April 2024 and October 2023 Enrollment

Graduate School of Chemical Sciences and Engineering
Hokkaido University

Ph.D Program
(Doctoral Course)

Application Guidelines

(Including Working Adult Admission and International Student Admission Information)

[Important]

There is a possibility that admission tests may be conducted with different contents from those described in this application guideline due to the effects of new coronavirus infections and other factors. If there are any changes, they will be posted on our homepage (https://www.cse.hokudai.ac.jp/), so be sure to check our homepage regularly.

If you have any questions regarding the application process, contact the office below.

Administration Office, Graduate School of Chemical Sciences and Engineering,
Hokkaido University (CSE Office)
Kita 13, Nishi 8, Kita-ku, Sapporo, 060-8628 Japan
Tel: +81-11-706-7247 c-sougou@cse.hokudai.ac.jp

April 2023

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Overview of the Graduate School of Chemical Sciences and Engineering and the Division of Chemical Sciences and Engineering

Hokkaido University reorganized the Department of Chemistry in its Graduate School of Science along with three chemistry-related divisions in its Graduate School of Engineering (the divisions of Chemical Process Engineering, Biotechnology and Macromolecular Chemistry, and Materials Chemistry) to form the Graduate School of Chemical Sciences and Engineering and the Division of Chemical Sciences and Engineering in April 2010 (admission quotas in master's course: 129; admission quotas in doctoral course: 38).

In the Graduate School of Chemical Sciences and Engineering, chemistry and biochemistry professors of science and engineering who are affiliated with the Faculty of Science, Faculty of Engineering, Research Institute for Electronic Science, Institute for Genetic Medicine, Institute for Catalysis , and the Institute for Chemical Reaction Design and Discovery work closely together on research and education activities. Researchers affiliated with the National Institute for Materials Science, National Institute of Advanced Industrial Science and Technology, and RIKEN participate as instructors in related fields. These diversely experienced instructors offer not only specialized lectures in the Molecular Chemistry and Engineering Course, Materials Chemistry and Engineering Course, and Biological Chemistry and Engineering Course established within the Division of Chemical Sciences and Engineering but also a rich diversity of classes, including lectures in English. As a result, they are able to provide instruction and research guidance so that students will be able to view the field of chemistry from both the perspectives of science and engineering and contribute to society in related fields.

Admission Policy

1. Educational goals

By providing a systematic education that integrates research findings into the various fields of chemistry, such as molecular chemistry, materials chemistry, and biochemistry, the Graduate School of Chemical Sciences and Engineering strives to equip students with both basic and advanced, specialized knowledge in the field of chemistry; to cultivate individuals with broad-based knowledge, a strong sense of discernment, and the ability to use their knowledge in practical applications to meet the needs created by trends toward internationalization, advanced developments in science and technology, and interdisciplinary approaches; and to nurture students who have the depth of knowledge and skills necessary for conducting basic and applied research and who will therefore be well equipped to conduct innovative research going forward.

2. Ideal student image

(Master's Course)

(1) Knowledge/skills

Prospective students are expected to have previously acquired advanced expertise in chemistry or related fields and undertaken original research and development.

(2) Critical-thinking, judgment, and expressive abilities

To respond to internationalization, the sophistication of science and technology, and interdisciplinization, the Graduate School requires prospective students to possess not only a basic background in related fields but also the motivation to acquire diverse knowledge and develop critical thinking, judgment abilities, and practical abilities.

(3) Collaboration

Prospective students are expected to be independent and motivated to learn and work in collaboration with people from various backgrounds.

(4) Prerequisites

Before enrolling in the Graduate School, students are expected to have knowledge and abilities at the undergraduate level in chemistry or related fields.

(Doctoral course)
(1) Knowledge/skills
Prospective students are expected to have previously acquired advanced expertise in chemistry or related fields and undertaken original research and development.
(2) Critical-thinking, judgment, and expressive abilities
To respond to internationalization, the sophistication of science and technology, and interdisciplinization, the Graduate School requires prospective students to possess not only a basic background in related fields but also the motivation to acquire diverse knowledge and develop critical thinking, judgment abilities, and practical abilities.
(3) Collaboration
Prospective students are expected to be independent and motivated to learn and work in collaboration with people from various backgrounds.
(4) Prerequisites
Before enrolling in the Graduate School, students are expected to have acquired knowledge and research abilities at the master's level in chemistry or related fields.

3. Basic policy for admission selection
At the Graduate School of Chemical Sciences and Engineering, we admit students who desire to specialize in the fields of science and engineering and obtain a master's or doctoral degree in the field of general chemistry, as well as students who seek a doctoral degree while working. Details such as the evaluation method are specified in the application guidelines. To measure language proficiency, which is indispensable for success on the international stage, we request the submission of scores for an English test that is conducted globally.

(1) Master's program
・ General selection
Besides requiring comprehensive academic abilities related to the basics of chemistry, we conduct written and oral examinations related to specialization; evaluate basic specialized subjects in molecular chemistry, material chemistry, and biochemistry; and evaluate advanced, specialized knowledge in specialized subjects, as well as judgment ability and level of proficiency in the background of related fields, to ascertain practical ability. In addition, through oral examinations, we evaluate candidates' attitude of independence, willingness to collaborate with diverse people, motivation for the future, and ability to learn and research at the undergraduate level. Selection will be made by comprehensively judging the examination results, including language ability based on the English test score.
The written test may be exempted for those who have demonstrated excellent academic performance at their previous academic institution or who have outstanding achievements, such as research and development at companies.

・ Entrance examination for international students
Considering the level of education overseas, we evaluate expertise and operational ability in basic or related fields of chemistry through an oral examination. Prospective students are expected to have an attitude of independence, be willing to collaborate with various people, and have motivation for the future. Language ability will also be evaluated based on the score of the English test.

(2) Doctoral program (general selection / examination for working adults / international student selection/ AGS selection)
An oral examination is conducted to evaluate expertise and operational ability in chemistry and related fields, as well as basic research abilities for advancing original research in the doctoral program, with the addition of presentation ability. Prospective students are expected to have an attitude of independence, be willing to collaborate with various people, and have motivation for the future. Language ability will also be evaluated based on the score of the English test.

I. General Admission and Working Adult Admission

[Important] There is a possibility that admission tests may be conducted with different contents from those described in this application guideline due to the effects of new coronavirus infection s and other factors. If there are any changes, they will be posted on our homepage (https://www.cse.hokudai.ac.jp), so be sure to check our homepage regularly.

1. Admission Quotas

Division	No. of Admission Quota	School Web Site
Chemical Sciences and Engineering	38	www.cse.hokudai.ac.jp

Notes:

The number of admission quotas includes several slots for working adult and international student applicants.

Individuals expecting to remain employed at the time of admission may apply through the working adult admission process.

2. Application Qualifications (for those who wish to be admitted in April 2024)

(1) Individuals who have been awarded a master's degree or professional degree from a Japanese university (the term "professional degree" used hereinafter shall refer to the professional degree prescribed in Article 5-2 of the Degree Regulations [Ordinance of the Ministry of Education, Science and Culture No. 9 of 1953] pursuant to stipulations in Article 104, Clause 3, of the School Education Act); this includes those who are expected to be awarded such a degree by March 2024.

(2) Individuals who have been awarded or are expected to be awarded a degree equivalent to a master's degree or professional degree from a foreign university by March 2024. (hereinafter referred to as "individuals from a foreign educational system")

(3) Individuals who have been awarded or are expected to be awarded a degree equivalent to a master's degree or professional degree by March 2024 by taking a correspondence course in Japan offered by a foreign school (hereinafter referred to as "individuals from a foreign educational system via correspondence course")

(4) Individuals who have completed a graduate school coursework of a foreign university at an educational institution in Japan and have been awarded a degree equivalent to a master's degree or professional degree. The institution needs to be positioned within the school education system of that foreign country as an educational body with a graduate school course and is required to be designated by the Japanese Minister of Education, Culture, Sports, Science, and Technology. This includes those who expect to be awarded such a degree by March 2024 (hereinafter referred to as "individuals who have completed coursework in a school designated as equivalent to a graduate school").

(5) Individuals who have been awarded or are expected to be awarded a degree equivalent to a master's degree by March 2024 from the United Nations University as prescribed in Article 1(2) of the Act on Special Measures Incidental of Enforcement of the Agreement between the United Nations and Japan regarding the Headquarters of the United Nations University (Act No.72 of 1976), which was established under the December 11, 1972 resolution of the General Assembly of the United Nations (hereinafter referred to as "individuals from the UN University").

(6) Individuals who have completed their formal education by taking a correspondence course

through a non-Japanese university, an educational institution which received the designation by (4), or the United Nations University, who have passed an examination or a screening equivalent to the regulations by Article 16.2 in Standards for the Establishment of Graduate Schools, and who are recognized to have an academic ability equivalent to Master's degree holders by the Graduate School , or who will obtain it by March 2024 (hereinafter referred to as "individuals from a foreign university who have been passed a Qualifying Examination").

