Academic Year 2026

Graduate School of Science
Hokkaido University

Master's Course

（Former Period of Doctoral Program）

Summer Selection

Application Guidelines for Entrance Examination

For enrollment in October 2025 or April 2026

(Admission for General Category)

June 2025

Important Notice

Applicants for general category must submit a certificate for English proficiency (the original of score sheet of either TOEFL or TOEIC). See page 5 for details.

As for the examination schedule, etc., please confirm it by yourself based on the period of application receipt.

Notes to foreign applicants who enter Japan from overseas

Applicants who wish to enroll at Hokkaido University as international students are required to obtain a "Student" status of residence. Therefore, you must apply for a Student Visa before entering Japan. To apply for a Student Visa, a Certificate of Eligibility (COE)* is required.

Please note that the issuance of the COE may take more than three months from the time of application due to Security Export Control inspections and immigration procedures.

Additionally, please note that if your intended research falls under the regulations of the Security Export Control Regulations, restrictions may apply.

*Certificate of Eligibility: This is a certificate that the Immigration Bureau pre-approves applicants' purpose of stay in Japan and speeds up the visa application process.

≪Reference≫

- **Hokkaido University Website -Application and Acquisition of Visa**
  Japanese: https://intl-student-handbook.oia.hokudai.ac.jp/preparation/visa
  English: https://intl-student-handbook.oia.hokudai.ac.jp/en/preparation-en/visa-en
- **Ministry of Economy, Trade and Industry (METI) Website**
  https://www.meti.go.jp/policy/anpo/

Personal Information Management by Hokkaido University

(1) In handling personal information at Hokkaido University, Hokkaido University makes every effort to obey relevant laws and ordinances such as the “Protection Law for Private Information Held by Independent Administrative Corporations”, and protect personal information pursuant to “National University Corporation Hokkaido University Personal Information Management Rules”.

(2) Personal information, such as name, address, etc., provided by the applicant to the university in the process of applying for admission and pre-assessment of qualification will be used only for 1) assessment of applicants (processing of application, conducting selection), 2) the announcement of application results, 3) enrollment procedures, 4) surveys and research on enrollee selection methods, and 5) business operations pertaining to 1-4.

(3) Private companies commissioned by the University (hereafter called “commissioned companies”) may handle personal data to engage in the relevant operations. 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, the personal information they provided on their application forms will be used for; 1) academic affairs (registration, academic guidance, etc.), 2) student support services (health management, scholarship applications, etc.), 3) career support services, and 4) tuition and fees, and related administrative operations.

(5) Among the personal information of (4), only contact details, name and address and so on, may be used by Hokkaido University Frontier Foundation, Alumni Association of the School of Science and Alumni Association Elm of Hokkaido University with safety measure.

(6) Applicants will be informed separately about the handling of personal data in accordance with the EU General Data Protection Regulation (GDPR). Applicants to whom such rules apply (those applying from within the European Economic Area (EEA) member states) should notify the Graduate School Educational Affairs Section, Science and Life Science Administration Department, prior to application.

June 2025
Graduate School of Science
Hokkaido University

Admission Policy for the Graduate School of Science

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

・**Principle Selection Policy** (Multiple-Layered Evaluation Method)

【General Category】

Written and oral examinations will be conducted in accordance to each department and field of study.

In the written examination, particular emphasis will be placed on the evaluation of "knowledge and skills" and "ability to think, judge, and express".

In the oral examination, particular emphasis will be placed on the evaluation of "knowledge and skills," "ability to think, judge, and express,", “ability to work independently and cooperatively”, “comprehension”, “ability to identify problems”, and “interest and motivation”.

The Graduate School of Science will comprehensively assess applicants on the basis of the application documents (such as research plan, transcript, etc.).

【Special Category for International Students】

In the oral examination, particular emphasis will be placed on the evaluation of "knowledge and skills," "ability to think, judge, and express,", “ability to work independently and cooperatively”, “comprehension”, “ability to identify problems”, and “interest and motivation”.

The Graduate School of Science will comprehensively assess applicants on the basis of the application documents (such as research plan, transcript, etc.).

・**Principle Selection Policy** (Evaluation Elements and Their Importance)

【Master's Course】

Category of Entrance Examination	Evaluation Element	3 Key Academic Elements			Comprehension	Ability to identify problems	Interest and motivation	Cultural knowledge
		Knowledge and Skills	Ability to think, judge, and express	Leaning 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 place great importance on evaluation / ○…Key element we will place importance on evaluation

General Category
1. Admission Quota

Department	Admission Quota		Website's URL
	October 2025	April 2026	
Mathematics	A few students	44	https://www2.sci.hokudai.ac.jp/dept/math/en
Condensed Matter Physics	A few students	24	https://phys.sci.hokudai.ac.jp/wp/cond-mat/
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://geodynamics.sci.hokudai.ac.jp/dyna-admin/en/index.html https://epsys.sci.hokudai.ac.jp/english.html https://isv.sci.hokudai.ac.jp/english/ Biodiversity: https://biodiversity.sci.hokudai.ac.jp/bd/en/ 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 winter selection. (The entrance examination for the fall selection is scheduled in early November, and for the winter selection, in mid 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) by the National Institution for Academic Degrees and Quality Enhancement of Higher Education;

(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 before the enrollment date.

* Applicants can not apply for "I General Category" and "II Special Category for International Students" at the same time.

* Applicants must contact their prospective supervisor and obtain his/her acceptance in advance. The approval from the prospective supervisor does not confirm the success in the entrance examination. Also, applicants must check a supplementary description of "Documents Specified by Each Department (Reason for application and List of preferred laboratories or fields.")

* Applicants who wish to enroll in October 2025 must indicate so by checking the appropriate box on the application form.

3. Pre-Assessment of Eligibility

Application Period: June 13 (Fri) – June 17 (Tue), 2025

Applicants who fall under (9) or (10) in "2. Eligibility" must go through a pre-assessment of eligibility 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 110-yen stamp affixed.

