

**Academic Year 2022**

**Division of Life Science  
Division of Soft Matter  
Graduate School of Life Science  
Hokkaido University**

**Master's Course**

(Former Period of Doctoral Program)

**Summer Selection**

**Application Guidelines for  
Entrance Examination**

For enrollment October 2021 or April 2022

**(Admission for International Students Residing in Japan)**

**June 2021**

## Important Notice

In order to prevent the spread of COVID-19, the examination may be conducted in a different way from the description on this guideline, or it will be postponed/cancelled.

## Schedule for Entrance Examination Graduate School of Life Science 2022

Division of Life Science / Division of Soft Matter : Master's Course (Former Period of Doctoral Program)

Master Course	Open Division and Course	Examination Date
Summer Selection	Division of Life Science - Transdisciplinary Life Science Course, Biosystems Science Course, Biomedical and Pharmaceutical Science Course Division of Soft Matter	August 17 – August 18, 2021
Fall Selection	*This selection will be conducted only if the admission capacity does not reach the maximum number allotted for each division and course in the Summer Selection.	October 21 – 22, 2021 (tentative)
Winter Selection	Division of Life Science (Tentative) - Transdisciplinary Life Science Course, Biosystems Science Course Division of Soft Matter (Tentative)	January 12 – 13, 2022 (tentative)

\* It will be announced on the web site in early September whether the fall selection is carried out or not.

\* The guidelines for the winter selection will be issued in November and announced on the website.

\* If you wish to work with a particular supervisor or in a specified laboratory, please apply for the summer selection.

The capacity of students for each supervisor and laboratory is limited. Therefore, applicants may be assigned to a laboratory (other than the one they chose) in the same division if the fixed number is exceeded.

## **Personal Information Management by Hokkaido University**

- (1) In handling personal information obtained from applicants, Hokkaido University makes every effort to protect this information through appropriate management based on the “National University Corporation Hokkaido University Personal Information Management Rules” and relevant laws and ordinances such as the “Protection Law for Private Information Held by Independent Administrative Corporations”.
- (2) Personal information, such as name, address, etc., provided by the applicant to the university in the process of applying for admission will be used only for 1) assessment of applicants, 2) the announcement of results, 3) enrollment procedures, 4) surveys and research on enrollee selection methods, and 5) business operations pertaining to 1–4.
- (3) Companies commissioned by the University to engage in the relevant operations (hereafter called “commissioned companies”) may handle personal data. Part or all of the personal information submitted to the University by the applicant will be provided to the commissioned companies, to the extent necessary for them to carry out their duties.
- (4) After successful applicants are enrolled, personal information they provided on their application forms will be used for 1) educational affairs (such as registration, educational guidance, etc.), 2) student support services (such as health administration, fellowship applications, etc.), 3) career support and 4) business operations related to their tuition fees and other expenses.
- (5) Among the personal information of (4), only name and address may be used to contact from Hokkaido University Frontier Foundation, Hokkaido University Athletic Union, Alumni Association of the School of Science, Alumni Association of the Faculty of Pharmaceutical Sciences and Alumni Association Elm of Hokkaido University under safety measure.

## Admission Policy of Graduate School of Life Science

The Graduate School of Life Science provides students with the training that allows them to acquire an interdisciplinary knowledge of advanced life science, from the level of molecules to organisms. We provide comprehensive education with participation by instructors specialized in fields in the basic and applied life sciences, science, pharmaceutical science, medicine, and agriculture.

### ▪ Type of Students we seek

#### <Division of Life Science>

The educational goal of training in the Division of Life Science is to enable students to comprehensively understand various living phenomena through biomolecular interactions, and to apply their knowledge and techniques in real life. On these principles and aims, we seek:

1. Students having a strong intention to study not only basic life science but also the primary level of applied life science, as in medicine, pharmaceutical science, veterinary medicine, agriculture, fisheries science and biotechnology, and willing to acquire advanced analytical techniques and broad, in-depth knowledge of life science.
2. Students having technical capabilities for advanced scientific research and having a strong intention to become a research professional in private firms, national or local governments.

#### <Division of Soft Matter>

The Division of Soft Matter seeks students who desire to be capable of integrating material science and a wide range of life science and developing soft matter science, understanding the structure and function of living matter from the viewpoint of material science, designing and constructing advanced soft matter and applying those finding to other fields.