(7) Individuals designated by the Minister of Education, Culture, Sports, Science, and Technology (1989 Notice No. 118, Ministry of Education, Science and Culture).

(a) Those who have graduated from a university; have conducted research for two years or longer at a university, research institution, etc.; and are recognized by this graduate school as possessing equivalent or greater academic capabilities as those of a person who has a master's degree based on its research achievements, etc.

(b) Those who have completed 16 years of school education in a foreign country or 16 years of school education of a foreign country by taking a correspondence course in Japan offered by a school of that foreign country; have conducted research for two years or longer at a university, research institution, etc.; and are recognized by this graduate school as possessing equivalent or greater academic capabilities as those of a person who has a master's degree based on its research achievements, etc.

(8) Applicants who are recognized by the graduate school as possessing the equivalent or greater academic skill as that of a person who has a master's degree or professional degree based on an individualized admission qualification investigation and who will be 24 years of age as of March 31, 2024 (hereinafter referred to as "individuals who apply through an individualized admission qualification investigation")

Notes:

1. **See page 21 for application qualifications if you wish to be admitted in October 2023.**
2. **If you have any questions regarding the Application Qualifications, contact the Administration Office of the Graduate School of Chemical Sciences and Engineering (hereafter referred to as "CSE office").**

3. Preliminary Review of Application Qualifications (Application Period, Etc.)

May 26 (Fri.) 9:00 a.m. - June 1 (Thu.) 5:00 p.m., 2023(Japan Standard Time)

We will conduct a preliminary review of application qualifications before the admission examination if applicants fall under one of the following categories:

(7) Individuals designated by the Minister of Education, Culture, Sports, Science, and Technology

(8) Individuals who apply through an individualized admission qualification investigation

Individuals who fit one of the above-mentioned descriptions should submit Application Form of Preliminary Review of Qualifications, resume (prescribed forms) and other documents indicated in section 5 "Application Documents," with the exception of item No. 1 (Admission application, resume, examination admission card, and examinee photo card) , No.7 (English score reporting form and the score sheet of an English-language proficiency examination) , No.8 (Envelope in which the examination admission card is to be mailed), and No.9 (Envelope to be used for the notification of examination results and other information) to the address specified in section "6. Where to Apply" by registered mail or bringing it to the office between the above-mentioned period. Applicants must contact the Administration Office (c-sougou@cse.hokudai.ac.jp) to request the application form well before the application deadline.

Notes:

The results of the preliminary review of application qualifications will be mailed out in mid-June 2023. Those who are deemed eligible to apply for the program must apply online (https://e-apply.jp/e/hokudai-cse), pay the examination fee as per section 4 “Application Method” and then mail required documents to the Administration Office.

Those who have passed the preliminary review of qualifications must submit documents listed in section No.1 (admission application, resume, examination admission card, and examinee photo card) , No.7 (English score reporting form and the score sheet of an English-language proficiency examination) , No.8 (Envelope in which the examination admission card is to be mailed), and No.9 (Envelope to be used for the notification of examination results and other information).

Note that Japanese government (MEXT) scholarship students, China Scholarship Council (CSC) supported students, Hokkaido University President’s Fellowship recipients, and Hokkaido University Special Grant Program international students (as well as those who are expecting to receive one of these scholarships) may be exempt from paying the examination fee. If there is a possibility that you will be eligible for an exemption, please contact the CSE office in advance.

4. Application Method

Our application process consists of three steps: (1) online application (https://e-apply.jp/e/hokudai-cse), (2) payment of the examination fee, (3) submission of application documents by mail. If you fail to complete any of these steps in the required timeframe, your application will not be processed and will be cancelled.

<<Online Application and Payment Period>>
June 13 (Tue.) 10:00 a.m. - June 27 (Tue.) 5:00 p.m., 2023 (Japan Standard Time)

<<Examination Fee>>

Applicants are required to pay the examination fee (30,000 yen) after registering online. Applicants must pay a service fee of 500 yen in addition to the examination fee.

Available payment methods include: credit card; China Pay; convenience store; bank or post office ATM. Please note that applicants cannot make a payment for the fee through teller. For further details on payment methods, see the application website.

Payment of examination fee is not required of individuals expecting to complete a master’s degree program or a professional degree program in any of graduate schools of Hokkaido University.

Japanese government (MEXT) scholarship students, China Scholarship Council (CSC) supported students, Hokkaido University President’s Fellowship recipients (as well as those who are expecting to receive one of these scholarships) and Hokkaido University Special Grant Program international students (as well as those who are expecting to receive one of these scholarships) may be exempt from paying the examination fee. If there is a possibility that you will be eligible for an exemption, please contact the CSE office in advance.

The examination fee is non-refundable except for the following cases:

1. Applicants who paid the fee but cancelled their application (including cases where an application was rejected or application documents were not submitted by the deadline)
2. Applicants paid the fee more than once by mistake
3. Applicants who are exempt from the examination fee mistakenly paid the fee.

<<Document Submission Period>>
June 20 (Tue.) - June 27 (Tue.), 2023

After the payment of the examination fee, download the application form, resume, examination admission card, examinee photo card, and English score report form as a PDF from the application website. Then, print single-sided and submit together with other application documents. Please note that these forms become available after you complete the payment of the examination fee.

When mailing the application documents, be sure to attach the mailing address label (appearing on the last page of the PDF) to the mailing envelope and send the documents by registered mail. The postmark deadline of submission is June 27 (Tue.). Please note that you cannot submit in-person at the Administration Office.

5. Application Documents

(1) Individuals wishing to apply through the **general admission** process should submit following documents.

No.	Documents to Be Submitted	Application Qualifications			Notes
		(1)	(2) (3) (4) (5)	(6) (7) (8)	
1	Admission application, resume, examination admission card, and examinee photo card	○	○	○	Prescribed forms
2	Summary of your master's thesis or an abstract of your research achievements	○	○		(a) Those who have been awarded any master's degree or any professional degree should provide a summary of their master's thesis or other materials equivalent to a master's thesis (unspecified format, approximately two A4-sized pages). (b) Those expecting to be awarded a master's degree should provide an abstract of the research conducted over the course of their master's program (up to 3,000 characters) or other equivalent materials.
3	List of research achievements and copies of key research papers			○	Unspecified format *Please submit both documents.
4	Certificate verifying your research history			○	Unspecified format This certificate is to be issued by the university dean or research institute director or your research advisor and indicates your research topic and period of research.
5	Transcript from the applicant's (undergraduate) university and graduate school attended	○	○	○	(a)This is not required of graduates of the Graduate School of Chemical Sciences of Hokkaido University. (b)Individuals applying based on the application qualification (8) must submit their transcript from the last school attended.

No.	Documents to Be Submitted	Application Qualifications			Notes
		(1)	(2) (3) (4) (5)	(6) (7) (8)	
6	Certificate of graduate school completion (or expected completion) or a degree certificate * This is not required of graduates of the Graduate School of Chemical Sciences and Engineering of Hokkaido University.	○	○	○	(a) Those who graduated or will graduate from a graduate school in People's Republic of China (excluding Hong Kong and Macau) must submit the following documents. Graduates: a. Online Verification Report of Higher Education Qualification Certificate（教育部学历证书电子注册备案表） b. Graduation Diploma（毕业证书）and Degree Diploma（学位证书） Expected Graduates: a. Online Verification Report of Student Record（教育部学籍在线验证报告） * Obtain documents “a” above by requesting it at “中国高等教育学历证书查询”: https://www.chsi.com.cn/xlcx/bgys.jsp. Also, be sure that there are 15 or more days left until the expiration date of the online verification at the time of its submission. (b)Individuals applying based on the application qualification (6) must submit a confirmation letter pertaining to the Qualifying Examination.
7	English score reporting form and the score sheet of an English-language proficiency examination (TOEFL test or TOEIC test)	○	○	○	Pursuant to section 7, “Submission of English Scores,” applicants must submit the English score reporting form (prescribed form) and the score sheet of an English-language proficiency examination (TOEFL test or TOEIC test) taken in or after April 2021.
8	Envelope in which the examination admission card is to be mailed	○	○	○	Not required if applicants are not in Japan ・Prepare an envelope (120mm x 235mm). ・Download the “Label for admission ticket” from our website and print it in color. ・Please write your postal code, address and name. Also, please seal 354 yen stamp on the envelope.
9	Envelope to be used for the notification of examination results and other information	○	○	○	Not required if applicants are not in Japan ・Prepare an envelope (240mm x 332mm). ・Download the “Label for results notification” from our website and print it in color. ・Please fill out your postal code, address and name. No need to attach stamps.
10	Envelope in which preliminary review results are to be mailed to the applicant			△	Required only for Applicants of Preliminary Review of Application Qualifications (Not required if applicants are not in Japan) ・Prepare a self-addressed envelope (120mm x 235mm). ・Please seal 84 yen stamp on the envelope.
11	A copy of your Residence card	△	△	△	This is required only for international student applicants. Those who live outside of Japan should submit a copy of their passport.

