## Graduate School of Information Science and Technology, Osaka University

## Admission in April 2024

## Application Guide for Master Course Applicants

(Special Selection in Summer for International Applicants)

This application guide applies to one of the following seven entrance examinations for entrance to Master Course in April 2024 as indicated with a circle 'O.'

|   | Entrance Examination  |  |
|---|---|--|
|   | Master Course for 2024 (General Selection)  |  |
|   | Master Course for 2024 (Special Selection for Working People)                           |  |
|   | Master Course for 2024 (Special Selection for Recommended Students)                     |  |
|   | Master Course for 2024 (Special Selection for Juniors of Undergraduate Schools)         |  |
| 0 | Master Course for 2024 (Special Selection in Summer for International Applicants)       |  |
|   | Master Course for 2024 (Special Selection in December for International Applicants)     |  |
|   | Master Course for 2024 (Selection for Information Technology Special Course in English) |  |

March 2023

## [Cautions]

Before submitting their application, all applicants should contact the expected academic supervisor (or the Department Chair) of the department they wish to enter with regard to the course of research they wish to follow after admission.

See the following webpage of the Graduate School of Information Science and Technology to find the contact address of instructors.

https://www.ist.osaka-u.ac.jp/english/introduction/organization.html

# Graduate School of Information Science and Technology Education objectives, diploma policy, curriculum policy and admissions policy

#### [Education objectives]

The Graduate School of Information Science and Technology, Osaka University, holds the philosophy that "Information Science and Technology is an essential academic discipline which leads social innovation by creating new technologies and systems to implement advanced information society toward our enriched and fulfilled life." With this in mind, we aim to develop engineers, researchers, educators, etc. who acquire a profound academic knowledge of information science and technology, play leadership roles in their major discipline, and open up new academic regions.

The master course strives to develop human resources who have the following capabilities, and, by making use of them, play an active role with high ethical standards within the information science and technology and related fields such as mathematics, life sciences, and so on.

- Broad knowledge, advanced expertise and skills relating to his/her major discipline
- The design skills required to conduct research and development by envisioning a new system
- The communication skills required to work with a global perspective
- The management ability to carry out projects in collaboration with other people

The doctor course is committed to developing human resources who are equipped with the following capabilities in addition to the above, and, by making use of them, play an active role with high ethical standards.

- The research abilities required to explore research themes set up on their own
- Leadership skills to guide other engineers and researchers with a global perspective

### [Diploma Policy]

Based on diploma policies of Osaka University, the master course of Graduate School of Information Science and Technology confers a master's degree to students who fulfill the following requirements through the systematic coursework providing an overview of the information science discipline and fostering the basic skills of information sciences.

- The students who earn a predetermined number of credits must acquire the knowledge needed to pursue a career requiring research capability and advanced expertise in the major discipline.
- The students' master dissertations, written clearly and plainly based on the necessary research guidance received, should include research contents that contribute to the development of the major discipline, and should demonstrate the student's abundant academic knowledge of his/her discipline.

The doctor course of Graduate School of Information Science and Technology confers a doctor's degree to students who fulfill the following requirements through the systematic coursework enabling a deeper understanding of advanced expertise in their major discipline, and the acquisition of cutting-edge academic knowledge.

- The students have made important contributions relating to scientific principles and their application in the information science discipline by discovering an unknown phenomenon or object, establishing and rolling out a new theory, developing/inventing/applying a new technology/equipment/methodology/algorithm, producing a new academic concept, and so on.
- The student's doctoral dissertation, written clearly and plainly based on the necessary research guidance received, demonstrates the student's abundant overall knowledge of the discipline that makes up the academic content of the dissertation.
- The student has the academic skills required to conduct independent research, and the academic content of his/her dissertation makes a contribution to society.

#### [Curriculum Policy]

Based on curriculum policies of Osaka University, the master course of Graduate School of Information Science and Technology provides the systematic coursework overviewing the information science disciplines and fostering students' basic skills. The course offers basic subjects for acquiring expertise in each major as well as interdepartmental subjects covering important peripheral disciplines. The course also offers subjects that foster students' practical skills, such as interdisciplinary subjects, special lectures covering leading-edge technological trends offered by external instructors invited from the industrial community, etc., internships to experience work at a company or research institution in Japan or abroad, and project-based seminars to allow students to acquire basic qualities as advanced engineers/researchers as well as the broad knowledge required to meet the diverse requirements of society. These advanced classes relating to information science technology foster cultural knowledge, design skills and an international perspective. In addition, the course also provides excellent research guidance as well.

