## 2025

## Kyoto University Graduate School of Agriculture Master's Program

## Guidelines for Applicants Special Admissions for Privately Financed International Students

The master's program of the Graduate School of Agriculture corresponds to the two-year first term of the doctoral program, as stated in the Standards for the Establishment of Graduate Schools.

#### 1. Eligibility Requirements for Applicants

Applicants must hold a residence status of "college student" (including students who are expected to acquire this status at the time of admission), and must satisfy any of the following requirements (or satisfy any of the following requirements by the end of March 2025):

- (1) Those who have graduated from a university
- (2) Those who have been awarded a bachelor's degree according to Article 104, Section 7 of the School Education Law
- (3) Those who have completed 16 years of school education in a foreign country
- (4) Those who, by studying relevant subjects in Japan via a correspondence course provided by a school in a foreign country, have completed 16 years of school education of the said country
- (5) Those who have completed an undergraduate course (limited to courses whose graduates are regarded as having completed 16 years of school education of the relevant foreign country) of a foreign university that is accredited under the school education system of the relevant foreign country as offering undergraduate courses and which is designated by the Minister of Education, Culture, Sports, Science and Technology
- (6) Those who have been awarded a degree equivalent to a bachelor's degree by completing a three-year or longer program at a foreign university or another foreign educational institution. The university or educational institution must have been accredited by the respective foreign government or a person certified by the appropriate foreign governmental agency, or have been so designated by the Minister of Education, Culture, Sports, Science and Technology (this includes applicants who have completed an appropriate program offered by the respective foreign educational institution through distance learning while residing in Japan, and applicants who have completed an appropriate foreign at an educational institution in Japan as specified in the previous category.)
- (7) Those who have completed an advanced professional course designated by the Minister of Education, Culture, Sports, Science and Technology, conducted by a higher vocational school, after the date determined by the Minister of Education, Culture, Sports, Science and Technology
- (8) Those specifically designated by the Minister of Education, Culture, Sports, Science and Technology, pursuant to Bulletin No. 5, Ministry of Education, 1953
- (9) Those who have been enrolled in a university for three years or longer, or have completed 15 years of school education in a foreign country and who are recognized by the Graduate School of Agriculture of Kyoto University as having earned specified credits with excellent grades
- (10) Those who are qualified, through individual entrance examination by the Graduate School of Agriculture of Kyoto University, are judged to have an academic ability equivalent or superior to university graduates, and have reached 22 years of age

Applicants who qualify under (9) or (10) above must submit to a preliminary eligibility screening. Such applicants must apply to the Student Affairs Office, Graduate School of Agriculture, Kyoto University (hereinafter, the Student Affairs Office).

## 2. Enrollment Capacity and Subjects of Academic Examination

#### (1) Enrollment Capacity

Division	Enrollment Capacity	
Agronomy and Horticultural Science		
Forest and Biomaterials Science		
Applied Life Sciences		
Applied Biosciences	A few for each division (laboratory)	
Environmental Science and Technology		
Natural Resource Economics		
Food Science and Biotechnology		

For brief information about each division, see the attached "Outline of Graduate School of Agriculture."

## (2) Subjects of academic examination

(1) English

Submitted English language qualification (**TOEFL-iBT**, **IELTS or TOEIC L&R** score) will be converted into a mark.

(2) Specialized subjects (a specialized field of your choice and related fields)

Please note that Division of Natural Resource Economics, Food Science and Biotechnology has Specialized subjects(1)and(2)

For details regarding specialized subject examination, see the attached "Explanation regarding Specialized Subject Examination."

In the exam, you are allowed to use a dictionary (one dictionary only) between your native language (excluding English) and Japanese (for example, Chinese-Japanese and Korean-Japanese). The use of an electronic dictionary is not permitted.

(3) Interview

## (3) Selection method

- ① The selection of students is based on the submitted documents and the results of academic examination.
- <sup>②</sup> For each subject of the academic examination, the pass criteria have been set. To be admitted, you must meet the pass criteria for all subjects.
- ③ If the number of applicants for the laboratory you are applying for exceeds the quota, even if your score is above the minimum passing score for the relevant division, you may not be selected.

## 3. Documents to Submit

You need to download the forms (1), (2), (4), and (10) below from the website of the Graduate School of Agriculture and print them on A4-size paper.

