

Academic Year 2020

**Graduate School of Science
Hokkaido University**

Master's Course

(Former Period of Doctoral Program)

First Selection of 2020

**Application Guidelines for
Entrance Examination**

For enrollment October 2019 or April 2020

(Admission for International Students Residing in Japan)

June 2019

Notes

Applicants for general category (including international students residing in Japan) must submit a certificate for English proficiency (either TOEFL, TOEIC or IELTS score sheet). The criteria for an acceptable score sheet differ between each department. Only an original score sheet will be accepted (photocopies are not accepted). See page 4 for details.

Each applicant is responsible for checking the test dates for TOEFL, TOEIC or IELTS Academic Module in consideration of the application period.

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 the 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) 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 described in (4), only the name and address may be used for contact purposes from Hokkaido University Frontier Foundation, Hokkaido University Athletic Union, Alumni Association of the School of Science, and Alumni Association Elm of Hokkaido University by taking safety measures.

June 2019

Graduate School of Science

Hokkaido University

Admission Requirements at the Graduate School of Science

Applicants must have completed core subjects in the fields of Mathematics, Physics, Chemistry, Biological Sciences, Earth Science or related subjects. They must also have an ability, character and aptitude to study independently and to rigorously investigate the principles of nature.

General Category

1. Admission Quota

Department	Admission Quota		Website
	October 2019	April 2020	
Mathematics	A few students	44	https://www.math.sci.hokudai.ac.jp/en/
Condensed Matter Physics	A few students	24	https://phys.sci.hokudai.ac.jp/cond-mat/index_eng.html
Cosmosciences	A few students	20	https://www.ep.sci.hokudai.ac.jp/~cosmo/index-e.htm
Natural History Sciences	A few students	39	Earth and Planetary Dynamics/ Earth and Planetary System Science/ Seismology and Volcanology: https://www.sci.hokudai.ac.jp/grp/epsdc/exam/ Biodiversity: https://www.sci.hokudai.ac.jp/biodiversity_e/ Science Communication: https://sc.sci.hokudai.ac.jp/
Total	—	127	

Notes

- ① For more details about each department, please contact the department concerned.
- ② It is possible to apply to the Department of Condensed Matter Physics and the Department of Cosmosciences in the same year. In this case, write the names of both departments in the appropriate section on the application form.
- ③ Applicants to the Department of Natural History Sciences must choose from among the Divisions of 1) Earth and Planetary Dynamics/Earth and Planetary System Science/Seismology and Volcanology, 2) Biodiversity, or 3) Science Communication. Check the appropriate box on the application form.
- ④ Some departments may conduct a fall selection and a second selection. The entrance examination for the fall selection is scheduled in mid-November, and for the second selection, early February.

2. Eligibility

Applicants must fulfill one of the following criteria:

- (1) Graduated or are expected to graduate from a university prior to admission;
- (2) Received or are expected to receive a bachelor's degree prior to admission in accordance with Article 104(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 a 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 requires 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 (Ministry of Education Notification No. 5, February 7 of 1953);
- (9) Have attended a university for three years or more or completed 15 years of school education outside Japan, and are recognized by the Graduate School of Science as having earned the required number of credits with an excellent academic record; or
- (10) Are recognized as having an academic aptitude equivalent or superior to university graduates through the screening for entrance eligibility conducted by the Graduate School of Science, and have reached the age of 22.

* Applicants who wish to enroll in October 2019 must indicate so by checking the appropriate box on the application form.

3. Pre-Assessment of Qualification

Application Period: June 21 – June 25, 2019

Applicants who fall under (9) or (10) in “2. Eligibility” must go through a pre-assessment of qualification prior to the application for entrance examination. Please submit “5. Application Documents” during the period described above. To receive the result, please enclose a self-addressed envelope with an 82-yen stamp affixed.

Applicants must 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 will be accepted at the Graduate School Educational Affairs Section between 9:00 AM and 4:00 PM, except on Saturdays, Sundays and national holidays. If you mail the documents, they must be received by the deadline.

Notes:

*The results of the pre-assessment will be sent to applicants around July 4, 2019 by mail. Once their qualifications have been approved, applicants must pay the examination fee in accordance with “7. Entrance Examination Fee,” and submit the payment certificate by July 25, 2019. Application will not be accepted if the payment certificate is not received during the specified period.