The doctor course of Graduate School of Information Science and Technology provides the systematic coursework enabling students to acquire more advanced expertise in their major discipline and cutting-edge academic knowledge. The course offers the basic subjects covering cutting-edge science and technology, as well as internships to experience work at a company or research institution in Japan or abroad, to foster students' ability to create new academic value. The course also trains human resources who can utilize this academic value to develop new social value. In addition to offering advanced classes relating to information science technology to foster comprehensive understanding, synthetic imagination and transcultural communicability, the course also provides excellent research guidance.

Credits are granted to students who have achieved grades of the requisite level by submitting reports and taking examinations. Students who have attained excellent grades may be able to end the course earlier than usual, subject to deliberation by the faculty council.

#### [Admission Policy]

Based on admission policies of Osaka University, the master course at Graduate School of Information Science and Technology accepts students, whether from Japan or abroad, who are motivated to establish and deepen information science technology, enabling the realization of a more advanced information society. For this purpose, the course accepts those who have studied information science technology in the science and technology department and who are interested in the application and roll-out of information science technology to biology or medicine. To seek candidates from a broader array of fields, the course also accepts students who have studied disciplines other than information science technology. The course is willing to accept excellent students from overseas as well, not just within Japan. To this end, the course conducts diverse types of screening using examinations and interviews.

The doctor course of Graduate School of Information Science and Technology accepts students, whether from Japan or abroad, who are motivated to create innovation in the information science discipline to realize a more advanced information society. For this purpose, the course accepts those who have learned information science technology in graduate school of science and technology (master course), who are interested in the application and roll-out of information science technology to biology or medicine, as well as students who have completed these graduate school programs and strongly wish to contribute to the information science discipline while working in various fields of society.

To seek candidates from a broader array of fields, the course accepts students who are registered in graduate schools other than information science, as well as working adults who are motivated to study and conduct research into information science. The course is willing to accept excellent students from overseas as well, not just within Japan. To this end, the course conducts diverse types of screening through examinations and interviews.

#### 2. Enrollment Limits

| Department                        | Number         |
|-----------------------------------|----------------|
| Pure and Applied Mathematics      |                |
| Information and Physical Sciences |                |
| Computer Science                  |                |
| Information Systems Engineering   | A few students |
| Information Networking            |                |
| Multimedia Engineering            |                |
| Bioinformatic Engineering         |                |

#### 3. Admission Requirements

Eligible applicants are those international students with an appropriate level of Japanese language proficiency who fulfill any one of the following requirements.

- (1) An applicant who has graduated or expect to graduate from a Japanese university or a Japanese professional university by March 31, 2024.
- (2) An applicant who has earned or expect to earn a bachelor's degree from the National Institution for Academic Degrees and Quality Enhancement of Higher Education by March 31, 2024 under the stipulations of Article 104, Clause 7 of School Education Law of Japan (Law No.26, 1947).
- (3) An applicant who has completed or expect to complete 16 years of formal school study in a foreign country by March 31, 2024.
- (4) An applicant who has completed correspondence courses in Japan which are administered by foreign schools and thus completed 16 years of formal school education in the said country or who is expected to have completed such by March 31, 2024.
- (5) An applicant who has graduated from a foreign university (including a foreign university which is equivalent to a Japanese professional university. The same shall apply hereinafter.) which is positioned as a university in the school education system of that country or who is expected to do so by March 31, 2024. The said university must be recognized by the Minister of Education, Culture, Sports, Science and Technology of the Japanese Government. In this case the applicants must have completed 16 years of formal education in the said country.
- (6) An applicant who has completed an academic program of either a foreign university or a foreign educational institution (limited to which its comprehensive progress of education and research have been evaluated by an external personnel certified by its government or its related agency, or an institution designated as equivalent by the Minister of Education, Culture, Sports, Science and Technology of the Japanese Government) whose term of study is at least 3 years or more (including completion of the said program in our country earning credits from its institution's correspondence course or from an educational facility established in Japan under the school education system of the said foreign country designated in the preceding issue), and has earned or expect to earn a bachelor's degree or an equivalent degree by March 31, 2024.
- (7) An applicant who has graduated from a specialized course of a college which is recognized by the Minister of Education, Culture, Sports, Science and Technology of the Japanese Government, on or after the date designated by the Minister, or who is expected to do so by March 31, 2024. The college must fulfill the criteria designated by the Minister of Education, Culture, Sports, Science and Technology of the Japanese Government, including a term of study of four years or more.
- (8) An applicant who is accredited by the Minister of Education, Culture, Sports, Science and Technology of the Japanese Government (Notification No.5 of the Education Ministry dated February 7, 1953).
- (9) An applicant who entered a university under the stipulations of Article 102, Clause 2 of School Education Law of Japan and who is accredited by the Graduate School of Information Science and Technology via the pre-application screening as having appropriate academic ability for a graduate student.

