakamura)	T4-5 2020	Intensive	None in 2019	HH708
	Environmental Science for Bioproduction	Special Lecture on environmental physics of bio-production	1・2・3		2	●			○	Goto	Full	Intensive		HH709
		Plant Physiological Information Engineering [Open for Master's Program]	1・2・3		2	●				Goto	T4-5	Tue	1	HH710
		Plant Ecophysiology [Open for Master's Program]	1・2・3		2	●				Hikosaka	T1-2	Tue	3	HH711
		Advanced Micrometeorology [Open for Master's Program]	1・2・3		2	●				Matsuoka	T4-5	Wed	1	HH712
		Advanced Theory of Plant Pathosystem	1・2・3		2	●			○	Shishido・Usami	Full	Intensive		HH713
		Topics in Applied Entomology	1・2・3		2	●			○	Nomura・Choh	T4-5	Intensive		HH714
		Physiological Ecology of Fungi	1・2・3		2	●			○	Yamato (Sakamoto)	Full 2019	Intensive	None in 2020	HH715
		Advanced Plant Pathology [Open for Master's Program]	1・2・3		2	●			○	Shishido・Usami	T4-5	Thu	2	HH716
		Advanced Lectures on Pest Management [Open for Master's Program]	1・2・3		2	●			○	Nomura・Choh	T1-2	Mon	1	HH717
		Pedosphere Science	1・2・3		2	●			○	Inubushi・Yashima	Full	Intensive		HH718
		Plant Growth and Nutrition	1・2・3		2	●			○	Sakamoto	T4-5	Intensive		HH719
		Environmental Analytical Chemistry	1・2・3		2	●				Watanabe(Inubushi)	Full 2019	Intensive	None in 2020	HH720
		Soil Fertility [Open for Master's Program]	1・2・3		2	●			○	Inubushi・Yashima	T1-2	Wed	1	HH721
		Plant Nutrient Physiology [Open for Master's Program]	1・2・3		2	●			○	Sakamoto	T4-5	Mon	3	HH723
		Food Production and Distribution ngineering [Open for Master's Program]	1・2・3		2	●			○	Shiina・Ogawa	T4-5	Mon	2	HH724

Course of study	Program	Course	Year of program	Credits		Mode			Language	Instructor	Term	Day	Period	Course code
				Compulsory	Elective	Lecture	Seminar	Practice	◎English ○English by request					
Bioresource Science	Applied Biological Chemistry	Advanced Enzymology [Open for Master's Program]	1・2・3		2	●				Kodama･Miyahara	T4-5	Intensive	Nishi-Chiba	HH725
		Advanced Food and Nutrition [Open for Master's Program]	1・2・3		2	●				Egashira・Hirai	T3	Intensive		HH726
		Advanced Microbial Engineering [Open for Master's Program]	1・2・3		2	●				Amachi･Soma	T1-2	Fri	2	HH727
		Advanced lecture on glycochemistry and glycomaterials	1・2・3		2	●			○	Nishida･Matsuda	T1-2	Mon	3	HH728
		Plant Molecular Physiology ※1	1・2・3		2	●			○	Watanabe・Sonoda	T1-3	Intensive		HH729
		Biodynamics and Biochemistry ※2	1・2・3		2	●			○	Kodama	T4-5	Intensive	Nishi-Chiba Campus	HH730
		Functional Science of Life Supporting ※3	1・2・3		2	●			○	Egashira・Nomura・Hirai	T4-5	Intensive		HH731
		Microbiology and Resources Chemistry ※4	1・2・3		2	●			○	Amachi・Soma	T4-5	Mon	3	HH732
		Theory of Microbial Industry [Open for Master's Program]	1・2・3		2	●				Miyauchi (Amachi)	T1-2	Intensive		HH733
		Molecular Environmental Physiology [Open for Master's Program]	1・2・3		2	●				Miyamoto･ Fukuda(Kodama)	T4-5	Intensive	Nishi-Chiba Campus	HH735
		Molecular and Cellular Biolog	1・2・3		2	●			○	Hanaoka	T4-5	Intensive	Nishi-Chiba Campus	HH736

For classes that say [Open for Master's Program], we will accept up to 4 credits as credits required for completion only if you hadn't taken the same class(es) in Master's Program.
※1 Course Advisory : Advanced Lecture on Molecular Plant Science
※2 Course Advisory : Advanced Enzymology
※3 Course Advisory : Advanced Food and Nutrition
※4 Course Advisory : Advanced Microbial Engineering