Applicants must not pay the entrance examination fee at the time of the pre-assessment. They shall 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 results of the pre-assessment will be sent to applicants around Thursday, July 3, 2025, by post. Once their eligibility has been confirmed, applicants must pay the examination fee in accordance with "7. Entrance Examination Fee," and submit the payment certificate by Wednesday, July 9, 2025. 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 3 (Thu) – July 9 (Wed), 2025

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. (Application documents must be sent by post 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 Eligibility”.
* 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	○	○	○	[Prescribed 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 last university or equivalent institution	○	○	○	②Applicants under (9) in “2. Eligibility” must submit a transcript issued by their current university. *In the case that official transcript is written in a language other than Japanese or English, “Original Official Transcript written in the language concerned” and “Original official translation in Japanese or English” must be attached.
3	Official Certificate of Graduation (or expected graduation) or Degree Conferral (or expected degree conferral) issued by the last university or equivalent institution	○	○	○	①An Official Certificate must be issued by the Head of the university or similar institution. (Degree information should be contained if you have already graduated.) ◎ Applicants who graduated or are expected to graduate from a university or similar institution in China (except Taiwan, Hong Kong and Macao) must submit the following document in English along with an official certificate of graduation (or expected graduation.) Applicants who; -graduated … (a) Online Verification Report of Higher Education Qualification Certificate -are expected to graduate … (a) Online Verification Report of Student Record Document (a) can be obtained from the China Credentials Verification（中国高等教育学历证书查询 http://www.chsi.com.cn/xlcx/bgys.jsp） Please make sure the web authentication should be valid at least 15 days at the time of submission. ②Applicants under (2) must submit either i) or ii) certificate. i) Official Certificate of Degree Conferral (or expected degree conferral) issued by the National Institution for Academic Degrees and Quality Enhancement of Higher Education ii) Official Certificate of (expected) Graduation issued by the Technical College that the applicant is affiliated with as well as an Official Certificate of (Expected Application) Degree Conferred

					*In the case that official transcript is written in a language other than Japanese or English, “Original Official Transcript written in the language concerned” and “Original official translation in Japanese or English” must be attached.
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	○	○	○	[Prescribed envelope] Write your name, mailing address and postal code on the prescribed envelope with a 480-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	○	○	○	[Prescribed 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 or TOEIC)	○	○	○	Applicants must submit a score sheet for either (1) or (2). The original score sheet must be submitted. (See (Note) below) If (3) applies, contact the Graduate School Educational Affairs Section in advance. (1) TOEIC Public Testing [Listening & Reading] (must have been taken in or after July 2023) * A printed Digital Official Score Certificate could be submitted instead of the original Official Score Certificate. (2) TOEFL-iBT (Home Edition) (must have been taken in or after July 2023) TOEFL-ITP, TOEIC-IP and TOEIC-Bridge are not accepted. However, TOEFL-ITP [paper test version] (must be taken in or after July 2023) is accepted for the department of Mathematics. (3) Those who are educated in the English language at the university (or graduate school) in Japan or abroad If documents, which prove that applicants were educated in the English language at the university (or graduate school) attended (e.g.) Medium of Instruction certificate), are submitted, there is a possibility that the English score sheet is exempted from submission. Applicants must contact the Graduate School Educational Affairs Section if applicable.

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 110-yen stamp attached.

(Note) Handling of English Proficiency Score Sheet Submission

No additions or replacements of score sheets submitted during the application period will be accepted.

At the application submission period, if you can submit a printed copy of the test results that can be viewed on the web, and if you can submit the original score sheet by Wednesday, August 6, 2025, (must arrive by mail or in person), you may submit a copy of the test results as a substitute for the original score sheet during the application period. However, if the original score sheet is not submitted (by mail or in person) by Wednesday, August 6, 2025, the English proficiency score will be treated as "no score". In such a case, the examination fee already paid will not be refunded.

◎ Documents Specified by Each Department

Department		Documents to be submitted	Remarks
Mathematics		1. Motivations for application (prescribed form) 2. Mathematics report and its outline (use prescribed form for the outline)	1. Describe the motivations for applying to this department. 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 prescribed form.
Condensed Matter Physics		1. List of preferred laboratories or fields (prescribed form)	Select your first, second and third choices of laboratories from the List of Supervisors and Research Fields. When filling in the form, be sure to contact the supervisor of the laboratory of your choice in advance and obtain permission to join the laboratory and to put the laboratory in the survey form.
Cosmosciences		1. List of preferred laboratories or fields (prescribed form)	Select your first, second and third choices of laboratories from the List of Supervisors and Research Fields. To do so, you must contact the supervisors of your prospective laboratories in advance and obtain permission of acceptance and permission of listing the laboratories in the survey sheet.
Natural History Sciences	Earth and Planetary Dynamics Earth and Planetary System Science Seismology and Volcanology	1. List of preferred laboratories or fields (prescribed form) 2. Survey form of examination (specialized) subjects (prescribed form) 3. Statement of Purpose (prescribed form)	1. Select 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.Circle two specialized subjects of your choice from 4 specialized subjects (mathematics, physics, earth sciences I, and earth sciences II). Altering the subjects after submitting the survey form is not allowed. 3. Applicants under (9) or (10) in "2. Eligibility" must submit a statement of purpose. Write about research experience, international activities, work experience, language acquisition, etc. in a prescribed form. Attach research papers, patent publications and certificates of qualification if necessary.
	Biodiversity	1. List of preferred supervisors (prescribed form)	Provide the name(s) of supervisor(s)
	Science Communication	1. List of preferred laboratories or fields (prescribed form) 2. Reasons for application (prescribed 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

*Application documents must be sent by express registered mail. Please mark "Application for graduate student enclosed" in red on the front of the envelope. Please use an envelope prepared by you, not the "envelope for sending examination ticket" provided in the admission guidelines.