Note: ○ indicates that the document is required;

△ indicates that the document only needs to be submitted by specified individuals.

(2) **Working adult applicants** should submit the following documents:

No	Documents to Be Submitted	Notes
1	Admission application, resume, examination admission card, and examinee photo card	Prescribed forms
2	Letter of approval for taking the entrance examination	Unspecified format This is required only for those who are currently employed as public officials. The letter must be issued by someone who has authority over human resource matters at their place of employment.
3	List of research achievements and copies of key research papers	Unspecified format *Please submit both documents.
4	Certificate verifying your research history	Unspecified format This certificate is to be issued by the university dean or research institute director or your research advisor and indicates your research topic and period of research.
5	Transcript from the last school attended (university or higher)	This is not required of graduates of the Graduate School of Chemical Sciences and Engineering of Hokkaido University.
6	Certificate of graduate school completion or a degree certificate **This is not required of graduates of the Graduate School of Chemical Sciences and Engineering of Hokkaido University.	(a) Those who graduated or will graduate from an educational Institution in People's Republic of China (excluding Hong Kong and Macau) in their most recent academic history must submit the following documents. Graduates: a. Online Verification Report of Higher Education Qualification Certificate（教育部学历证书电子注册备案表） b. Graduation Diploma（毕业证书）and Degree Diploma（学位证书） Expected Graduates: a. Online Verification Report of Student Record（教育部学籍在线验证报告） * Obtain documents “a” above by requesting it at “中国高等教育学历证书查询”: https://www.chsi.com.cn/xlcx/bgys.jsp. Also, be sure that there are 15 or more days left until the expiration date of the online verification at the time of its submission. (b)Individuals applying based on the application qualification (6) must submit a confirmation letter pertaining to the Qualifying Examination.
7	English score reporting form and the score sheet of an English-language proficiency examination (TOEFL test or TOEIC test)	Pursuant to section 7, “Submission of English Scores,” applicants must submit the English score reporting form (prescribed form) and the score sheet of an English-language proficiency examination (TOEFL test or TOEIC test) taken in or after April 2021.

No	Documents to Be Submitted	Notes
8	Envelope in which the examination admission card is to be mailed	Not required if applicants are not in Japan ・Prepare an envelope (120mm x 235mm). ・Download the “Label for admission ticket” from our website and print it in color. ・Please write your postal code, address and name. Also, please seal 354 yen stamp on the envelope.
9	Envelope to be used for the notification of examination results and other information	Not required if applicants are not in Japan ・Prepare an envelope (240mm x 332mm). ・Download the “Label for results notification” from our website and print it in color. ・Please fill out your postal code, address and name. No need to attach stamps.
10	Envelope in which preliminary review results are to be mailed to the applicant	Required only for Applicants of Preliminary Review of Application Qualifications (Not required if applicants are not in Japan) ・Prepare a self-addressed envelope (120mm x 235mm). ・Please seal 84 yen stamp on the envelope.
11	A copy of your Residence card	This is required only for foreign applicants. Those who live outside of Japan should submit a copy of their passport.

6. Where to Apply

Administration Office, Graduate School of Chemical Sciences and Engineering, Hokkaido University (CSE Office)
Kita 13, Nishi 8, Kita-ku, Sapporo, 060-8628 Japan
Tel: (+81)-11-706-7247

7. Submission of English Scores

Submit your English score reporting form (prescribed form) at the time of application. Also, submit your English score sheets as follows.

Either of the English-language proficiency examination score sheets listed in (a) or (b) below, **from examinations taken in or after April 2021.** In the case of (c), please consult with CSE Office in advance.

(a) TOEFL test official score sheet

Submit a Test Taker Score Report sent to the examinee by the U.S. Educational Testing Service (ETS). A printout of test results posted online shall be considered invalid.

On the Score Report Preferences screen shown during the process of applying to take the TOEFL iBT test, be sure to select “Web-accessible Score Report and a printed copy mailed to you” to ensure that a Test Taker Score Report is mailed to you.

If you do not have a Score Report ready by the time that you apply for admission, please order a Test Taker Score Report from ETS and have it send out to you. And at the same time, please request an Official Score Report from ETS and have it send out to us the Graduate School of Chemical Sciences and Engineering, Hokkaido University. Our Institution code is C327.

The Test Taker Score Report may not be delivered to you within the application period, in which case by means of sending us the Official Score Report, a late submission will be accepted only if you have taken the test four weeks before the application deadline (Tuesday, May 30, 2023). When you order an additional Test Taker Score Report, it may not be delivered to you

within the application period, in which case a late submission will be accepted only if you have already had ETS send us the Official Score Report four weeks before the application deadline (Tuesday, May 30, 2023).

Please note that once the Test Taker Score Report has been delivered to you, please submit it to the CSE office as soon as possible. You may send it by registered mail or bring it to the CSE office.

(b) TOEIC test score sheet

Submit the Official Score Certificate or printed Digital official Score Certificate.

(c)Those who have graduated from a university where English is the primary language of instruction may omit their score sheet by submitting a medium of instruction certificate from their degree granting (undergraduate) university and graduate school. For more details, please contact the Administration Office.

Important Notes

(a) If you submit more than one score sheet, the best score submitted shall be used. Individuals who have already submitted scores at the time of application may submit new scores between July 27 (Thu.) 9:00 a.m. (JST) and July 31 (Mon.) 5:00 p.m. (JST), 2023, by registered mail or bringing it to the office.

(b) Scores for TOEFL ITP, TOEIC IP, TOEIC Bridge, etc. are invalid. However, a score from the TOEIC IP test for special measures conducted at Graduate School of Chemical Sciences Engineering, on August 18, 2021 (Wednesday) is accepted.

(c) English score sheet will be returned after the exam date.

8. Selection Method

Admission decisions will be made based on a comprehensive review (oral examination, etc.) of the applicant's master's thesis or equivalent paper and the applicant's knowledge of the subject matter and foreign-language skills.

For working adult applicants, the review of the applicant's knowledge of the subject matter and foreign-language skills will be replaced with a review (oral examination, etc.) of the results of the applicant's research conducted as a working adult.

9. Examination Schedule, Etc.

August 8 (Tue.) or August 9 (Fri.), 2023

Note:

The oral examination schedule, examination venue, and other details will be provided when the examination admission card is sent out.

Examination Date	Time	Examination Subject	Examination Venue
Aug. 8 (Tue.) or Aug. 9 (Wed.)	From 9:00 a.m. or from 1:00 p.m.	Oral examination	To be specified when the examination admission card is sent out

10. Announcements of the Result

The examination admission numbers of those who passed the examination will be posted in the entrance hall of the School of Engineering and our website (https://www.cse.hokudai.ac.jp/) around 10:00 a.m. on September 1 (Fri.), 2023. In addition, all examinees will be notified of their results individually (results will not be provided over the phone).

11. Enrollment Procedures and Expenses

Details regarding enrollment procedures are provided in the notifications mailed to those who have been accepted.

Enrollment fee: ¥282,000

Note:

Not required of students continuing into this doctoral course from a master's degree program or professional degree program in a graduate school of Hokkaido University.

First semester tuition for academic year 2024: ¥267,900 (estimated)

Total annual amount: ¥535,800 (estimated)

Notes:

1. If any revision is made while the student is enrolled, the new amount will be applied from the time of the revision.
2. If the enrollment fee is not paid during the admission procedure period, the applicant will be treated as having no intent to enroll.
3. If tuition is not paid for one semester, the student will be expelled, and his/her record of enrollment will be deleted. If you are having problems paying tuition due to financial hardship, you may be eligible for a tuition exemption or deferral.

12. Important Notes

(1) Be sure to bring your examination admission card with you on the day of the entrance examination and place it on your desk.
(2) Incomplete applications may not be accepted. Be sure that there are no errors in your application.
(3) If the name on your certificate of graduation or other documents is different from your current name, for example, your surname has changed, attach a certificate of family registry or other official document that verifies the change.
(4) If any falsified information is found in the application documents, the applicant's admission may be revoked.
(5) Our graduate school generally does not allow dual enrollment.

13. Long-Term Study Program

The long-term study program is available to students who want to study systematically over a period of time longer than the standard course term (three years for a doctoral course) due to full-time employment or other circumstances that limit the time to attend classes and conduct research. Students must apply for this program and receive the approval from the graduate school. Once approved, the student will pursue a systematic course of study over a specified length of time. Those wishing to take advantage of this system should carefully read and follow the application instructions in the section entitled "Information on the Long-Term Study Program" on page 24. Be sure to consult with your prospective academic advisor in advance regarding this program.

14. Others

(1) Examination admission cards will be sent out in **mid-July 2023** to those whose applications have been accepted.
(2) Applicants who are physically disabled and who may need special accommodations to take examinations and attend classes should notify the CSE office of their condition by June 27 (Tue.), 2023.