Course of study	Program	Course	Year of program	Credits		Mode			Language	Instructor	Term	Day	Period	Course code
				Compulsory	Elective	Lecture	Seminar	Practice	◎English ○English by request					
Environmental Science and Landscape Architecture	Landscape Architecture	Town and Country Planning	1・2・3		2	●			○	Karasaki (Saito)	T4-5	Thu	2	HG700
		Nature and Landscape [Open for Master's Program]	1・2・3		2	●			○	Furuya	T4-5	Intensive		HG701
		Landscape and Greenspace Design	1・2・3		2	●			○	Ikebe・Kinoshita	T4-5	Fri	3	HG702
		Garden and Environment [Open for Master's Program]	1・2・3		2	●				Mitani・Zhang	T1-2	Tue	2	HG703
		Meaning of the Garden [Open for Master's Program]	1・2・3		2	●				Zhang ・Mitani	T4-5	Tue	2	HG704
		Landscape Planning and Management	1・2・3		2	●			○	Yanai・Akita	Full	Intensive		HG705
		Ecodesign 2	1・2・3		2	●			○	Kinoshita・Ueda	T1-2	Fri	2 Nishi-Chiba	HG706
	Landscape Science	Environmental Information Science	1・2・3		2	●			○	Honjo・Umeki	T4-5	Tue	5	HG707
		System Engineering of Landscape	1・2・3		2	●			○	Ishida(Tang)	T4-5	Intensive		HG708
		Landscape Ecology [Open for Master's Program]	1・2・3		2	●			○	Kobayashi・Kato	T1-2	Wed	1	HG709
		Development and Management of Landscape [Open for Master's Program]	1・2・3		2	●			○	Takahashi	T1-2	Wed	2	HG710
		Quaternary Vegetation History [Open for Master's Program]	1・2・3		2	●			○	Momohara	T4-5	Wed	2	HG711
		Biodiversity and Conservation Biology [Open for Master's Program]	1・2・3		2	●				Uehara	Full	Intensive		HG712
	Environment and Human Health Sciences	Advanced People-Plant Relationships	1・2・3		2	●				Iwasaki・Mishima	T4-5	Intensive		HG713
		Advanced Lectures on Environment and Health Sciences	1・2・3		2	●			○	Iwasaki・Noda	Full 2019	Insensive	None in 2020	HG714
		Food Marketing	1・2・3		1	●			○	Sakurai	T4	Wed	3	HE700
		Business Economics	1・2・3		1	●			○	Ishida	T5	Wed	3	HE701
		Advanced Lecture on Farm Management	1・2・3		1	●			○	Yoshida	T5	Thu	2	HE702
		Applied Statistics for Economic	1・2・3		2	●			○	Maruyama・Kurihara	T4-T5	Fri	5	HE703
		Economics of Rural Resource Management	1・2・3		1	●			○	Ohe	T5	Wed	1	HE704
		Applications of International Trade Theories	1・2・3		1	●			○	Kobayashi	T2	Mon	4	HE705
		Advanced Lecture on Comparative Agro-environment II	1・2・3		1	●			○	Takagaki	T4-T5	Intensive		HE706
		Geography on Food Economics	1・2・3		2	●				Umeda	T4-T5	Tue	5 Nishi-Chiba	HE707

For classes that say [Open for Master's Program], we will accept up to 4 credits as credits required for completion only if you hadn't taken the same class(es) in Master's Program.

Course of study	Program	Course	Year of program	Credits		Mode			Language	Instructor	Term	Day	Period	Course code
				Compulsory	Elective	Lecture	Seminar	Practice	◎English ○English by request					
Basic Courses		Bio-Environmental Ethics for Scientists and Engineers	1		2	●				Tobase (Matsuoka)	T1-2	Intensive		HX700
		Multi-campus International Lecture Ⅱ	1		2	●			◎	Sato(Yashima)	T4-5	Thu	4	HX701
		Venture Business	1		2	●				Kaku etc (Isoda)	T1-2	Wed	3	HX702
		Global and Japanese Environmental Horticulture	1・2・3		2		●		◎	Yashima・Takagaki	T4-5	Wed	5	HX703
		International Internship Ⅰ	1・2		2			●	◎	Takagaki ・Shimoda	Full	Intensive		HX800
		International Internship Ⅱ	1・2		3			●	◎	Takagaki ・Shimoda	Full	Intensive		HX801
		International Internship Ⅲ	1・2		4			●	◎	Takagaki ・Shimoda	Full	Intensive		HX802
		Ability to Complete in Technology	1・2		2	●				Tsuzuki	T4-5	Mon	5 Nishi-chiba	
Compulsory		Advanced Seminar Ⅱ	1～3	2			●		○	academic advisor	Full	Intensive		HX900
		Graduate Research Ⅱ	1～3	4				●	○	academic advisor	Full	Intensive		HX901

（Seminar / Exercise-Expert Program for Doctral program）

Course of study	Program	Course	Year of program	Credits		Mode			Language	Instructor	Term	Day	Period	Course code
				Compulsory	Elective	Lecture	Seminar	Practice	◎English ○English by request					
		Expert Seminars / Exercises / Laboratory Experiments	1～3	2					○	academic advisor	Full	Intensive		HX803

List of Courses

【English Program】Doctoral Program

		Course	Year of program	Credits		Mode			Instructor	Term	Day	Period	Course code
				Compulsory	Elective	Lecture	Seminar	Practice					
Basic Course		Global and Japanese Environmental Horticulture			2	●			Yashima･Takagaki	T4-5	Wed	5	HX703
		Multi-campus International Lecture			2	●			Sato(Yashima)	T4-5	Thu	4	HX701
		Japanese Ⅰ			2	●			Yashima･Takagaki	T1-2	Intensive		HX704
		Japanese Ⅱ			2	●			Yashima･Takagaki	T4-5	Intensive		HX705
		Project Management			2	●			Takagaki･Yashima	T4-5	Intensive		HX706
		Special Seminar/Practice in International Course Ⅰ			2		●	●	Takagaki･Shimoda	Full	Intensive		HX804
		Special Seminar/Practice in International CourseⅡ			2		●	●	Takagaki･Shimoda	Full	Intensive		HX805
		Special Seminar/Practice in International CourseⅢ			2		●	●	Takagaki･Shimoda	Full	Intensive		HX806
		International Internship Ⅰ			2			●	Takagaki･Shimoda	Full	Intensive		HX800
		International InternshipⅡ			3			●	Takagaki･Shimoda	Full	Intensive		HX801
		International Internship Ⅲ			4			●	Takagaki･Shimoda	Full	Intensive		HX802

(Japanese and English course)