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) or who are enrolled in the Integrated Science Program (ISP) 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 (oral and written)

Dates: August 7 (Thu) ・ 8 (Fri), 2025
Venue: Graduate School of Science, Hokkaido University (Kita-10 Nishi-8 Kita-ku, Sapporo)
***Excluding online examination**

<table>
<tr><td colspan="2" rowspan="2">Department</td><td colspan="2">August 7 (Thu)</td><td colspan="2">August 8 (Fri)</td></tr>
<tr><td>AM</td><td>PM</td><td>AM</td><td>PM</td></tr>
<tr><td colspan="2">Mathematics</td><td colspan="2">Oral examination (Online)
(9:00-)</td><td></td><td></td></tr>
<tr><td colspan="2">Condensed Matter Physics</td><td>Specialized subjects
(9:00 - 11:30)</td><td>Specialized subjects
(13:00 - 15:30)</td><td colspan="2">Oral examination (9:00-)</td></tr>
<tr><td colspan="2">Cosmosciences</td><td>Specialized subjects
(9:00 - 11:30)</td><td>Specialized subjects
(13:00 -15:30)</td><td colspan="2">Oral examination (9:00-)</td></tr>
<tr><td rowspan="3">Natural History Sciences</td><td>Earth and Planetary Dynamics
Earth and Planetary System Science
Seismology and Volcanology</td><td>Specialized subjects
(9:00 - 12:00)</td><td></td><td colspan="2">Oral examination (9:00-)</td></tr>
<tr><td>Biodiversity</td><td></td><td>Specialized subjects
(13:00 - 16:00)</td><td></td><td>Oral examination
(13:00-)</td></tr>
<tr><td>Science Communication</td><td>Essay on assigned themes
(10:00-11:30)</td><td>Oral examination
(13:00-)</td><td></td><td></td></tr>
</table>

Notes

① Those who apply to both Departments of Condensed Matter Physics and Cosmosciences are required to take a written examination (specialized subject (physics)).

② Out of the applicants to the Department of Cosmosciences, those who apply to the Observational Astronomy Laboratory, Theoretical Astrophysics Laboratory, Theoretical Particle Physics Laboratory, 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 as specialized subjects in the afternoon exam on Thursday, August 7, 2025.

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 four specialized subject areas, i.e., mathematics, physics (including the topic of earth and planetary physics), earth science I (earth history, sedimentology and geo/cosmochemistry), and earth science II (petrology, 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: https://sc.sci.hokudai.ac.jp/examination/thesis.html (provided in Japanese)

10. Announcement of Results

The examinee's number of successful applicants will be posted on the website of the Graduate School of Science around 4:30 PM on Thursday, September 4, 2025. In addition, all applicants are notified of their results individually.

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.
*If you have considerations desired in terms of study, also consult with the Graduate School Educational Affairs Section.

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 10, 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 Tuesday, July 22, 2025, to all applicants whose application document is accepted.

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
Office hours (weekday): 8:30 a.m. – 5:00 p.m. except 12:15 p.m. – 1:00 p.m.
Tel: +81-11-706 – 3675
E-mail: r-gakuin@sci.hokudai.ac.jp
Graduate School of Science, Hokkaido University
https://www2.sci.hokudai.ac.jp/gs/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.

Academic Year 2026

Graduate School of Science
Hokkaido University

Master's Course

（Former Period of Doctoral Program）

Summer Selection

Application Guidelines for Entrance Examination

For enrollment October 2025 or April 2026

(Admission for Special Category for International Students)

June 2025

Important Notice

Applicants for special category (international students) must submit a certificate for Japanese or English proficiency. Applicants who have difficulties in submitting certificates for Japanese or English proficiency may submit a transcript or similar document that shows Japanese or English grades issued by the university or school they graduated from.

Notes to foreign applicants who enter Japan from overseas

Applicants who wish to enroll at Hokkaido University as international students are required to obtain a "Student" status of residence. Therefore, you must apply for a Student Visa before entering Japan. To apply for a Student Visa, a Certificate of Eligibility (COE)* is required.

Please note that the issuance of the COE may take more than three months from the time of application due to Security Export Control inspections and immigration procedures.

Additionally, please note that if your intended research falls under the regulations of the Security Export Control Regulations, restrictions may apply.

*Certificate of Eligibility: This is a certificate that the Immigration Bureau pre-approves applicants' purpose of stay in Japan and speeds up the visa application process.

≪Reference≫

- **Hokkaido University Website -Application and Acquisition of Visa**
  Japanese: https://intl-student-handbook.oia.hokudai.ac.jp/preparation/visa
  English: https://intl-student-handbook.oia.hokudai.ac.jp/en/preparation-en/visa-en
- **Ministry of Economy, Trade and Industry (METI) Website**
  https://www.meti.go.jp/policy/anpo/

Personal Information Management by Hokkaido University

(1) In handling personal information at Hokkaido University, Hokkaido University makes every effort to obey relevant laws and ordinances such as the “Protection Law for Private Information Held by Independent Administrative Corporations”, and protect personal information pursuant to “National University Corporation Hokkaido University Personal Information Management Rules”.

(2) Personal information, such as name, address, etc., provided by the applicant to the university in the process of applying for admission and pre-assessment of qualification will be used only for 1) assessment of applicants (processing of application, conducting selection), 2) the announcement of application results, 3) enrollment procedures, 4) surveys and research on enrollee selection methods, and 5) business operations pertaining to 1-4.

(3) Private companies commissioned by the University (hereafter called “commissioned companies”) may handle personal data to engage in the relevant operations. 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, the personal information they provided on their application forms will be used for; 1) academic affairs (registration, academic guidance, etc.), 2) student support services (health management, scholarship applications, etc.), 3) career support services, and 4) tuition and fees, and related administrative operations.

(5) Among the personal information of (4), only contact details, name and address and so on, may be used by Hokkaido University Frontier Foundation, Alumni Association of the School of Science and Alumni Association Elm of Hokkaido University with safety measure.

(6) Applicants will be informed separately about the handling of personal data in accordance with the EU General Data Protection Regulation (GDPR). Applicants to whom such rules apply (those applying from within the European Economic Area (EEA) member states) should notify the Graduate School Educational Affairs Section, Science and Life Science Administration Department, prior to application.

June 2025
Graduate School of Science
Hokkaido University

Admission Policy for the Graduate School of Science

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

・**Principle Selection Policy** (Multiple-Layered Evaluation Method)

【General Category】

Written and oral examinations will be conducted in accordance to each department and field of study. In the written examination, particular emphasis will be placed on the evaluation of "knowledge and skills" and "ability to think, judge, and express".

In the oral examination, particular emphasis will be placed on the evaluation of "knowledge and skills," "ability to think, judge, and express,", “ability to work independently and cooperatively”, “comprehension”, “ability to identify problems”, and “interest and motivation”.

The Graduate School of Science will comprehensively assess applicants on the basis of the application documents (such as research plan, transcript, etc.).