II. International Student Admission

[Important] There is a possibility that admission tests may be conducted with different contents from those described in this application guideline due to the effects of new coronavirus infections and other factors. If there are any changes, they will be posted on our homepage (https://www.cse.hokudai.ac.jp), so be sure to check our homepage regularly.

1. Admission Quotas

Division	No. of Admission Quota	School Web Site
Chemical Sciences and Engineering	Several	www.cse.hokudai.ac.jp

2. Application Qualifications (for those who wish to be admitted in April 2024)

Individuals who are recognized as possessing the skills and capabilities required based on a recommendation from a specialized professor (hereinafter referred to as “the prospective supervisor”) in this graduate school whom the applicant would like to have as his/her research advisor after enrollment and individuals who fulfill one of the following application qualifications:

(1) Individuals who have been awarded or are expected to be awarded a degree equivalent to a master’s degree or professional degree from a foreign university by March 2024.

(2) Individuals who have been awarded or are expected to be awarded a degree equivalent to a master’s degree or professional degree by March 2024 by taking a correspondence course in Japan offered by a foreign school

(3) Individuals who have completed a graduate school coursework of a foreign university at an educational institution in Japan and have been awarded a degree equivalent to a master’s degree or professional degree. The institution needs to be positioned within the school education system of that foreign country as an educational body with a graduate school course and is required to be designated by the Japanese minister of education, culture, sports, science, and technology. This includes those who are expected to be awarded such a degree by March 2024.

(4) Individuals who have been awarded or are expected to be awarded a degree equivalent to a master’s degree by March 2024 from the United Nations University as prescribed in Article 1(2) of the Act on Special Measures Incidental of Enforcement of the Agreement between the United Nations and Japan regarding the Headquarters of the United Nations University (Act No.72 of 1976), which was established under the December 11, 1972 resolution of the General Assembly of the United Nations.

(5) Individuals who have completed their formal education by taking a correspondence course through a non-Japanese university, an educational institution which received the designation by (3), or the United Nations University, who have passed an examination or a screening equivalent to the regulations by Article 16.2 in Standards for the Establishment of Graduate Schools, and who are recognized to have an academic ability equivalent to Master’s degree holders by the Graduate School , or who will obtain it by March 2024.

(6) Individuals designated by the Minister of Education, Culture, Sports, Science, and Technology (1989 Notice No. 118, Ministry of Education, Science and Culture), i.e., individuals who have completed 16 years of school education in a foreign country or 16 years of school education of a foreign country by taking a correspondence course in Japan offered by a school of that foreign country; have conducted research for two years or longer at a university, research institution, etc.; and are recognized by this graduate school as possessing equivalent or greater academic capabilities as those of a person who has a master’s degree based on its research findings, etc.

(7) Applicants who are recognized by the graduate school as possessing the equivalent or greater academic skill as that of a person who has a master's degree or professional degree based on an individualized admission qualification investigation and who will be 24 years of age as of March 31, 2024.

Notes:

1. **Applicants must contact their prospective supervisor in advance.**
2. **See page 21 for application qualifications if you wish to be admitted in October 2023.**
3. **If you have any questions regarding the Application Qualifications, contact the Administration Office of the Graduate School of Chemical Sciences and Engineering (hereafter referred to as "CSE office").**

3. Preliminary Review of Application Qualifications (Application Period, Etc.)

May 26 (Fri.) 9:00 a.m. - June 1 (Thu.) 5:00 p.m., 2023 (Japan Standard Time)

We will conduct a preliminary review of application qualifications before the admission examination if applicants fall under either (6) or (7).

Individuals who fit one of the categories must submit Application Form of Preliminary Review of Qualifications and Resume (prescribed forms) and documents indicated in section 5, "Application Documents," with the exception of item No. 1 (Admission application, resume, examination admission card, and examinee photo card), No.6 (English score reporting form and the score sheet of an English-language proficiency examination), No.8 (Envelope in which the examination admission card is to be mailed), and No.9 (Envelope to be used for the notification of examination results and other information) to the address specified in section "6. Where to Apply" by registered mail or bringing it to the office between the above-mentioned period. Applicants must contact the Administration Office (c-sougou@cse.hokudai.ac.jp) to request the application form well before the application deadline.

Notes:

The results of the preliminary review of application qualifications will be mailed out in mid-June 2023. Those who are deemed eligible to apply for the program must apply online (https://e-apply.jp/e/hokudai-cse), pay the examination fee as per section 4 "Application Method" and then mail required documents to the Administration Office.

Those who have passed the preliminary review of qualifications must submit documents listed in section No.1 (admission application, resume, examination admission card, and examinee photo card), No.6 (English score reporting form and the score sheet of an English-language proficiency examination) , No.8 (Envelope in which the examination admission card is to be mailed), and No.9 (Envelope to be used for the notification of examination results and other information)

Note that Japanese government (MEXT) scholarship students, China Scholarship Council (CSC) supported students, Hokkaido University President's Fellowship recipients, and Hokkaido University Special Grant Program international students (as well as those who are expecting to receive one of these scholarships) may be exempt from paying the examination fee. If there is a possibility that you will be eligible for an exemption, please contact the CSE office in advance.

4. Application Method

Our application process consists of three steps: (1) online application (https://e-apply.jp/e/hokudai-cse), (2) payment of the examination fee, (3) submission of application documents by mail. If you fail to complete any of these steps in the required timeframe, your

application will not be processed and will be cancelled.

<<Online Application and Payment Period>>
June 13 (Tue.) 10:00 a.m. - June 27 (Tue.) 5:00 p.m., 2023 (Japan Standard Time)

<<Examination Fee>>

Applicants are required to pay the examination fee (30,000 yen) after registering online. Applicants must pay a service fee of 500 yen in addition to the examination fee.

Available payment methods include: credit card; China Pay; convenience store; bank or post office ATM. Please note that applicants cannot make a payment for the fee through teller. For further details on payment methods, see the application website.

Japanese government (MEXT) scholarship students, China Scholarship Council (CSC) supported students, Hokkaido University President's Fellowship recipients (as well as those who are expecting to receive one of these scholarships) and Hokkaido University Special Grant Program international students (as well as those who are expecting to receive one of these scholarships) may be exempt from paying the examination fee. If there is a possibility that you will be eligible for an exemption, please contact the CSE office in advance.

The examination fee is non-refundable except for the following cases:

1. Applicants who paid the fee but cancelled their application (including cases where an application was rejected or application documents were not submitted by the deadline)
2. Applicants paid the fee more than once by mistake
3. Applicants who are exempt from the examination fee mistakenly paid the fee.

<<Document Submission Period>>
June 20 (Tue.) - June 27 (Tue.), 2023

After the payment of the examination fee, download the application form, resume, examination admission card, examinee photo card, and English score report form as a PDF from the application website. Then, print single-sided and submit together with other application documents.
Please note that these forms become available after you complete the payment of the examination fee.

When mailing the application documents, be sure to attach the mailing address label (appearing on the last page of the PDF) to the mailing envelope and send the documents by registered mail. The postmark deadline of submission is June 27 (Tue.). Please note that you cannot submit in-person at the Administration Office.

5. Application Documents

No.	Documents to Be Submitted	Notes
1	Admission application, resume, examination admission card, and examinee photo card	Prescribed forms
2	A recommendation letter from your prospective supervisor	Unspecified format
3	Summary of your master's thesis or an abstract of your research achievements	(a) Those who have been awarded any master's degree or any professional degree should provide a summary of their master's thesis or other materials equivalent to a master's thesis (unspecified format, approximately two A4-sized pages). (b) Those expecting to be awarded a master's degree should provide an abstract of the research conducted over the course of their master's program (up to 3,000 characters) or other equivalent materials.
4	A transcript from the applicant's (undergraduate) university and graduate school attended	
5	A certificate of graduation from your (undergraduate) university and a certificate of graduate school completion (or expected completion) or a degree certificate	*If you are relevant to the both (a) and (b), summit all of the required documents according to (a) and (b). (a)Those who graduated from a university in People's Republic of China (excluding Hong Kong and Macau) must submit the following documents: a. Online Verification Report of Higher Education Qualification Certificate（教育部学历证书电子注册备案表） b. Graduation Diploma（毕业证书）and Degree Diploma（学位证书） * Obtain documents "a" above by requesting it at "中国高等教育学历证书查询": https://www.chsi.com.cn/xlcx/bgys.jsp. Also, be sure that there are 15 or more days left until the expiration date of the online verification at the time of its submission. (b)Those who graduated or will graduate from a graduate school in China (excluding Hong Kong and Macau) must submit the following documents. Graduates: a. Online Verification Report of Higher Education Qualification Certificate（教育部学历证书电子注册备案表） b. Graduation Diploma（毕业证书）and Degree Diploma（学位证书） Expected Graduates: a. Online Verification Report of Student Record（教育部学籍在线验证报告） * Obtain documents "a" above by requesting it at "中国高等教育学历证书查询": https://www.chsi.com.cn/xlcx/bgys.jsp. Also, be sure that there are 15 or more days left until the expiration date of the online verification at the time of its submission. (c)Individuals applying based on the application qualification (5) must submit a confirmation letter pertaining to the Qualifying Examination.
6	English score reporting form and the score sheet of an English-language proficiency examination (TOEFL test or TOEIC test)	Pursuant to section 7, "Submission of English Scores," applicants must submit the English score reporting form (prescribed form) and the score sheet of an English-language proficiency examination (TOEFL test or TOEIC test) taken in or after April 2021.