Gladuate Selloof of Agriculture a	and print mem on A4-size paper.	
(1)Application form	Enter all necessary items in designated form yourself.	
for admission	Paste your photo (taken within past 3 months, half-length,	
	full-faced, no background) on specified section of Photograph Card	
	and Examination Voucher.	
	Photos on Photograph Card and Examination Voucher should be	
	identical.	
(2)Proof of Payment Seal for	Application fee: 30,000 yen	
Application Fee (to be affixed	Pay your application fee through the Examination Settlement	
to the designated form)	Service of Kyoto University between November 18 (Mon), 2024	
e ,	and December 6 (Fri), 2024. Payment made before/after the above	
	period is NOT acceptable.	
	(1) Refer to the "Payment Method for Application Fees with	
	Convenience Store or Credit Card".	
	(2) A transfer fee of 650 yen will be charged in addition to the	
	application fee.	
	(3) The name of the payer must be identical to the applicant's name.	
	Payment made under a payer's name other than the applicant's name	
	may lead to rejection of application.	

	<ul> <li>(4) Once payment is made, affix the printed proof of payment seal to the "Form for Affixing Proof of Payment Seal for Application Fee" to submit.</li> <li>(5) Once application documents are submitted and accepted, the application fee paid shall NOT be refunded.</li> <li>Exemption of Application Fee:</li> <li>Applicants whose primary wage earners were affected by the 2011 Great East Japan Earthquake, the 2016 Kumamoto Earthquake, the Heavy Rain Event of July 2018, the 2018 Hokkaido Eastern Iburi Earthquake, the typhoon No.19 in 2019, the Heavy Rain Event of July 2020, and/or the 2024 Noto Peninsula Earthquake in regions subject to the Disaster Relief Act may be exempted from paying the application fee if evidenced by official documentation (e.g. <i>risai shomeisho</i>). For details, please contact the Student Affairs Office by November 19 (Tue), 2024.</li> </ul>
(3) English Score Sheet	The original document is required. We accept only TOEFL-iBT, IELTS (Academic Module) or TOEIC L&R (X) as an English language qualification taken within two years from the beginning of the application period. (For the entrance exam in January 2025, the date of taking English exam must be later than December 2, 2022.) (Required Scores) Applicants must satisfy at least one of the following requirements: TOEFL-iBT: overall score of 55 IELTS (Academic Module): overall score of 4.5 TOEIC L&R: overall score of 650 (X) TOEIC L&R is accepted only for applicants to the divisions of Forest and Biomaterials Science, Applied Life Sciences, Applied Biosciences, and Environmental Science and Technology. Applicants to the divisions of Agronomy and Horticultural Science, Natural Resource Economics, and Food Science and Biotechnology cannot submit TOEIC L&R.
(4) Detailed educational background and employment	TOEIC L&R) below for further details.Provide your detailed educational background and employmenthistory via designated form.
history (5) Academic transcript and graduation (expected graduation) certificate (original)	<ul> <li>If this document is not written in English, Japanese translation must be attached.</li> <li>Designated form by your university (Those who are currently enrolled in or have graduated from the Faculty of Agriculture, Kyoto University must submit the academic transcript and graduation (expected graduation) certificate (学業成績及び卒業(見込)証明書))</li> <li>In case the applicants have earned credits at other university than their home university and those credits have been recognized, they must submit the academic transcript of the university where they earned the credits.</li> <li>Those who qualify under Eligibility Requirement (9) must submit the certificate of enrollment as substitute for graduation (expected graduation) certificate.</li> </ul>
(6) Copy of university diploma	Applicants who have not graduated from university at the time of application must submit a copy of university diploma upon graduation.

(7) Abstract of graduation thesis, or summary of experiments/ practical training/ seminars	Prepare abstract (A4-size paper, write horizontally, 1,000 characters or less in Japanese or 200-300 words in English). Do not forget to write your name and names of division and laboratory you wish to enter.
(8) Certificate of Residence or	[For applicants residing inside Japan only]
copy of Residence Card (both	Submit either which shows your residence status and permitted
side)	period of residence in Japan.
(9) Copy of passport	
(10)	• Use the prescribed address label.
Address label	• Prepare two Chou #3 envelopes (size: 120 mm x 235 mm), and
Envelope for Examination	affix the address labels "(1) For Examination Voucher" and "(2) For
Voucher	Acceptance Letter" on each envelope respectively.
Envelope for Acceptance	• Affix JPY 320 worth of stamps (for acceptance-recorded mail) to
Letter	the envelope for examination voucher.

(Note)Applicants who qualify under Eligibility Requirement (2), i.e. those who have been awarded a bachelor's degree according to Article 104, Section 4 of the School Education Law, must submit a copy of Degree Certificate or Certificate of Degree Conferred.

Also, those who are enrolled in the advanced courses of either junior colleges or technical colleges, and are expected to qualify under Eligibility Requirement (2) must submit the expected graduation certificate. They are also requested to submit a document issued by their colleges to certify that they are going to apply for the bachelor's degree, in addition to those listed above (free format, must include the statement that they notify the failure in obtaining the degree immediately once it is revealed).