		Course	Year of program	Credits		Mode			Instructor	Term	Day	Period	Course code
				Compulsory	Elective	Lecture	Seminar	Practice					
Specialized Course	Bioresource Science	Physiology of Plant Resources	1・2・3		2	●			Kondo・Ohara	Full	Intensive		HH700
		Ecologiacl Plant Resources	1・2・3		2	●			Maruo・Tsukagoshi・Jyokan	T4-5	Intensive		HH701
		Development of Plant Resources	1・2・3		2	●			Miyoshi・Kokubu・Watanabe	T1-2	Fri	2	HH702
		Cultivation Science of Plant Resources	1・2・3		2	●			Isoda	T4-5	Intensive		HH703
		Plant Genome Science	1・2・3		2	●			Sassa・Kikuchi	T1-2	Fri	1	HH705
		Plant Cellular Breeding	1・2・3		2	●			Nakamura・Igawa	T4-5	Mon	4	HH707
		Special Lecture on environmental physics of bio-production	1・2・3		2	●			Goto	Full	Intensive		HH709
		Advanced Theory of Plant Pathosystem	1・2・3		2	●			Shishido ・ Usami	Full	Intensive		HH713
		Topics in Applied Entomology	1・2・3		2	●			Nomura・Choh	T4-5	Intensive		HH714
		Physiological Ecology of Fungi	1・2・3		2	●			Yamato (Sakamoto)	Full 2019	Intensive	None in 2020	HH715
		Advanced Plant Pathology [Open for Master's Program]	1・2・3		2	●			Shishido ・ Usami	T4-5	Thu	2	HH716
		Advanced Lectures on Pest Management [Open for Master's Program]	1・2・3		2	●			Nomura ・ Choh	T1-2	Mon	1	HH717
		Pedosphere Science	1・2・3		2	●			Inubushi・Yashima	Full	Intensive		HH718
		Plant Growth and Nutrition	1・2・3		2	●			Sakamoto	T4-5	Intensive		HH719
		Soil Fertility [Open for Master's Program]	1・2・3		2	●			Inubushi・Yashima	T1-2	Wed	1	HH721
		Plant Nutrient Physiology [Open for Master's Program]	1・2・3		2	●			Sakamoto	T4-5	Mon	3	HH723
		Food Production and Distribution ngineering [Open for Master's Program]	1・2・3		2	●			Shiina ・Ogawa	T4-5	Mon	2	HH724
		Advanced lecture on glycochemistry and glycomaterials	1・2・3		2	●			Nishida・Matsuda	T1-2	Mon	3	HH728
		Plant Molecular Physiology ※1	1・2・3		2	●			Watanabe・Sonoda	T1-2	Intensive		HH729
		Biodynamics and Biochemistry ※2	1・2・3		2	●			Kodama	T4-5	Intensive	Nishi-Chiba Campus	HH730
		Functional Science of Life Supporting ※3	1・2・3		2	●			Egashira・Nomura・Hirai	T4-5	Intensive		HH731
		Microbiology and Resources Chemistry ※4	1・2・3		2	●			Amachi・Soma	T4-5	Mon	3	HH732
		Molecular and Cellular Biology	1・2・3		2	●			Hanaoka	T4-5	Intensive	Nishi-Chiba Campus	HH736
	Environmental Science and Landscape Architecture	Town and Country Planning	1・2・3		2	●			Karasaki(Saito)	T4-5	Tue	2	HG700
		Nature and Landscape [Open for Master's Program]	1・2・3		2	●			Furuya	T4-5	Intensive		HG701
		Landscape and Greenspace Design	1・2・3		2	●			Ikebe・Kinoshita	T4-5	Fri	3	HG702
		Landscape Planning and Management	1・2・3		2	●			Yanai・Akita	Full	Intensive		HG705
		Ecodesign 2	1・2・3		2	●			Kinoshita・Ueda	T1-2	Fri	2 Nishi-Chiba	HG706
		Environmental Information Science	1・2・3		2	●			Honjo・Umeki	T4-5	Tue	5	HG707
		System Engineering of Landscape	1・2・3		2	●			Tang・Ishida	T4-5	Intensive		HG708
		Landscape Ecology [Open for Master's Program]	1・2・3		2	●			Kobayashi・Kato	T1-2	Wed	1	HG709
		Development and Management of Landscape [Open for Master's Program]	1・2・3		2	●			Takahashi	T1-2	Wed	2	HG710
		Quatemary Vegetation History [Open for Master's Program]	1・2・3		2	●			Momohara	T4-5	Wed	2	HG711
		Advanced Lectures on Environment and Health Sciences	1・2・3		2	●			Iwasaki・ Noda	Full	Intensive	None in 2020	HG714
	Food and Resource Economics	Food Marketing	1・2・3		1	●			Sakurai	T4	Wed	3	HE700
		Business Economics	1・2・3		1	●			Ishida	T5	Wed	3	HE701
		Advanced Lecture on Farm Management	1・2・3		1	●			Yoshida	T5	Thu	2	HE702
		Applied Statistics for Economic	1・2・3		2	●			Maruyama・Kurihara	T4-T5	Fri	5	HE703
		Economics of Rural Resource Management	1・2・3		1	●			Ohe	T5	Wed	1	HE704
		Applications of international trade theories	1・2・3		1	●			Kobayashi	T2	Mon	4	HE705
		Advanced Lecture on Comparative Agro-environment II	1・2・3		1	●			Takagaki	T4-T5	Mon	2	HE706

