# The Global Education Program for Agriscience Frontiers

Doctoral Course

Application Guidelines

Academic Year 2018

Graduate School of Agriculture, Hokkaido University

#### CONTENTS/目次

Preface	1
1. Study Areas and Number of International Students for Admission	2
2. Qualification Requirements	2
3. Privacy Policy	5
4. Application: for "Scholarship" students	5
5. Application: for "Research Students" of the Research Faculty of Agriculture	7
6. Application: for "Personal Funds" students	7
7. Application: for Master's Course students of the Graduate School of Agriculture	9
Flow Chart for the Application Procedure	11
Divisions, Research Fields	
Division of Bio-systems Sustainability	12
Division of Agrobiology	15
Division of Applied Bioscience	17
Division of Environmental Resources	20
はじめに	24
1. 研究分野と募集人員について	25
2. 出願資格	25
3. 個人情報の取扱いについて	27
4. 国費外国人留学生の出願について	28
5. 研究生(国費定員枠外留学生(大使館推薦)等)からの出願について	29
6. 私費外国人留学生の出願について	30
7. 本学農学院修士課程から博士後期課程への進学者について	31
出願の流れ図	33

Application Form for the Global Education Program/ 入学申請書

Certificate of Health/ 健康診断書

Certificate of English Proficiency/ 英語能力証明

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#### **PREFACE**

Hokkaido University was founded in 1876 as Sapporo Agricultural College, the first higher educational institution for agricultural sciences in Japan. The university consists of twelve undergraduate faculties, twenty-two graduate schools, and twenty-two research institutes and centers, with 4,000 faculty members, and administrative and technical members, 11,900 undergraduate students, 6,300 graduate students as well as 1,800 international students from 89 countries (all approximate numbers for personnel and students).

Of all the Faculties and Graduate Schools, the School of Agriculture is the oldest in the university's history of more than 140 years. It was first established to meet the needs to open the island of Hokkaido as a new frontier. Since then, it has been the leading university in agricultural sciences and has produced many eminent persons.

Today, the School of Agriculture at Hokkaido University is one of the most prestigious Agricultural Faculties among the seven National University Corporations\* in Japan, attracting more than 70% of its students from areas other than Hokkaido. The same applies to the Graduate School of Agriculture that is staffed with highly qualified professors and staffs. In 2000, it has transformed itself into a "Graduate Research University" that places greater emphasis than ever upon graduate education and research activities, and that aims to maintain the highest standards as one of the top universities in Japan in the twenty-first century.

The Global Education Program for Agriscience Frontiers will start in April 2018 as an evolved form of the previous Special Postgraduate Program in Special Postgraduate Program in Biosphere Sustainability Science. This program provides a unique combination of such study fields as food, health and environment to meet urgent needs in research and development of preservation and sustainable utilization of our limited resources on earth to ensure our quality of life in the future. Due to the nature of the program, the language to be used in all educational and research activities will be English. We invite you to take advantages of this opportunity.

September 1, 2017

Atsushi Yokota, Ph. D. Dean and Professor Graduate School of Agriculture

Kazunori Iwabuchi, Ph. D. Head and Professor The Global Education Program for Agriscience Frontiers

\*All the national universities in Japan have been reorganized under the system of National University Corporation since April 2004.

#### **GUIDELINES FOR APPLICATION (Doctoral Course)**

#### **Feature of the Doctoral Course**

- (1) All the lectures, research work, and thesis work will be conducted in English. Students will be expected to learn Japanese language gradually during their stay.
- (2) Students will be expected to write a thesis in English based on research conducted during the course and submit this thesis to examiners in the Global Education Program for Agriscience Frontiers, Graduate School of Agriculture, Hokkaido University for evaluation. A student will be awarded a Ph. D., if he/she has completed the course with satisfactory academic performance. A thesis has to be submitted to the examiners with their approval and an oral defense is also required.

#### 1. Study Areas and Number of International Students for Admission

#### 1-1. Study area

- (1) Applicants for any field related to the subjects for the program (refer to p. 12-23) will be accepted.
- (2) Applicants must consult with the expected academic advisors before submitting your application. The application will not be considered, if the application is not approved by the expected academic advisor.

#### 1-2. Number of students to be admitted (To be announced)

Several students will be selected for admission. This program will recommend 4 students as candidates for the Scholarship by the Japanese Government (MONBUKAGAKUSHO) – hereinafter "Scholarship".

Apart from the above 4 Scholarship students, students supported by other Japanese Government Scholarship (Embassy Recommendation etc.) will be selected – here "Embassy Recommendation Scholarship".

Additional students will be selected from those who are on other sort of financial supports – hereinafter "Personal Funds".

#### 2. Qualification Requirements

#### 2-1. Nationality:

For "Scholarship" applicants: Non-Japanese citizen residing outside of Japan of countries to which the Scholarship by MONBUKAGAKUSHO are offered, are entitled to apply. Students studying in the Master's Course of the Global Education Program for Agriscience Frontiers are included.

For "Embassy Recommendation Scholarship" applicants: The same as "Scholarship" applicants.

For "Personal funds" applicants: Any nationality except Japanese is entitled to apply.

#### 2-2. Age Limit:

For "Scholarship" applicants: Under 35 years old on April 1, 2018, i.e., those who were born after April 2, 1983.

For "Embassy Recommendation Scholarship" applicants: The same as "Scholarship" applicants.

For "Personal Funds" applicants: No restriction.

#### 2-3. Academic Background:

#### For "Scholarship" applicants:

- (1) Individuals who were awarded or are expected to be awarded a degree equivalent to a master's degree or a professional degree by September 2018.
- (2) Individuals who were awarded or are expected to be awarded a degree equivalent to a master's degree or a professional degree in foreign countries by September 2018.
- (3) Individuals who have completed a program of study designated by MONBUKAGAKUSHO at an educational institution in Japan that is recognized as an equivalent of a graduate school of a foreign country and who were awarded or are expected to be awarded a degree equivalent to a master's degree or a professional degree by September 2018.
- (4) Individuals who have been awarded or are expected to be awarded a degree equivalent to a master's degree by September 2018 from a United Nations University as prescribed in Article 1(2) of the Act on Special Measures Incidental of Enforcement of the Agreement between the United Nations and Japan regarding the Headquarters of the United Nations University (Act No.72 of 1976), which was established under the December 11, 1972 resolution of the General Assembly of the United Nations.
- (5) Individuals who have completed their formal education by taking a correspondence course through a non-Japanese university, an educational institution which received the designation by (3), or the United Nations University, who have passed an examination or a screening equivalent to the regulations by Article 16.2 in Standards for the Establishment of Graduate Schools, and who are recognized to have an academic ability equivalent to Master's degree holders by the Graduate School, or who will obtain it by September 2018.
- (6) Individuals designated by the minister of education, culture, sports, science and technology (1989 Notice No. 118, Ministry of Education, Science and Culture; 2001 Notice No. 55, Ministry of Education, Culture, Sports, Science and Technology).
  - (a) Those who have graduated from a university, have worked for two years or longer at a university or research institution, and have earned a master's degree or are recognized by the Hokkaido University Graduate School of Agriculture as possessing equivalent or greater academic capabilities based on its research findings
  - (b) Those who have completed 16 years of school education in a foreign country or 16 years of school education of a foreign country by taking a correspondence course in Japan offered by a school of that foreign country, have worked for two years or longer at a university or research institution, and have earned a master's degree or are recognized by the Hokkaido University Graduate School of Agriculture as possessing equivalent or greater academic capabilities based on its research findings
- (7) Individuals who are recognized by this graduate school as possessing the equivalent or greater academic skills as that of a person who has a master's degree or professional degree based on an individual admission qualification screening and who will be 24 years of age as of September 30, 2018. \*
  - \*This qualification applies to those who do not have the qualifications of a university graduate, such as graduates of a national college of technology, junior college, specialized training college, or other types of schools as well as graduates of Japanese branch schools of foreign universities or foreign schools.

#### $For\ ``Embassy\ Recommendation\ Scholarship"\ and\ ``Personal\ Funds"\ applicants:$

April Entrant

- (1) Individuals who were awarded or are expected to be awarded a degree equivalent to a master's degree or a professional degree by March 2018.
- (2) Individuals who were awarded or are expected to be awarded a degree equivalent to a master's degree or a professional degree in foreign countries by March 2018.