## Notes on English score sheet (TOEFL-iBT, IELTS or TOEIC L&R):

- 1. It is the applicant's responsibility to apply for and take the examination at his/her own expense.
- 2. Submit the original document of either TOEFL-iBT Test Taker Score Report, IELTS (Academic Module) Test Report Form, or TOEIC L&R Official Score Certificate when applying. However, for TOEIC L&R, a photo-copy of Digital Official Score Certificate is acceptable. Sometimes the release of score will be delayed by a few weeks beyond the original schedule. Please take the exam early to ensure you can submit your score during the application period.
- 3. The submitted English score sheet will be returned to the applicant along with his/her Examination Voucher in the middle of December.
- 4. Submit one score sheet only if an applicant has taken TOEFL-iBT, IELTS (Academic Module) and/or TOEIC L&R multiple times. For TOEFL-iBT scores, we only consider the Test Date Scores on your score sheet, not MyBest Scores.
- 5. We accept only TOEFL-iBT, IELTS (Academic Module) or TOEIC L&R as an English language qualification taken within two years from the beginning of the application period, i.e. the date of taking the English exam is later than December 2, 2022 for the entrance exam in January 2025. Note that other types of English proficiency examination such as TOEFL ITP (Institutional Testing Program) and TOEIC L&R Institutional Program (IP) cannot be accepted.
- 6. If an applicant cannot submit his/her English score sheet when applying, he/she needs to submit a written notice to that effect and a print-out copy of their online score page. The original English score sheet must reach us no later than January 24 (Fri), 2025 in person or by recorded delivery. A self-addressed stamped envelope to return the original document must be enclosed too (Chou #3 envelope (H235 x W120 mm / portrait format). Enter the applicant's name and postal address with a zip code, and affix a JPY 460 postage stamp to the envelop for domestic recorded delivery in Japan). If you bring the original score sheet directly to the Student Affairs Office, a return envelope is not necessary. In case the original score sheet cannot be submitted by January 24 (Fri), 2025, contact the Student Affairs Office by then.
- 7. If the submitted English score sheet turns out false, we retroactively revoke the admission even after entering the school.
- 8. Those whose mother tongue is English and/or those who are or have been taught in

English at university should contact the Student Affairs Office by November 19 (Tue), 2024.

## 4. Application Procedure

(1) Applicants must submit the above-listed required documents during the application period. When mailing the documents, use registered mail and write "Application Form for Master's Program for Privately Financed International Students (Special Admissions) enclosed" in red on the front of the envelope.

Application documents should be sent to: Student Affairs Office, Graduate School of Agriculture, Kyoto University Kitashirakawa Oiwake-cho, Sakyo-ku, Kyoto 606-8502, Japan

(2) Applicants filing under Eligibility Requirements for Applicants (9) or (10) must submit the documents listed below to the Student Affairs Office by November 19 (Tue), 2024, and follow the directions.

[Applicants filing under (9)]

- ① Application for Eligibility Screening (designated form)
- <sup>(2)</sup> Academic Transcript (designated form)
- ③ Number of subjects the applicant is expected to complete and credits the applicant is expected to earn in the third year (self-report, using designated form)

Applicants filing under this requirement and who pass the entrance examination shall be deemed provisionally admitted, and will be officially admitted after marks/grades and credit points earned in the third year are confirmed at the end of March. Such applicants are required to submit an academic transcript by March 6 (Thu) 2025. Provisionally admitted applicants will be selected from among applicants whose academic examination results have been particularly good.

[Applicants filing under (10)]

- ① Application for Eligibility Screening (designated form)
- <sup>(2)</sup> Graduation Certificate and Academic Transcript issued by the institution from which the applicant last graduated
- ③ Record of Research Achievements (designated form)

Eligibility screening is conducted by oral examination. The date and time of the oral examination will be communicated later.

(3) Applicants with special needs who require any arrangements for examinations or while on campus should contact in advance the Student Affairs Office.

## 5. Application Period

December 2 (Mon) to December 6 (Fri), 2024 (Due NLT 17:00)

Late applications, including those sent by postal mail, will not be accepted for any reason.

However, the applications which have been sent by registered express mail ("書留速達郵 便") and postmarked on or before December 4 (Wed), 2024 by the originating post office will be accepted even in the case that they arrive after the due date.

## 6. Date and Place of Examination

Date	Time	Examination Subject	Place	
	13:30~15:00	<b>Specialized subject (1)</b> (Applicants to Division of Natural Resource Economics and Food Science and Biotechnology)	Graduate School of Agriculture, Kyoto University	
Jan. 25, 2025 (Sat)	16:00~17:30	Specialized subject (Applicants to Divisions of Agronomy and Horticultural Science, Forest and Biomaterials Science, Applied Life Sciences, Applied Biosciences, Environmental Science and Technology) Specialized subject (2) (Applicants to Division of Natural Resource Economics and Food Science and Biotechnology)	University Kitashirakawa Oiwake-cho, Sakyo-ku, Kyoto (walk north from Kyoto City	
Jan. 26, 2025 (Sun)	13:00 - 17:00	Interview	Bus "Kyodai Nogakubu-mae" bus stop)	

(Note) Please be aware that examination schedule varies by division.