Master's program

Course of Study	Program	New			Old		
		Course	Credits	Instructor	Course	Credits	Instructor
Bioresource Science	Horticultural Plant Production and Breeding	(none)			Special Lecture for Protected Horticulture Ⅰ	2	Kondo
		(none)			Advanced Horticultural Science	2	Kondo
	Envirounment Science for Bioproduction	Food Production and Distribution Engineering	2	Shiina・Ogawa	Advanced Food Technology	2	Shiina
					Advanced Postharvest Technology	2	Ogawa
		(none)			Advanced Chemical Ecology	2	Nakamuta
		(none)			Topics in Pesticide Application	1	Yogo (Nakamuta)
	Applied Biological Chemistry	Advanced Lecture on Gene Regulation	2	Hanaoka	Advanced Lectures on Protein Engineering	2	Ando・Soma
		Advanced Lecture on Molecular Plant Science	2	Watanabe・Sonoda	Advanced Lecture on Biotechnology of Bioresources	2	Sato・Sonoda
		(none)			Advanced Functional Physiology	1	Sano・Sakuta (Sonoda・Kodama)
Environmental Science and Landscape Architecture	Landscape Architecture	Landscape Architecture Project Studio-A	2	Akita・Ikebe・Shimoda	Landscape Project Design Studio Ⅰ	4	Ikebe・Mitani
		Landscape Architecture Project Studio-B	2	Akita・Ikebe・Shimoda			
		Landscape Architecture Project Studio-C/D/E	2	Kinoshita・Shimoda	Landscape Project Design Studio Ⅱ	4	Fujii・Yanai
	Landscape Science	(none)			Vegetation Geography	2	Okitsu
	Environment and Human Health Sciences	(none)			Nature Therapy	1	Miyazaki
	All	(none)			Seminar in Conservation Ecology and Sustainable Development	2	Furuya,Momohara
Food and Resource Economics Course	Food and Resource Economics Course	Marketing Science	1	Yano	Advanced Lecture on Food System	2	Saito・Sakurai
		Stragetic Management	1	Sakurai			
		Applied Microeconomics	1	Ishida	Horticultural Economics	1	Ishida
		Horticultural Resource Management	1	Yoshida	Comparative Study of Rural Economics 1	2	Yoshida・Nishiyama
		International trade in agriculture	1	Kobayashi	Advanced Lecture on Food, Natural Resource and Environmental Economics	1	Kobayashi
		Economics of rural tourism	1	Ohe	Advanced Economics of Rural Resource and Environment 1	2	Ohe
		Theory of Agribusiness Design	1	Fujii (Ishida)	Advanced Lecture on Food-resources Issues 1	1	
					Advanced Lecture on Food-resources 2	1	
		Advanced Lecture on Food-resources	1	Ohshima (Yoshida)	Advanced Lecture on Food-resources 1	1	Ohshima (Yoshida)
		Special seminar of Ploblems for food and resources	1	Nakashima (Kobayashi)	Special seminar of Ploblems for food and resources 2	1	Nakashima (Kobayashi)

Doctoral program

Course of Study	Program	New			Old		
		Course	Credits	Instructor	Course	Credits	Instructor
Bioresource Science	Environment Science for Bioproduction	Special Lecture on Environmental Physics of Bio-production	2	Goto	Bio-environmental Systems Engineering Bio-environmental Meteorology	2	
		Topics in Applied Entomology	2	Nomura・Choh	Topics in Plant Protection	2	Nomura ・ Nakamuta ・ Ohyama
	Applied Biological Chemistry	Molecular and Cellular Biolog	2	Hanaoka	Biomolecular Chemistry	2	Ando・Soma
		(none)			Advanced Lecture on Bioinformatics	2	Takahashi
	Landscape Architecture	(none)			Functional Analysis of Landscape Planting	2	Fujii
		(none)			Landscape Planting and Management	2	Omi
	Environment and Human Health Sciences	(none)			Advanced Lecture on Nature Therapy	1	Miyazaki
Food and Resource Economics	Food and Resource Economics	Advanced Lecture on Food Marketing	1	Ishida	Food Policy Science	2	Matsuda ・ Kurihara
		Applied Economic statistics	2	Kurihara ・ Maruyama	Environment and Resource Economics	2	Kikuchi・Maruyama・Takagaki
		Food Marketing	1	Sakurai	Marketing of foods and rural resources	2	Fuwa ・ Sakurai
					Agri-Food System	2	Saito・Sakurai
		Business Economics	1	Ishida	Advanced Lecture on Food Marketing	1	Ishida
		Advanced Lecture on Farm Management	1	Yoshida	Comparative Study of Rural Economics 2	2	Yoshida・Nishiyama
		Applications of international trade theories	1	Kobayashi	Political Economy Approach to Food and Natural Resource Economics	1	Kobayashi
		Economics of Rural Resource Management	1	Ohe	Rural Resource and Policy Evaluation	2	Ohe ・ Shimoura
					Advanced Economics of Rural Resource and Environment 2	2	Ohe
Basic Courses		Special Lecture in International Course	2	Takagaki	Special Lecture in International Course	2	Takagaki, Yamaguchi

Recommended Courses

Master's Program, Bioresource Science Course	School	Division	Course
	Graduate School of Science and Engineering	Division of Earth and Environmental Sciences	Basic Earth Surface Dynamics－1
			Basic Earth Surface Dynamics－2
		Division of Advanced Science and Engineering	Advanced Lecture on Phylogenetics
			Biomaterial Chemistry
			Material Science in Bioinformation
			Advanced Lecture on Molecular Biology
			Advanced Lecture on Development
			Regulation of Molecular Functions
			Morphogenesis of Functional Status
			Special Lecture on Molecular 4
			Special Lecture on Molecular 5
			Special Lecture on Molecular 6
		Common Courses	Venture Business
			Venture Business Management

Master's Program, Environmental Science and Landscape Architecture Course	School	Division	Course
	Graduate School of Science and Engineering	Division of Earth and Environmental Sciences	Basic Earth Surface Dynamics－1
			Basic Earth Surface Dynamics－2
			Observation of Earth Surface Environment
			Advanced Lecture on Ecology 2
			Atmospheric Remote Sensing
			Remote Sensing of Regional Environment
			Urban Space Design
			Theory of Community Design
			Urban Planning of Human Place
			Housing Planning and Design
		Division of Advanced Science and Engineering	Advanced Lecture on Phylogenetics
			Biomaterial Chemistry
			Material Science in Bioinformatics
			Advanced Lecture on Molecular Biology
			Advanced Lecture on Developmental Biology
			Molecular Functional Control
			Morhogenes of Functional Control
			Special Lecture on Molecullar Biology 4
			professional Collaboration and Practise Theory
			Special Lecture on Molecullar Biology 6
		Division of Creative Engineering	Urban and Regional Planning
			Theory of Public Space
			Architectural Planning and Design
			Architectural Design
			Human-Living Environment System
			Theory of Living Environmental Design
			Design Psychology
			Visual Science
		Division of Fundamental Engineering	Introduction to Medical Information
			Biomechanics
			Motor Control of Human Movement
			Diagnostic Measurement Systems
		Common Courses	Venture Business
			Venture Business Management
	Graduate School of Nursing	Disaster Nursing Global Leader Degree Program	Professional Collaboration and Practise Theory
			Disaster Professional Collaboration Exercise(Disaster IP Exercise)