- (3) Individuals who have completed a program of study designated by MONBUKAGAKUSHO at an educational institution in Japan that is recognized as an equivalent of a graduate school of a foreign country and who were awarded or are expected to be awarded a degree equivalent to a master's degree or a professional degree by March 2018.
- (4) Individuals who have been awarded or are expected to be awarded a degree equivalent to a master's degree by March 2018 from a United Nations University as prescribed in Article 1(2) of the Act on Special Measures Incidental of Enforcement of the Agreement between the United Nations and Japan regarding the Headquarters of the United Nations University (Act No.72 of 1976), which was established under the December 11, 1972 resolution of the General Assembly of the United Nations.
- (5) Individuals who have completed their formal education by taking a correspondence course through a non-Japanese university, an educational institution which received the designation by (3), or the United Nations University, who have passed an examination or a screening equivalent to the regulations by Article 16.2 in Standards for the Establishment of Graduate Schools, and who are recognized to have an academic ability equivalent to Master's degree holders by the Graduate School, or who will obtain it by March 2018.
- (5) Individuals designated by the minister of education, culture, sports, science and technology (1989 Notice No. 118, Ministry of Education, Science and Culture; 2001 Notice No. 55, Ministry of Education, Culture, Sports, Science and Technology).
  - (a) Those who have graduated from a university, have worked for two years or longer at a university or research institution, and have earned a master's degree or are recognized by the Hokkaido University Graduate School of Agriculture as possessing equivalent or greater academic capabilities based on its research findings
  - (b) Those who have completed 16 years of school education in a foreign country or 16 years of school education of a foreign country by taking a correspondence course in Japan offered by a school of that foreign country, have worked for two years or longer at a university or research institution, and have earned a master's degree or are recognized by the Hokkaido University Graduate School of Agriculture as possessing equivalent or greater academic capabilities based on its research findings
- (6) Individuals who are recognized by this graduate school as possessing the equivalent or greater academic skills as that of a person who has a master's degree or professional degree based on an individual admission qualification screening and who will be 24 years of age as of March 31, 2018. \*
  - \*This qualification applies to those who do not have the qualifications of a university graduate, such as graduates of a national college of technology, junior college, specialized training college, or other types of schools as well as graduates of Japanese branch schools of foreign universities or foreign schools.

October Entrant: the same as "April Entrant" applicants except that March 31, 2018 should read September 30, 2018.

- 2-4. Grades: Applicants are required to have obtained a GPA of 2.30 (3.00 as full score) over the last two academic years. Applicants are requested to follow advice from your expected academic advisors.
- 2-5. Health: Those who are certified as both physically and mentally healthy by a qualified and recognized physician.
- 2-6. Language: Applicants must be fluent in English.

#### 2-7. Remarks:

- (1) Military personnel and civilian employees of armed forces are not eligible for this course if they remain on active duty.
- (2) Individuals applying based on qualification (5) or (6) or (7) are required to submit other necessary documents, so be sure to contact at least 3 months before the listed deadlines.

#### 2-8. Inquiry

If you have any questions about this program, please contact the Administrative Office of Agriculture and Global Food Science by email (kyomu@agr.hokudai.ac.jp). In your email please include the name of your expected academic advisors and your desired research field.

#### 3. Privacy Policy

Names, addresses, and other personal information provided to the university on application documents will be used solely for enrollee selection, the announcement of exam results, and admission procedures. The personal information of those who are accepted for admission shall also be used for administrative purposes after enrollment (student registration, academic counseling, etc.), student support services (health management, scholarship applications, etc.), and administrative tasks related to tuition, etc.

Only the names and addresses of applicants will be used to facilitate communications from the Hokkaido University Frontier Foundation and an organization associated with the university: the Hokkaido University Athletic Union.

#### 4. Application: for "Scholarship" students

- 4-1. Important notice for application
- (1) Applicants should contact, and discuss well with your expected academic advisor <u>in advance</u>. Applications without such pre discussion are not accepted.
- (2) The following documents must be submitted to the expected academic advisor, before the deadline of December 31, 2017 (all of these documents MUST ARRIVE by this deadline).
- (3) After the application, any cancellation is NOT permitted.
- (4) The procedure is illustrated in p. 11.
- (5) Those who are recipients of Scholarship or fellowship from any other sources are not eligible for Scholarship.
- (6) The payment of Scholarship to an enrolled student may be terminated if any of the information supplied with an application is later found to be false. Admission can be canceled any time after enrollment.

#### 4-2. Evaluation of Applicants

The applicants will be evaluated based on his/her application documents and the e-mail interview (or interview).

#### 4-3. What to submit

All of the following documents must be sent by registered airmail.

- (1) A completed application form for the Global Education Program for Agriscience Frontiers (use the format provided in this book, print on both sides, paste your photograph as specified) You have to be instructed how to write the study plan section (6. i & ii) from your expected academic advisor.
- (2) A completed application form for the Japanese Government Scholarship (<u>use the format provided by MONBUKAGAKUSHO</u>, <u>print on both sides</u>, paste your

- photograph as specified). The e-mail interviews (nine times or more) will be scheduled by your expected academic advisor.
- (3) Medical certificate issued by a public hospital within the last six months (<u>use the</u> format provided in this book)
- (4) Photocopies of certificate of Bachelor's degree and Master's degree or certificates of graduation. (If the applicant has not yet graduated the Master's Course, a certified letter from your university stating the expected finishing date of the Master's Course).
- (5) Official academic transcript of all undergraduate course work and Master's Course work from the university
  - \*Note: Applicants are required to have obtained a GPA of 2.30 (3.00 as full score) over the last two academic years. Official academic transcripts should include the information about when you acquired the credits (at least year/semester).
- (6) A document describing the score of GPA or equivalent (place of the candidate in the course, classification by A/B/C etc.) at the recent degree program to show that the candidate is excellent.
- (7) A certificate of English proficiency: Submit a certificate of English proficiency test (TOEFL etc.), or a certificate issued by an English teaching staff of university from which you graduated (use the format provided in this book)
- (8) A certificate of citizenship or proof of residence in the applicant's home country. A photocopy of your passport is preferable.
- (9) A letter of recommendation to the President of Hokkaido University (Prof. Dr. Toyoharu Nawa) by the Dean or Head of the applicant's university/institution.
- (10) Summary of Bachelor's thesis and Master's thesis (each one page of A4 or letter size format)
- (11) Entrance examination fee: exempted

#### **REMARKS:**

- (1) The above documents should be type-written in English (use word processing software as far as you can), prepared in uniform size based on the A4 or letter size format, and printed on both sides.
- (2) Applications will not be accepted if any of the above documents are incomplete, incorrect or lacking supporting evidence. They will not be considered if they arrive after the deadline.
- (3) All documents once submitted will not be returned.
- (4) Applicants who are not awarded a master's degree by the application deadline must submit a photocopy of the certificate of the degree once they receive it.

#### 4-4. Notification of the results of selection

The successful applicants will be approved as the candidates at the professor meeting of this programand the final decision for admission will be made at the faculty meeting of the Graduate School of Agriculture, Hokkaido University. The final results for granting the Scholarship made from MONBUKAGAKUSHO will be notified to the applicants around the beginning of August 2018. Successful applicants will be enrolled as full-time graduate students.

#### 4-5. Supplementary explanation for the Scholarship

- (1) Time of arrival: A successful applicant must arrive in Japan by the end of September.
- (2) Fees: Admission fee and tuition fee are exempted.
- (3) Scholarship payments: Scholarship will not be paid if a student is long absent from the Graduate School of Agriculture or if his/her studies are not satisfactory.
- (4) Transportation to Japan: MONBUKAGAKUSHO shall provide an economy class air ticket from the international airport nearest to your residence in the country you have nationality to the designated international airport in Japan. [Note: Recipient should bare the cost of domestic travels to the nearest international airport at home and from

- the arriving international airport to Hokkaido University. Recipient should also bare the cost of airport tax and connecting local flights in Japan and travel insurance for his/her travels to Japan.]
- (5) Personal accident insurance for students pursuing education and research: This insurance compensates for physical casualties from which students suffer in their intra-curricular activities, both on and off campus, and extra-curricular activities on campus. All the students must be insured before starting research activities. The premium is 3,620 Yen for three years (the premium may be changed without prior notification).

## 5. Application: for "Research Students" of the Research Faculty of Agriculture in the category of "Embassy Recommendation Scholarship" etc.

#### 5-1. What to submit

All of the following documents must be submitted to the Administrative Office of Agriculture and Global Food Science. The documents (1) should be type-written in English (use word processing software as far as you can), prepared in uniform size based on the A4 or letter size format, and printed on both sides.