The Division especially seeks following students.

1. Students who wish to learn basic physics, chemistry and biology and to develop analytical and manufactural techniques in the field of soft matter.
2. Students who wish to acquire technical capabilities for advanced scientific research and to have a strong intention to become educators, researchers or research professional in private firms.

### ▪ What is Expected to be Learned Before Admission

1. Basic academic skills and knowledge in Life Sciences
2. Basic knowledge in each specialized field that is necessary to engage in research in the graduate school

### ▪ Principle Selection Policy (Multiple-layered Evaluation Method)

#### 【General Category】

By written examination, applicants will be evaluated their levels of “knowledge and skills”, “ability to think/judge/express” and “comprehension.”

By oral examination, applicants will be evaluated their levels of “knowledge and skills”, “ability to think/judge/ express”, “ability to work independently and cooperatively”, “comprehension”, “interest and motivation”, “ability to identify problems” and “ability to solve problems.”

The Graduate School of Life Science will assess applicants on the basis of their entrance examination (written and oral exams) and the application documents (such as a transcript).

#### 【Special Category for International Students】

By oral examination, applicants will be evaluated their levels of “knowledge and skills”, “ability to think/judge/express”, “ability wo work independently and cooperatively”, “comprehension”, “interest and motivation”, “ability to identify problems” and “ability to solve problems.”

The Graduate School of Life Science will assess applicants on the basis of their entrance examination and the application documents (such as a transcript).

• Principle Selection Policy (Evaluation elements and their importance)

[Master's Course (Former Period of Doctoral Program)]

Category of Entrance Examination	Evaluation Element	Key Academic Elements			Comprehension	Interest and motivation	Ability to identify problems	Ability to solve problems
		Knowledge and Skills	Ability to think, judge, and express	Learning Attitude (to take initiative, to cooperate with diverse people)				
General Category	Writing Examination	◎	◎		○			
	Oral Examination	◎	◎	◎	◎	◎	◎	◎
	Application Documents	Comprehensively evaluated						
Special Category for International Students	Oral Examination etc. (*1)	◎	◎	◎	◎	◎	◎	◎
	Application Documents	Comprehensively evaluated						

※1: Examination will be carried out by using Online Meeting System, etc.

(Note) ◎---Key element we will give great importance on evaluation / ○---Key element we will give importance on evaluation

## General Category

### 1. Admission Quota

Division and Course	Admission Quota (enrollment October 2021)	Admission Quota (enrollment April 2022)
Division of Life Science Transdisciplinary Life Science Course Biosystems Science Course Biomedical and Pharmaceutical Science Course	15 students	116 students
Division of Soft Matter	A few students	16 students

### 2. Eligibility

**Applicants must fulfill one of the following criteria.**

- (1) Graduated or are expected graduated from a college, prior to admission.
- (2) Received or are expected to receive a bachelor's degree prior to admission to the Graduate School in accordance with Article 104, Clause 7, of the School Education Act (Act No. 26 of 1947).
- (3) Completed or are expected to complete 16 years of school education outside Japan, prior to admission.
- (4) Completed or are expected to complete 16 years of school education of a foreign country through a distance-learning course offered by a school of that country while living in Japan, prior to admission.
- (5) Completed or are expected to complete education at an institution established in Japan that is recognized by the school education system of a foreign country as an equivalent to a university of that country (limited to individuals who are recognized as having completed 16 years of school education in that country) and that is designated by the Minister of Education, Culture, Sports, Science, and Technology (MEXT), prior to admission.
- (6) Received or are expected to receive a degree equivalent to the bachelor's degree from a university or school outside Japan (limited to the university or school which has received evaluation from the person who is authorized by the government of that country or the relevant agencies regarding the overall performance of its education and research activities, or which has been separately designated by MEXT as equivalent to the aforementioned) by completing a program that require three years or more of course work (including the case of completing a distance-learning course offered by a school of that country while living in Japan, and the case of completing a study at the institution recognized by the school education system of that country and designated by MEXT as referred to in (5)).
- (7) Completed or are expected to complete a specialist training course at a vocational school (limited to a course with a period of four years or more and that satisfies the conditions set by the MEXT) that is designated separately by the MEXT after the date set by the MEXT.
- (8) Have been designated by the MEXT (February 7, 1953 Ministry of Education Notification No. 5).
- (9) Have attended a university for three years or more or completed 15 years of school education outside Japan (including the case of completing a distance-learning course offered by a school of that country while living in Japan), and are recognized by the Graduate School of Life Science as having earned the required number of credits with an excellent academic record.
- (10) Are recognized as having an academic aptitude equivalent or superior to the university graduates through the screening for entrance eligibility conducted by the Graduate School of Life Science, and have reached the age of 22.