(10) An applicant who has graduated from a junior college, a specialized vocational high school, a school in the miscellaneous category or other educational institutions, who is at least 22 years-old by March 31, 2024, and who is accredited by the Graduate School of Information Science and Technology via the pre-application screening as having academic skills equal to a university or a Japanese professional university graduate.

#### 4. Pre-application Screening

In the case of applicants falling in category (9)-(10) of the Admission Requirements shown above, a pre-application screening is necessary. An applicant may submit an application for admission after passing the pre-application screening.

All applications must be sent via postal recorded delivery (kani-kakitome), using an envelope of  $33cm \times 24cm$  in size, so that it reaches the university by the designated date.

Indicate 'Master Course Special Selection in Summer for International Applicants' in red ink on the outside of the envelope.

| Acceptance Period     | May 22, 2023 (Mon.) – June 2, 2023 (Fri.)             |
|-----------------------|---|
| Application documents | No.1 to 3 shown in the list of application documents  |
| Submit to:            | Graduates Section                                     |
|                       | Graduate School of Information Science and Technology |
|                       | Osaka University                                      |
|                       | 1-5 Yamadaoka, Suita, Osaka 565-0871, JAPAN           |

Submission of an application form to the Graduates Section by hand is permissible within the following period, provided that the applicant has an acceptable reason for doing so. Use an envelope of  $33\text{cm} \times 24\text{cm}$  in size.

| May 31, 2023 (Wed.) – June 2, 2023 (Fri.) | 9:00-11:30 / 13:00-16:00 |
|---|--------------------------|
|   | 1                        |

The result of the pre-application screening will be sent to each applicant by postal mail on June 13, 2023 (Tue.). In case it does not reach you, please contact the Graduates Section considering the application period.

#### 5. Application Procedure

All applicants must contact the expected academic supervisor (or the Department Chair) of the department they wish to enter for obtaining the confirmation seal that their application has been approved before submitting their application form. If it is difficult to obtain it (such as the application from overseas), applicants should consult with the expected academic supervisor in advance.

All applications must be sent via postal recorded delivery (kani-kakitome), using an envelope of  $33cm \times 24cm$  in size. All application forms must reach the Graduates Section by the designated date.

Indicate 'Master Course Special Selection in Summer for International Applicants' in red ink on the outside of the envelope.

| Acceptance Period     | June 19, 2023 (Mon.) – June 30, 2023 (Fri.) |                                |
|-----------------------|---|--------------------------------|
| Application documents | Application Requirements (1)-(8)            | No.4 – 15 shown in the list of |
|                       |   | application documents          |
|                       | Applicants passed the pre-                  | No. 4 – 6 and No.9 – 15 shown  |
|                       | application screening (Application          | in the list of application     |
|                       | Requirements (9)-(10))                      | documents                      |

| Submit to: | Graduates Section                                     |
|------------|---|
|            | Graduate School of Information Science and Technology |
|            | Osaka University                                      |
|            | 1-5 Yamadaoka, Suita, Osaka 565-0871, JAPAN           |

Submission of an application form to the Graduates Section by hand is permissible within the following period, provided that the applicant has an acceptable reason for doing so. Use an envelope of 33cm×24cm in size.

| June 28, 2023 (Wed.) – June 30, 2023(Fri.) | 9:00-11:30 / 13:00-16:00 |
|--|--------------------------|
|  |                          |

The examination admission card will be sent to each applicant by postal mail on July 7, 2023 (Fri.). In case it does not reach you by July 14, 2023 (Fri.), please contact the Graduates Section.