- (1) A completed application form for the Global Education Program for Agriscience Frontiers (use the format provided in this book, print on both sides, paste your photograph as specified). You have to be instructed how to write the study plansection (6. i & ii) from your expected academic advisor. Interview (three times or more) about your research theme and plan will be conducted.
- (2) Medical certificate issued by a public hospital within the last six months (use the format provided in this book)
- (3) Entrance examination fee: exempted

#### 5-2. Remarks:

Please refer to Table 1 in p.10 for the important dates (deadline of application, notification time of the results of selection, arrival time to Japan). The process for the evaluation of the applicant (see 4-2), fees (4-5 (2)) and the personal accident insurance (see 4-5 (5)) are the same as for the "Scholarship" applicants.

#### 6. Application: for "Personal Funds" students

- 6-1. Important notice for application
- (1) Applicants should contact, and discuss well with your expected academic advisor, <u>in advance</u>. Applications without such pre discussion are not accepted.
- (2) The following documents must be submitted to the expected academic advisor, before the deadline listed in Table 1 (all of these documents MUST ARRIVE by this deadline).
- (3) The procedure is illustrated in p.11.
- (4) Admission can be canceled any time after enrollment if any of the information supplied with an application is later found to be false.

#### 6-2. Evaluation of Applicants

The process for the evaluation of the applicant is the same as for the "Scholarship" applicants (see 4-2).

#### 6-3. What to submit

All of the following documents must be sent by registered airmail.

- (1) A completed application form for the Global Education Program for Agriscience Frontiers(use the format provided in this book, print on both sides, paste your photograph as specified). You have to be instructed how to write the study plan section (6. i & ii) from your expected academic advisor. The e-mail interviews (six times or more) will be scheduled by your expected academic advisor. If possible, the e-mail interviews can be replaced with interviews of three times. In case of a research student interviews (three times or more) will be conducted.
- (2) Medical certificate issued by a public hospital within the last six months (use the format provided in this book)
- (3) Photocopies of certificate of Bachelor's degree and Master's degree or certificates of graduation (If the applicant has not yet graduated the Master's Course, a certified letter from your university stating the expected finishing date of the Master's Course).
- (4) Official academic transcript of all undergraduate course work and Master's Course work from the university
  - \*Note: Applicants are required to have obtained a GPA of 2.30 (3.00 as full score) over the last two academic years. Official academic transcripts should include the information about when you acquired the credits (at least year/semester).
- (5) A certificate of English proficiency: Submit a certificate of English proficiency test(TOEFL etc.), or a certificate issued by an English teaching staff of university from which you graduated (use the format provided in this book)
- (6) A certificate of citizenship or proof of residence in the applicant's home country: A photocopy of your passport is preferable.
- (7) A letter of recommendation to the President of Hokkaido University (Prof. Dr. Toyoharu Nawa) by the Dean or Head of the applicant's university/institution
- (8) Summary of Bachelor's thesis and Master's thesis (each one page of A4 or letter size format)
- (9) Entrance examination fee of 30,000 Japanese Yen\* (The method of payment should be discussed with your expected academic advisor.)
  - \*Once application materials have been accepted, the examination fee will not be refunded for any reason.
  - \*Those who will enter into Doctoral Course from Master's Course of Hokkaido University are not required to pay the entrance examination fee.
  - \*China Scholarship Council (CSC) supported students, Hokkaido University President's Fellowship international students, and Hokkaido University Special Grant Program international students are exempt from the examination fee.

#### **REMARKS:**

- (1) The above documents should be type-written in English (use word processing software as far as you can), prepared in uniform size based on the A4 or letter size format, and printed on both sides.
- (2) Applications will not be accepted if any of the above documents are incomplete, incorrect or lacking supporting evidence. They will not be considered if they arrive after the deadline.
- (3) All documents once submitted will not be returned.
- (4) Applicants who are not awarded a bachelor's degree by the application deadline must submit a photocopy of the certificate of the degree once they receive it.

#### 6-4. Notification of results of selection

The final decision for admission will be made at the faculty meeting of the Graduate School of Agriculture, Hokkaido University. Applicants will be notified of the results of selection on the dates indicated in the Table 1. Successful applicants will be enrolled as full-time graduate students.

#### 6-5. Supplementary explanations for the Personal Funds students

- (1) Time of Arrival: Applicants may choose one entrance date, out of April or October, 2018. According to the entrance date, deadline date for the application is separately fixed. Applicants must refer to Table 1 for those important dates of application.
- (2) Admission fee: 282,000 Japanese Yen\* (as of the year 2017).
- (3) Tuition fee: 267,900 Japanese Yen for each semester (annually 535,800 Japanese Yen)\*(as of the year 2017) Tuition fee may be revised while a student is attending the Graduate School.
  - \*Those who will enter Doctoral Course from Master's Course of Hokkaido University are not required to pay the admission fee.
  - \*China Scholarship Council (CSC) supported students, Hokkaido University President's Fellowship international students, and Hokkaido University Special Grant Program international students are exempt from the admission fee and the tuition fee.
- (4) Personal accident insurance for students pursuing education and research: This insurance compensates for physical casualties from which students suffer in their intra-curricular activities, both on and off campus, and extra-curricular activities on campus. All the students must be insured before starting research activities. The premium is 3,620 Yen for three years (the premium may be changed without prior notification).

## 7. Application: for Master's Course students of the Graduate School of Agriculture, Hokkaido University

#### 7-1. What to submit

All of the following documents must be submitted to the Administrative Office of Agriculture and Global Food Science. The documents (1) should be type-written in English (use word processing software as far as you can), prepared in uniform size based on the A4 or letter size format, and printed on both sides.

- (1) A completed application form for the Global Education Program for Agriscience Frontiers (use the format provided in this book, print on both sides, paste your photograph as specified). You have to be instructed how to write the study plan section (6. i & ii) from your expected academic advisor. However, sections 6-i) and 6-ii) for the "Background of your study" and "Study plan in Japan in detail", respectively, of the application form can be replaced with the "Study plan or Progress of your study" in the document submitted to MONBUKAGAKUSHO for the extension of your Scholarship (except "Personal Funds" students) Interviews (three times or more) will be conducted.
- (2) Medical certificate issued by the Health Care Center of Hokkaido University. Applicants must take an annual health check of Hokkaido University in April.
- (3) Entrance examination fee: exempted

#### 7-2. Remarks:

See Table 1 for deadlines of application and notification time of the results of selection. This Section 7 includes "Scholarship" students (October entrant), "Embassy Recommendation Scholarship" students (April or October entrant), "Personal Funds" students (April or October entrant).

- 7-3. Supplementary explanations for Master's Course students of the Graduate School of Agriculture Hokkaido University
  - (1) Admission fee: exempted
  - (2) Tuition fee: 267,900 Japanese Yen for each semester (annually 535,800 Japanese Yen)\* (as of the year 2017) Tuition fee may be revised while a student is attending the Graduate School.

- \*"Scholarship" students, "Embassy Recommendation Scholarship" students, China Scholarship Council (CSC) supported students, Hokkaido University President's Fellowship international students, and Hokkaido University Special Grant Program international students are exempt from the tuition fee.
- (3) Personal accident insurance for students pursuing education and research: This insurance compensates for physical casualties from which students suffer in their intra-curricular activities, both on and off campus, and extra-curricular activities on campus. All the students must be insured before starting research activities. The premium is 3,620 Yen for three years (the premium may be changed without prior notification).

Table 1. Important dates in the application procedure for "Embassy Recommendation Scholarship", "Personal Funds" and "Master's Course students of this Program" categories.

	April Entrant	October Entrant
Submission of application requirements	Late October, 2017	Late May, 2018
Notification of results of	Early December,	Middle of July,
selection	2017	2018
Time of arrival	Late March, 2018	Late September, 2018

#### FLOW CHART FOR THE APPLICATION PROCEDURE

Applicant <u>must</u> have communications with his/her expected academic advisor (p. 12-23) at Hokkaido University.

Please visit the Program's website

(https://lab.agr.hokudai.ac.jp/en/spgp/) for the contact information.

You can also refer the research field of the Faculty members of the Research Faculty of Agriculture at the website below.

https://www.agr.hokudai.ac.jp/en

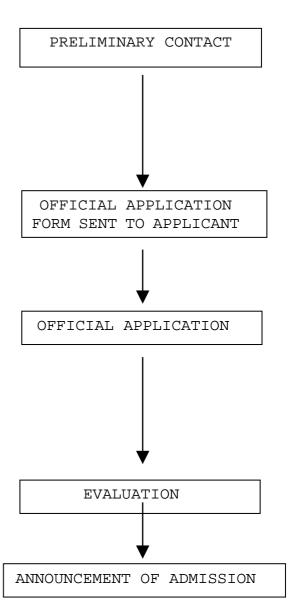
Applicant receives the official application form from Hokkaido University.