## 7. Notification of Screening Result

Announcement of Successful Applicants will be mailed to all admitted applicants on January 31(Fri), 2025. Telephone inquiries about the screening result will not be accepted. The information of successful applicants will be announced on Graduate School of Agriculture website on January 31 (Fri), 2025 about 12:00. Please refer to http://www.kais.kyoto-u.ac.jp/english/admission/div\_adm\_info

## 8. Admission Fee and Tuition

Admission fee: 282,000 yen Yearly tuition fee: 535,800 yen \*The amount shown at left may be revised at time of enrollment. \*The amount shown at left may be revised at or after time of enrollment.

## 9. Notes

- In selecting a laboratory, <u>communicate in advance with the supervisor of the laboratory</u> <u>you wish to enter</u>, after carefully reading the Outline of Graduate School of Agriculture. If you have any questions in selecting a laboratory, please contact the **Student Affairs Office**.
- (2) When making a correction to the document, cross out the relevant part with double lines and write the correct information above it.
- (3) Instructions regarding examination, including examination room, will be announced on Graduate School of Agriculture website on January 24 (Fri), 2025 9:00.
- (4) Applicants who are employed at a company, public agency or research institution: Even if such applicants have passed the entrance examination, unless they resign or take a leave of absence from their work, they will not be admitted to the Graduate School.
- (5) Prior to the application, those who have graduated, or expect to graduate, from an overseas university are required to complete AAO process. Please see following web page for the detail.

https://u.kyoto-u.jp/graduate-admissions-for-overseas-graduates



## (6)Other

(a) The Graduate School of Agriculture provides the long-term study program for master's students who are (1) engaged in a full-time employment, (2) required to take care of infants or other family members in special need, or (3) handicapped in any ways. This program allows students with such conditions to extend their period of study up to four years and to complete the course in a structured way. If you wish to apply, please contact the **Student Affairs Office**.

- (b) Contents of the submitted application documents cannot be changed for any reason. Please also note that paid application fee will not be returned under any conditions.
- (c) The University does not provide accommodation services (arrangements for hotels etc.) for applicants.
- (7) Handling of personal information

Personal information (name, gender, date of birth, address etc.) provided in application documents is used only for  $\mathbb{O}$  entrance examinations,  $\mathbb{O}$  admission procedures, scholarship etc.,  $\mathbb{O}$  preparation for accepting students.

(8) Ensuring implementation of entrance examination at the time of natural disasters Announcement, including whether to carrying on the entrance examination, is posted on the website of Graduate School of Agriculture, Kyoto University at the time of natural disasters, such as heavy snow, earthquake and others.

#### Contact:

The Student Affairs Office, Graduate School of Agriculture, Kyoto University (Tel: +81-75-753-6014)

November 2024 Graduate School of Agriculture, Kyoto University

#### 2025

Kyoto University Graduate School of Agriculture

Master's Program Entrance Examination

(Special Selection of Privately Financed International Students)