\* Applicants who wish to enroll in October 2021 must indicate so by checking the appropriate box on the application form.

### 3. Pre-assessment of Qualification

**Application Period for Pre-assessment: June 18 – June 22, 2021**

The Pre-assessment of Qualifications is held prior to the application period for the entrance examination. Applicants who fall under (9) or (10) in “2. Eligible Applicants” must go through this by submitting “5. Application Documents” during the period described above. To receive the result, please enclose a self-addressed

envelope with an 84-yen stamp affixed.

Applicants who apply for the Pre-assessment of Qualifications should not pay the entrance examination fee at the time of the pre-assessment. They should pay the entrance examination fee in accordance with the notes below. Application documents must be sent by mail and must be received by the deadline.

Notes:

The pre-assessment application results will be sent to applicants around July 6, 2021, by mail; once their qualifications have been accepted by the pre-assessment, applicants must pay the examination fee, in accordance with “7. Entrance Examination Fee,” and submit the payment certificate by July 19, 2021. If the Educational Affairs Section does not receive the payment certificate during the application period, the application will not be accepted and will be regarded as canceled.

Students who will receive the Japanese Government (MEXT) scholarship, the State-Sponsored Scholarship Program of the China Scholarship Council or the Hokkaido University President’s Fellowship (including those who are expected to receive these scholarships) are not required to pay the examination fee.

#### 4. Application Period

**Application Period: July 13 – July 19, 2021**

##### Applicants who fall under (1) – (8) in “2. Eligibility”

Submit the completed application documents (see “5. Application Documents”) together with the payment certificate (E) (see “7. Entrance Examination Fee”) during the application period.

Application documents must be sent by mail and must be received by the deadline.

#### 5. Application Documents

\* Applicants who fall under (9) or (10) in “2. Eligibility” must submit the following documents during the application period described in “3. Pre-assessment of Qualifications.”

\* In the following chart, “○” indicates documents that must be submitted by all applicants, while “△” indicates documents that must be submitted for those who fall into the following “Remarks” .

Documents	Applicants			Remarks
	(1)(2) (3)(4) (5)(6) (7)(8)	(9)	(10)	
1 Application Form, Resume, Admission Ticket and Photo Card.	○	○	○	Prescribed. Applicants who have completed a distant learning course offered by an overseas educational institution or an overseas school education course are required to attach <b>Resume B</b> .
2 Official Transcript issued by the last university or similar institution previously attended.	○	○	○	Applicants under (9) in “2. Eligibility” should submit a transcript issued by their current academic institution.
3 Official Certificate of Graduation, or Expected Graduation, issued by the last university or similar institution previously attended; Certificate of Degree Conferral, or Certificate of Expected Degree Conferral.	○	△	○	① An Official Certificate must be issued by the Head of the last university or similar institution previously attended. (Degree information should be contained if you have already graduated.)  ◎ Applicants who graduated or are expected to graduate a university or a similar institution in China (except Hong Kong and Macao) must submit the following document along with an official certificate of (expected) graduation.  Applicants who; -Graduated ... (a) Online Verification Report of Higher Education Qualification Certificate (教育部学历证书电子注册备案表) -Are expected to graduate ... (a) Online Verification Report of Student Record (教育部学籍在线验证报告)