Applicant sends the official application form and required documents to the expected academic advisor at Hokkaido University.

Applicants must consult with the expected academic advisors before submitting his/her application. The application will not be considered for screening, if it is not endorsed by the expected academic advisor.

Applicant is evaluated based on his/her application documents and the e-mail interview (or interview).

Applicant is informed of the result of selection by Hokkaido University.



# THE GLOBAL EDUCATION PROGRAM FOR AGRISCIENCE FRONTIERS DIVISIONS, RESEARCH FIELDS, STAFFS AND SUBJECTS

#### DIVISION OF BIO-SYSTEMS SUSTAINABILITY

#### **©ENTOMOLOGY**

Shin-ichi AKIMOTO, Ph. D., Agr., Professor

#### Current research activities:

- 1) Phylogeny and evolution of aphids
- 2) Ecology and biodiversity of herbivorous insects
- 3) Genetic diversity and speciation in insects

#### **OPLANT NUTRITIONAL ECOLOGY**

Toshihiro WATANABE, Ph. D., Agr., Associate Professor Hayato MARUYAMA, Ph. D., Agr., Assistant Professor

#### Current research activities:

- 1) Plant adaptation to adverse soil conditions: deficiencies and toxicities of mineral elements
- 2) Plant-soil interaction in the rhizosphere
- 3) Ionomics in plant and soil

#### **©CHEMICAL BIOLOGY**

Yukiharu FUKUSHI, Ph. D., Agr., Associate Professor Kosaku TAKAHASHI, Ph. D., Agr., Lecturer

#### Current research activities:

- 1) Structures and functions of bio-catalyst to produce useful substances
- 2) The signal transduction concerning with crop plant productivity
- 3) Survey of functional substances in unused biomass and bioconversion of agricultural waste to valuable substances
- 4) Development of novel analysis method for thee remote place asymmetry discrimination of organic compounds

#### **©CHEMISTRY OF FUNCTIONAL FOODS**

Haruhide MORI, Ph. D., Agr., Professor

- 1) Enzymatic synthesis of oligosaccharides
- 2) Physiological mechanism of functional oligosaccharides

#### **©MOLECULAR PLANT-MICROBE INTERACTIONS**

Teruo SONE, Ph. D., Agr., Professor

Current research activities:

1) Molecular genetic analysis of Magnaporthe oryzae-Oryza sativa interactions

#### **©GASTROINTESTINAL MICROBIOLOGY**

Atsushi YOKOTA, Ph. D., Agr., Professor Satoru FUKIYA, Ph. D., Agr., Lecturer

Current research activities:

- 1) Analysis of bile-acid stress response in intestinal lactic acid bacteria
- 2) Metabolism of bile acids by intestinal bacteria
- 3) Effects of bile acid stress on intestinal microbiota
- 4) Development of genetic manipulation techniques in bifidobacteria

#### **©ECO-ENVIRONMENTAL INFORMATICS**

Hiroshi TANI, Ph. D., Agr., Associate Professor

Current research activities:

- 1) Effects and evaluations of natural vegetation disturbance by using satellite remote sensing
- 2) Analysis of the relationship between vegetation change and human activity in northeastern Asia
- 3) Detection of vegetation change by remote sensing technique
- 4) Evaluation of crop production using remotely sensed data from satellite and airborne observation

#### ©COMPREHENSIVE TECHNICAL MANAGEMENT FOR FOODS

Shigenobu KOSEKI, Ph. D., Agr., Associate Professor

Current research activities:

- 1) Non-thermal food processing
- 2) Predictive modeling of microbial growth and/or inactivation
- 3) Development of novel technologies for shelf life extension of foods

#### ©AGRICULTURAL AND RURAL DEVELOPMENT

Takumi KONDO, Ph. D., Agr., Professor Hideo AIZAKI, Ph. D., Agr., Associate Professor

- 1) Research on theories of economic development and agricultural development
- 2) Economic analysis of agricultural technology development and adoption of agricultural innovations
- 3) Research on population and food problem, and overseas development aid

#### **©ENVIRONMENTAL BIOGEOCHEMISTRY**

Yoshitaka UCHIDA, Ph. D., Environmental Biogeochemistry, Associate Professor

#### Current research activities:

- 1) Greenhouse gas emissions from soils and from agricultural ecosystems
- 2) Research on nutrient dynamics using stable isotope techniques
- 3) Research by combining soil physical, biological and chemical approaches
- 4) Soil microbial community structures based on metagenomics approach and their relationship with soil fertility and nutrient dynamics

#### **©TERRESTRIAL ECOSYSTEM MODELING**

Tomomichi KATO, Ph. D., Science, Assistant Professor

#### Current research activities:

- 1) Estimating the vegetation shifts due to climatic change by ecosystem modeling
- 2) Estimating the ecosystem photosynthesis by remote-sensing measurement and ecosystem modeling
- 3) Reconstruction of the climatic effect on crop production by inventory statistics and ecosystem modeling

#### **©AGRICULTURAL RESOURCE ECONOMICS**

Yoko SAITO, Ph D., Agr, Lecturer

#### Current research activities:

- 1) Technological change in both developed and developing economies
- 2) Genetic diversity of variety pool and its contribution to the agricultural production
- 3) Acceptance and diffusion rate of new technology or variety of both producers and consumers

#### **©GENOME-ENABLED BIOCHEMISTRY**

Taichi TAKASUKA, Ph.D., Science, Assistant Professor

- 1) Metagenome-guided isolation and characterization of biomass-degrading microorganisms from cellulosic environments
- 2) Genome-enabled biochemical functional determination and protein engineering to improve biofuels technology and producing a value-added products
- 3) Development of high throughput protein production and assay platform for biomass utilization

#### **DIVISION OF AGROBIOLOGY**

#### **©PATHOGEN-PLANT INTERACTIONS**

Chikara MASUTA, Ph. D., Agr., Professor Kenji NAKAHARA, Ph. D., Agr., Lecturer

#### Current research activities:

- 1) Molecular biology of plant viruses
- 2) Mechanism of the innate immunity against viruses in plants

#### **OPLANT BREEDING**

Yuji KISHIMA, Dr., Agr., Professor Itsuro TAKAMURE, Ph. D., Agr., Lecturer Yohei KOIDE, Ph. D., Agr., Assistant Professor

#### Current research activities:

- 1) Rice genetics underlying genome dynamism and phenotypic change
- 2) Developmental genetic study in rice
- 3) Genetic control of plant transposable elements

#### **©APPLIED MOLECULAR ENTOMOLOGY**

Hisanori BANDO, Ph. D., Agr., Professor Shin-ichiro ASANO, Ph. D., Agr., Associate Professor Masanao SATO, Ph. D., Agr., Assistant Professor

#### Current research activities:

- 1) Molecular biology of insect viruses
- 2) Molecular biology of insecticidal proteins of bacteria
- 3) Molecular and Systems biology of silkworm and insect biotechnology

#### **OMOLECULAR BIOLOGY**

Hitoshi ONOUCHI, Ph. D., Sci., Associate Professor Yui YAMASHITA, Ph. D., Life Science, Assistant Professor

- 1) Mechanism of genetic regulation of amino acid biosynthesis in plants
- 2) Mechanism of translational regulation of gene expression in plants
- 3) Mechanisms of nutrient sensing and trafficking of transporters in plants

#### **OMOLECULAR ENZYMOLOGY**

Atsuo KIMURA, Ph. D., Agr., Professor Masayuki OKUYAMA, Ph. D., Agr., Lecturer Takayoshi TAGAMI, Ph. D., Agr., Assistant Professor

#### Current research activities:

- 1) Reaction mechanism, structure and function of carbohydrate-active enzymes
- 2) Modification and design of enzyme by protein engineering
- 3) Enzymatic production of functional polysaccharides, megalosaccharides, oligosaccharides, and glycoconjugates
- 4) Physiological role of carbohydrate-active enzyme

#### **©ANIMAL BREEDING AND REPRODUCTION**

Masashi TAKAHASHI, Ph. D., Agr., Professor Manabu KAWAHARA, Ph. D., Agr., Associate Professor Hanako BAI, Ph. D., Agr., Assistant Professor

#### Current research activities:

- 1) Reproductive physiology in mammal
- 2) Molecular and cellular mechanisms in embryo development and differentiation
- 3) Maternal and fetal recognition in cattle