No.	Documents to Be Submitted	Notes
7	Letter of recommendation from your academic advisor at the last school attended	Unspecified format This is not required for those who are currently enrolled in Hokkaido University, and wish to study under the guidance of the same academic supervisor after enrolling in the doctoral course.
8	Envelope in which the examination admission card is to be mailed	Not required if applicants are not in Japan ・Prepare an envelope (120mm x 235mm). ・Download the “Label for admission ticket” from our website and print it in color. ・Please write your postal code, address and name. Also, please seal 354 yen stamp on the envelope.
9	Envelope to be used for the notification of examination results and other information	Not required if applicants are not in Japan ・Prepare an envelope (240mm x 332mm). ・Download the “Label for results notification” from our website and print it in color. ・Please fill out your postal code, address and name. No need to attach stamps.
10	Envelope in which preliminary review results are to be mailed to the applicant	Required only for Applicants of Preliminary Review of Application Qualifications (Not required if applicants are not in Japan) ・Prepare a self addressed envelope (120mm x 235mm). ・Please seal 84 yen stamp on the envelope.
11	A copy of your Residence card	Those who live outside of Japan should submit a copy of their passport.
12	Other required documents from the accepting professor	

6. Where to Apply

Administration Office, Graduate School of Chemical Sciences and Engineering, Hokkaido University (CSE Office)
Kita 13, Nishi 8, Kita-ku, Sapporo, 060-8628 Japan
Tel: (+81)-11-706-7247

7. Submission of English Scores

Submit your English score reporting form (prescribed form) at the time of application. Also, submit your English score sheets as follows.

Either of the English-language proficiency examination score sheets listed in (a) or (b) below, **from examinations taken in or after April 2021.** In the case of (c), please consult with CSE Office in advance.

(a) TOEFL test official score sheet

Submit a Test Taker Score Report sent to the examinee by the U.S. Educational Testing Service (ETS). A printout of test results posted online shall be considered invalid.

On the Score Report Preferences screen shown during the process of applying to take the TOEFL iBT test, be sure to select “Web-accessible Score Report and a printed copy mailed to you” to ensure that a Test Taker Score Report is mailed to you.

If you do not have a Score Report ready by the time that you apply for admission, please order a Test Taker Score Report from ETS and have it send out to you. And at the same time, please request an Official Score Report from ETS and have it send out to us the Graduate School of Chemical Sciences and Engineering, Hokkaido University. Our Institution code is C327.

The Test Taker Score Report may not be delivered to you within the application period, in

which case by means of sending us the Official Score Report, a late submission will be accepted only if you have taken the test four weeks before the application deadline (Tuesday, May 30, 2023). When you order an additional Test Taker Score Report, it may not be delivered to you within the application period, in which case a late submission will be accepted only if you have already had ETS send us the Official Score Report four weeks before the application deadline (Tuesday, May 30, 2023).

Please note that once the Test Taker Score Report has been delivered to you, please submit it to the CSE office as soon as possible. You may send it by registered mail or bring it to the CSE office.

(b) TOEIC test score sheet
Submit the Official Score Certificate or printed Digital official Score Certificate.

(c) Those who have graduated from a university where English is the primary language of instruction may omit their score sheet by submitting a medium of instruction certificate from their degree granting (undergraduate) university and graduate school. For more details, please contact the Administration Office.

Important Notes
(a) If you submit more than one score sheet, the best score submitted shall be used. Individuals who have already submitted scores at the time of application may submit new scores between July 27 (Thu.) 9:00 a.m. (JST) and July 31 (Mon.) 5:00 p.m. (JST), 2023, by registered mail or bringing it to the office.
(b) Scores for TOEFL ITP, TOEIC IP, TOEIC Bridge, etc. are invalid. However, a score from the TOEIC IP test for special measures conducted at Graduate School of Chemical Sciences Engineering, on August 18, 2021 (Wednesday) is accepted.
(c) English score sheet will be returned after the exam date.

8. Selection Method

Admission decisions will be made based on a comprehensive review (oral examination, etc.) of the applicant's master's thesis or equivalent paper and the applicant's knowledge of the subject matter and foreign-language skills.

9. Examination Schedule, Etc.

August 8 (Tue.) and August 9 (Fri.), 2023
Examination subjects are based on the general admission.

10. Announcements of the Result

The examination admission numbers of those who passed the examination will be posted in the entrance hall of the School of Engineering and our website (https://www.cse.hokudai.ac.jp/) around 10:00 a.m. on September 1 (Fri.), 2023. In addition, all examinees will be notified of their results individually (results will not be provided over the phone).

11. Enrollment Procedures and Expenses

Details regarding enrollment procedures are provided in the notifications mailed to those who have been accepted.
Enrollment fee: ¥282,000
First semester tuition for academic year 2024: ¥267,900 (estimated)

Total annual amount: ¥535,800 (estimated)

Notes:

1. If any revision is made while the student is enrolled, the new amount will be applied from the time of the revision.
2. If the enrollment fee is not paid during the admission procedure period, the applicant will be treated as having no intent to enroll.
3. If tuition is not paid for one semester, the student will be expelled, and his/her record of enrollment will be deleted. If you are having problems paying tuition due to financial hardship, you may be eligible for a tuition exemption or deferral.

12. Important Notes

(1) Be sure to bring your examination admission card with you on the day of the entrance examination and place it on your desk.

(2) Incomplete applications may not be accepted. Be sure that there are no errors in your application.

(3) If any falsified information is found in the application documents, the applicant's admission may be revoked.

(4) Our graduate school generally does not allow dual enrollment.

13. Long-Term Study Program

Our graduate school has a long-term study program. Those wishing to take advantage of this system should carefully read and follow the application instructions in the section entitled "Information on the Long-Term Study Program" on page 24.

14. Others

(1) Examination admission cards will be sent out around in **mid-July 2023** to those whose applications have been accepted (with the exception of those who are applying for a special program approved by this graduate school).

(2) Applicants who are physically disabled and who may need special accommodations to take examinations and attend classes should notify the CSE office of their condition by June 27 (Tue.), 2023.

Application Qualifications (for October Enrollment)

*For any questions, please contact Administration Office at Graduate School of Chemical Science and Engineering

I. General Admission and Working Adult Admission

(1) Individuals who have been awarded a master's degree or professional degree from a Japanese university (the term "professional degree" used hereinafter shall refer to the professional degree prescribed in Article 5-2 of the Degree Regulations [Ordinance of the Ministry of Education, Science and Culture No. 9 of 1953] pursuant to stipulations in Article 104, Clause 3, of the School Education Act); this includes those who are expected to be awarded such a degree by September 2023.

(2) Individuals who have been awarded or are expected to be awarded a degree equivalent to a master's degree or professional degree from a foreign university by September 2023. (hereinafter referred to as "individuals from a foreign educational system")

(3) Individuals who have been awarded or are expected to be awarded a degree equivalent to a master's degree or professional degree by September 2023 by taking a correspondence course in Japan offered by a foreign school (hereinafter referred to as "individuals from a foreign educational system via correspondence course")

(4) Individuals who have completed a graduate school coursework of a foreign university at an educational institution in Japan and have been awarded a degree equivalent to a master's degree or professional degree. The institution needs to be positioned within the school education system of that foreign country as an educational body with a graduate school course and is required to be designated by the Japanese Minister of Education, Culture, Sports, Science, and Technology. This includes those who expect to be awarded such a degree by September 2023 (hereinafter referred to as "individuals who have completed coursework in a school designated as equivalent to a graduate school").

(5) Individuals who have been awarded or are expected to be awarded a degree equivalent to a master's degree by September 2023 from the United Nations University as prescribed in Article 1(2) of the Act on Special Measures Incidental of Enforcement of the Agreement between the United Nations and Japan regarding the Headquarters of the United Nations University (Act No.72 of 1976), which was established under the December 11, 1972 resolution of the General Assembly of the United Nations (hereinafter referred to as "individuals from the UN University").

(6) Individuals who have completed their formal education by taking a correspondence course through a non-Japanese university, an educational institution which received the designation by (4), or the United Nations University, who have passed an examination or a screening equivalent to the regulations by Article 16.2 in Standards for the Establishment of Graduate Schools, and who are recognized to have an academic ability equivalent to Master's degree holders by the Graduate School , or who will obtain it by September 2023 (hereinafter referred to as "individuals from a foreign university who have been passed a Qualifying Examination").