#### 6. Examination Fees

¥ 30,000-

(1) When paying via the Application Fee Payment System

You can pay the examination fee by credit card, the convenience store, or an internet banking service of Pay-easy through Application Fee Payment System. For further details, please refer "How to pay the application fee by the Application Fee Payment System" on our graduate school web page (Top / Admission / Application Guides/ Application Guides for 2024). If you choose to pay through Application Fee Payment System, please send the Receipt of Application Fee Payment.

(2) When paying with the money transfer slip designated by the Graduate School

Place of payment: All banks in Japan (Don't use an ATM for sending the payment.)

You can't pay the examination fee at the Japan Post Bank.

Method of payment: Use a money transfer slip designated by the Graduate School.

All bank charges incurred in this connection shall be borne by the applicant.

Attach a bank receipt with a stamp (certificate of examination fee payment) to the Graduates Section.

Those who have been officially recognized by the Japanese Government as Japanese Government Scholarship students are exempt from examination fee payment.

#### (3) When paying by foreign remittance from overseas

Make a payment of 30,000 yen (Japanese yen) of examination fee by transfer in accordance with the following guideline as well as submit a copy of Foreign Remittance Request. If a separate commission is required at the local bank from which you will transfer the fee, you are required to pay the commission at the counter in addition to the examination fee above. Please inform the Graduates Section in advance when transferring the examination fee from overseas,

Remittance type: Telegraphic transfer
Bank commission: To be borne by Applicant
Amount of money to be transferred: 30,000 yen
Purpose of transfer: Examination fee

(\*Entry item for application form)

Receiving bank: SUMITOMO MITSUI BANKING CORPORATION Swift code: SMBCJPJT (if a 11 digit is required: SMBCJPJT XXX)

Branch name: TOYONAKA BRANCH

Account number: 154-7484657

Payee name: NATIONAL UNIVERSITY CORPORATION OSAKA UNIVERSITY

Currency: JPY

Special measures for examination fee exemption will be implemented for those who have been affected by large scale disasters in Japan.

For further details, please refer "Regarding the exemption of examination fees for entrance examination in Graduate School of Information Science and Technology" on our graduate school website (Top/Admission). Only Japanese website.

The applicants who apply for the examination fee exemption should not pay the examination fee, and are required to submit the necessary documents such as the exemption application form instead.

#### 7. Selection Methods

Selection will be made after comprehensively examining the results of written examinations, an academic transcript of the school the applicant graduated from and scores of the TOEIC (or TOEFL) test. (TOEIC or TOEFL score is not used for the Department of Pure and Applied Mathematics). The examinations include written examinations and interview tests.

All applicants except for those applying to the Department of Pure and Applied Mathematics must submit a TOEIC (or TOEFL) score sheet. All applicants except for those applying to the Department of Pure and Applied Mathematics can submit a TOEFL score in case it is difficult to submit a TOEIC score. Please submit the score in the application acceptance period or on the first day of the entrance examination. The TOEIC (or TOEFL) score sheet must be original. No copies are accepted.

However, you may re-submit scores on the first day of the entrance examination even if you have already provided scores when you submitted your application. The applicants who do not submit the TOEIC (or TOEFL) score at the time of application or who re-submit the score must submit the TOEIC (or TOEFL) score sheet at the examination room on the first day of entrance examination under the instruction of examiners.

| Date of                 | Pure and Applied  | [Written Examination] July 29, 2023 (Sat.) 10:00 -16:30              |
|-------------------------|-------------------|--|
| entrance<br>examination | Mathematics       | [Interview Test] July 30, 2023 (Sun.) 9:00 ~                         |
|                         | Information and   | [Written Examination] July 29, 2023 (Sat.) 9:00~                     |
|                         | Physical Sciences | [Interview Test] July 30, 2023 (Sun.) 10:00 ~                        |
|                         | Other departments | [Written Examination] July 29, 2023 (Sat.) 9:00~                     |
|                         |                   | [Interview Test] July 30, 2023 (Sun.) 12:00 ~                        |
| Examination             | A11 1             | Graduate School of Information Science and Technology (Suita campus) |
| room                    | All departments   | Convention Center  |

The written examinations include specialty subjects and others as designated by each department. Refer to the attached sheet for the details of test subjects.