#### **©ANIMAL PRODUCTION SYSTEM**

Koichiro UEDA, Ph. D., Agr., Professor

#### Current research activities:

- 1) Energy and nitrogen flow in animal production system
- 2) Sustainable animal production system based on ecosystem
- 3) Newly applied system of animal production

#### **©ANIMAL NUTRITION**

Yasuo KOBAYASHI, Ph. D., Agr., Professor Satoshi KOIKE, Ph. D., Agr., Associate Professor Yutaka SUZUKI, Ph. D., Agr., Assistant Professor

#### Current research activities:

- 1) Digestive mechanisms in herbivorous animals
- 2) Exploration and evaluation of new feed and additive candidates
- 3) Functional analysis of gut microbiota and its application within and beyond animal industry
- 4) Physiology in development and function of gastrointestinal tissue

#### **©APPLIED PLANT GENOMICS**

Maria Stefanie Dwiyanti, Ph. D., Agr., Assistant Professor

- 1) Genetic analysis of vitamin E Content in soybean and wild soybean
- 2) Genomic prediction study of yield related traits of bioenergy crop Miscanthus

#### DIVISION OF APPLIED BIOSCIENCE

#### **OMOLECULAR AND ECOLOGICAL CHEMISTRY**

Yasuyuki HASHIDOKO, Dr., Agr., Professor Makoto HASHIMOTO, Ph. D., Pharm., Associate Professor Yasuko SAKIHAMA, Dr., Sci., Lecturer

#### Current research activities:

- 1) Analysis of plant-microbe interaction in ecosystems
- 2) Microbe and plant secondary metabolites: chemistry, formation, functions, and application to agriculture.
- 3) Synthesis and developments of chemical tools for chemical biology studies

#### **©NATURAL PRODUCT CHEMISTRY**

Hideyuki MATSUURA, Ph. D., Agr., Professor

#### Current research activities:

- 1) Research of the internal bio-active compounds regulating the life cycles of plants
- 2) Research of the bio-active ingredients of ethonopharmacological plants
- 3) Research of novel plant growth regulators
- 4) Research of phloem borne signals to put systemic aguired resistance in mortion

#### **©BIOCHEMISTRY**

Wataru SABURI, Ph. D., Agr., Assistant Professor

- 1) Molecular mechanism of carbohydrate metabolism
- 2) Biochemical analysis of carbohydrate metabolizing enzymes
- 3) Screening carbohydrate metabolizing enzymes with novel functions

#### **©MICROBIAL PHYSIOLOGY**

Masaru WADA, Ph. D., Agr., Associate Professor

#### Current research activities:

- 1) Engineering of energy metabolism for breeding and functional analysis of industrially useful microorganisms (*Escherichia coli*, *Corynebacterium glutamicum*)
- 2) Screening and utilization of non-proteogenic amino acid converting enzymes, useful for enzymatic production process

#### **©FOOD SCIENCE FOR HEALTH AND THERAPEUTICS**

Hiroshi HARA, Dr., Agr., Professor Tohru HIRA, Ph. D., Agr., Lecturer

- 1) Research for physiological functions of nondigestible saccharides
- 2) Research for prevention and therapeutics of diseases with food peptides
- 3) Research for intestinal absorption and physiological effects of lipids and polyphenols

#### **ONUTRITIONAL BIOCHEMISTRY**

Satoshi ISHIZUKA, Ph. D., Agr., Associate Professor

#### Current research activities:

- 1) Role of dietary factors in maintaining homeostasis in relation to nutrition
- 2) Bile acid metabolism and development of metabolic disorders

#### **©FOOD BIOCHEMISTRY**

Jun KAWABATA, Ph. D., Agr., Professor Kei SONOYAMA, Ph. D., Agr., Associate Professor Eisuke KATO, Ph. D., Sci., Lecturer

#### Current research activities:

- 1) Structural and chemical studies on digestive enzyme inhibitors in plants
- 2) Structure and molecular mechanism of antiobesity and antidiabetic substances in plants
- 3) Search for various physiologically active compounds from natural sources

#### **©WOOD CHEMISTRY AND CHEMICAL BIOLOGY**

Kengo SHIGETOMI, Ph. D., Agr., Lecturer

#### Current research activities:

Synthesis and screening of bioactive substances from biomass; Action mechanisms of bioactive substances in mammalian cells; Biosynthesis and reactivity of woody biomass components and their intensive utilization

#### ©RHIZOSPHERE CONTROL

Tatsuhiro EZAWA, Ph. D., Agr., Associate Professor

#### Current research activities:

- 1) Mechanism of nutrient acquisition in plant-fungal symbiotic associations
- 2) Role of symbiotic microorganisms in the establishment of pioneer plants in stressed soil
- 3) Physiology and molecular ecology of plant symbiotic/parasitic microorganisms

#### ©MOLECULAR ENVIRONMENTAL MICROBIOLOGY

Tomohiro TAMURA, Ph. D., Med., Professor Yoichi KAMAGATA, Ph. D., Agr., Professor Isao YUMOTO, Ph. D., Sci., Professor Naoki MORITA, Ph. D., Sci., Associate Professor Wataru KITAGAWA, Ph. D., Sci., Associate Professor Yoshitomo KIKUCHI, Ph. D., Sci., Associate Professor Souichiro KATO, Ph. D., Agr., Associate Professor

- 1) Searching for useful genomic resources for bioprocessing applications
- 2) Development of a microbial biofactory that can be used for multiple purposes
- 3) Cultivation of uncultured microbes and functional analysis of microbial communities
- 4) Elucidation of adaptation mechanisms in extremophiles and their industrial applications
- 5) Construction of high-level expression system in microorganisms using genomic information

- 6) Development of microbial production system of functional lipids using genetic engineering
- 7) Elucidation of microbial "Dormant—Resuscitation cycle" mechanism and function
- 8) Elucidation of molecular mechanisms underpinning insect-microbe gut symbioses
- 9) Investigation of microbial anaerobic energy metabolisms and their industrial applications

#### DIVISION OF ENVIRONMENTAL RESOURCES

#### **©ANIMAL ECOLOGY AND EVOLUTION**

Hitoshi ARAKI, Dr., Sci., Professor

#### Current research activities:

- 1) Rapid genetic adaptation of living organisms to environmental changes
- 2) Influence of anthropogenic changes onto animal species in the wild
- 3) Maintenance mechanisms of biodiversity in ecosystems

#### **OPHYLOGENETIC SYSTEMATICS**

Kazunori YOSHIZAWA, Dr., Sci., Associate Professor

#### Current research activities:

- 1) Phylogenetic systematics based on morphological and molecular data
- 2) Descriptive taxonomy
- 3) Co-evolution between host and parasite

#### **©SOIL SCIENCE**

Ryusuke HATANO, Dr., Agr., Professor Osamu NAKAHARA, Dr., Agr., Associate Professor Kanta KURAMOCHI, Dr., Agr., Lecturer

#### Current research activities:

- 1) Biogeochemical nutrient cycling in agro-ecosystems
- 2) Quantitative land evaluation for trade-off relations between crop productivity and environmental capacity
- 3) Greenhouse gas emissions in soil ecosystems

#### **©SILVICULTURE AND FOREST ECOLOGY**

Takayoshi KOIKE, Dr., Agr., Professor Masato SHIBUYA, Dr., Agr., Associate Professor Hideyuki SAITO, Dr., Agr., Lecturer

- 1) Silviculture and breeding of forest tree species under changing environment
- 2) Ecophysiological analysis of biological stresses on woody plants and its dedicate to biodiversity conservation

#### **©FOREST CHEMISTRY**

Yasumitsu URAKI, Ph. D., Sci., Professor Keiichi KODA, Ph. D., Agr., Lecturer

#### Current research activities:

- 1) Establishment of novel biomass refinery system
- 2) Creation of artificial wood cell wall
- 3) Lignin functionalization and development of lignin-based functional materials
- 4) Development of nanofibers from cellulosics
- 5) Elucidation of biosynthesis and biodegradation pathways of woody components

#### **©FOREST ECOSYSTEM MANAGEMENT**

Futoshi NAKAMURA, Ph. D., Agr., Professor Junko MORIMOTO, Ph. D., Agr., Associate Professor

#### Current research activities:

- 1) Assessing the effects of natural and human disturbances on biodiversity
- 2) Investigation on land abandonment and following recovery of ecosystems
- 3) Evaluation of biodiversity and ecosystem services at regional scale
- 4) Restoration of stream, wetland and forest ecosystems

#### ©EARTH SURFACE PROCESSES AND LAND MANAGEMENT

Takashi YAMADA, Dr., Agr., Professor Mio KASAI, Ph. D., Environmental Sciences, Associate Professor Shin'ya KATSURA, Ph. D., Agr., Assistant Professor