# Outline of specialized subject exam questions

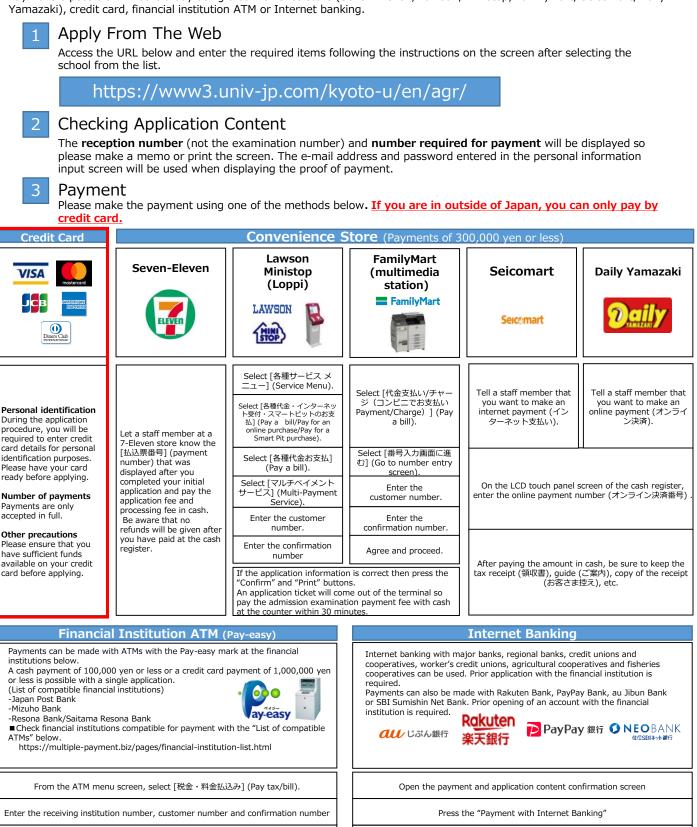
Division	Outline of examination questions		
Agronomy and Horticultural Science	In the specialized subject examination, questions will be asked from each discipline (or laboratory): Crop Science, Plant Bleeding, Vegetable and Ornamental Horticulture, Pomology, Weed Science, Plant Production Systems, Food Quality Design and Development, Quality Analysis and Assessment, Plant Production Control).		
Ag Hoi S	*Answer only questions from the discipline (or laboratory) of your choice.		
Forest and Biomaterials Science	In the specialized subject examination, questions will be asked from each discipline (or laboratory): Forest Resources and Society, Tropical Forest Resources and Environments, Forest Utilization, Forest Ecology, Forest Biology, Landscape Architecture, Erosion Control, Forest Hydrology, Biomaterials Design, Wood Processing, Fibrous Biomaterials, Tree Cell Biology, Chemistry of Composite Materials, Chemistry of Biomaterials, Forest Biochemistry, Forest Information, Silviculture, Material Biology, Active Bio-based Materials, Sustainable Materials, Innovative Humano-Habitability, Structural Function.		
	*Answer only questions fro	m the discipline (or laborat	tory) of your choice.
	In the specialized subject examinates the specialized subject examinates the special sector of the sector of the special sector of t		ch scientific field will be asked, as shown in the
	Discipline (Laboratory)	Field	Scope of exam questions
Applied Life Sciences	Bio-Analytical and Physical Chemistry	Physical Chemistry	Chemical thermodynamics, Chemical equilibrium, Reaction rate
	Bioregulation Chemistry, Chemical Ecology, Biofunction Chemistry, Chemistry of Molecular Biocatalysts	Organic Chemistry	Reaction synthesis, Structure analysis, Biologically active substances
	Cellular Biochemistry, Biomacromolecular Chemistry, Biomass Conversion	Biochemistry	Structure and function of genes, Structure and function of proteins, Sugar/lipid/lignin chemistry, Enzyme chemistry/Reaction theory
	Fermentation Physiology and Applied Microbiology, Microbial Biotechnology, Bioenergy Conversion, Molecular Microbial Science	Applied Microbiology	Types and characteristics of microorganisms, Multiplication of microorganisms, Metabolism of microorganisms, Fermentative production, Utilization of microbial enzymes
	Plant Nutrition, Plant Gene Expression, Metabolic Science of Forest Plants and Microorganisms	Plant Science	Absorption/metabolism/functions of nutrients in plants, Photosynthesis, Structures of plant cell, Plant secondary metabolism
	*Answer only questions from the discipline (or laboratory) of your choice.		
Applied Biosciences	In the specialized subject examination, questions will be asked from each discipline (or laboratory): Pla Genetics, Crop Evolution, Plant Pathology, Insect Ecology, Insect Physiology, Animal Breeding and Genetic Reproductive Biology, Nutritional Science of Animals, Animal Physiology and Functional Anatomy, Anima Husbandry Resources, Fisheries and Environmental Oceanography, Marine Stock-Enhancement Biolog Marine Molecular Microbiology, Marine Environmental Microbiology, Marine Bioproducts Technolog Marine Biological Function, Coastal Fisheries Ecology.		nsect Physiology, Animal Breeding and Genetics, nal Physiology and Functional Anatomy, Animal nography, Marine Stock-Enhancement Biology, Microbiology, Marine Bioproducts Technology,
	*Answer only questions from the discipline (or laboratory) of your choice.		

Division	Outline of examination questions	
Environmental Science and Technology	In the specialized subject examination, questions will be asked from each discipline (or laboratory): Comparative Agricultural Science, Tropical Agriculture, Soil Science, Terrestrial Microbial Ecology, Ecological Information, Agricultural Facilities Engineering, Water Resources Engineering, Hydrological Environment Engineering, Rural Planning, Radiation Safety and Control, Agricultural Systems Engineering, Field Robotics, Bio-Sensing Engineering. *Answer only questions from the discipline (or laboratory) of your choice.	
omics	The specialized examination comprises two parts: (1) common questions from natural resource economics in general and (2) discipline-specific questions.	
e Econe	(1) Common questions from natural resource economics in general will consist of a short essay on a topic relating to biological resource economics and questions asking about technical terms.	
Natural Resource Economics	(2) Discipline-specific questions will be asked from each discipline (or laboratory): Agri-food System Management, Farm Managerial Information and Accounting, Regional Environmental Economics, Agricultural and Environmental Policy, Forest Policy and Economics, International Rural Development, Comparative Agricultural History, Philosophy of Agricultural Science.	
Na	*Answer only questions from the discipline (or laboratory) of your choice.	