【Special Category for International Students】

In the oral examination, particular emphasis will be placed on the evaluation of "knowledge and skills," "ability to think, judge, and express,", “ability to work independently and cooperatively”, “comprehension”, “ability to identify problems”, and “interest and motivation”.

The Graduate School of Science will comprehensively assess applicants on the basis of the application documents (such as research plan, transcript, etc.).

・**Principle Selection Policy** (Evaluation Elements and Their Importance)

【Master's Course】

Category of Entrance Examination	Evaluation Element	3 Key Academic Elements			Comprehension	Ability to identify problems	Interest and motivation	Cultural knowledge
		Knowledge and Skills	Ability to think, judge, and express	Leaning 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 place great importance on evaluation / ○…Key element we will place importance on evaluation

Special Category for International Students

1. Admission Quota

Department	Admission Quota October 2025	Admission Quota April 2026
Mathematics	A few students	A few students
Condensed Matter Physics		
Cosmosciences		
Natural History Sciences		

2. Eligibility

Applicants must be a citizen of a country other than Japan and have no permanent residence permit in Japan. They must be recognized as having enough competence and scholastic performance by a faculty member of the Graduate School of Science who has agreed to be a supervisor* after enrollment. Also, they 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 to graduate school by the National Institution for Academic Degrees and Quality Enhancement of Higher Education 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 before the enrollment date.

* Applicants can not apply for "I General Category" and "II Special Category for International Students" at the same time.

* Applicants must contact their prospective supervisor and obtain his/her acceptance in advance. Then

they will receive a password necessary for online application. The approval from the prospective supervisor does not confirm the success in the entrance examination.

Also, applicants must ask their prospective supervisor to create a recommendation letter (in any format) and request him/her to submit it to the Graduate School Educational Affairs Section during the application period.

* Those who wish to enroll in October 2025 must indicate so by choosing "October 2025 enrollment" at the time of online application.

3. Pre-Assessment of Eligibility

Application Period: June 13 (Fri) – June 17 (Tue), 2025 by 5:00 PM JST

Applicants who fall under (9) or (10) in "2. Eligibility" must go through a pre-assessment of eligibility prior to formal application period for entrance examination. Please send "6. Application Documents" in PDF format by email during the period described above. If you provide false information, your application may be rejected.

Email address: r-gakuin@sci.hokudai.ac.jp

Applicants must not pay the entrance examination fee at the time of the pre-assessment. The results of the pre-assessment will be sent to applicants around Thursday, July 3, 2025, by email. Once their eligibility has been confirmed, applicants must pay the examination fee in accordance with "5. Application Procedure and Payment of Fees" during the application period stated in "4. Application 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

◆ **Online application: June 30 (Mon) – July 4 (Fri), 2025 by 5:00 PM JST**

* After completing the online application, applicants must scan all application documents (see "6. Application Documents" in PDF format and send them via email by Friday, July 4.

Email address: r-gakuin@sci.hokudai.ac.jp

◆ **Deadline for submitting application documents by post: July 9 (Wed), 2025 by 5:00 PM JST**

* Aside from the PDF files sent by email, applicants must send hard copies of the application documents by registered mail. They must be received by the deadline so consider the time for courier delivery. Also see "5. Application Procedure and Payment of Fees" for details.

Applicants who fall under (1)-(8) in "2. Eligibility" must apply by referring to "5. Application Procedure and Payment of Fees" during the application period.

Applicants who fall under (9) or (10) in "2 Eligibility" must first apply for the pre-assessment explained in "3. Pre-Assessment of Eligibility". Once their eligibility has been confirmed, they must complete the procedures described in "5. Application Procedure and Payment of Fees" during the application period.

5. Application Procedure and Payment of Fees

Applicants must complete all of the following (①-③) by the deadline specified in "4. Application Period".

① Online Application

Applicants must have (or have access to) a printer for printing the application documents, and have an

email address capable of receiving a notification from the university (cell phone's email address is not accepted).

1) Access the Hokkaido University Online Application website using the password received from the prospective supervisor (https://e-apply.jp/e/hokudai-sci/)
2) Read the instructions on the website carefully and fill out all the necessary information.
3) If successfully registered, notification will be sent to the email address you have provided.

② Payment of Entrance Examination Fee

Entrance examination fee of 30,000 yen must be paid in accordance with the instructions provided on the payment procedures screen shown after you have completed the online application. Use one of the following methods to make payment.

(i) Credit card
(ii) Pay-easy (bank ATM, Japan Post bank ATM, or online banking), convenience store, PayPay Bank, or Rakuten Bank
(iii) ChinaPay (online payment service offered by China UnionPay)

*** Along with the entrance examination fee, about 500 yen will be added as a handling charge.**

* 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) or who are enrolled in the Integrated Science Program (ISP) are not required to pay the examination fee.

* 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.

③ Submission of Application Documents by Post

Print the application form and resume that are generated after you have completed the online application, and send them along with other necessary documents (see "6. Application Documents") in an envelope by registered mail.
It must be received by the deadline. The application documents will not be returned once submitted.

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

* Applications received after the deadline will not be accepted. Consider the time for courier delivery and be sure to post it well in advance.

6. Application Documents

Documents		Remarks
1	Application Form and Resume	Print the application form and resume that are generated after completing the online application (on A-4 sized paper). *** Applicants under (9) or (10) in "2. Eligibility" must apply after their qualifications have been approved through the pre-assessment.**
2	Application Form for Pre-Assessment	(Prescribed form) ※ **Applicants who fall under (9) or (10)** must download the form from the online application website.
3	One photograph	Photo size must be 4cm×3cm.
4	Official transcript issued by the last university or equivalent institution	As a reference, applicants may attach a recommendation letter from the faculty member at the university or equivalent institution they graduated from. *In the case that the official transcript is written in a language other than Japanese or English, "Original Official Transcript written in the language concerned" and "Original official translation in Japanese or English" must be attached.
5	Certificate for Japanese or English proficiency	Applicants who have difficulties in submitting the certificate for Japanese or English proficiency may submit a transcript or similar document that indicates Japanese or English grades issued by the university or equivalent institution they graduated from.
6	Official certificate of graduation (or expected graduation)	An Official Certificate must be issued by the Head of the university or equivalent institution. (Degree information should be contained if you have already graduated.) ◎ Applicants who graduated or are expected to graduate from a university or similar institution in China (except Taiwan, Hong Kong and Macao) must submit the following document along with an official certificate of graduation (or expected graduation). Applicants who; -graduated … (a) Online Verification Report of Higher Education Qualification Certificate -are expected to graduate … (a) Online Verification Report of Student Record Document (a) can be obtained from the China Credentials Verification （中国高等教育学历证书查询 http://www.chsi.com.cn/xlcx/bgys.jsp） Please make sure the web authentication should be valid at least 15 days at the time of submission. *In the case that the official transcript is written in a language other than Japanese or English, "Original Official Transcript written in the language concerned" and "Original official translation in Japanese or English" must be attached.
7	Passport copy	Photocopy the page showing your full name.