#### Current research activities:

- 1) Landslide susceptibility
- 2) Hillslope and channel processes in mountainous regions
- 3) Catchment-scale sediment delivery

#### **©FOREST POLICY**

Hiroaki KAKIZAWA, Dr., Agr., Professor Yasushi SHOJI, Dr., Agr., Associate Professor

#### Current research activities:

- 1) Collaborative forest governance
- 2) Comparative study of institutional framework of forest policy
- 3) Valuing environmental goods and services derived from the forests

#### **©LAND AND WATER MANAGEMENT**

Takashi INOUE, Dr., Agr., Professor Tadao YAMAMOTO, Dr., Agr., Lecturer

- 1) Utilization, management and conservation of rural resources
- 2) Landuse and water environment relationship on river watersheds
- 3) Irrigation and drainage facilities and systems as social common capital

#### ©ECOLOGICAL AND ENVEIRONMENTAL PHYSICS

Ryoji SAMESHIMA, Dr., Agr., Professor

Takashi HIRANO, Ph. D., Agr., Professor

Keiji OKADA, Dr., Agr., Lecturer

Hiroyuki YAMADA, Ph. D., Agr., Lecturer

Current research activities:

- 1) Heat, water and mass transfer and their balances in various land surfaces and terrains
- 2) Response of crop growth and yield to meteorological condition
- 3) Evaluation and utilization of climatic resources on agriculture for cold region
- 4) Monitoring and assessment of terrestrial ecosystem functions and disturbance effects on the functions
- 5) Ecological and hydrological assessment for wetland conservation

#### **©SOIL PHYSICS**

Munehide ISHIGURO, Ph. D., Agr., Professor

Current research activities:

- 1) Solute transport and adsorption in soils; nutrients and contaminants such as surfactants, phosphate, ions etc.
- 2) Influence of soil electric phenomena on soil structures and environment

#### **SOIL CONSERVATION**

Junichi KASHIWAGI, Ph. D., Agr., Lecturer

Current research activities:

- 1) Estimation of soil fertility and soil improvement
- 2) Soil conservation considering with soil material movement and cycle

#### **OVEHICLE ROBOTICS**

Noboru NOGUCHI, Ph. D., Agr., Professor Hiroshi OKAMOTO, Ph. D., Agr., Associate Professor

Current research activities:

- 1) Agricultural robot
- 2) ICT for agriculture
- 3) Utilization of aerial and surface vehicles for agriculture
- 4) Biomass energy

#### **©AGRICULTURAL AND FOOD PROCESS ENGINEERING**

Shuso KAWAMURA, Ph. D., Agr., Professor

- 1) Postharvest process for agricultural products and optimum managing techniques during food processing
- 2) Optimum managing techniques for microorganisms

#### **©CROP PRODUCTION ENGINEERING**

Yoichi SHIBATA, Ph. D., Agr., Professor 💥

Current research activities:

- 1) Energy saving for crop production
- 2) Estimation of energy balance and environmental impact
- 3) Agricultural machinery

#### **©AGRICULTURAL CIRCULATIVE ENGINEERING**

Kazunori IWABUCHI, Dr., Agr., Professor Naoto SHIMIZU, Dr., Agr., Associate Professor

Current research activities:

- 1) Bioresource engineering
- 2) Carbonization
- 3) Composting
- 4) Biorefinery

#### **©ENTOMOLOGY**

Masahiro OHARA, Dr., Agr., Professor

Current research activities:

- 1) Systematic entomology
- 2) Museum collection and activity
- 3) Bio-informatics and database

#### **©APPLIED BIOPRODUCTION ENGINEERING**

Kazunobu ISHII, Ph. D., Agr., Associate Professor

Current research activities:

- 1) Development of sensing system to obtain the information of bioproduction
- 2) Development of electrical control unit for variable rate application technology corresponding to the ISO-BUS

Those with  $\times$  will be resigned (retired) as of March 31, 2018

#### はじめに

北海道大学は1876年に札幌農学校として創立された日本で最初の高等農業科学教育研究施設であり、我が国初めての学士授与教育機関である。

本学は12の学部・22の大学院研究科(院)・22の研究所および研究センターなどからなり、4、000名の教職員・11、900名の学部学生及び6、300名の大学院学生から成り立ち、その中には89ヶ国・1、800名の外国人留学生が含まれている。(人数は概数)

北海道大学の全ての学部・研究科において、農学部は140年以上の長い歴史を持つ最古の学 部であり、北海道の開拓という目的の為に創設されて以来、農学分野では常に先端を歩む大学で あり多くの著名人を輩出した。

今日,北海道大学農学部は日本の国立大学法人\*の中で最も権威のある学部の1つであり,入学者のうち北海道以外の出身者が7割以上を占めている。大学院農学研究院もまた同様であり,併せて質の高い教授及び職員が在籍している。西暦2000年には大学院教育に重点を置いた「大学院重点化大学」へと移行し、21世紀に於いて日本の最も優秀な大学の1つとして,最高のレベルを維持しようとしている。

「包括的先進農業フロンティア育成のための国際教育プログラム」「」(以下,先進農学フロンティア特別コース)は、それまでの「生存基盤科学特別コース」を基盤として、新たに2018年4月に設立される。本プログラムは、地球上の限られた資源の保全と持続的活用によって未来における人類の生存基盤を確立する為に必要な、食物、健康科学、環境に係る教育研究の独創的なプログラムを提供する。

なお、プログラムの性格上、教育・研究に使われる言語は英語であり、我々はこのチャンスを ぜひ有効に活用していただきたいと思っている。

2017年9月1日

農学院長

教授 横 田 篤

先進農学フロンティア特別コース長 教授 岩 渕 和 則

\*2004年4月1日より日本の国立大学は、全て国立大学法人へと移行した。

#### 募集要項(博士後期課程)

#### 博士後期課程の特徴について

- (1) すべての講義・研究・論文指導は英語で行われるが、在籍中に日本語を習得することが望ましい。
- (2) 課程在籍中に行った研究の成果に基づき学位論文を英語で執筆し、先進農学フロンティア 特別コースの学位授与審議委員会の審査及び口頭諮問を受けなければならない。学術的に 十分な成果が得られた場合には博士(農学)の学位が授与される。

#### 1. 研究分野と募集人員について

#### 1-1 研究分野

- (1) 先進農学フロンティア特別コースに属する研究室の研究テーマに関連した研究分野 (12-23 ページ参照) であること。
- (2) 指導予定教員の許可がなければ、出願することができない。出願する前には指導予定教員と、受入れ手続きと研究内容について十分に打ち合わせをしておかなければならない。

#### 1-2 募集人員 (予定)

若干名の学生が選抜される。先進農学フロンティア特別コースは4名の学生を日本政府(文部科学省)による国費外国人留学生候補者(以下「**国費外国人留学生**」)として推薦する。

これとは別にその他の国費留学生(大使館推薦等)も選抜されることがある。これを国費の定員枠外留学生と呼ぶ。定員枠外とは、上記4名以外の国費枠留学生を表す(以下「**国費定員枠外留学生**」)。

また,数名の他の経済的支援からなる学生(以下「私費外国人留学生」)を選抜する。

#### 2. 出願資格

#### 2-1 国籍

「国費外国人留学生」: 日本政府が定めた対象国に居住し、日本国以外の国籍を持つ者。

先進農学フロンティア特別コースの修士課程修了予定者も含む。

「国費定員枠外留学生」: それぞれの国費留学生採用枠における条件を満たす者。

「私費外国人留学生」: 日本国以外の国籍を持つ者。

#### 2-2 年齢

「国費外国人留学生」: 2018年4月1日において35歳未満の者。

(1983年4月2日以降に出生した者)

「国費定員枠外留学生」: それぞれの国費留学生採用枠における条件を満たす者。

「私費外国人留学生」: 年齢制限はない。

#### 2-3 学歴

「国費外国人留学生」

- (1) 修士の学位又は専門職学位を有する者及び2018年9月までに授与見込みの者。
- (2) 外国において修士の学位又は専門職学位に相当する学位を授与された者及び201