*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 19 – July 25, 2019

Applicants who fall under (1) through (8) in “2. Eligibility” must submit “5. Application Documents” together with the payment certificate (see “7. Entrance Examination Fee”) during the application period. Applications will be accepted between 9:00 AM and 4:00 PM, except on Saturdays, Sundays and national holidays. If you mail the documents, they 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 table, "○" indicates documents that must be submitted by all applicants, while "△" indicates documents that must be submitted by those who meet the definition in the "Remarks".

Documents	Applicants			Remarks
	(1)(2) (3)(4) (5)(6) (7)(8)	(9)	(10)	
1 Application Form, Resume, Admission Ticket and Photo Card	○	○	○	[Specified form] Applicants who have completed a school education outside Japan or a distance-learning course offered by a foreign educational institution must fill out Resume B.
2 Official transcript issued by the most recent academic institution	○	○	○	Applicants under (9) in "2. Eligibility" must submit a transcript issued by their current academic institution.
3 Official Certificate of Graduation (or expected graduation) or Degree Conferral (or expected degree conferral) issued by the most recent academic institution	○	○	○	Applicants under (2) in "2. Eligibility" must submit an Official Certificate of Degree Conferral (or expected degree conferral) 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 or superior to university graduates			○	[In any format] e.g., documents detailing international activities, work experience, language learning experience, research papers, patent publications, certificate of qualification, recommendation letter from faculty, etc.
5 Documents specified by each department	○	○	○	See "Documents Specified by Each Department" below.
6 Self-addressed envelope to receive an admission ticket for entrance examination	○	○	○	[Specified envelope] Write your name, mailing address and postal code on the specified envelope with a 362-yen stamp attached. If you need to change your address afterwards, notify the Graduate School Educational Affairs Section immediately.
7 Stickers to receive application results and to be used for communication purposes	○	○	○	[Specified sticker] Write your name, mailing address and postal code on each sticker. If you need to change your address afterwards, notify the Graduate School Educational Affairs Section immediately.
8 Recommendation letter from the head of the undergraduate school or the university which an applicant graduated most recently (must be sealed up)	△	○	△	[A4-sized paper in any format] ① Applicants under (9) in "2. Eligibility" must submit this document. ② Applicants under (1)-(8) or (10) in "2. Eligibility" may submit this document only if applying to the Department of Mathematics, Condensed Matter Physics, or CosmoSciences (not mandatory).

9	Certificate for English proficiency (the original score sheet of TOEFL, TOEIC or IELTS)	○	○	○	<p>Acceptable score sheet differ between each department. See details below:</p> <p>【Department of Mathematics】 (1) TOEIC Public Testing (must have been taken in or after April 2017) (2) TOEFL-iBT, TOEFL-PBT or TOEFL-ITP (must have been taken in or after April 2017) Photocopy of the score sheet is not accepted. TOEIC-IP and TOEIC-Bridge are not accepted.</p> <p>【Department of Condensed Matter Physics】 (1) TOEIC Public Testing (must have been taken in or after July 2017) (2) TOEFL-iBT or TOEFL-PBT (must have been taken in or after July 2017) (3) IELTS Academic Module (must have been taken in or after July 2017) Photocopy of the score sheet is not accepted. TOEFL-ITP, TOEIC-IP and TOEIC-Bridge are not accepted.</p> <p>【Department of CosmoSciences】 (1) TOEIC Public Testing (must have been taken in or after July 2017) (2) TOEFL-iBT or TOEFL-PBT (must have been taken in or after July 2017) (3) IELTS Academic Module (must have been taken in or after July 2017) Photocopy of the score sheet is not accepted. TOEFL-ITP, TOEIC-IP and TOEIC-Bridge are not accepted.</p> <p>【Department of Natural History Sciences (Divisions of: Earth and Planetary Dynamics; Earth and Planetary System Science; and Seismology and Volcanology)】 (1) TOEIC Public Testing (limited to Listening & Reading Test) (must have been taken in or after July 2017) (2) TOEFL-iBT or TOEFL-PBT (must have been taken in or after July 2017) Photocopy of the score sheet is not accepted. TOEFL-ITP, TOEIC-IP and TOEIC-Bridge are not accepted.</p> <p>【Department of Natural History Sciences (Divisions of Biodiversity; and Science Communication)】 (1) TOEIC Public Testing (must have been taken in or after July 2017) (2) TOEFL-iBT or TOEFL-PBT (must have been taken in or after July 2017) Photocopy of the score sheet is not accepted. TOEFL-ITP, TOEIC-IP and TOEIC-Bridge are not accepted.</p> <p>Each applicant is responsible for checking the test dates for TOEFL, TOEIC or IELTS Academic Module in consideration of the application period.</p>
10	Self-addressed envelope to receive the result of pre-assessment		○	○	Write your name, mailing address and postal code on a standard envelope with an 82-yen stamp attached.