Details about the examination will be supplied to each applicant when an examination admission card is sent.

### 8. Announcement of Examination Results

For all departments, the successful examinees' numbers will be displayed on the bulletin board on the first floor of A building in the Graduate School of Information Science and Technology at Suita Campus at 2:00 p.m. on August 17, 2023 (Thu.). At the same time, a notification will be sent to each applicant via postal mail. Telephone or e-mail inquiries are NOT accepted.

#### 9. Necessary Fees for Enrollment

Admission fees: ¥282,000

Tuition fees: ¥535,800 (annual tuition)

Tuition fees are withdrawn from the account in two equal installments. (\(\xi267,900\) each)

- (1) The above fees are valid as of April 2023 and are subject to change. The fees for the 2024 academic year will be confirmed before the admission procedure starts.
- (2) In the case of a change in tuition fees during school terms, the revised tuition fees will be applicable as of the date when they are effective.
- (3) If they are admitted as a Japanese Government Scholarship Student on the time of their entrance to the Graduate School, they are exempt from admission fee and tuition fee payments.
- (4) Osaka University offers tuition waiver system (Tuition Waiver System for Honor International Students) for privately-funded international students who are recognized as excellent in the graduate school entrance examinations in order to further strengthen research capabilities and promote the acceptance of international students.

This entrance examination is subject to the Tuition Waiver System for Honor International Students.

#### 10. Handling of Personal Information

- (1) The names, addresses and other personal information obtained from applicants are used for entrance examination purposes such as the 'selection of students (handling of applications and selection examinations)' and 'admission procedures' only.
  - For successful applicants, personal information might be used for providing information about educational programs which can be registered after entering Osaka University.
  - For those admitted to Osaka University, personal information is also used for 'student control purposes (school register control and course taking instructions),' 'student support (health management),' and 'tuition fee collection'.
- (2) Entrance examination results and other data are used for tabulation and analysis of the examination results and research and study on appropriate applicant selection methods.
- (3) We may entrust an outsourcing contractor with the handling of any personal information to conduct the above business. In this case, we make a contract with the outsourced companies to handle the personal information in an appropriate way and provide the whole or a part of the information to them.

#### 11. Cautions

- (1) Some applicant may not be required to submit a TOEIC/TOEFL score certificate.
  - For example, a native English speaker or a student who has graduated from or who is expected to graduate from an institution where all instruction is in English. Such an applicant should consult with his/her intended academic supervisor, prior to submission of the application form, to verify that it can be waived from application requirement.
- (2) An applicant requiring special assistance for taking an entrance examination or studying after admission should inform the Graduates Section to this effect by June 2, 2023 (Fri.).
- (3) Application documents which are incomplete, or contain errors and omissions will not be accepted.
- (4) After they are submitted, application documents may not be corrected in any manner.
- (5) The admission procedure is accepted from March 7, 2024 (Thu.) to March 8, 2024 (Fri.) Successful applicants will be notified of the details at a later date.
- (6) An applicant who does not fulfill entrance requirements (Article 20 of Osaka University Regulations) by March 31, 2024 is subject to the cancellation of his/her admission to the Graduate School.
  - An applicant who has submitted false information in the application documents may be subject to the cancellation of his/her admission to the Graduate School.
- (7) Examination fees are not refunded except in the following cases:

- (a) an applicant is found not to be qualified for the examination after his/her submission of application documents,
- (b) application documents arrive after the close of the acceptance period and hence are rejected,
- (c) application documents are incomplete, or contain errors and omissions and hence are rejected,
- (d) examination fees are paid but the applicant doesn't submit his/her application documents within the acceptance period,
- (e) examination fees are paid twice erroneously, or
- (f) other cases in which the University elects to award a refund.

In the case of (a) to (f) above, an applicant should make a claim for a refund of the examination fees to the University. For the detailed procedures, contact to the Graduates Section.