(7) Individuals designated by the Minister of Education, Culture, Sports, Science, and Technology (1989 Notice No. 118, Ministry of Education, Science and Culture).

(a) Those who have graduated from a university; have conducted research for two years or longer at a university, research institution, etc.; and are recognized by this graduate school as possessing equivalent or greater academic capabilities as those of a person who has a master's degree based on its research achievements, etc.

(b) Those who have completed 16 years of school education in a foreign country or 16 years of school education of a foreign country by taking a correspondence course in Japan offered by a

school of that foreign country; have conducted research for two years or longer at a university, research institution, etc.; and are recognized by this graduate school as possessing equivalent or greater academic capabilities as those of a person who has a master's degree based on its research achievements, etc.

(8) Applicants who are recognized by the graduate school as possessing the equivalent or greater academic skill as that of a person who has a master's degree or professional degree based on an individualized admission qualification investigation and who will be 24 years of age as of September 30, 2023 (hereinafter referred to as "individuals who apply through an individualized admission qualification investigation")

II. International Student Admission

Individuals who are recognized as possessing the skills and capabilities required based on a recommendation from a specialized professor (hereinafter referred to as "the accepting professor") in this graduate school whom the applicant would like to have as his/her research advisor after enrollment and individuals who fulfill one of the following application qualifications:

(1) Individuals who have been awarded or are expected to be awarded a degree equivalent to a master's degree or professional degree from a foreign university by September 2023.

(2) Individuals who have been awarded or are expected to be awarded a degree equivalent to a master's degree or professional degree by September 2023 by taking a correspondence course in Japan offered by a foreign school

(3) Individuals who have completed a graduate school coursework of a foreign university at an educational institution in Japan and have been awarded a degree equivalent to a master's degree or professional degree. The institution needs to be positioned within the school education system of that foreign country as an educational body with a graduate school course and is required to be designated by the Japanese minister of education, culture, sports, science, and technology. This includes those who are expected to be awarded such a degree by September 2023.

(4) Individuals who have been awarded or are expected to be awarded a degree equivalent to a master's degree by September 2023 from the United Nations University as prescribed in Article 1(2) of the Act on Special Measures Incidental of Enforcement of the Agreement between the United Nations and Japan regarding the Headquarters of the United Nations University (Act No.72 of 1976), which was established under the December 11, 1972 resolution of the General Assembly of the United Nations.

(5) Individuals who have completed their formal education by taking a correspondence course through a non-Japanese university, an educational institution which received the designation by (3), or the United Nations University, who have passed an examination or a screening equivalent to the regulations by Article 16.2 in Standards for the Establishment of Graduate Schools, and who are recognized to have an academic ability equivalent to Master's degree holders by the Graduate School , or who will obtain it by September 2023.

(6) Individuals designated by the Minister of Education, Culture, Sports, Science, and Technology (1989 Notice No. 118, Ministry of Education, Science and Culture), i.e., individuals who have completed 16 years of school education in a foreign country or 16 years of school education of a foreign country by taking a correspondence course in Japan offered by a school of that foreign country; have conducted research for two years or longer at a university, research institution, etc.; and are recognized by this graduate school as possessing equivalent or greater academic capabilities as those of a person who has a master's degree based on its research findings, etc.

(7) Applicants who are recognized by the graduate school as possessing the equivalent or greater academic skill as that of a person who has a master's degree or professional degree based on an individualized admission qualification investigation and who will be 24 years of age as of September 30, 2023.

Information on the Long-Term Study Program

1. Overview

This program is available to students who would not be able to complete the program within the standard course term (three years) due to full-time employment or other circumstances (including responsibilities related to the care of elderly or disabled family members or the raising of children) and therefore want a longer period of time to conduct their studies systematically. Students must file an application and may be approved for a systematically planned course of study (hereinafter referred to as “long-term study”) after an individual review.

2. Eligibility

Individuals who are applying for the long-term study program must meet one of the terms listed below, be unable to make a commitment to full-time studies as a consequence of the circumstances described, and would therefore like to extend in advance the number of years over which they will conduct their studies (research).

(1) Individuals who are engaged in full-time employment, such as those currently employed by government agencies or companies (excluding those who will continue to receive salaries while being relieved of their work duties), and self-employed individuals

(2) Individuals who are engaged in temporary or part-time employment that is deemed by this graduate school to adversely affect their studies

(3) Individuals who have responsibilities, such as raising children or caring for other family members, that are deemed by this graduate school to adversely affect their studies to the same degree as the responsibilities listed in item (2) above

3. Enrollment Period

The allowable length of period under the long-term study program is up to six years for the doctoral course. Study periods for long-term study applicants are approved in one-year increments.

The maximum length of enrollment (including the period for time off, etc.) for a student who has been approved for long-term study is up to six years in the doctoral course, the same maximum length of time as students under the standard term of study.

The period of time off that this graduate school will allow is the same for students under either the standard term of study or long-term study program, i.e., three years for doctoral students.

4. Application Procedures

(1) Application Deadline

In general, those wishing to apply for the long-term study program should apply at the time they submit their admission applications.

(2) Submission of Documents

Submit the following documents to CSE office:

(a) An Application for long-term study (form 1)

(b) A Long-term study plan (form 2)

(c) Documents verifying your reasons for needing long-term study approval

(3) Review and Notification of Results

Applications for the long-term study program will be reviewed by the graduate school, and applicants will be notified of the results of that review with the notification of examination results.

5. Contraction or Extension of the Long-Term Study Period

If deemed necessary by the graduate school, approval may be granted for a contraction or extension of the long-term study period once, and only once, during the student's period of enrollment. However, the long-term study period can only be contracted from six years to four years (one year beyond the standard three-year course term) or five years to four years.

6. Tuition Fee

The tuition of students who have been approved for the long-term study program shall be calculated in annual amounts by dividing the total tuition for the standard term of study (annual tuition × 3 years) by the number of years for which the long-term study has been approved. In cases where the tuition amount is revised or a change to the long-term study period is approved, tuition will be recalculated at that time. However, any tuition already paid will not be adjusted retroactively.

※Be sure not to pay the tuition for your current term of study until you are notified of whether your application for the long-term study program or a change thereof has been approved.

7. Other

To request an application form or clarify any issues, contact CSE office.

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Handling of Personal Information

(1) All personal information collected by Hokkaido University will be completely protected in compliance with the Act on the Protection of Personal Information Held by Independent Administrative Agencies, etc., and other related acts and pursuant to the Hokkaido University Personal Information Management Regulations.
(2) Names, addresses, and other personal information provided to the university through application procedures will be used solely for (a) enrollee selection, (b) the announcement of exam results, (c) admission procedures, (d) surveys and research on enrollee selection methods, and (e) related processes.
(3) Some of these processes may be outsourced by the university to a contracted service provider (hereinafter referred to as “contractor”). All or some of the personal information provided by applicants may be provided to the contractor only as needed to perform the tasks for which it has been contracted.
(4) Personal information obtained through application procedures will be used only for those who are admitted for (a) school administration purposes (student registration, academic counseling, etc.), (b) student support services (health management, scholarship applications, etc.), and (c) tuition and other administrative purposes.
(5) Of the personal information described in item (4) above, only names and addresses will be used to facilitate communication with students from the Hokkaido University Frontier Foundation and organizations related to Hokkaido University, such as (a) the Hokkaido University Athletic Union, and (b) the Hokkaido University School of Engineering and School of Science Alumni Association.