8	Documents specified by each department	Among 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** must submit a "Research Plan after Enrollment" (Prescribed form). The prescribed form is available for download from online application website. Print on A4- sized paper.
9	Documents requested by a prospective supervisor	

7. Screening Method

The Graduate School of Science will assess applicants based on the oral examination, application form, resume, official transcript issued by the last academic institution that they graduated, recommendation letter from the prospective supervisor, and other documents submitted. For international students residing abroad, the oral examination schedule may be announced separately.

8. Oral Examination

Dates: August 7 (Thu)・8 (Fri), 2025
Venue: Graduate School of Science, Hokkaido University (Kita-10 Nishi-8 Kita-ku, Sapporo)
***Excluding online examination**

<table>
<tr><th colspan="2" rowspan="2">Department</th><th colspan="2">August 7 (Thu)</th><th colspan="2">August 8 (Fri)</th></tr>
<tr><th>AM</th><th>PM</th><th>AM</th><th>PM</th></tr>
<tr><td colspan="2">Mathematics</td><td colspan="2">Oral examination (Online)
(9:00-)</td><td></td><td></td></tr>
<tr><td colspan="2">Condensed Matter Physics</td><td></td><td></td><td colspan="2">Oral examination (9:00-)</td></tr>
<tr><td colspan="2">Cosmosciences</td><td></td><td></td><td colspan="2">Oral examination (9:00-)</td></tr>
<tr><td rowspan="3">Natural History Sciences</td><td>Earth and Planetary Dynamics
Earth and Planetary System Science
Seismology and Volcanology</td><td></td><td></td><td colspan="2">Oral examination (9:00-)</td></tr>
<tr><td>Biodiversity</td><td></td><td></td><td></td><td>Oral examination
(13:00-)</td></tr>
<tr><td>Science Communication</td><td></td><td>Oral examination
(13:00-)</td><td></td><td></td></tr>
</table>

9. Announcement of Results

The examinees' numbers of successful applicants will be posted on the website of the Graduate School of Science around 4:30 PM on Thursday, September 4, 2025. In addition, only successful applicants are notified of their results individually.

For international students residing abroad who have received oral exam schedules, the examinees' numbers of successful applicants will be posted on the website of the Graduate School of Science around 4:30 PM on Thursday, July 31, 2025. In addition, only successful applicants are notified of their results individually.

10. 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.

11. Important Notice

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. *If you have considerations desired in terms of study, also consult with the Graduate School Educational Affairs Section.

12. 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 8, and submit an application if you wish to take advantage of this system.

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
Office hours (weekday): 8:30 a.m. – 5:00 p.m. except 12:15 p.m. – 1:00 p.m.
Tel: +81-11-706 - 3675
E-mail: r-gakuin@sci.hokudai.ac.jp
Graduate School of Science, Hokkaido University
https://www2.sci.hokudai.ac.jp/gs/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.

List of Supervisors and Research Fields

As of April 1, 2025

Master's Course

Department of Mathematics, Graduate School of Science

Fields	Supervisors		Keywords	Remarks
Algebra	Professor	ASAKURA Masanori	Arithmetic geometry	
	Professor	SHIBUKAWA Youichi	Yang-Baxter equations and quantum groups	
	Professor	YASUDA Seidai	Number theory, arithmetic geometry	
	Specially Appointed Professor	SAITO Mutsumi	Algebraic analysis, rings of differential operators	Scheduled to retire in March, 2026.
	Specially Appointed Professor	MATSUMOTO Keiji	Special functions	Scheduled to retire in March, 2027.
	Associate Professor	OUCHI Genki	Algebraic geometry, derived category of coherent sheaves, moduli space	
	Associate Professor	CAI, Yuanqing	Number theory, representation theory,automorphic L-functions, automorphic representations, covering groups	
	Associate Professor	SCRIMSHAW, Travis	Combinatorics, representation theory, Schubert calculus	
	Associate Professor	MATSUSHITA Daisuke	Algebraic geometry	
Geometry	Professor	AKITA Toshiyuki	Algebraic topology, group cohomology, quandle	
	Professor	INOGUCHI Junichi	Geometry, integrable systems, Lie group, homogeneous spaces	
	Professor	KOBAYASHI Shimpei	Differential geometry, integrable systems	
	Professor	FURUHATA Hitoshi	Differential geometry	
	Associate Professor	KASUYA Naohiko	Differential topology, contact structures, complex structures	
	Associate Professor	KAWASAKI Morimichi	Symplectic geometry, Geometric group theory, differential topology	
	Assistant Professor	KANDA Yutaka	Differential topology	
	Assistant Professor	SUGAWARA Sakumi	Low-dimensional topology, hyperplane arrangement	
Analysis	Professor	KUBO Hideo	Partial Differential Equations associated with Nonlinear Dynamics	
	Professor	KOBAYASHI Masaharu	Harmonic Analysis	
	Professor	HONDA Naofumi	Algebraic analysis	
	Professor	MIYAO Tadahiro	Mathematical physics, functional analysis, condensed matter physics	
	Specially Appointed Professor	HORA Akihito	Functional analysis, probability theory	Scheduled to retire in March, 2027.
	Associate Professor	UMETA Yoko	Exact WKB analysis, asymptotic analysis, higher order Painlevé equations, Stokes geometry	
	Associate Professor	SUZUKI Yuhei	Operator algebras	
	Associate Professor	HASEBE Takahiro	Probability theory, functional analysis	
	Associate Professor	HAMAMUKI Nao	Nonlinear partial differential equations, Theory of viscosity solutions	
	Assistant Professor	SATO Ryosuke	Probability theory, Operator algebras	
Applied Mathematics	Professor	SAKAI Akira	Probability theory, statistical mechanics, mathematical physics	
	Professor	NAGAYAMA Masaharu	Reaction-diffusion systems, mathematical modeling, numerical simulation	
	Professor	NAMIKI Takao	Ergodic theory, dynamical systems, complex systems	
	Professor	MASAKI Satoshi	Partial differential equations, harmonic analysis, variational analysis	
	Associate Professor	KURODA Hirotoshi	Partial differential equations, variational analysis	
	Associate Professor	SATO Yuzuru	Complex systems, chaotic dynamical systems	
	Associate Professor	TASAKI Sohei	Mathematical life sciences, Microbiology	
	Associate Professor	TABATA Koji	Online learning,data science,theory of computation	
	Associate Professor	NAKANO Yushi	Dynamical systems, ergodic theory, chaos	
	Assistant Professor	ISHII Hiroshi	Partial differential equations, Reaction-diffusion systems, Nonlocal effect	
	Assistant Professor	KITA Kosuke	Evolution equations, Partial differential equations, Nonlinear semigroups	
	Assistant Professor	FUKUSHIMA KIMURA, Bruno Hideki	Probability theory, statistical mechanics, mathematical physics	