Division	Outline of examination questions			
	[Phy Spe Biod Sele Eng [Fod	vsical Chemistry] cialized subject engineering], [Bio ect and answer lish-Japanese tran od Science].	<ul> <li>Answer all questions.</li> <li>(2): Six questions will be asked ochemistry/Enzymology], [Applie two questions. Separately, and</li> </ul>	the three fields of [Biochemistry], [Organic Chemistry] a from the six fields of [Bio-organic Chemistry], [Food a d Microbiology], [Nutritional Science] and [Food Scienc nswer all two English-related questions, including t ds of [Applied Microbiology], [Nutritional Science] and
			1	
		Specialized subject (1)	Biochemistry	Structure of proteins, saccharides, and lipids Glycolytic system Citric acid cycle Electron transfer system Biosynthesis of gene and proteins
Food Science and Biotechnology			Organic Chemistry	Structure and chemical bonding of organic compounds Stereochemistry Acid-base reactions and dissociation constants Oxidation-reduction reaction Basic organic chemical reactions (addition, elimination, substitution)
		Physical Chemistry	Physical properties of gas and solution Thermodynamics Phase equilibrium Chemical equilibrium Electrolyte solution and electrochemical cell Chemical kinetics	
cience at			Bio-organic Chemistry	Photochemistry           Organic chemical reactions (all-round) and their reaction mechanism           Structure determination by instrumental analyses
Food Sc			Food and Bioengineering	Mass balance Water and desiccation Heat transfer/sterilization Mass transfer Rheology Interface and colloid chemistry Bioreactor
		Specialized	Biochemistry/Enzymology	Structure and function of biomolecules Metabolism and energetics
		subject (2)	Applied Microbiology	Classification, morphology (structure) and proliferation Metabolic control and fermentative production Principles of genetics and signal transduction
			Nutritional Science	Digestion and absorption of nutrients Energy metabolism Nutrient metabolism
		Food Science	Chemistry and function of food ingredients Changes in food components during food storage and processing Food quality	

## Payment Methods for Application Fees with Convenience Store or Credit Card

Payment is possible 24 hours a day using a convenience store (Seven-Eleven, Lawson, Ministop, FamilyMart, Seicomart, Daily Yamazaki), credit card, financial institution ATM or Internet banking.



Select either 現金 (Cash) or キャッシュカード (Cash card) as a payment method.

Payment compatible convenience stores and financial institutions are subject to change. Check with the website for details.

## Proof of Payment Seal for Application Documents

Print the proof of payment from the payment or application content confirmation screen, then cut out the required section and attach it to the designated position on the applicant ticket. Post it in the same way as the required documents.



(1) Cut out the required section,



(2) Attach it to the designated position on the applicant ticket.

Select financial institution with Internet banking contract and login

## Policy for Admission to the Graduate School of Agriculture

(Admission Policy)

Agricultural science is a field of study that concerns the most important and fundamental issue on how humankind can conduct productive and sustainable activities to live on the earth, and builds a "foundation of knowledge" for the next generation by leading-edge basic research. With "Life, Food, and Environment" as keywords, the Graduate School of Agriculture is engaged in efforts to address a variety of issues relating to resources, energy, local communities, information, lifestyle, health, and culture, which are important global-level matters in the 21<sup>st</sup> century. The Graduate School of Agriculture is made up of seven Divisions, with each Division taking a different approach to tackling these issues, which are related to the survival of humankind, and carries out agricultural research and human resources development with the aim of contributing to improving the welfare and sustainable prosperity of humankind. Accordingly, the Graduate School of Agriculture seeks students who possess the abilities and qualifications described below to study in highly specialized fields.

- 1. Individuals with a broad perspective and adequate basic academic skills, in addition to a high sense of ethics and a strong sense of responsibility
- 2. Individuals highly committed to developing society through research in agricultural sciences
- 3. Individuals who can set out research themes on their own and have a strong desire to pursue such topics, as well as the ability to conduct their research
- 4. Individuals with great communication skills as well as an international perspective

#### Master's Course, Graduate School of Agriculture

To implement the above policy, the Master's program at the Graduate School of Agriculture administers an entrance examination to regular students and working adults that is a combination of a written test to evaluate English proficiency and field-specific knowledge for each Division and an interview. For privately financed international students, an entrance examination comprising a written test in field-specific subjects and an interview is administered. In either case, details on the evaluation method are clearly described in the Guidelines for Applicants.