Doctoral Program, Bioresource Science Course	School	Division	Course
	Graduate School of Science and Engineering	Common Courses	Venture Business
			Venture Business Management

Doctoral Program, Environmental Science and Landscape Architecture Course	School	Division	Course
	Graduate School of Science and Engineering	Division of Earth and Environmental Sciences	Basic Earth Surface Dynamics－1
			Basic Earth Surface Dynamics－2
			Observation of Earth Surface Environment
			Advanced Lecture on Ecology 2
			Urban Space Design
			Advanced Topics in Urban/Space Produce
			Theory of Community Design
		Division of Advanced Science and Engineering	Advanced Lecture on Phylogenetics
		Division of Creative Engineering	Urban and Regional Planning
			Special Studies in Urban Design
			Nature Friendly and Barrier Free Design of Architecture
			Theory of Care Design Ⅱ
			Topics in Environmental Ergonomics
			Design Psychology for Human Life
			Behavioral Environment Design
			Human-Living Environment System
			Visual Science
		Division of Fundamental Engineering	Introduction to Medical Information
			Motor Control of Human Movement
			Diagnostic Measurement Systems
		Common Courses	Venture Business
			Venture Business Management

Common Courses in the Graduate School

Master's Program	School	Division
	Graduate School of Science and Engineering	Ethics for Engineers and Intellectual Property
		Advanced Seminar in Intellectual Property Rights
		Ability to Manage Technology
	Graduate School of Humanities and Studies on Public Affairs	Higher Education System
	Graduate School of Medical and Pharmaceutical Sciences	Public health
		Introduction of drug discovery and life sciences Ⅰ
		Introduction of drug discovery and life sciences Ⅱ
	ALL	Academic Listening & Vocabulary
		Academic Writing
		Academic Speaking
		Research Methodology
		Data Science
		Career Design
		College-Linked Program @ Chiba
		College-Linked Program @ local

Doctoral Program	School	Division
	Graduate School of Science and Engineering	Ethics for Engineers and Intellectual Property
		Advanced Seminar in Intellectual Property Rights
		Ability to Manage Technology
	ALL	Academic Listening & Vocabulary
		Academic Writing
		Academic Speaking
		Research Methodology
		Data Science
		Career Design
		College-Linked Program @ Chiba
		College-Linked Program @ local

Allowed Teaching Licenses and Study Requirements (for the Japanese)

Students earning the necessary credits stipulated in the School Teacher's License Act and the Ordinance for Enforcement of the School Teacher's License Act in a Master's Program at the Graduate School of Horticulture can attain the following types of teaching licenses for the following licensed subjects.

Division	Type of License	Licensed Subject
Environmental Horticulture	Middle School Teacher's Specialized License	Science
	High School Teacher's Specialized License	Science; Agriculture

The following conditions must be satisfied to attain the abovementioned specialist licenses.

- Prior attainment in an undergraduate faculty, etc. of the necessary qualifications for a Middle School First Class Teaching License (Science) or a Senior High First Class Teaching License (Science; Agriculture).
- Attainment of 24 or more credits from the courses stipulated below.

Details on how to apply, etc. are explained in Guidance, but please ask at the Academic Affairs Group if anything remains unclear.

Department	Department of Environmental Horticulture		
Licenses	Middle School Teacher's Specialized License/High School Teacher's Specialized License		
	Science		
Course of study	Bioresource Science Course	Environmental Science and Landscape Architecture Course	Food and Resource Economics Course
Courses	Advanced Plant Cell Technology	Ecohydrology	
	Plant Physiological Information Engineering	Environmental Informatics	
	Plant Ecophysiology	Advanced Micrometeorology	
	Advanced Micrometeorology	Quaternary Vegetation History	
	Advanced Plant Pathology	Development and Management of Landscape	
	Advanced Lectures on Pest Management	Landscape Ecology	
	Soil Fertility		
	Plant Nutrition Physiology		
	Advanced Enzymology		
	Advanced Lectures on Molecular Cell Biology		
	Advanced Lecture on Gene Regulation		
	Advanced Biochemistry		

Department	Department of Environmental Horticulture		
Licenses	High School Teacher's Specialized License		
	Agriculture		
Course of study	Bioresource Science Course	Environmental Science and Landscape Architecture Course	Food and Resource Economics Course
Courses	Plant Molecular Breeding	Urban Open Space Planning	Marketing Science
	Advanced Fruit Tree Growing	Regional Living Space Planning	Stragetic Management
	Advanced Studies of Vegetable Crop Production	Advanced Theory on Nature, Landscape and Imagination	Applied Microeconomics
	Advanced Ornamental Plant Production	Meaning of the Garden	Horticultural Resource Management
	Advanced Crop Production	Environment and landscape development	Current issues of Social Business
	Food Production and Distribution Engineering	Regional Green Space Planning	Statistics for Economics
	Advanced Food and Nutrition	Ecodesign 1	Economics of rural tourism
	Advanced Lecture on Molecular Plant Science	Land Use Planning and Management	International trade in agriculture
		Landscape Analysis and Assessment	
		Theory of Care Design	
		People-Plant Relationships	

Requirements for the License of Nature Restoration Assistant Promoter

Graduates of Environmental Science and Landscape Architecture earning the following necessary credits can attain the license of Nature Restoration Assistant Promoter. Nature Restoration Assistant Promoter can get the right to apply the examination for the license of Nature Restoration Promoter after the experience of practice more than 1 year. For details, see the homepage of Japan Greenery Research and Development Center (http://www.jpgreen.or.jp/).

The following conditions must be satisfied to attain the license.

- Attainment of 10 credits of special courses stipulated below.
- Attainment of 2 credits of elective courses stipulated below.