- (8) Information and measures in case of unexpected contingency will be announced on the Graduate School's homepage.
- (9) The entrance examination implemented this time is for international students with an appropriate student visa. An applicant is, in principle, ineligible to submit an application form if he/she does not hold an appropriate student visa. Therefore, an applicant applying for the Graduate School of Osaka University who currently lives outside Japan or who is currently staying in Japan with a visa other than a 'student visa' must obtain or change to a 'student visa,' before undergoing the admission procedure.
- (10) This application guide is for "Special Selection in Summer for International Applicants". For Master Course in April 2024, there are also other entrance examinations as follows, "General Selection", "Special Selection for Recommended Students", "Special Selection for Working People", "Special Selection for Juniors of Undergraduate Schools", "Special Selection in December for International Applicants", "Selection for Information Technology Special Course in English".
- (11) International Student Categories

● Japanese Government Scholarship Students: International students awarded a scholarship by the

Japanese Government (Japanese Government

(Monbukagakusho) Scholarship Student)

Students dispatched from foreign countries:
 Foreign government-sponsored students

• Unsponsored international students:
Other international students

(12) Due to the spread of the COVID-19, the information described in the application guides may be changed. Please check the graduate school website regularly for the latest information.

March 2023

Please direct your inquiries to:

**Graduates Section** 

Graduate School of Information Science and Technology

Osaka University

1-5 Yamadaoka, Suita, Osaka 565-0871, JAPAN

E-mail: office@ist.osaka-u.ac.jp

Website of Graduate School of Information Science and Technology:

https://www.ist.osaka-u.ac.jp/

## List of Application Documents

(Note.1) Please do not use erasable writing instruments (e.g. pencils, erasable ballpoint pens, etc.) when filling in all documents.

(Note.2) Certificates, documents and references written in a language other than Japanese or English must be accompanied by a Japanese or an English translation.

## • Documents required for pre-application screening

| No | Documents   | Description   |
|----|---|---|
| 1  | Application Qualification Assessment Form (Resume)            | Use the designated form.  |
| 2  | Application Qualification Assessment Report (Research Result) | Use the designated form.  |
| 3  | Academic transcript   | Must be issued by the last university, etc., the applicant graduated from, or its equivalent. |

## • Documents that must be attached and submitted with the application form

| 4 | Application for admission   | Use the designated form.  Submit it after receiving a stamp/seal from the expected academic supervisor (or the Department Chair). Attach a picture taken singly within three months prior to the date of application.  1) Use either Japanese or English when completing the form.  2) Don't use acronyms for proper nouns but spell them out fully.  3) Please fill in the name as stated in the Certificate of Residence (Juminhyo) or on your passport in principle.   |
|---|---|---|
| 5 | Examination Admission Card and Photo Identification Card                | Attach a picture taken singly within three months prior to the date of application and fill in the required details.  |
| 6 | Research Plan   | Use the designated form (attached word file).   |
| 7 | Academic transcript   | Must be issued by the last university, etc., the applicant graduated from. Students graduating from the undergraduate schools of Science, Engineering and Engineering Sciences of Osaka University are exempt.  |
| 8 | (Expected) Graduation<br>letter/certificate of (Expected)<br>Graduation | Must be issued by the last university, etc., the applicant graduated from. Students graduating from the undergraduate schools of Science, Engineering and Engineering Sciences of Osaka University are exempt.  |
| 9 | TOEIC/TOEFL Score Certificate   | Applicants for Pure and Applied Mathematics should take an English examination, and hence are exempt from this requirement.  (Applicants for other departments):  Submit an Official Score Certificate of TOEIC issued after July 2021 either together with the application documents or on the first day of the examination. Official Score Certificate of TOEIC must be original. Copies will not be accepted.  If it is difficult to submit the TOEIC score, a Test Taker Score Report (or an Examinee Score Report) of TOEFL dated after July 2021 is also acceptable. Regarding "Test Taker Score Report" (or "Examinee Score Report") for TOEFL, a score report that will be delivered to the test taker by postal mail or a score report that can be downloaded from the test taker's ETS account are acceptable. A score report that will be delivered to the test taker by postal mail must be original. Copies will not be accepted.  Scores from TOEIC-IP, TOEIC Speaking & Writing Tests, TOEIC Speaking Test, TOEIC Bridge Test, and TOEFL-ITP are not acceptable. You may re-submit scores on the first day of the entrance examination even if you have already provided scores when you submitted your application. Refer "English Test for Admission in 2024 (including Admission in October 2023)" on our graduate school website (Top/Admission/News & Topics).  With regard to TOEFL iBT Test Score, we only accept TOEFL iBT Test Score from a single test date, not MyBest scores.  A person who has falsified the score may have his/her enrollment cancelled even after admission to the Graduate School, or the degree cancelled even after obtaining the degree in the relevant course. |