					Document (a) can be obtained from the China Credentials Verification (中国高等教育学历证书查询 <a href="http://www.chsi.com.cn/xlcx/bgys.jsp">http://www.chsi.com.cn/xlcx/bgys.jsp</a> ) Please make sure the web authentication should be valid at least 15 days at the time of submission.  ② Applicants under (2) in “2. Eligibility” must submit an Official Certificate of Degree (expected) issued by the National Institution for Academic Degrees and Quality Enhancement of Higher Education (NIAD-QE).
4	Documents certifying that the applicant has academic skills equal to or greater than those of a college graduate.			<input type="radio"/>	Discretionary format. e.g., documents detailing international activities, work experience, or language learning experience; research papers; patent publications; certificates of qualification; recommendation letters from supervisors at schools previously attended.
5	List of preferred supervisors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Prescribed. <b>Directly contact supervisors you prefer in advance.</b>
6	Self-addressed envelope to receive the admission ticket for the entrance examination.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Prescribed. Write your name and mailing address on an envelope with a 430-yen stamp attached. If you change your address after applying, please notify the Graduate School Educational Affairs Section, Science and Life Science Administration Department, Hokkaido University.
7	Stickers for notification of the application results and for communication purposes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Prescribed. Write your name and mailing address on each sticker. If you change your address after applying, please notify the Graduate School Educational Affairs Section, Science and Life Science Administration Department, Hokkaido University.
8	Evidence of English proficiency. (E.g. the original score sheets of TOEFL, TOEIC).	<p><b>【Transdisciplinary Life Science Course and Division of Soft Matter】</b> In case applicants cannot submit any evidence of English proficiency during application period, please note that “Oral Examination of English proficiency based on evidence of English proficiency” is treated as no score.</p> <p><b>【Biosystems Science Course and Biomedical and Pharmaceutical Science Course】</b> In case applicants cannot submit any evidence of English proficiency during application period, please note that “English proficiency” is treated as no score.</p>			<p><b>【Transdisciplinary Life Science Course and Division of Soft Matter】</b> a) On applying, applicants must submit either following English score sheets ① or ②. The test must have been taken after July 2019.</p> <p>① TOEFL (iBT or ITP) 1) TOEFL-iBT (Home Edition is acceptable) Submit Examinee Score Report mailed to examinees from American ETS. (*See [Important] below) 2) TOEFL-ITP Submit original Individual Score Card. (*See [Important] below)</p> <p>② TOEIC (Public Testing) Submit Official Score Certificate. (*See [Important] below)</p> <p>b) Those who cannot submit a) must submit score sheets of the test which have been taken before July 2019. c) Those who cannot submit neither a) nor b) must submit other official certificate of English proficiency. d) Those who cannot submit a) – c) must submit a self-assessment sheet about their English proficiency. (Discretionary format, around 200 words)</p> <p><b>【Biosystems Science Course】</b> a) On applying, applicants must submit either following English score sheets ① or ②. The test must have been taken after July 2019.</p> <p>① OEFL (iBT or ITP) 1) TOEFL-iBT (Home Edition is acceptable) Submit Examinee Score Report mailed to examinees from American ETS. (*See [Important] below) 2) TOEFL-ITP Submit original Individual Score Card. (photocopies of the score sheets are not accepted). (*See [Important] below)</p> <p>② TOEIC (Public Testing) Submit Official Score Certificate. (*See [Important] below)</p> <p>b) Those who cannot submit a) must submit score sheets of the test which have been taken before July 2019.</p>

					<p><b>【Biomedical and Pharmaceutical Science Course】</b>  On applying, applicants must submit either following English score sheets or ②. The test must have been taken after July 2019.</p> <p>① TOEFL (iBT or ITP)  1) TOEFL-iBT (Home Edition is acceptable, Test Date Score only)  Submit Examinee Score Report mailed to examinees from American ETS. (*See [Important] below)  2) TOEFL-ITP  Submit original Individual Score Card. (photocopies of the score sheets are not accepted). (*See [Important] below)</p> <p>② TOEIC (Public Testing)  Submit Official Score Certificate. (*See [Important] below)</p>
9	Self-addressed envelope for notification of the pre-assessment results.		<input type="radio"/>	<input type="radio"/>	Write your name and mailing address on a standard envelope with an 84-yen stamp attached.

\* [Important] Submission of the English Proficiency Certificate (scoresheet, certificate)

Submission of the English proficiency scoresheet/certificate during the application period is final. No additional scoresheets nor certificates will be accepted to replace the original submission.

A printed version of the proficiency test results, available online is acceptable for the application if a hardcopy of the original scoresheet can be submitted in person or by postage by August 16, 2021.