Fields	Courses
Special courses	Landscape Ecology, Project of Landscape Science I & II
Elective courses	Advanced Theory on Nature Landscape and Imagination, Meaning of the Garden, Quaternary Vegetation History, Environment and Landscape Development, Urban Open Space Planning, Garden and Environment, Landscape Analysis and Assessment, Environmental Informatics, Ecohydrology, Development and Management of Landscape, Landscape Planting and Management, Aqua-environmental Ecology, Biodiversity and Conservation Biology, Ecological Engineering, Regional Living Space Planning, People-Plant Relationships, Regional Green Space Planning, Land Use Planning and Management

3. 2019/2020 Class Timetable

Division of Environmental Horticulture（Master's program） **Term 1**

	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅴ
	8:50～10:20	10:30～12:00	12:50～14:20	14:30～16:00	16:10～17:40
Mon.	Advanced Lectures on Pest Management Nomura・Choh , E310	Advanced Lecture on Comparative Agro-environment Ⅰ Takagaki , E310	Advanced lecture on bioorganic reactions and pathways Nishida・Matsuda , E205	Project of Environment and Human Health Sciences Ⅰ Iwasaki・ Mishima	Project of Environment and Human Health Sciences Ⅰ Iwasaki・ Mishima
			People-Plant Relationships Iwasaki・Mishima , E206		
Tue.		Regional Living Space Planning Saito , E309	Plant Ecophysiology Hikosaka	Advanced Plant Cell Technology Nakamura , E307	
		Garden and Environment Mitani ・ Zhang			
Wed.	Soil Fertility Inubushi・Yashima , E309	Urban Open Space Planning Kinoshita , E413	Venture Business Isoda , E103	Project of Landscape Science Ⅰ Kobayashi , Expert Room (3F)	Project of Landscape Science Ⅰ Kobayashi , Expert Room (3F)
	Landscape Ecology Kobayashi・Kato , Expert Room (3F)	Development and Management of Landscape Takahashi , E412			
Thu.	Environmental Informatics Honjo・Umeki		International trade in agriculture Kobayashi		
			English Presentation Ⅰ PENABAZ-WILEY , E412		
Fri.		Advanced Microbial Engineering Amachi・Soma , E309			
		Ecodesign 1 Kinoshita			

Division of Environmental Horticulture（Master's program） **Term 2**

	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅴ
	8:50～10:20	10:30～12:00	12:50～14:20	14:30～16:00	16:10～17:40
Mon.	Advanced Lectures on Pest Management Nomura・Choh , E310		Advanced lecture on bioorganic reactions and pathways Nishida・Matsuda , E205	Project of Environment and Human Health Sciences Ⅰ Iwasaki・ Mishima	Project of Environment and Human Health Sciences Ⅰ Iwasaki・ Mishima
			People-Plant Relationships Iwasaki・Mishima , E206		
Tue.		Regional Living Space Planning Saito , E309	Plant Ecophysiology Hikosaka	Advanced Plant Cell Technology Nakamura , E307	
		Garden and Environment Mitani ・ Zhang			
Wed.	Soil Fertility Inubushi・Yashima , E309	Urban Open Space Planning Kinoshita , E413	Venture Business Isoda , E103	Project of Landscape Science Ⅰ Kobayashi , Expert Room (3F)	Project of Landscape Science Ⅰ Kobayashi , Expert Room (3F)
	Landscape Ecology Kobayashi・Kato , Expert Room (3F)	Development and Management of Landscape Takahashi , E412			
Thu.	Environmental Informatics Honjo・Umeki		English Presentation Ⅰ Yashima ・Shimoda , E412		
Fri.		Advanced Microbial Engineering Amachi・Soma , E309			
		Ecodesign 1 Kinoshita			

T1-T3 Intensive	Special lecture for Environmental Horticultural Engineering Nakano(Shiina)	Advanced Lectures on Molecular Nakamura・Horiuchi	Advanced Food and Nutrition Egashira ・ Hirai	Advanced Biochemistry Hanaoka ・ Kagawa	Theory of Microbial Industry Miyauchi (Amachi)
	Advanced Biofunctional Molecular Chemistry Dohi	Advanced Lecture on Molecular Plant Science Watanabe ・Sonoda	Advanced Lecture on Gene Regulation Hanaoka	Landscape Architecture Project Studio-A Akita ・Ikebe ・Shimoda	Landscape Architecture Project Studio-B Ikebe・Akita・Shimoda
	Landscape Architecture Project Studio-C Kinoshita ・Shimoda	Technical Aspects of International Landscape Practices Shimoda	Empirical Research in rural development Sugino	Bio-Environmental Ethics for Scientists and Engineers Tobase (Matsuoka)	

Division of Environmental Horticulture(Master's program)

Term 4

	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅴ
	8:50～10:20	10:30～12:00	12:50～14:20	14:30～16:00	16:10～17:40
Mon.	Ecohydrology Tang , Expert Room (3F)	Food Production and Distribution Engineering Shiina・Ogawa , E309	Plant Nutrient Physiology Sakamoto , E310	Advanced Ornamental Plant Production Miyoshi	Ability to Complete in Technology Tsuzuki
			Theory of care design Iwasaki, E307	Project of Environment and Human Health Sciences Ⅱ Iwasaki・ Mishima	Project of Environment and Human Health Sciences Ⅱ Iwasaki・ Mishima
				Marketing Science Yano	
Tue.	Economics of rural tourism Ohe	Plant Molecular Breeding Sassa		Horticultural Crop Management Kondo･Ogawa	
	Plant Physiological Information Engineering Goto	Meaning of the Garden Zhang ・ Mitani			
		Landscape Analysis and Assessment Yanai			
Wed.	Advanced Micrometeorology Matsuoka	Regional Green Space Planning Kinoshita , E309		Project of Landscape Science Ⅱ Kobayashi , Expert Room (3F)	Project of Landscape Science Ⅱ Kobayashi , Expert Room (3F)
		Quaternary Vegetation History Momohara , E103			Introduction to Japanese Horticulture Yashima・Takagaki , E103
Thu.		Advanced Plant Pathology Shishido・Usami , E309	Advanced Studies of Vegetable Crop Production Maruo・Tsukagoshi・Jokan		
		Land Use Planning and Management Akita , E307			
		Horticultural Resource Management Yoshida			
Fri.		Advanced Crop Production Isoda	Stragetic Management Sakurai	Landscape planting and Management Omi , E205	