| 10 | Certificate of proficiency of        | Submit either one of the following in any form. This is not required for graduates of a                     |
|----|--------------------------------------|---|
|    | Japanese language                    | Japanese university.  |
|    |                                      | ①A certificate from the academic advisor who will be accepting the applicant (any form)                     |
|    |                                      | ②A copy of the result of EJU (the year of examination is not specified)                                     |
|    |                                      | ③A copy of the result of the Japanese Language Proficiency Test (the year of taking the test is             |
|    |                                      | not specified)  |
|    |                                      | (4) Transcript of academic records of Japanese language school, etc.  |
|    |                                      | ⑤ Certificate issued by the Center for International Education and Exchange, Osaka                          |
|    |                                      | University  |
| 11 | A copy of the Certificate of         | (Required only if the applicant lives in Japan)   |
|    | Residence                            | The document issued by the local government office which mentions your status of residence                  |
|    | (Juminhyo-no-Utsushi)                | and period of stay.   |
|    | or                                   | *Not required that of family members.   |
|    | Copies of residence card             | or  |
|    |                                      | Copies of your residence card (both sides)  |
| 12 | Certificate of <i>Monbukagakusho</i> | For Japanese Government Scholarship Students only except for applicants currently                           |
|    | Scholarship Student                  | studying at Osaka University.   |
| 13 | Certificate of examination fee       | If you choose to pay through Application Fee Payment System, please submit the Receipt of                   |
|    | payment                              | Application Fee Payment.  |
|    |                                      | If you pay with the money transfer slip designated by the Graduate School, attach a bank                    |
|    |                                      | receipt with a stamp (certificate of examination fee payment) on the designated form.                       |
|    |                                      | In case of transfer from overseas, you are required to submit a copy of Foreign Remittance                  |
|    |                                      | Request instead.  |
|    |                                      | The applicants who apply for the examination fee exemption should not pay the examination                   |
|    |                                      | fee, and are required to submit the necessary documents such as the exemption application                   |
|    | A 1 (6 1: 11                         | form instead.   |
| 14 | An envelope (for sending the         | The envelope must be sized $33\text{cm} \times 24\text{cm}$ . Make sure to indicate the name and address of |
|    | examination admission card)          | the applicant on the front, and affix a ¥140 stamp.   |
|    | D: +1 1:                             | Applicants who live abroad don't have to affix a stamp.   |
| 15 | Dispatch slip                        | Use the designated form.  |

## Attachment

## I. Examination Subjects

| Department                   | Subjects   |
|------------------------------|--|
| Pure and Applied Mathematics | 【Written Examination】 a. English b. Mathematics  |
|                              | [Interview Test] Examinees must come to the designated examination room on time.   |
| Information and Physical     | [Written Examination]  |
| Sciences                     | Information and Physical Sciences  |
|                              | Examinees must select two fields out of the following four fields at the examination time.   |
|                              | 1.Basic Information Science Algorithm, Data structure, Computational complexity, Graph and network, etc.   |
|                              | 2.Basic Mathematical Methods Linear programming, Nonlinear programming, Probability distribution, Estimation and testing, etc.                   |
|                              | 3.Mathematical Analysis<br>Complex analysis, Fourier analysis, Ordinary differential equation, Laplace<br>transform, etc.                        |
|                              | 4.Information Physics Electrostatic field, Electric current and magnetic field, Properties of light, Interference and diffraction of light, etc. |
|                              | 【Interview Test】 Examinees must come to the designated examination room on time.   |

| Com |       | Coiona  | _ |
|-----|-------|---------|---|
| Com | nuter | Science | е |

Information Systems Engineering

Information Networking

Multimedia Engineering

Bioinformatic Engineering

#### [Written Examination]

Select either (A) or (B) shown below and take the examination. Make sure to mention either 'Information Engineering' or 'Biology for Bioinformatic Engineering' to the 'Subject to Select' column in the application form.