* Those who are unable to submit the score sheet in time for the deadline must inform the Graduate School Educational Affairs Section, Science and Life Science Administration Department.

◎ Documents Specified by Each Department

Department		Documents to be submitted	Remarks
Mathematics		1. Reasons for application and choice of examination site (specified form) 2. Mathematics report and its outline (use specified form for the outline)	1. Provide the reasons for applying to this department. The examination will be held in both Sapporo and Tokyo. Circle your choice of examination site after referring to the “Examination Details for the Department of Mathematics” (available in Japanese). 2. Summarize the research field which you wish to pursue after enrollment and a “theorem” or “theory” in which you are particularly interested (must be 7-10 pages long in A4-sized paper). During the oral examination, an interviewer will ask questions based on this report. The outline of the report must also be provided in a specified form.
Condensed Matter Physics		List of preferred laboratories or fields (specified form)	Provide your first, second and third choices of laboratories from the List of Supervisors and Research Fields.
Cosmosciences		List of preferred laboratories or fields (specified form)	Provide your first, second and third choices of laboratories from the List of Supervisors and Research Fields.
Natural History Sciences	Earth and Planetary Dynamics	1. List of preferred laboratories or fields (specified form) 2. Statement of Purpose (specified form)	1. Provide your first and second choices of groups, laboratories or centers from the List of Supervisors and Research Fields. Leave the section blank if you do not have a second choice. 2. Applicants under (9) in “2. Eligibility” must submit a statement of purpose. Write about research experience, international activities, work experience, language acquisition, etc. in a specified form. Attach research papers, patent publications and certificates of qualification if necessary.
	Earth and Planetary System Science		
	Seismology and Volcanology		
	Biodiversity	List of preferred supervisors (specified form)	Provide the name(s) of supervisor(s) you wish to seek guidance from.
	Science Communication	1. List of preferred laboratories or fields (specified form) 2. Reasons for application (specified form)	

*It is possible to apply to the Department of Condensed Matter Physics and the Department of Cosmosciences in the same year. In this case, applicants must submit the “List of preferred laboratories or fields” for each department.

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

If you send your application documents by mail, please mark “Application Enclosed” in red on the envelope and send it by express registered 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 the letter proving that they will receive this scholarship.

- (2) Remit the examination fee through a bank or a post office by using the payment slip for entrance examination fee which is enclosed in the application package, and attach the payment certificate to the appropriate section on the application form.
- (3) The examination fee is not refundable except for the following cases:
 - The applicant has decided not to submit an application after examination fee was remitted, or the application was not accepted.
 - The applicant paid the examination fee twice by mistake.

8. Screening Method

The Graduate School of Science will assess applicants based on the entrance examination (oral and written), official transcript and other application documents submitted.

9. Examination Dates (oral and written)

<Sapporo Site>

Department of Natural History Sciences (Divisions of: Earth and Planetary Dynamics; Earth and Planetary System Science; and Seismology and Volcanology): **August 7 (Wed) and 8 (Thu), 2019**

Department of Mathematics, Department of Condensed Matter Physics, Department of CosmoSciences, and Department of Natural History Sciences (Divisions of: Biodiversity; and Science Communication): **August 22 (Thu) and 23 (Fri), 2019**

<Tokyo Site>

Department of Mathematics: **August 25 (Sun), 2019**

<Sapporo Site>

Department of Natural History Sciences (Divisions of: Earth and Planetary Dynamics; Earth and Planetary System Science; and Seismology and Volcanology)

Department		August 7 (Wed)		August 8 (Thu)	
		AM	PM	AM	PM
Natural History Sciences	Earth and Planetary Dynamics	/	Specialized subjects (13:00 - 16:00)	Oral examination (9:00-)	Oral examination (13:00-)
	Earth and Planetary System Science				
	Seismology and Volcanology				

<Sapporo Site>

Department of Mathematics, Department of Condensed Matter Physics, Department of CosmoSciences, and Department of Natural History Sciences (Divisions of: Biodiversity; and Science Communication)

Department		August 22 (Thu)		August 23 (Fri)	
		AM	PM	AM	PM
Mathematics		Oral examination (9:00-)	Oral examination (13:00-)	/	/
Condensed Matter Physics		Specialized subjects (9:00 - 11:30)	Specialized subjects (13:00 - 15:30)		
CosmoSciences		Specialized subjects (9:00 - 11:30)	Specialized subjects (13:00 - 15:30)	Oral examination (9:00-)	Oral examination (13:00-)
Natural History Sciences	Biodiversity	/	Specialized subjects (13:00 - 16:00)	/	Oral examination (13:00-)
	Science Communication		Essays (11:10 - 12:40)		Oral examination (14:00-)