Graduate School of Chemical Sciences and Engineering, Hokkaido University

List of Instructors and Their Fields of Research

Molecular Chemistry and Engineering Course

No.	Laboratory	Staff		Research Contents	Faculty
Microscopic Chemical Analyses Unit					
01	Quantum Chemistry	Professor Associate Professor Assistant Professor	TAKETSUGU Tetsuya KOBAYASHI Masato IWASA Takeshi	Development of "Predictive" Chemical Theory for Reaction, Electron, and Spectroscopy and programs, as well as advanced computational chemistry applications. First-principle excited-state reaction dynamics, theory-guiding catalytic design with element strategy, development of a large-scale electronic structure theory, near-field molecular theory, reaction informatics.	Faculty of Science
02	Theoretical Chemistry	Professor	MAEDA Satoshi	Development of new theories and computational programs aimed at predicting reaction pathways in molecules and materials, and their applications. The main targets of the applications are organic reaction, photoreaction, enzyme reaction, catalysis, and crystal phase transition.	Faculty of Science
03	Physical Chemistry	Professor Lecturer Assistant Professor	MURAKOSHI Kei FUKUSHIMA Tomohiro Ruifeng ZHOU	Surface electrochemistry; detection, characterization and photoexcitation of target molecules on solid surfaces under electrochemical potential control for novel photoenerygy conversion systems and interigent devices. Electrcochemical synthesis of nano-materials with well-defined defect density, hetero-atom insertion, and chirality for novel catalysis.	Faculty of Science
04	Analytical Chemistry	Professor Associate Professor Assistant Professor	UENO Kosei RYUZAKI Sou IMAEDA Keisuke	Nanophotonics. Laser spectroanalytical chemistry and photochemistry of nanostructured materials in the minute spatial domain using laser and microspectroscopy. Chemical and biosensors using nanostructures.	Faculty of Science
Fine Chemical Reactions Unit					
05	Organic Reaction	Professor Associate Professor Assistant Professor	INOKUMA Yasuhide SENBOKU Hisanori YONEDA Tomoki	Synthetic chemistry, electroorganic synthesis, organofluorine chemistry Synthesis and structural analysis of unique functional molecules.	Faculty of Engineering
06	Organoelement Chemistry	Professor Associate Professor Associate Professor	ITO Hajime ISHIYAMA Tatsuo KUBOTA Koji	The research purpose of our laboratory is development of novel synthetic reactions, valuable catalytic process and new functional materials in the field of organoelement chemistry. We aim to challenge to establish a new chemistry frontier that includes organometallics, heteroatom chemistry and coordination chemistry.	Faculty of Engineering
07	Organic Synthesis	Professor Associate Professor Assistant Professor	OHKUMA Takeshi ARAI Noriyoshi YURINO Taiga	Molecular catalysis, catalytic asymmetric reactions, practical organic synthesis.	Faculty of Engineering
08	Organometallic Chemistry	Professor Associate Professor Assistant Professor Assistant Professor	SAWAMURA Masaya SHIMIZU Yohei MASUDA Yusuke Arteaga Arteaga FERNANDO	Catalyst design using supramolecules, solid surfaces, and light for the development of transformative chemical reactions. Quantum chemical calculations for exploring chemical reaction mechanisms and catalyst design.	Faculty of Science
09	Organic Chemistry I	Professor Associate Professor	SUZUKI Takanori ISHIGAKI Yusuke	Structural and physical organic chemistry on novel heat- and light-responsive redox systems and strained molecules.	Faculty of Science
10	Chemical Reaction Development	Professor Associate Professor Associate Professor Associate Professor Associate Professor Assistant Professor	Benjamin LIST Chung-Yang HUANG Pavel SIDOROV Mingoo JIN Min GAO AKAMA Tomoko	Design and discovery of chemical reactions using computational, informational, and experimental science. Development of novel reactions using organocatalysts. Development of materials and functional organic molecules. Prediction of chemical reactions based on chemical informatics. Development of automated reaction pathway search methods and electronic state dynamics simulation methods.	ICReDD
Catalytic Reactions Unit					
11	Catalytic Transformation	Professor Assistant Professor	FUKUOKA Atsushi Abhijit SHROTRI	Molecular design of heterogeneous catalysts and application to renewable energy and environmental protection. Depolymerization of biomass such as cellulose and chitin, low-temperature oxidation of ethylene and keeping freshness of vegetables and fruits, catalysis of mesoporous materials.	Institute for Catalysis
12	Macromolecular Science	Professor Associate Professor Assistant Professor	NAKANO Tamaki SONG Zhiyi BANDO Masayoshi	Design and synthesis of chiral polymers and supramolecular systems having inovative functions such as pharmeceutical activities, light emission, electronic and ionic conduction, separation, and catalytic activities focusing on helical polymers, π-stacked polymers, liquid crystals, and biopolymers.	Institute for Catalysis
13	Catalyst Material	Professor Assistant Professor	SHIMIZU Kenichi TOYAO Takashi	Development of metal nanocluster catalyst for direct synthesis of chemicals. Development of supported metal catalysts for automobile emission control. Surface chemistry and surface spectroscopy for catalyst design.	Institute for Catalysis
14	Catalysis Theory	Professor Associate Professor	HASEGAWA Jun-ya IIDA Kenji	Theoretical and computational chemistry for catalysis. Analysis of potential energy surface and dynamics of catalytic reactions. Development of chemical concepts, theoretical and computational models, and first-principle molecular simulation method for catalytic reactions.	Institute for Catalysis
Chemical Process Engineering Unit					
15	Chemical System Engineering	Professor Assistant Professor	KIKUCHI Ryuji TADA Shohei	Energy carrier direct power generation fuel cells. Green hydrogen production catalysts and devices. Electrochemical synthesis of ammonia. Electrochemical conversion of methane and ethane to valuable chemicals. Valuable chemicals synthesis by CO_2 hydrogenation.	Faculty of Engineering
16	Material Design and Engineering	Professor Associate Professor Assistant Professor	MUKAI Shin NAKASAKA Yuta IWASA Nobuhiro	Material design and engineering, adsorption engineering, separation engineering, precise structural controlling of porous materials, development of new production systems of nanomaterials, development of devices for reaction and separation using nanomaterials, material recycling.	Faculty of Engineering
17	Catalytic Reaction Engineering	Associate Professor	OGINO Isao	Reaction engineering, design and tuning of structures and reactive microenvironments of catalysts and separation materials for sustainable chemical processes, microwave-assisted synthesis of solid catalysts and electrode materials	Faculty of Engineering
18	Chemical Energy Conversion Systems	Associate Professor	TSUBOUCHI Naoto	Clean carbon technology for efficient reduction of CO_2 emissions: fundamental research about advanced and novel technologies for biomass, low rank coals, heavy oil residues and low-valued natural gas.	Faculty of Engineering

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Materials Chemistry and Engineering Course

No.	Laboratory	Staff		Research Contents	Faculty
Molecular Materials Chemistry Unit					
19	Chemical Informatics	Professor	TAKAHASHI Keisuke	Materials discovery through materials informatics. The aim of the research is to develop fully automated materials and catalysts using a combination of high-throughput experiments and calculations, with the integration of artificial intelligence.	Faculty of Science
20	Molecule & Life Nonliear Science	Professor	KOMATSUZAKI Tamiki	Practical-oriented theoretical chemistry. The fundamental principles of chance and necessity of chemical reactions, and new concepts and methodologies to bridge theory and experiments for biological molecular systems.	Research Institute for Electronic Science
		Assistant Professor	MIZUNO Yuta		
		Assistant Professor	NISHIMURA Goro		
Inorganic Materials Chemistry Unit					
21	Inorganic Chemistry	Professor	MATSUI Masaki	Design and phase stability of inorganic solid state ionics materials for advanced battery applications. Crystal growth and surface morphology of less noble metal during the electrodeposition process.	Faculty of Science
		Associate Professor	KOBAYASHI Hiroaki		
		Assistant Professor	NASU Akira		
		Assistant Professor	Yu SUN		
22	Structural Inorganic Chemistry	Associate Professor	HIGUCHI Mikio	Preparation of emerging functional ceramics, microstructure control of ceramics and their property evaluation, new oxynitrides for optical, electromagnetic and chemical application. Growth of oxide single crystals for optical devices.	Faculty of Engineering
		Associate Professor	MASUBUCHI Yuji		
23	Inorganic Synthesis Chemistry	Professor	TADANAGA Kiyoharu	Development of functional inorganic materials using liquid phase. Preparation of nano-structured thin films and materials for enegy conversion and storage by solution processes.	Faculty of Engineering
		Associate Professor	MIURA Akira		
		Assistant Professor	FUJII Yuta		
24	Solid State Chemistry	Professor	SHIMADA Toshihiro	Synthesis and new functions of nano-structured solids and thin films including inorganic nanomaterials, organic semiconductors, spintronics devices and nanocarbons.	Faculty of Engineering
		Assistant Professor	YOKOKURA Seiya		
25	Nanostructured Functinal Materials and Interfaces	Professor	MATSUO Yasutaka	Fabrication and characterization of new optical and electrical functional materials and interfaces with nano-structures to realize a strong coupling with photon or electron. Development of biomimetic organic/inorganic hybrid materials.	Research Institute for Electronic Science
26	Nano Ceramics	Guest Professor	KUWATA Naoaki	Design of nano/micro-structures, control of functional properties and analysis of ion dynamics of new functional ceramics and solid-state battery materials.	National Institute for Materials Science
27	Applied Materials Chemistry	Guest Professor	KIJIMA Norihito	Preparation of ceramics nanoparticles and their applications for biocatalysis and biosensing. Synthesis, crystal structure, and functional properties of inorganic materials for energy storage. Development of data-driven methods for continuous production of functional materials(nanoparticles, polymer composites, and chemicals)	National Institute of Advanced Industrial Science and Technology
		Guest Professor	SUE Kiwamu		
Frontier Materials Chemistry Unit					
28	Electronic Materials Chemistry	Professor	AOKI Yoshitaka	Design of proton/hydride ion conductive inorganic materials and related all-solid-state energy conversion devices, and theoretical design of energy conversion/storage materials by computational chemistry.	Faculty of Engineering
		Associate Professor	TACHIKAWA Hiroto		
29	Interfacial Electrochemistry	Professor	HABAZAKI Hiroki	Electrochemical fabrication of nanostructure-controlled materials and thin films and their mechanistic understanding and functional applications, nano- and micro-electrochemical characterizations of advanced and practical materials, and electrochemical energy conversion and storage devices.	Faculty of Engineering
		Associate Professor	FUSHIMI Koji		
		Assistant Professor	IWAI Mana		
		Assistant Professor	KITANO Sho		
30	Advanced Materials Chemistry	Professor	HASEGAWA Yasuchika	Development of strong-luminescent and photofunctional advanced materials besed on photochemistry and coordination chemistry.	Faculty of Engineering
		Associate Professor	KITAGAWA Yuichi		
		Assistant Professor	WANG Mengfei		
31	Material Chemistry	Professor	SADA Kazuki	Discovery of new physical phenomena and development of new functional materials thought fabrication of complex systems beyond their hierarchy from nanometer to millimeter by controlling intermolecular interactions among chemical and biological components.	Faculty of Science
		Associate Professor	MIURA Atsushi		
		Associate Professor	KOBAYASHI Atsushi		
		Assistant Professor	MATSUOKA Keitaro		
		Assistant Professor	TUTUMI Takuro		
32	Interactive Functional Materials	Professor	NAGASHIMA Kazuki	Designed nanomaterials synthesis based on inorganic chemistry and nanomaterial chemistry, exploration of nanoscale functional properties, creation of novel nano/microdevices, and application to data science. Application examples include the artificial olfactory sensors and the exploitaion of digitized odor information.	Research Institute for Electronic Science
		Assistant Professor	KHEMASIRI Narathon		
Functional Materials Chemistry Unit					
33	Interfacial Energy Conversion Materials Chemistry	Guest Professor	NOGUCHI Hidenori	Fundamental study of chemical-electric energy conversion, including novel batteries, fuel cell catalysts, and genetically-engineered microbial electrode catalysts. In situ determination of geometric, electronic, and molecular structures at solid/liquid interfaces and electron transfer dynamics by ultrafast laser spectroscopy.	National Institute for Materials Science
		Guest Professor	OKAMOTO Akihiro		
34	Superconducting Materials	Guest Professor	YAMAURA Kazunari	We aim to make materials based on quantum mechanics useful for society by searching for new materials and performing precise structural analysis and property evaluations. By using these techniques, we hope to create excellent quantum functional materials.	National Institute for Materials Science
		Guest Associate Professor	TSUJIMOTO Yoshihiro		
35	Photo Functional Materials	Guest Professor	SHIRAHATA Naoto	Controlling the fate of free-charge carriers generated in semiconductor nanocrystals through the sequential absorption of photons or under applied voltage determines their optical properties and device performances. In our lab, we start our work from the synthesis of the nanocrystals and we fabricate the cutting-edge devices with the nanocrystals for optoelectronics and bio applications.	National Institute for Materials Science
36	Nano-Assembled Materials Chemistry	Guest Professor	YOSHIO Masafumi	Development of nanostructured functional materials that contribute to highly efficient energy conversion devices such as fuel cells, lithium ion batteries, and actuators, and understanding of interfacial physicochemical phenomena by in-situ observation techniques.	National Institute for Materials Science
		Guest Professor	MASUDA Takuya		