Applicants who have selected Information Engineering may enroll in all courses with the exception of the two Bioinformatic Engineering specialist courses (Metabolic Engineering and Analytical Biotechnology).

Applicants who have selected Bioinformatic Engineering may only enroll in the two Bioinformatic Engineering specialist courses (Metabolic Engineering and Analytical Biotechnology). Be sure to contact your expected supervisor before taking the examination.

(A) Information Engineering [Range of Examination for Applicants of Information Engineering]

### Specialty Subject [Compulsory]

### 1. Algorithms and Programming

Algorithm design, Procedural programming, Computational complexity, Data structure, Recursion, Sort algorithm, Search algorithm, etc.

#### 2. Computer System and System Program

Computer system area: Number representation, Arithmetic/logic operation control, Instruction execution control, Memory control, Input/output control, etc.

System program area: Process management, Processing unit management, Memory management, Input/output management, File management, etc.

## Specialty Subject [Optional] Two from five subjects must be selected and taken. 1.Discrete structure

Set and proposition, Relation, Recurrence relation, Boolean functions, Boolean algebra, Minimum sum-of-product, Propositional logic, Predicate logic, Resolution principle, Graph, etc.

#### 2. Computation theory

Words and languages, Finite automata, Regular expressions and languages, Formal languages and their classes, Derivation/recognition/parsing, Context free grammars and context free languages, Pushdown automata, etc.

#### 3.Information network

Source coding and channel coding, Layered architecture model, Protocol and interface, Protocol design/specification/evaluation, Network applications, etc.

#### 4. Electronic circuit and logic design

Diode and transistor, MOSFET, Analog electronic circuit, Operational amplifier, Memory device/Storage element, Expression of number, Logic algebra and logic function, Combinational logic circuit, Sequential logic, Arithmetic and logical unit, etc.

#### 5. Mathematical analysis and signal processing

Differential equation, Fourier series, Laplace transform, Complex function, Manipulation of signals, Fourier analysis for continuous-time signal, Sampling, Fourier analysis for discrete-time signal, Z transform, Filter, etc.

**(B)** Biology for Bioinformatic Engineering [Range of Examination for Applicants of Biology for Bioinformatic Engineering]

**Specialty Subject**: Basic biology (based on the contents of Essential Cell Biology (Nankodo Co., Ltd.)

[Interview Test] Examinees must come to the designated examination room on time.

Note: Applicants will be notified of details of the examination room when the examination admission card is sent.

## Attachment

## II. Examination Schedule

Applicants will be notified of details of the examination room and interview test when the examination admission card is sent.

• Pure and Applied Mathematics

| Date                 | Subject        |             | Time  |
|----------------------|----------------|-------------|---|
| July 29, 2023 (Sat.) | Written        | English     | 10:00 — 12:00   |
|                      | Examination    | Mathematics | 13:30 - 16:30   |
| July 30, 2023 (Sun.) | Interview Test |             | 9:00 — (Be sure to be at the examination room on time.) |

• Information and Physical Sciences

| Date                 | Subject                |                                      | Time  |
|----------------------|------------------------|--------------------------------------|---|
| July 29, 2023 (Sat.) | Written<br>Examination | Information and<br>Physical Sciences | 9:00 — 12:00  |
| July 30, 2023 (Sun.) | Interview Test         |                                      | 10:00 —  (Be sure to be at the examination room on time.) |

Computer Science
 Information Systems Engineering
 Information Networking
 Multimedia Engineering
 Bioinformatic Engineering

(A) Information Engineering

| Date                 | Subject        |             | Time   |
|----------------------|----------------|-------------|--|
| July 29, 2023 (Sat.) | Written        | Information | 9:00 - 12:00   |
|                      | Examination    | Engineering | 12.00  |
| July 30, 2023 (Sun.) | Interview Test |             | 12:00 — (Be sure to be at the examination room on time.) |

(B) Biology for Bioinformatic Engineering

| Date                 | Subject             |                                       | Time  |
|----------------------|---------------------|---------------------------------------|---|
| July 29, 2023 (Sat.) | Written Examination | Biology for Bioinformatic Engineering | 9:00 — 12:00  |
| July 30, 2023 (Sun.) | Interview Test      |                                       | 12:00— (Be sure to be at the examination room on time.) |