<Tokyo Site>

Department of Mathematics

Department	August 25 (Sun)	
	AM	PM
Mathematics	Oral examination (9:00-)	Oral examination (13:00-)

Notes

- ① Those who apply to both Condensed Matter Physics and CosmoSciences are required to take a written exam (specialized subject: physics).
- ② Out of the applicants to the Department of CosmoSciences, those who apply to the Astrophysics Laboratory, Theoretical Particle Physics Group, Theoretical Nuclear Physics Laboratory, Information Media Science Laboratory, or Nuclear Reaction Data Science Laboratory must choose physics as a specialized subject. Applicants to the Astrophysical Chemistry Group, Planetary and Space Group, Phase Transition Dynamics Group, or Spacecraft Observation Group may choose two questions from among: physics; physical mathematics; cosmos and planets; and physical chemistry as specialized subjects in the afternoon exam on August 22, 2019.
- ③ Out of the applicants to the Department of Natural History Sciences, those who apply to the Division of: Earth and Planetary Dynamics; Earth and Planetary System Science; or Seismology and Volcanology are required to choose two subject areas from among five specialized subject areas, i.e., mathematics, physics (including the topic of earth and planetary physics), chemistry (including the topic of earth and planetary chemistry), earth science I (earth history, tectonics, and sedimentology), and earth science II (lithology, mineralogy, and volcanology).
- ④ For the Division of Biodiversity in the Department of Natural History Sciences, a list of keywords indicating the scope of questions covered in the specialized subject will be sent to the applicants along with the admission ticket for entrance examination. The list of keywords can also be obtained from the following website: http://www.sci.hokudai.ac.jp/biodiversity_e/
- ⑤ In the essay examination for the Division of Science Communication in the Department of Natural History Sciences, applicants must choose two topics out of eight listed on the following website: <http://sc.sci.hokudai.ac.jp/examination/thesis> (provided in Japanese)
- ⑥ Applicants to the Department of Mathematics may take the examination in Tokyo on August 25, 2019. Please refer to the “Examination Details for the Department of Mathematics” (provided in Japanese).

10. Announcement of Results

Successful applicants will be announced on the bulletin board on the ground floor of the Faculty of Science (north entrance hall of Building 2 (Lower Wing)) Hokkaido University, around 4:30 PM on September 2, 2019. All applicants are notified of the results by mail.

Also, the examinee's number will be posted on the website of the Graduate School of Science.

11. Procedures for Enrollment and Payment of Fees

All successful applicants are 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 (estimated) [Total annual tuition fee = 535,800 yen]

* 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) After submitting the application documents, applicants are not allowed to change their selection of department for any reason.

(3) If you need special assistance in taking the examination due to physical difficulties, consult with the Graduate School Educational Affairs Section at the time of application.

13. Extending the Period of Registration

It is possible to extend the standard years of study at the Graduate School of Science. Read “Extending the Period of Registration” on page 9, and submit an application if you wish to take advantage of this system.

14. Other Information

The admission ticket for entrance examination will be sent around August 5, 2019 to all applicants whose application document is accepted.

For the applicants to the Department of Natural History Sciences (Earth and Planetary Dynamics, Earth and Planetary System Science, and Seismology and Volcanology), the admission ticket will be sent around July 31, 2019.

If you have any questions about 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

Graduate School of Science Website
<https://www.sci.hokudai.ac.jp/graduateschool/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 2 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

As a general rule, application documents for Extended Period of Registration should be submitted at the time of application for entrance examination.

(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

(3) Announcement of Results

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

5. Reducing or Extending the Period of Extended Period of Registration

When regarded as necessary, the Graduate School of Science may approve of reducing or extending the Extended Period of Registration only once. The period of reducing the Extended Period of Registration may not exceed the period of adding one year to the standard period of study (2 years).

6. Annual Tuition Fee

The tuition fee for students approved to study for an extended period will be calculated by multiplying the annual tuition fee by the number of years equivalent to the standard period of study (2 years), then dividing the resulting amount by the number of years approved for extended study. If the revision is made to the annual tuition fee or the changes to the Extended Period of Registration are approved, the fee will be calculated accordingly. However, the adjustment will not be made to the tuition fee which has already been paid.

Students who are waiting for results of application for Extended Period of Registration must not pay the tuition fee before they receive the official notification of results

7. Other Information

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