Division of Environmental Horticulture(Master's program)

Term 5

	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅴ
	8:50～10:20	10:30～12:00	12:50～14:20	14:30～16:00	16:10～17:40
Mon.	Ecohydrology Tang , Expert Room (3F)	Food Production and Distribution Engineering Shiina・Ogawa , E309	Plant Nutrient Physiology Sakamoto , E310	Advanced Ornamental Plant Production Miyoshi	Ability to Complete in Technology Tsuzuki
			Theory of Care Design Iwasaki , E307	Project of Environment and Human Health Sciences Ⅱ Iwasaki・ Mishima	Project of Environment and Human Health Sciences Ⅱ Iwasaki・ Mishima
				Marketing Science Yano	Project of Environment and Human Health Sciences Ⅱ Iwasaki・ Mishima
Tue.	Plant Physiological Information Engineerin Goto	Plant Molecular Breeding Koba ・ Sassa ・ Kikuchi		Horticultural Crop Management Kondo･Ogawa	Special Lecture on Landscape Science (～19:20) Honjo , D112
		Meaning of the Garden Zhang ・ Mitani			
		Landscape Analysis and Assessment Yanai			
Wed.	Advanced Micrometeorology Matsuoka	Regional Green Space Planning Kinoshita , E309		Project of Landscape Science Ⅱ Kobayashi , Expert Room (3F)	Project of Landscape Science Ⅱ Kobayashi , Expert Room (3F)
		Quaternary Vegetation History Momohara , E103		Applied Microeconomics Ishida	Introduction to Japanese Horticulture Yashima ・ Takagaki , E103
Thu.		Advanced Plant Pathology Shishido・Usami , E309	Advanced Studies of Vegetable Crop Production Maruo・ Tsukagoshi・ Jokan		
		Land Use Planning and Management Akita , E307			
Fri.		Advanced Crop Production Isoda		Landscape planting and Management Omi , E205	

T4-T6 Intensive	Special Lecture for plant culture and breeding 1 Sugaya	Advanced Enzymology Kodama･Miyahara	Molecular Environmental Physiology Miyamoto･ Fukuda	Advanced Lecture on Applied Biological Chemistry Watanabe	Plant Physiology of Environmental Stress Sato ・ Suzuki
	Seminar for Landscape Management Yamashita ・ Hiramatsu	Landscape Architecture Project Studio-D Shimoda ・Kinoshita	Landscape Architecture Project Studio-E Shimoda	International Comparison of Landscape Planning and Design Theory Shimoda	Environment and Health Science Noda
	Special seminar of Ploblems for food and resources Nakashima	Advanced Lecture on Food-resources Ohshima (Yoshida)	Project Management Takagaki ・Yashima	Nature and Landscape Furuya	

Division of Environmental Horticulture(Master's program)

Full

Inten-sive	Advanced Fruit Tree Growing Kondo	Advanced Theory on Nature, Landscape and Imagination Shimoda	Environment and landscape development Ikebe	Landscape Design Studio	Topics on Landscape Science 1 Hasegawa・ Nishioro
	Biodiversity and Conservation Biology Uehara	Aquaenvironmental Ecology Togashi・Kikuchi	Seminar for Human Health in Green Space Kagawa ・Iijima (Iwasaki)	Risk management and field life preservation Iwasaki	Professional Internship Ⅰ Mishima
	Professional Internship Ⅱ Honjo	Professional InternshipⅢ Kinoshita	Professional InternshipⅣ Yanai	Statistics for Economics Kurihara ・ Maruyama	Trade theory and application to food systems Kawagoshi(Ishida)
	Theory of Agribusiness Design Fujii (Ishida)	Internship academic advisor	International Internship Ⅰ Takagaki ・Shimoda	International Internship Ⅱ Takagaki ・Shimoda	International InternshipⅢ Takagaki ・Shimoda
	Expert Seminar/Practice Ⅰ academic advisor	Expert Seminar/Practice Ⅱ academic advisor	Expert Seminar/Practice Ⅲ academic advisor	Expert Seminar Ⅳ academic advisor	Expert Seminar Ⅴ academic advisor
	Expert Seminar Ⅵ academic advisor	Special Lecture for Protected Horticulture Ⅱ Takagaki ・Tsukagoshi	Special Lecture for Protected Horticulture Ⅲ Takagaki ・Tsukagoshi	Protected Horticulture Project Seminar/Practice Ⅰ Takagaki ・Tsukagoshi	Protected Horticulture Project Seminar/Practice Ⅱ Takagaki ・Tsukagoshi
	Protected Horticulture Project Seminar/Practice Ⅲ Takagaki ・Tsukagoshi	Protected Horticulture Project Seminar/Practice Ⅳ Takagaki ・Tsukagoshi			

No Class in 2019	Special Lecture for plant culture and breeding 2 Ohsawa (Sassa)	Advanced Chemistry of Agricultual Production Minamisawa (Inubushi)	Advanced Metabolic Regulation Kamagata	Science for Food Technology Egashira	Core Studio in Landscape Architecture Miyagi・Nemoto (Shimoda)
	Landscape Planning Studio Motonaka・Okano・Shimojo	Topics on Landscape Science 2 Ishida	Ecological Engineering Sagawa(Umeki)	Seminar for Human Health in Green Space 2 Shioji・Tokuyama	