8年9月までに授与見込みの者。

- (3) 我が国において、外国の大学院の課程を有する者として当該外国の学校教育制度において位置付けられた教育施設であって、文部科学大臣が別に指定するものの当該課程を修了し、修士の学位又は専門職学位に相当する学位を授与された者及び2018年9月までに授与見込みの者。
- (4) 国際連合大学本部に関する国際連合と日本国との間の協定の実施に伴う特別措置法 (昭和51年法律第72号)第1条第2項に規定する1972年12月11日の国際連合総会決議に基づき設立された国際連合大学の課程を修了し、修士の学位に相当する学位を授与された者及び2018年9月までに授与見込みの者。
- (5) 外国の学校, (3) の指定を受けた教育施設又は国際連合大学の教育課程を履修し, 大学院設置基準第16条の2に規定する試験及び審査に相当するものに合格し,修 士の学位を有する者と同等以上の学力があると認められた者及び2018年9月 までに認められる見込みの者。
- (6) 文部科学大臣の指定した者(平成元年文部省告示第118号及び平成13年文部科学省告示第55号)

ただし、入学時において4年以上の在職経験がある者とする。

①大学を卒業し、大学、研究所等において、2年以上研究に従事した者で、本学院において当該研究の成果等により、修士の学位を有する者と同等以上の学力があると認めた者。

②外国において学校教育における16年の課程を修了した後,又は外国の学校が行う通信教育における授業科目を我が国において履修することにより当該外国の学校教育における16年の課程を修了した後,大学,研究所等において,2年以上研究に従事した者で,本学院において,当該研究の成果等により,修士の学位を有する者と同等以上の学力があると認めた者。

(7) 本学院において、個別の出願資格審査により、修士の学位又は専門職学位を有する者と同等以上の学力があると認めた者で、2018年9月30日までに24歳に達する者。

「国費定員枠外留学生」および「私費外国人留学生」

#### 4月入学者

- (1)修士の学位又は専門職学位を有する者及び2018年3月までに授与見込みの者。
- (2) 外国において修士の学位又は専門職学位に相当する学位を授与された者及び201 8年3月までに授与見込みの者。
- (3) 我が国において、外国の大学院の課程を有する者として当該外国の学校教育制度に おいて位置付けられた教育施設であって、文部科学大臣が別に指定するものの当該 課程を修了し、修士の学位又は専門職学位に相当する学位を授与された者及び20 18年3月までに授与見込みの者。
- (4) 国際連合大学本部に関する国際連合と日本国との間の協定の実施に伴う特別措置法 (昭和51年法律第72号)第1条第2項に規定する1972年12月11日の国 際連合総会決議に基づき設立された国際連合大学の課程を修了し、修士の学位に相

当する学位を授与された者及び2018年3月までに授与見込みの者。

- (5) 外国の学校,(3) の指定を受けた教育施設又は国際連合大学の教育課程を履修し, 大学院設置基準第16条の2に規定する試験及び審査に相当するものに合格し,修士 の学位を有する者と同等以上の学力があると認められた者及び2018年3月ま でに認められる見込みの者。
- (6) 文部科学大臣の指定した者(平成元年文部省告示第118号及び平成13年文部科学省告示第55号)

ただし、入学時において4年以上の在職経験がある者とする。

- ①大学を卒業し、大学、研究所等において、2年以上研究に従事した者で、本学院において当該研究の成果等により、修士の学位を有する者と同等以上の学力があると認めた者。
- ②外国において学校教育における16年の課程を修了した後,又は外国の学校が行う通信教育における授業科目を我が国において履修することにより当該外国の学校教育における16年の課程を修了した後,大学,研究所等において,2年以上研究に従事した者で,本学院において,当該研究の成果等により,修士の学位を有する者と同等以上の学力があると認めた者。
- (7) 本学院において、個別の出願資格審査により、修士の学位又は専門職学位を有する者と同等以上の学力があると認めた者で、2018年3月31日までに24歳に達する者。

#### 10月入学者

4月入学者と同じであるが、2018年3月31日を2018年9月30日に読み替える。

- 2-4 成績:直近2年の学業成績係数(3点満点)が2.30以上の者を対象とする。詳細は指導予 定教員の指示に従うこと。
- 2-5 健康状態:医師によって心身共に健康であると証明された者。
- 2-6 言語:英語が堪能である者。
- 2-7 注意事項
  - (1) 現役軍人または軍属の資格の者は出願することができない。
  - (2) 出願資格(5)(6)(7)によって出願する者は、別途必要な書類があるので少なくとも 出願提出期限の3ヶ月前までに問い合わせること。
- 2-8 問合せ先

本プログラムに関する質問等は、農学・食資源学事務部教務・学生担当まで E-mail (kyomu@agr.hokudai.ac.jp) で連絡のこと。なお E-mail には希望する研究分野と指導予定教員名を含めること。

#### 3. 個人情報の取扱いについて

・本学では、出願書類に記載されている氏名、住所その他の個人情報は、入学者選抜及び合格 発表並びに入学手続きを行うために利用する。また、同個人情報は、合格者のみ入学後の教 務関係(学籍、修学指導等)、学生支援関係(健康管理、奨学金申請等)、授業料等に関す る業務を行うために利用する。

・個人情報のうち、氏名、住所に限って、北大フロンティア基金及び本学関連団体である北海 道大学体育会からの連絡を行うために利用する場合がある。

#### 4. 国費外国人留学生の出願について

- 4-1 出願に係る注意事項
  - (1) 事前に指導予定教員と連絡を取り、打ち合わせを行わなければならない。事前打ち合わせ が無い出願は受け付けない。
  - (2)以下に表記している出願書類の原本を,2017年12月31日までに指導予定教員宛に 提出しなければならない。(これらの出願書類は出願期間内に必着であること)。
  - (3) 出願後の辞退は一切受け付けない。
  - (4) 出願方法については33ページに図示している。
  - (5) 他の奨学金を受給している者は国費留学生として採用されない。
  - (6) 出願時提出された書類に虚偽が発見された場合には、奨学金の支給は停止され合格が取り 消される。
- 4-2 入学者選抜方法

申請書類及びメールインタビューもしくは面談によって審査される。

4-3 出願書類

以下にあるすべての書類を、航空郵便書留で送付すること。

- (1) 入学願書(本要項の用紙により,両面印刷とすること。所定の欄に写真貼付) ※入学申請書の 6.i) 研究の背景, ii) 研究計画は,事前協議に基づいて作成すること。
- (2) 国費外国人留学生(文部科学省)申請用紙(交付の用紙により,両面印刷とすること。所定の欄に写真貼付)。指導予定教員とその他の教員による計9回以上のメールインタビューが実施される。
- (3) 健康診断書(過去6ヶ月以内に発行されたもの。本要項交付の用紙によること)
- (4) 卒業証書および修士学位記のコピー,もしくは卒業および修了証明書(修士課程を修了 見込みの者は修了期日が明記された修了見込証明書)。
- (5) 成績証明書 (学士・修士課程のもの)
  - ※注:国費外国人留学生は直近2年の学業成績係数(3点満点)が2.30以上の者を対象と する。成績証明書には、単位取得時期(少なくとも年/学期)が明記されていること。
- (6) GPAやA/B/Cなどの記載がされており、最終出身大学において優秀であることを証明する書 箱
- (7) 英語能力証明書(TOEFLなど)もしくは出身大学の英語教員による英語能力証明書(本要項に添付の用紙によること)
- (8) 市民権を証明する書類(母国の住民であることを証明できるもの)。パスポートのコピーが望ましい。
- (9) 推薦書:1通(所属する学部等の長・研究機関等の長から北海道大学総長名和豊春教授宛 て)
- (10) 卒業論文および修士論文の要旨(A4またはレターサイズ判,各1枚)

(11)検定料 免除する。

その他

- (1) 書類は、可能な限り文書作成ソフト等を用いて、全てA4またはレターサイズ判両面印刷に統一して作成すること。
- (2) 書類に不備がある場合もしくは不正であると判明した場合は一切受け付けない。出願期間を経過し願書等が到着した場合も受け付けない。
- (3) 提出された書類は返還しない。
- (4) 見込証明書を提出している者は、正式な修了証明書等が発行され次第提出すること。

#### 4-4 合格者発表

審査に合格した者は、先進農学フロンティア特別コース教授会にて合格判定後、入学候補者として承認される。最終的には、北海道大学大学院農学院教授会によって合格者が決定される。国費奨学金支給決定については、2017年8月上旬頃に文部科学省からの奨学金支給決定と試験結果が通知され、合格者は本学院学生として入学が許可される。

- 4-5 国費外国人留学生に係る補足説明
  - (1)渡日時期

採用された者は9月末までに渡日すること。

(2) 入学料及び授業料 入学料及び授業料は免除される。

(3) 奨学金

標準修業年限を超える奨学金の延長は認められない。大学を長期に亘り不在とした場合, または、学業の進捗状況が悪い場合、奨学金は支給されない。

(4) 渡日旅費

文部科学省は採用決定者の国籍国の居住地に最も近い国際空港から,日本国内で最初に到着する国際空港までのエコノミークラス航空券を支給する。(注意:採用決定者は自国内での空港までの旅費,日本国内の旅費,空港税,旅行傷害保険料等を負担しなければならない。)