※There is a possibility that the members of supervisors change. Please get the latest information from the website of the Graduate School of Science.

As of April 1, 2025

Master's Course

Department of Condensed Matter Physics, Graduate School of Science

Laboratories	Supervisors		Keywords	Remarks
Electronic Properties of Solids	Professor	YOSHIDA Hiroyuki	We develop new materials in strongly correlated electron systems by various chemical methods including high pressure synthesis, and elucidate their properties by both bulk physical properties measurements (electrical resistivity, magnetization, specific heat measurements, and precise measurements in ultra-high magnetic fields, etc) and microscopic measurements (μSR, neutron and synchrotron X-ray scattering, etc). Specifically, we develop frustrated magnetic materials, multipole materials, skyrmion materials, novel actinide compounds and also search for quantum many-body states in high magnetic fields, cross-correlational phenomena, and new superconducting states and odd-parity multipoles.	
	Assistant Professor	KON Fusako		
J-Material: Physics of Strongly Correlated Systems	Professor	AMITSUKA Hiroshi	J-material, Superconductivity, Magnetism, Heavy fermion, Quantum phase transition, Magnetoelectric effects, Very low temperatures, High magnetic fields, High pressure, Ultrasonic measurements, MuSR, Neutron scattering, RXS, Ferroelectrics, Multiferroics, Electronic ferroelectricity, Phase transition, Photoinduced cooperative phenomena	
	Professor	YANAGISAWA Tatsuya		
	Associate Professor	TAKESADA Masaki		
	Assistant Professor	HIDAKA Hiroyuki		
Electronic Properties of Low-demensional Material	Professor	KAWAMOTO Atsushi	NMR, Strongly-correlated electrom systems, Superconductivity, Magnetism Low-dimensional organic conductors, Scanning tunneling microscopy (STM), Scanning tunneling spectroscopy (STS), Nonlinear conductivity, Symmetry of Cooper pairs, Spin density waves (SDWs), Chiral superconductivity, Mesoscopic systems, Topological phenomena	
	Associate Professor	MATSUNAGA Noriaki		
	Lecturer	IHARA Yoshihiko		
	Assistant Professor	NOBUKANE Hiroyoshi		
	Assistant Professor	FUKUOKA Syuhei		
Condensed Matter Dynamics	Assistant Professor	YAMAMOTO Sekika	We study the interaction of light with matter, mainly by spectroscopic measurements using laser light. Target systems include organic materials, metals, and semiconductors. In the case of molecular luminescence in solution, we deal with energy relaxation of a few milliseconds due to liquid dynamics; in the case of excited-state relaxation in semiconductors, we measure relaxation in microseconds to nanoseconds; and in the case of phonon spectroscopy in solids, we study relaxation phenomena on time scales of picoseconds or less. We also synthesize nanocrystals of a few nanometers in size by chemical synthesis methods and study various phenomena caused by quantum effects in the electron system confined in very small nanocrystals.	

Laboratories	Professors		Keywords	Remarks
Statistical Physics	Professor	HAYAMI Satoru	We theoretically study novel physical phenomena in strongly-correlated electron systems based on quantum mechanics and statistical physics. We aim to systematically understand physical phenomena and explore the possibility of new electronic states and quantum phenomena. The recent research topics are the following. (1) Classification of electronic physical properties based on microscopic multipoles (2) Topological magnetism including magnetic skyrmions (3) Emergent spin-orbit-coupled physics in magnetic materials (4) Cross-correlated phenomena over electric, magnetic, elastic, heat, and light (5) Exploring novel physics by using a machine-learning method (6) Development of effective model calculation method based on DFT calculation and electronic multipole theory (7) Elucidation of universal properties of chiral and ferroaxial materials We also study efficiency of heat engines using nonequilibrium statistical mechanics and complex dynamics in pattern formation and chaos of coupled-oscillator systems, using not only theoretical analysis but also numerical simulation.	
	Lecturer	OIWA Rikuto		
	Assistant Professor	OKUDA Koji		
Mathematical physics	Professor	YAMAMOTO Shoji	Making full use of various—both analytical and numerical—quantum statistical methods, we explore novel quantum cooperative phenomena in strongly correlated electron systems. A recent keyword is "topology". Interpretation of phenomena must be our ultimate goal, but we often take further interest in the mathematical and methodological ways we can accomplish this. We construct microscopic theories on a variety of physics such as quantum spin liquid, photoinduced magnetism, nuclear magnetic resonance, inelastic neutron scattering, Raman scattering, optical conductivity, and angle-resolved photoemission spectroscopy. We sometimes enjoy theoretical formulation in itself and sometimes interpret observations in cooperation with experimentalists and chemist.	
	Associate Professor	OHARA Jun		
	Assistant Professor	INOUE Takashi		
Nanostructure Physics (RIES)	Professor	KOBAYASHI Kaya	Superconductors and magnets, novel materials synthesis, layered materials, transition metal dichalcogenides, van der Waals heterostructure, material characterization, thin flake devices, thin film, MBE, TEM	
	Associate Professor	KONDO Kenji	Qunatum field theory, Many-body perturbation theory, Spintronics devices, Magnetism, Electronic correlations, Dirac electron, Topological insulator	No acceptance for FY2025

※There is a possibility that the members of supervisors change. Please get the latest information from the website of the Graduate School of Science.