If a hardcopy of the original scoresheet is not submitted by August 16, 2021, “the result of Oral Examination of English proficiency based on the evidence of English proficiency (Transdisciplinary Life Science Course and Division of Soft Matter)” and “English proficiency (Biosystems Science Course and Biomedical and Pharmaceutical Science Course)” will be considered invalid and regarded as a score of zero. In this case, the entrance examination fee will not be refunded.

◎ Documents specified by course

Division of Life Science (Transdisciplinary Life Science Course)  Division of Soft Matter	Summary of Research	Summarize “Graduation thesis of University” or “Proposed research in Hokkaido University” in one page A4-sized paper (use Form 1 as a reference) containing (a) no fewer than 800 words, nor more than 1,200 words in Japanese, or (b) no fewer than 400 words, nor more than 600 words in English. Write applicant’s name and title, and divide text into each item such as outline, aim etc. Any form is acceptable as long as it contains the contents of Form 1. It is highly recommended that applicants create a sheet by computer and print it out.
---	------------------------	--

**6. Where to Submit**

To: Graduate School Educational Affairs Section  
Science and Life Science Administration Department  
Hokkaido University  
Kita-10 Nishi-8, Kita-ku, Sapporo 060-0810, Japan

Application documents must be sent by mail. Please mark “Application for Graduate School Enclosed” in red on the envelope and send it by express mail.

## 7. Entrance Examination Fee: 30,000 yen

- (1) Students who will receive the Japanese Government (MEXT) scholarship, the State-Sponsored Scholarship Program of the China Scholarship Council or the Hokkaido University President's Fellowship (including those who are expected to receive these scholarships) are not required to pay the examination fee.  
\* MEXT scholarship students recommended by universities other than Hokkaido University are required to submit a copy of a letter verifying that they have received this scholarship.
- (2) Remit the examination fee through the bank account or post office account designated by this University, by using the payment slip for the entrance examination fee which is enclosed with the application forms, and attach the payment certificate to the appropriate section on the application form.
- (3) The examination fee is not refundable except in the following cases:
  - The applicant has not submitted an application, or the application was rejected after the examination fee was remitted.
  - The applicant paid the examination fee twice by mistake.

## 8. Screening Method

<Division of Life Science (Transdisciplinary Life Science Course) and Division of Soft Matter>

### ① Oral Examination

In this examination, applicants are required to take two kinds of oral examinations: (A) general questions of the reason for applying and the research aspiration etc. (B) explanation of research outline submitted, and basic knowledge and academic skills related to the content and English proficiency based on an evidence of English proficiency.

### ② Selection Criteria

The graduate school will decide successful applicants on the basis of the oral examination and the application documents.

[1] Applicants who apply for the Division of Life Science (Transdisciplinary Life Science Course) and the Division of Soft Matter are exempted from taking the written examination.

[2] Applicants who apply for the Division of Life Science (Transdisciplinary Life Science Course) and the Division of Soft Matter might be exempted from one of the oral examinations "(B) explanation of research outline submitted, and basic knowledge and academic skills related to the content and English proficiency based on an evidence of English proficiency." depending on the "Transcripts" and "an evidence of English proficiency" submitted. (Applicants who are exempt from taking the examination will be notified by mail with the admission ticket for the entrance examination).

<Division of Life Science (Biosystems Science Course and Biomedical and Pharmaceutical Science Course)>

### ① Writing Examination

Applicants are questioned about specialized scientific knowledge of your desired Course.

\*Concerning the scope of the examination, check the website of the Graduate School of Life Science.

### ② Oral Examination

### ③ English Proficiency

Assessment of the English proficiency based on the score of an external English test.

### ④ Selection Criteria

The graduate school will decide successful applicants on the basis of the assessment of English score, writing examination, oral examination and the application documents.

## 9. Date & Time of Examination

**Date & Time of Examination: August 17 – August 18, 2021**

Date Time	August 17		August 18	
	AM	PM	AM	PM
<b>Division of Life Science (Transdisciplinary Life Science Course)</b>	Oral examination (A)(B)	Oral examination (A)(B)	Oral examination (A)(B)	Oral examination (A)(B)
<b>Division of Life Science (Biosystems Science Course)</b>		Specialized subjects' examination	Oral examination	Oral examination
<b>Division of Life Science (Biomedical and Pharmaceutical Science Course)</b>	Specialized subjects' examination		Oral examination	Oral examination
<b>Division of Soft Matter</b>	Oral examination (A)(B)	Oral examination (A)(B)	Oral examination (A)(B)	Oral examination (A)(B)

\* The Graduate School will send applicants detailed information on the entrance examination, such as time, location, how to take oral examination online and so on.