With regard to the written test of field-specific knowledge for each Division and the interview, they are conducted based on the student profile for each Division described below.

#### [Division of Agronomy and Horticultural Science]

The Division of Agronomy and Horticultural Science carries out education and research in a wide range of

agricultural sciences, ranging from the molecular and cellular level with regard to the production and use of crops to the individual, community, and regional ecosystem level. It aims to develop human resources possessing highly specialized knowledge and the ability to integrate interdisciplinary studies, as well as create new technologies, with the goal of resolving food and environmental problems facing humankind and region-specific agricultural problems.

The Division of Agronomy and Horticultural Science aims to develop specialists with high levels of expertise who have specialized fundamental knowledge essential for resolving problems and research techniques, and use such knowledge and techniques in the preparation of research theses. The profile of individuals the Division seeks is described below.

- 1. Individuals who, regardless of their major at the undergraduate level, have a strong interest in global food and environmental problems, as well as regional-specific agricultural problems, and have a desire to take on the challenge of resolving these problems
- 2. Individuals who have sufficient knowledge of various areas of science related to agriculture and possess language proficiency making them capable of functioning at the international level
- 3. Individuals who have a strong desire to absorb new knowledge and are highly conscious about linking such knowledge with scientific discoveries, the creation of new technologies, and problem resolution

#### [Division of Forest and Biomaterials Science]

The Division of Forest and Biomaterials Science aims to maintain and advance a healthy and comfortable living environment for humankind by living in a symbiotic relationship with many living organisms, mainly forests. The scope of subject matters of such research is extremely broad, ranging from a relatively narrow residential environment used by humans on a daily basis (including energy, clothing, furniture, dwellings, and streets), to a regional environment with the fresh air, water, and scenery which is formed by adequate coordination between cities, farmland, and outlying undeveloped areas, and the prevention of global warming through the preservation of the environment on a global scale and the use of biomass resources. Therefore, as academic areas that form the background of education and research, it is important to have perspectives of not only advanced natural sciences, but also humanities and social sciences. There is also great diversity in research techniques, including overseas field research, exhaustive laboratory research, and information processing.

The Division of Forest and Biomaterials Science seeks individuals, regardless of the university, faculty, or department from which they graduated, who have a high sense of commitment and the academic skills to set their own research themes, with this broad range of academic areas and research techniques as a reference.

#### [Division of Applied Life Sciences]

The Division of Applied Life Sciences carries out education and research pertaining to a wide range of living

organisms, ranging from microorganisms to plants and humans, from the perspectives described below.

- 1. Understand and develop life phenomena based on physical chemistry, organic chemistry, biochemistry, and molecular biology.
- 2. Understand and develop the commonality and diversity of biofunctions of microorganisms, plants, and animals.
- 3. By doing research, learn how to approach the research and acquire logical thinking skills, in addition to nurturing originality.
- 4. Put new discoveries and inventions to use in applied research, and give back research results to society.

The Division of Applied Life Sciences places value on proactive self-study and self-instruction, and nurtures researchers and engineers who understand the principles of life phenomena, work to resolve various problems based on the principles that arise in areas such as fermentation, foodstuffs, the chemical industry, food production, preservation of the environment, and healthcare, and are capable of using such results to make advances in new biotechnologies and biosciences.

The Division of Applied Life Sciences seeks individuals from a broad range of fields, who have clear and strong motivation, possess the English language skills needed to receive this type of education, and have academic skills in such fields as physical chemistry, organic chemistry, biochemistry, microbiology, and plant science.

#### [Division of Applied Biosciences]

The Division of Applied Biosciences consists of a diverse range of research areas, integrating forest biology, fisheries science, livestock science, and tropical agriculture. The mission of the Division of Applied Biosciences is to become an education and research hub to provide interdisciplinary and global responses to a variety of new problems related to biosources, food, health, and the environment that are expected to arise in the 21<sup>st</sup> century. The Division treats a variety of living organisms ranging from microorganisms to plants and animals that inhabit the land and sea, and the environment that surrounds them. The aim of the Division is to engage in education and research on the use, creation, conservation, and preservation of those living organisms and the environment from a broad perspective covering from molecules to individuals and up to the ecosystem level, and to develop human resources that are capable of engaging in interdisciplinary initiatives that are not constrained by the conventional boundaries.

In order to realize this objective, the Division seeks a wide range of students who have a willingness to take on challenges in new academic areas of the rapidly advancing biosciences in the Master's program. The Division looks forward to welcoming individuals who wish to become scientists capable of creating big dreams and those who wish to become advanced engineers who will realize such dreams.