As of April 1, 2025

Master's Course

Department of Cosmosciences, Graduate School of Science

Laboratories	Supervisors		Keywords	Remarks
Observational Astronomy	Professor	SORAI Kazuo	Observational astronomy, extragalacitc astronomy, interstellar matter, development of observational instruments and system for the Antarctic THz telescope	
	Assistant Professor	SALAK Dragan		Institute for the Advancement of Higher Education
Theoretical Particle Physics and Cosmology	Professor	SUZUKI Hisao	Particle physics, beyond the standard model, dark matter, dark energy, grand unified theory, superstrings, supersymmetry, early universe	
	Professor	KOBAYASHI Tatsuo		
	Professor	SETO Osamu		
	Lecturer	SUEHIRO Kazuhiko		
	Assistant Professor	DAS Arindam		Institute for the Advancement of Higher Education
Theoretical Nuclear Physics	Associate Professor	NOMURA Kosuke	Nuclear structure and dynamics, and related quantum many-body techniques; Microscopic description of nuclear deformations and collective motions, nuclear density functional theory, collective models; exotic nuclear deformations and collective excitations, octupole deformation, and shape coexistence; beta decays relevant to the nucleosynthesis in the early universe, neutrinoless double beta decay, electric dipole moments, fundamental nuclear processes; numerical simulations using high-performance computers; international collaborations.	
Theoretical Astrophysics	Professor	OKAMOTO Takashi	Theoretical astronomy, numerical simulations, semi-analytic modelling, first star formation, first galaxy formation, galaxy evolution, galaxy clusters, supermassive black holes, interstellar matter, star formation	
	Assistant Professor	SUGIMURA Kazuyuki		
Planetary and Space Group	Professor	KURAMOTO Kiyoshi	Origin and evolution of planets and satellites, material evolution during planetary system formation, structure and dynamics of Earth and planetary atmospheres, comparative planetology, space exploration and ground-based observation, experimental studies, theory and hierarchical numerical simulation models, applications of information technology	
	Professor	TAKAHASHI Yukihiro		
	Professor	ISHIWATARI Masaki		
	Professor	SATO Mitsuteru		
	Associate Professor	KAMATA Shunichi		
	Specially Appointed Associate Professor	KUBOTA Hisayuki		
	Lecturer	TAKAGI Seiko		

Laboratories	Supervisors		Keywords	Remarks
Astrophysical Chemistry	Professor	WATANABE Naoki	Interstellar molecules, ice dust, amorphous solid water, surface reactions, nanoparticle, crystallization, nucleation, electron microscopy, microgravity	
	Professor	KIMURA Yuki		
	Associate Professor	OBA Yasuhiro		
	Associate Professor	YAMAZAKI Tomoya		
	Assistant Professor	HIDAKA Hiroshi		
	Assistant Professor	TSUGE Masashi		
Phase Transition Dynamics	Professor	SAZAKI Gen	Phase transition dynamics, crystal growth, ice, snow, interferometry, advanced optical microscopy, atomic force microscopy	
	Assistant Professor	NAGASHIMA Ken		
	Assistant Professor	MURATA Ken-ichiro		
Information Media Science	Professor	FUSE Izumi	Learning science, learning platforms, open education	
	Assistant Professor	YAMAMOTO Yuichi		
Nuclear Reaction Data Science	Associate Professor	HIRABAYASHI Yoshiharu	Nuclear data, nuclear reactions, evaluation	Information Initiative Center
	Visiting Professor	FUKAHORI Tokio		Inter-field Cooperation with the Japan Atomic Energy Agency (JAEA) in the field of nuclear data.
	Visiting Professor	IWAMOTO Nobuyuki		
Spacecraft Observation Group	Visiting Professor	SATO Takehiko	Planetary exploration, infrared astronomy from space, radio astronomy from space	Inter-field Cooperation with the Japan Aerospace Exploration Agency (JAXA) in the field of spacecraft observation.
	Visiting Professor	FUJIMOTO Ryuichi		
	Visiting Associate Professor	YAMAMURA Issei		

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Master's Course

Department of Natural History Sciences, Graduate School of Science

As of April 1, 2025

Research Fields	Research Groups & Laboratories	Supervisors		Keywords	Remarks
Earth and Planetary Dynamics	Meteorology	Professor	INATSU Masaru	Meteorology, dynamics and forecast, cyclones and fronts, theory and numerical modelling, development of numerical model, meso-scale phenomena, cloud, rain, snow, aerosol, lightning, material transport, and their application.	
	Physical Oceanography and Climate	Professor	MINOBE Shoshiro	Physical oceanography, meteorology, air-sea interactions, climate variability & change, oceans' role in climate, multidisciplinary challenges, numerical modelling, data analysis	
		Associate Professor	SASAKI Yoshinori		
	Space Geodesy	Professor	FURUYA Masato	Space geodesy, GNSS, GPS, INSAR, GRACE, gravity, Earth rotation, atmospheric sensing, crustal deformation, glaciology, planetary geodesy, ionosphere	
		Associate Professor	TAKADA Youichiro		
	Seismology	Professor	YOSHIZAWA Kazunori	Seismic wave propagation, Earth structure, seismic tomography, waveform analysis, seismic source process, microfracture, heterogeneity and anisotropy	
		Associate Professor	NAOI Makoto		