(5) 学生教育災害傷害保険

研究を開始する前に学生教育研究災害傷害保険に加入しなければならない。保険料は3年間で3,620円である(変更となる場合もある)。

#### 5. 研究生(国費定員枠外留学生(大使館推薦等))からの出願について

5-1 出願書類

以下にあるすべての書類を、農学・食資源学事務部教務・学生担当窓口まで提出すること。 書類は、可能な限り文書作成ソフト等を用いて全てA4またはレターサイズ判両面印刷に 統一して作成すること。

- (1) 入学願書(本要項の用紙により,両面印刷とすること。所定の欄に写真貼付) ※入学申請書の 6.i) 研究の背景,ii) 研究計画は,事前協議に基づいて作成すること。 なお,3名の教員により計3回以上,研究のテーマや研究計画について面談が実施される。
- (2)健康診断書 (過去6ヶ月以内に発行されたもの。本要項の用紙によること)

(3)検定料 免除する。

#### 5-2 諸事項

各日程については32ページの第1表を参照すること。入学者選抜方法(4-2),入学金及び授業料(4-5 (2)),傷害保険(4-5 (5))については国費外国人留学生と同じである。

#### 6. 私費外国人留学生の出願について

- 6-1 出願に係る注意事項
  - (1) 事前に受入れ予定教員と連絡を取り、打ち合わせを行わなければならない。事前打ち合わせが無い出願は受け付けない。
  - (2) 以下に表記している出願書類を,第1表に示す期日までに受入れ予定教員宛に提出しなければならない。(これらの出願書類は出願期間内に必着であること)。 出願方法については33ページに図示している。
  - (3) 出願時に提出された書類に虚偽が発見された場合には合格が取り消される。
- 6-2 入学者選抜方法

申請書類及びメールインタビューによって審査される。

6-3 出願書類

以下にあるすべての書類を、航空郵便書留で送付すること。

(1) 入学願書(本要項の用紙により、両面印刷とすること。所定の欄に写真貼付)

※入学申請書の 6.i)研究の背景, ii)研究計画は、事前協議に基づいて作成すること。 3名の教員により、計 6 回以上のメールインタビューが実施される。直接面談可能な場合はメールインタビューを面談に代えることがある。この場合は、3名の教員により計 3 回以上の面談が実施される。

すでに研究生として在籍している場合は、3名の教員により計3回以上の面談が実施される。

- (2) 健康診断書(過去6ヶ月以内に発行されたもの。本要項の用紙によること)
- (3) 卒業証書および修士学位記のコピー,もしくは卒業および修了証明書(修士課程を修了 見込みの者は修了期日が明記された修了見込証明書)。修士の学位を有しないが博士論文 研究基礎力審査に合格した者は、修士学位記(修了証明書)に代えて当該審査に合格した 証明書。
- (4) 成績証明書 (学士・修士課程のもの)

※注:私費外国人留学生は直近2年の学業成績係数(3点満点)が2.30以上の者を対象とする。成績証明書には、単位取得時期(少なくとも年/学期)が明記されていること。

- (5) 英語能力証明書 (TOEFL など) また, TOEFL 等の試験が無い国は出身大学の英語教員による英語能力証明書 (本要項に添付の用紙によること)
- (6) 市民権を証明する書類(母国の住民であることを証明できるもの)パスポートのコピーが望ましい。
- (7)推薦書:1通(所属する学部等の長・研究機関等の長から北海道大学総長名和豊春教授宛 て)

- (8) 卒業論文および修士論文の要旨(A4またはレターサイズ判,各1枚)
- (9) 検定料30,000円(支払い方法は指導予定教員と相談すること)
  - ※中国政府派遣留学生,総長奨励金留学生,私費外国人留学生特待プログラム留学生,及び本学大学院修士課程修了見込みの者は、検定料の振込を要しない。
  - ※出願書類を受理した後は、いかなる理由があっても払込済の検定料は返還しない。

#### その他

- (1) 書類は、可能な限り文書作成ソフト等を用いて、全てA4またはレターサイズ判両面印刷 に統一して作成すること。
- (2) 書類に不備がある場合、もしくは不正であると判明した場合は一切受け付けない。出願期間を経過し願書等が到着した場合も受け付けない。
- (3) 提出された書類は返還されない。
- (4) 見込証明書を提出している者は、正式な修了証明書等が発行され次第提出すること。

#### 6-4 合格者発表

出願者には第1表に定められた期日に試験結果が通知され、合格者は本学院学生として入 学が許可される。

- 6-5 私費外国人留学生に係る補足説明
  - (1)渡日時期

2018年4月もしくは10月のいずれかの入学時期を選択することができる。また、入 学時期に伴い出願期間が定められている。応募者は第1表を参照し、入学時期等を考慮し て出願すること。

- (2) 入学料: 282,000円 (2017年度実績)
- (3) 授業料:267,900円 (年間535,800円・2017年度実績)
  - ※入学料及び授業料は改定される場合がある。
  - ※本学大学院修士課程から引き続き博士後期課程に進学する者は入学料の振込を要しない。
  - ※中国政府派遣留学生、総長奨励金留学生及び私費外国人留学生特待プログラム留学生は、 入学料及び授業料の振込を要しない。
- (4) 学生教育研究災害傷害保険

研究を開始する前に学生教育研究災害傷害保険に加入しなければならない。保険料は3年間で3,620円である(変更となる場合もある)。

#### 7. 本学農学院修士課程から博士後期課程への進学者について

#### 7-1 出願書類

以下にあるすべての書類を,農学・食資源学事務部教務・学生担当窓口まで提出すること。書類は,可能な限り文書作成ソフト等を用いて全てA4またはレターサイズ判両面印刷に統一して作成すること。

(1) 入学願書(本要項の用紙により,両面印刷とすること。所定の欄に写真貼付) ※入学申請書の 6.i)研究の背景, ii)研究計画は,事前協議に基づいて作成すること。 なお,奨学金支給期間延長申請書の「研究計画又は研究状況」のコピーを提出するものは 入学申請書の 6. i ) 研究の背景, ii ) 研究計画を省略することができる。(私費留学生を除く)

3名の教員により計3回以上の面談が実施される。

- (2) 健康診断書 (北海道大学保健センター発行のもの。進学予定者は4月の定期健康診断を 必ず受診すること。)
- (3) 検定料 免除する。

#### 7-2 諸事項

願書提出期限,合格発表の日程については第1表を参照すること。本項目7は,国費外国人留学生(10月入学),国費定員枠外留学生(4月あるいは10月入学),私費外国人留学生(4月あるいは10月入学)を含む。

- 7-3 本学農学院修士課程から博士後期課程への進学者に係る補足事項
- (1) 入学料 免除する。
- (2) 授業料:267,900円 (年間535,800円・2017年実績)

※国費外国人留学生,国費定員枠外留学生,中国政府派遣留学生,総長奨励金留学生及び 私費外国人留学生特待プログラム留学生は,授業料の振込を要しない。

(3) 学生教育研究災害傷害保険

研究を開始する前に学生教育研究災害傷害保険に加入しなければならない。保険料は3年間で3,620円である(変更となる場合もある)。

#### 第1表 国費定員枠外留学生、私費外国人留学生及び内部進学者に係る日程について

	4月入学者	10月入学者
願書提出期限	2017年10月下旬	2018年 5月下旬
合格発表	2017年12月初旬	2018年 7月中旬
渡日時期	2018年 3月下旬	2018年 9月下旬

#### 出願の流れ図

出願者は p12-23に示した指導予定教員と連絡をとる。教員の 事前コンタクト 連絡先は本コースのウェブサイトを参照のこと。 https://lab.agr.hokudai.ac.jp/en/spgp/ 農学研究院の教員の研究分野は以下の農学研究院・農学院 ウェブサイトでも閲覧可能。 https://www.agr.hokudai.ac.jp/ 出願者は, 願書を受取る。 出願者へ募集要項の送付 指導予定教員に出願書類を郵送する。 指導予定教員へ出願書類を送付 指導予定教員の許可がなければ、出願することができない。 出願する前には指導予定教員と, 研究内容について十分に打ち合わせを行うこと。  $\downarrow$ 出願書類及びメールインタビュー 審査 もしくは面談によって審査される。 合否が通知される。 合否通知