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Biological Chemistry and Engineering Course

No.	Laboratory	Staff		Research Contents	Faculty
Biomolecular Chemistry Unit					
37	Biological Chemistry	Professor	SAKAGUCHI Kazuyasu	Functional regulation of tumor suppressor-related proteins through post-translational modification and localization. Function and evolution of oligomeric structure in tumor suppressor protein p53. Regulation of defferentiation, metabolism, and function in innate immune cells.	Faculty of Science
		Associate Professor	KAMADA Rui		
		Assistant Professor	NAKAGAWA Natsumi		
38	Biostructural Chemistry	Professor	ISHIMORI Koichiro	Functional and structural characterization and molecular design of proteins using spectroscopy.	Faculty of Science
		Associate Professor	UCHIDA Takeshi		
		Associate Professor	HARADA Jun		
		Assistant Professor	KAGEYAMA Yoshiyuki		
39	Bioorganic Chemistry	Professor	MURAKAMI Yota	Studies of structure-function of chromatin and chromosome, which is involved in maintenance and expression of genetic information; studies of regulatory mechanism of cell shape and movement.	Faculty of Science
		Professor	TAKAHASHI Masayuki		
		Lecturer	TAKAHATA Shinya		
40	Microsystem Chemistry	Professor	TOKESHI Manabu	Development of on-site analysis systems and functional nanoparticles using microfluidic devices and new measurement technologies.	Faculty of Engineering
		Associate Professor	MAEKI Masatoshi		
		Assistant Professor	ISHIDA Akihiko		
		Assistant Professor	HIBINO Mitsue		
Biofunctional Chemistry Unit					
41	Mechanistic Organic Chemistry	Professor	NAGAKI Aiichiro	Flash organic chemistry led by flow microreactor research, flash creation of functional molecules, creation of complex skeletal functional molecules led by the power of enzymes.	Faculty of Science
		Associate Professor	MINAMI Atsushi		
		Assistant Professor	MIYAGISHI Hiromichi		
42	Organic Chemistry II	Professor	TANINO Keiji	Total synthesis of natural products having a complex structure and novel bioactivities. Development of efficient methodologies and new reactions to construct polycyclic skeleton with various functional groups on the basis of carbocation chemistry, heteroatom chemistry, and organometallic chemistry.	Faculty of Science
		Associate Professor	SUZUKI Takahiro		
43	Chemistry of Molecular Assemblies	Associate Professor	SATO Shinichiro	Synthesis and computational chemistry of functional molecular assemblies based on soft matter such as synthetic polymers and carbohydrate chains.	Faculty of Engineering
		Associate Professor	YAMAMOTO Takuya		
44	Polymer Chemistry	Professor	SATOH Toshifumi	Synthetic and structure-property relationship studies of architecturally complex polymers; synthetic study and application of conductive polymers; synthetic study and application of functional block copolymers; development of environmentally benign polymer synthesis process; creation of environmentally benign polymers.	Faculty of Engineering
		Associate Professor	ISONO Takuya		
		Assistant Professor	LI Feng		
45	Biosynthetic Chemistry	Professor	MATSUMOTO Ken' ichiro	Biosynthesis of useful and unnatural chemicals using engineered biosynthetic systems, and in vitro evolution of enzymes to achieve the goal. The targets are biodegradable plastics, biocompatible polymers, chiral compounds, CO_2 fixation, lipid production and antibacterial lipid.	Faculty of Engineering
		Associate Professor	KIKUKAWA Hiroshi		
		Assistant Professor	HACHISUKA Shin-ichi		
46	Chemical Biotechnology	Guest Professor	HIRAISHI Tomohiro	Elucidation of reaction mechanism of bio-based polymer-degrading enzymes, and development of highly fuctional and efficient enzymes for biotechnological applications. Nucleic acid antibody. Macromolecular system for genetic diagonist, structural and functional studies of DNA conjugates, and base-substituted type sensitive morphologenesis system.	RIKEN
		Guest Professor	FUJITA Masahiro		
Cell Engineering Unit					
47	Applied Biochemistry	Professor	DAIRI Tohru	Search for and characterization of novel primary/secondary metabolic pathways in microorganisms and their application for production of useful compounds by biosynthetic and metabolic engineering.	Faculty of Engineering
		Associate Professor	OGASAWARA Yasushi		
		Assistant Professor	SATOH Yasuharu		
48	Biomolecular Chemistry	Associate Professor	TAJIMA Kenji	Biopolymer Chemistry(Elucidation of cellulose synthetic mechanism in bacteria, Creation of eco-recycling polymer materials with high mechanical strength, and Mass production of nanocellulose by bacteria and its application), Cell processing engineering (process development with stem cells), Animal cell cultivation engineering for pharmaceuticals production, Bioanalytical chemistry (development of novel biochemical analysis systems using microdevices and molecular assemblies as reaction media).	Faculty of Engineering
		Associate Professor	TANI Hirofumi		
		Assistant Professor	FUJIWARA Masashi		
Molecular Medical Biochemistry Unit					
49	Signaling in Cancer and Immunology	Professor	TAKAOKA Akinori	Research on molecular mechanisms underlying cellular response to infection and cancer. ((i) Pathogen recognition receptors (innate sensors) and their signaling pathways, (ii) Innate immune response against cancer)	Institute for Genetic Medicine
		Associate Professor	SATO Seiichi		
		Assistant Professor	SUZUKI Hiraku		
50	Developmental Physiology	Professor	MOTEGI Fumio	Cell and developmental mechanisms underlying cell polarity, soma-germ fate dichotomy, asymmetric cell division, and morphogenesis. Development of new optical techniques for in vivo molecular imaging.	Institute for Genetic Medicine
		Lecturer	KIMURA Kenji		
		Lecturer	NISHIMURA Yukako		

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