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As of April 1, 2025

Research Fields	Research Groups & Laboratories	Supervisors		Keywords	Remarks
Earth and Planetary System Science	Petrology and Volcanology	Professor	KURITANI Takeshi	Field geology, igneous petrology, experimental volcanology, geochemistry, material circulation, magma genesis, magmatic differentiation, magma plumbing system, volcanic eruption, crystal growth	
		Associate Professor	YOSHIMURA Shumpei		
		Assistant Professor	MUJIN Mayumi		
		Assistant Professor	PYTHON Marie	Petrography and chemistry of the crust and mantle in ophiolites and the Pacific Ocean, mantle melting, magmatic evolution of the oceanic crust, hydrothermal circulation, interactions within the oceanic crust and mantle	
		Assistant Professor	KITANO Ippei	Geology, metamorphic petrology, metamorphic rocks, plutonic rocks, mobile belts, crustal evolution	Hokkaido University Museum
	Geochemistry	Associate Professor	KAWASAKI Noriyuki	Geochemistry, cosmochemistry, planetary chemistry, galaxies, stars, planetary systems, protoplanetary disks, planets, meteorites, Earth, core, mantle, crust, oceans, atmosphere, life, magma, geofluids, mass spectrometry, spectroscopy, microscopy, dust formation, crystal growth, high pressure, solar system evolution, planetary exploration	
		Assistant Professor	BAJO Ken-ichi		
	Earth Materials Science	Professor	NAGAI Takaya	Mineralogy, crystallography, crystal growth, physics and chemistry of minerals	
		Associate Professor	KAWANO Jun		
		Associate Professor	SHINOZAKI Ayako		
	Paleobiology	Professor	YAMADA Toshihiro	Paleontology, Paleobotany, Stratigraphy	
		Professor	KOBAYASHI Yoshitsugu	Vertebrate evolution, dinosaurs, reptiles, birds, phylogenetic relationships, functional morphology, comparative anatomy, embryology	Hokkaido University Museum
		Associate Professor	IBA Yasuhiro	Evolution of Mesozoic marine biota, paleobiogeographic responses, global environmental change, origin of modern marine biota	

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Research Fields	Research Groups & Laboratories	Supervisors		Keywords	Remarks
Earth and Planetary System Science	Earth Biosphere Geocience	Professor	SAWADA Ken	Paleoenvironmental reconstruction, Organic sedimentology, Molecular paleobiology, Macromolecular biogeochemistry, biomarker paleoclimatology	
		Lecturer	WATANABE Tsuyoshi	High-resolution reconstruction of palaeoenvironments, biogeochemical cycles in reef ecosystems on the geological time scale	
		Assistant Professor	IKEDA Masashi	Organic Geochemistry, Biogeochemistry, Paleomycology, Paleoecology, molecular fossils, evolution of fungi, lichen	

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As of April 1, 2025

Research Fields	Research Groups & Laboratories	Supervisors		Keywords	Remarks
Biodiversity	Biodiversity	Professor	TAKAGI Masaoki	Biodiversity III: Ecology,evolution,island,bird	
		Professor	KOGAME Kazuhiro	Biodiversity II: Taxonomy, phylogeny, evolution, seaweeds	
		Professor	KAJIHARA Hiroshi	Biodiversity I: Marine invertebrates, Nemertea, taxonomy, phylogeny, morphology	
		Associate Professor	KATOH Toru	Biodiversity I: Evolution, phylogeny, populations, insects	
		Associate Professor	ABE Tsuyoshi	Biodiversity II: Seaweeds, taxonomy, phylogeny, chemotaxonomy	Hokkaido University Museum
		Lecturer	KAKUI Keiichi	Biodiversity I: Marine invertebrates, Crustacea, Tanaidacea, taxonomy, phylogeny, morphology	
		Lecturer	NAKADA Takashi	Biodiversity II: Taxonomy, phylogeny, evolution, microalgae, Chlorophyceae	
		Assistant Professor	Kevin Wakeman	Biodiversity II : Biodiversity, evolution, protists, Apicomplexa, dinoflagellates	Institute for the Advancement of Higher Education

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As of April 1, 2025

Research Fields	Research Groups & Laboratories	Supervisors		Keywords	Remarks
Science Communication	Communication of Science and Technology	Associate Professor	KAWAMOTO Shishin	science and technology studies, communication in science and technology, transdisciplinary, dual-use	Advancement of Recurrent Education Division
	Philosophy of Science and Technology	Professor	MATSUOU Masahiro	Philosophy of science, ethics of science and technology, philosophy of risk, statistical inference of cause	
	Educational Design	Associate Professor	IWAMA Norikazu	Psychological Statistics, Educational Measurement, Test Theory, Educational Technology, Instructional Design, Self-regulated Learning	Institute for the Advancement of Higher Education
		Associate Professor	OKUMOTO Motoko		Institute for the Advancement of Graduate Education
		Associate Professor	ISHIKAWA Naoko		Institute for the Advancement of Higher Education
	Communication Media	Professor	SHIGETA Katsusuke	Communication Media, Educational Technology, Information and Communication Technology, Learning Effectiveness, e-learning, Hybrid Learning, Educational Practice Research.	Information Initiative Center, Hokkaido University
		Associate Professor	SUGIURA Mayumi		Institute for the Advancement of Graduate Education
		Associate Professor	YAMAMOTO Kenichi		Institute for the Advancement of Graduate Education
		Associate Professor	FUJIOKA Kazuya		Institute for the Advancement of Graduate Education

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As of April 1, 2025

Research Fields	Research Groups & Laboratories	Supervisors		Keywords	Remarks
Seismology and Volcanology	Seismological Observation	Professor	OHZONO Mako	Earthquake geophysical observation, seismographs, GNSS, gravity, subduction great earthquakes, inland earthquakes, statistical seismology, land and ocean bottom crustal deformation, regional tectonics in northeastern Asia, geothermal exploration, earthquake disaster mitigation	
		Professor	TAKAHASHI Hiroaki		
		Associate Professor	KATSUMATA Kei		
	Ocean Bottom Seismology and Tsunami	Associate Professor	MURAI Yoshio	Subsurface structure at subduction zones,elastic wave propagation, earthquake source processes, generation and propagation of tsunamis, international field science, disaster mitigation	
		Associate Professor	YAMANAKA Yusuke		
	Volcano Physics	Professor	AOYAMA Hiroshi	Volcanology, volcanic seismology, eruption prediction, transport processes, volcano hydrology, crustal deformation, space geodesy, geo-electromagnetism, spectroscopy of volcanic plume, volcano monitoring system	
		Assistant Professor	TANAKA Ryo		
	Subsurface Structure	Professor	HASHIMOTO Takeshi	Subsurface exploration in seismogenic zones and active volcanoes, tectono-electromagnetism, magnetotellurics, geomagnetic field observation, conductivity anomaly	

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