時間割

Division of Environmental Horticulture(Doctoral program) **Term 1**

	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅴ
	8:50～10:20	10:30～12:00	12:50～14:20	14:30～16:00	16:10～17:40
Mon.	Advanced Lectures on Pest Management Nomura・Choh , E310		Advanced lecture on glycochemistry and glycomaterials Nishida・Matsuda	Plant Cellular Breeding Nakamura ・ Igawa	
Tue.		Garden and Environment Mitani・Zhang	Plant Ecophysiology Hikosaka		
Wed.	Soil Fertility Inubushi・Yashima , E309	Development and Management of Landscape Takahashi , E412	Venture Business Isoda , E103		
	Landscape Ecology Kobayashi・Kato , Expert Room (3F)				
Thu.					
Fri.	Plant Genome Science Sassa	Development of Plant Resources Miyoshi			
		Advanced Microbial Engineering Amachi・Soma , E309			
		Ecodesign 2 Kinoshita ・ Ueda			

Division of Environmental Horticulture(Doctoral program) **Term 2**

	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅴ
	8:50～10:20	10:30～12:00	12:50～14:20	14:30～16:00	16:10～17:40
Mon.	Advanced Lectures on Pest Management Nomura・Choh , E310		Advanced lecture on glycochemistry and glycomaterials Nishida・Matsuda	Plant Cellular Breeding Nakamura ・ Igawa	
				Applications of international trade theories Kobayashi	
Tue.		Garden and Environment Mitani・Zhang	Plant Ecophysiology Hikosaka		
Wed.	Soil Fertility Inubushi・Yashima , E309	Development and Management of Landscape Takahashi , E412	Venture Business Isoda , E103		
	Landscape Ecology Kobayashi・Kato, Expert Room (3F)				
Thu.					
Fri.	Plant Genome Science Sassa	Development of Plant Resources Miyoshi			
		Advanced Microbial Engineering Amachi・Soma , E309			
		Ecodesign 2 Kinoshita ・ Ueda			

T1-T3 Insensitive	Advanced Food and Nutrition Egashira・Hirai	Plant Molecular Physiology Watanabe・Sonoda	Theory of Microbial Industry Miyauchi	Bio-Environmental Ethics for Scientists and Engineers Tobase ・Matsuoka	

Division of Environmental Horticulture(Doctoral program) **Term 4**

	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅴ
	8:50～10:20	10:30～12:00	12:50～14:20	14:30～16:00	16:10～17:40
Mon.		Food Production and Distribution Engineering Shiina・Ogawa , E309	Plant Nutrient Physiology Sakamoto , E310		Ability to Complete in Technology Tsuzuki
			Microbiology and Resources Chemistry Amachi・Soma		
			System Engineering of Landscape Ishida(Tang), E413		
Tue.	Plant Physiological Information Engineering Goto	Town and Country Planning Karasaki		Advanced People-Plant Relationships Iwasaki ・ Mishima	Environmental Information Science Honjo・Umeki
		Meaning of the Garden Zhang ・ Mitani			Geography on Food Economics Umeda
Wed.	Advanced Micrometeorology Matsuoka	Quaternary Vegetation History Momohara , E103	Food Marketing Sakurai		Introduction to International Horticulture Yashima・Takagaki
Thu.		Advanced Plant Pathology Shishido・Usami , E309		Multi-campus International LectureⅡ Sato	
Fri.			Landscape and Greenspace Design Ikebe・Kinoshita		Applied Statistics for Economics Maruyama ・ Kurihara

Division of Environmental Horticulture(Doctoral program) **Term 5**

	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅴ
	8:50～10:20	10:30～12:00	12:50～14:20	14:30～16:00	16:10～17:40
Mon.		Food Production and Distribution Engineering Shiina・Ogawa , E309	Plant Nutrient Physiology Sakamoto , E310		Ability to Complete in Technology Tsuzuki
			Microbiology and Resources Chemistry Amachi・Soma		
			System Engineering of Landscape Ishida(Tang), E413		
Tue.	Plant Physiological Information Engineering Goto	Town and Country Planning Karasaki			Environmental Information Science Honjo・Umeki
		Meaning of the Garden Zhang ・ Mitani			Geography on Food Economics Umeda
Wed.	Advanced Micrometeorology Matsuoka	Quaternary Vegetation History Momohara , E103	Business Economics Ishida		Introduction to International Horticulture Yashima・Takagaki
	Economics of Rural Resource Management Ohe				
Thu.		Advanced Plant Pathology Shishido・Usami , E309		Multi-campus International LectureⅡ Sato	
		Advanced Lecture on Farm Management Yoshida			
Fri.			Landscape and Greenspace Design Ikebe・Kinoshita		Applied Statistics for Economics Maruyama ・ Kurihara

T4-T6 Insensive	Ecological Plant Resources Maruo	Cultivation Science of Plant Resources Isoda	Special Seminar for Plant Culture and Breeding Moriguchi	Topics in Applied Entomology Nomura・Choh	Advanced Enzymology Kodama・Miyahara
	Biodynamics and Biochemistry Kodama	Functional Science of Life Supporting Egashira	Molecular and Cellular Biology Hanaoka	Molecular Environmental Physiology Miyamoto・Fukuda (Kodama)	Plant Growth and Nutrition Sakamoto
	Advanced Lecture on Comparative Agro-environments II Takagaki	Nature and Landscape Furuya	Advanced People-Plant Relationships (Mainly Wednesday afternoon) Iwasaki ・ Mishima		

Division of Environmental Horticulture(Doctoral program)

Full

Insensive	Physiology of Plant Resources Kondo・Ohara	Plant Genome Breeding Komatsuda	Special Lecture on environmental physics of bio-production Goto	Advanced Theory of Plant Pathosystem Shishido・Usami	Pedosphere Science Inubushi ・ Yashima
	Pedosphere Science Inubushi ・ Yashima	Environmental Analytical Chemistry Nohara (Inubushi)	Advanced Lecture on Nature Therapy Iwasaki・Noda	Expert Seminars / Exercises / Laboratory Experiments academic advisor	Landscape Planning and Management Yanai ・ Akita
	Biodiversity and Conservation Biology Uehara	International Internship Ⅰ Takagaki ・Shimoda	International Internship Ⅱ Takagaki ・Shimoda	International InternshipⅢ Takagaki ・Shimoda	

None in 2019	Functional Genomics Kawakami (Nakamura)				

時間割