\* Application to more than one division/course is not acceptable.

## 10. Announcement of Application Results

The examinees' number of successful applicants will be posted on the website of the Graduate School of Life Science, Hokkaido University, around 4:30 PM on August 31, 2021. All applicants are notified of the results by mail.

## 11. Procedures for Enrollment and Payment of Fees\*

All successful applicants will be notified of the registration procedure at the time of notification of results.

Enrollment Fee: 282,000 yen (estimated).

Tuition Fee: 267,900 yen.

[For the first semester. Total annual tuition fee = 535,800 yen] (estimated).

\* If the tuition fee is revised during the period of your enrollment, the revised fee becomes effective immediately.

## 12. Important Notice

- (1) Make sure to bring your admission ticket on the day of examination and put it on your desk.
- (2) Please consult with the Graduate School Educational Affairs Section in advance if you have physical difficulties in taking the examination.

## 13. Extending the Period of Registration

It is possible to extend the standard years of study at the Graduate School of Life Science. Read "Extending the Period of Registration" on page 10, and submit an application if you wish to take advantage of this system.

## 14. Other Information

The admission ticket for the entrance examination will be sent to all applicants around August 3, 2021.

**If you have any questions regarding the application procedure, please contact the following:**

**Graduate School Educational Affairs Section**  
Science and Life Science Administration Department  
Hokkaido University  
Kita-10 Nishi-8 Kita-ku, Sapporo 060-0810, Japan  
E-mail: [r-gakuin@sci.hokudai.ac.jp](mailto:r-gakuin@sci.hokudai.ac.jp)  
**Graduate School of Life Science, Hokkaido University**  
<https://www.lfsci.hokudai.ac.jp/en/>

## Extending the Period of Registration

### 1. Aims

When students under special circumstances such as having a job, etc. (including child and nursing care) have asked for an extension to complete the program for a period exceeding the standard years of study (2 years) with a scheduled plan of study, such scheduled study (hereinafter referred to as "Extended Period of Registration") may be approved after reviewing their application.

### 2. Intended Students

Students who fall under one of the criteria below and for that reason, wish to set the study period longer than the standard period to complete an academic (research) course:

- (1) Have a full-time job in a public office or company (excluding those who are exempt from job duty but receive a salary), or are self-employed;
- (2) Have a part-time job that has a significant influence on the full-time academic work;
- (3) Are taking care of children or other family members, which has a significant influence on the full-time academic work; or
- (4) Are visually impaired, hearing impaired, physically handicapped, etc., which are deemed to have a significant influence on the academic work for an extended period of time.

### 3. Attendance Period

The period approved for the Extended Period of Registration is up to 4 years for the master's degree program, and a student can apply for extension by the year. Students who have been approved of Extended Period of Registration may not continue their study beyond the period of adding two years to the Extended Period of Registration.

Students may take a temporary leave of absence from school for up to 2 years, the same as the students under the standard period of study.

### 4. Application Procedure

#### (1) Application Period

Please submit complete application documents for Extended Period of Registration and for the entrance examination together.

#### (2) Required Documents

- ① Application Form for Extended Period of Registration (Form 1)
- ② Research Plan Under Extended Period of Registration (Form 2)
- ③ Documents to prove that an applicant needs to apply for Extended Period of Registration (discretionary format).

#### (3) Announcement of Application Results

The Graduate School of Life Science reviews each application individually and will notify the results to all the successful applicants of the entrance examination.

### 5. Annual Tuition Fee

The annual tuition fee is determined by the calculation below for every year of the term.

$$\text{Annual tuition fee for students approved to study for an extended period} = \text{Annual tuition fee for his/her attending year} \times \frac{\text{Regular course term (2 years)}}{\text{Number of years approved for extended study (years)}}$$

### 6. Other Information

For the details about Extended Period of Registration and request for application documents, please contact the Graduate School Educational Affairs Section, Science and Life Science Administration Department, Hokkaido University.