[Division of Environmental Science and Technology]

Humans have always lived their lives while dealing with the natural environment that is particular to the respective regions on the earth in which they live. The Division of Environmental Science and Technology aspires to conduct research that will enable people to continue to develop both production and daily life activities in their most desirable forms while coexisting with the components that shape the natural environment. To achieve this, the groups doing research on living organisms and ecosystems and the groups doing research on regional environmental engineering cooperate with each other and carry out interdisciplinary and international research that takes into consideration both the production of food and the preservation of the environment in the Division. The Division of Environmental Science and Technology is made up of various research fields (including newly established four fields) following a reorganization in 1995 of the eleven laboratories, one research division, and one office that had made up the Division.

The Division requires students to take and complete lectures and seminars that are outside the field to which they belong. This requirement is imposed with the hope that they will not only strive to acquire specialized knowledge and techniques in their own fields, and carry out research that will become the foundation for the future, but also acquire a broad spectrum of knowledge and take on active roles in society. The research subjects of the Division include many different regions on the earth, as well as various living organisms and environments, and the Division looks forward to welcoming individuals who desire to establish broad horizons that are not constrained by the academic areas in which they have studied up to that point.

#### [Division of Natural Resource Economics]

The desired development of humans greatly relies upon mutual cooperation between nations of the world and among people, as well as mechanisms of social and economic coordination. In today's society, amidst truly remarkable advances in science and technology, the affluence and surplus of food in developed countries coexist with the poverty of developing countries. And there are countries like Japan, which, in spite of being a developed country, have a food self-sufficiency rate that is declining to near-crisis levels. It is under these circumstances that environmental problems, regional social problems, and food safety problems have been arising. The circumstances we are facing now are the results of 20<sup>th</sup> century developments in the economic ideology that determine how science, technology, and resources should be deployed, international rules related to trade and other similar interactions, and the social, economic, and management structures and systems inside and outside Japan that are based on that ideology and those rules. At present, there are demands for a fundamental reexamination of the factors behind these circumstances. A major goal of the Division of Natural Resource Economics is to resolve the problems faced by these structures and systems and to develop new systems and policies. This can be achieved based on economics and by making use of management, social science, historical science, and political science theories.

The aim of the Division of Natural Resource Economics is to nurture individuals capable of boldly taking on

the problems facing today's society and opening up new horizons. While students will be developed primarily to be researchers through the Division's Master's and Doctoral degree programs, they will also be nurtured as persons who will have analytical and creative abilities based on the humanities and social science to engage in highly specialized work in the government, agriculture-related organizations, corporations, and elsewhere.

With regard to applicants, the Division of Natural Resource Economics seeks individuals who have thoroughly mastered existing theories but are not constrained by them. They should have the intention to deeply absorb a broad range of research results in related areas, persistently pursue problems faced by today's society, and formulate new theories that will solve such problems. Alternatively, the Division seeks individuals who have a strong desire to contribute to society through policy recommendations that have such theories as a backdrop or highly specialized work.

#### [Division of Food Science and Biotechnology]

The field of research related to food is becoming increasingly broader and more interdisciplinary. In addition to the immense expansion of the scale of industries involved in food, problems inherent in food are also becoming greatly varied. While there are societies that face starvation, there are also societies in which diseases caused by gluttony are widespread. In Japan, traditional eating habits are on the brink of collapse, and the food self-sufficiency rate and food safety are urgent issues. Together with medical and pharmaceutical sciences, food science should make important contributions with the aim of improving the public wellbeing.

It is necessary to build a new foundation for food research in order to resolve the issues mentioned above. In other words, it is not only food that is the object of research. The Division seeks to have a deep understanding of the interaction between humans, the environment, and food. The Division of Food Science and Biotechnology was established in April 2001 with the aims of developing individuals capable of grasping the roots of the broad range of problems related to food and dealing with such problems, and engaging in research and development to be the foundation of such activity. The Division established a specialized educational system and an advanced research system for food science and biotechnology, and has been carrying out education and research in such systems. The Division also systematized the research areas of life science, biology, organic chemistry, biochemistry, genetic biology, food chemistry, chemical engineering, enzyme chemistry, physical properties science, nutrition science, health science, kinesiology, and has been trying to create new studies that involve food, and putting priority on becoming the leader in such research in the future. In order to achieve these objectives, the Division has three basic chairs, "Food Life Sciences", "Food and Health Science", and "Food Production Technology", each of which has its own distinctive characteristics.

The Division seeks students who will take on the challenges of the food science and biotechnology with

sufficient motivation regardless of the faculty or department from which they graduated. The Division looks forward to welcoming individuals who want to become scientists capable of creating big dreams or cutting-edge engineers capable of realizing such dreams, or persons who have an interest in handing down science, technologies, and dreams related to food to future generations.