

April 2020 Admission

# **Graduate School of Informatics Kyoto University**

## **Guidelines for Admission to the Master's Program**

Intelligence Science and Technology

Social Informatics

Advanced Mathematical Sciences

Applied Mathematics and Physics

Systems Science

Communications and Computer Engineering

**Entrance Examination in July and August 2019**

## Translation Disclaimer

Kyoto University strives to achieve the highest possible accuracy in translating its documents from their official language of Japanese. However, due to the nature of translated documents, accuracy is not guaranteed. The translated documents are produced for reference only, and are not legally binding. The original documents in the Japanese language shall always take precedence over their translated versions.

**The information in the guidelines is subject to change without notice.  
Refer to the latest information available at <http://www.i.kyoto-u.ac.jp/>**

## Admissions Policy of the Graduate School of Informatics

The field of study referred to as Informatics at the Graduate School of Informatics at Kyoto University consists of areas related to information in natural, artificial, social and life-related systems. It can be characterized by three pillars: the interface between humans/society and information, mathematical modeling, and information systems. The aim of the Graduate School of Informatics is not confined to the creation of new fields of study related to the three pillars. More broadly, we explore an understanding of the essence of 'information' and the immense impact of information technology on society, and we pursue advancement of information-related science and technology in the appropriate directions. According to the goal of Kyoto University, we will contribute, from the perspective of Informatics, to establishing harmonious coexistence within the global community.

We welcome a wide range of talented students who will understand the concepts of Informatics and will study science and technologies of Informatics passionately, and will aspire to develop this new academic area for the future. As long as the applicant is proficient in their field of study or research, we hope to accept students from diverse backgrounds related to Informatics-unfettered by the conventional framework of sciences versus humanities-from Japan and from other countries. We also welcome working professionals who have a passion for studying Informatics.

Specifically, we welcome students having outstanding skills in diverse backgrounds, strong desire to study, strong interest in particular fields that comprise Informatics, and having excellent communication skills. We also hope to attract post-graduate fellows who have a strong foundation for their cutting-edge knowledge of Informatics and conduct research on science and technologies of Informatics, to advance to our Doctoral program.

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The Master's Program in the Graduate School of Informatics (hereinafter referred to as "the School") constitutes the first two years of the Doctoral Program, as indicated in paragraph 4, article 4 of the Standards for the Establishment of Graduate Schools. The International Courses are established in the departments of Intelligence Science and Technology; Social Informatics; and Communications and Computer Engineering of the School, which provide both lectures and research courses in English sufficient for completing the Master's Program.

**All times stated in the guidelines are in Japan Standard Time.**

**The Japanese version of the guidelines shall be the authoritative version, with the English translation provided only as a reference.**

## **I. Number of Students to be Accepted for Admission**

Intelligence Science and Technology: 33	Social Informatics: 32	Advanced Mathematical Sciences: 14
Applied Mathematics and Physics: 19	Systems Science: 29	Communications and Computer Engineering: 39
Total: 166		

The above numbers include a small number of students for the International Courses in Intelligence Science and Technology; Social Informatics; and Communications and Computer Engineering, respectively.

## **II. Eligibility**

Applicants who presently fall into one of the following categories or anticipate doing so at the end of March 2020 will be eligible to apply.

1. Applicants who have graduated from a Japanese university.
2. Applicants who have been awarded a bachelor's degree in accordance with the stipulation in paragraph 4, article 104 of the School Education Law of Japan.
3. Applicants who have completed 16 years of school education in a foreign country (see note 1 below)
4. Applicants who have completed an equivalent of 16 years of foreign school education through distance learning while residing in Japan (see note 1 below).
5. Applicants who have completed a foreign university curriculum, through which the applicant is certified as having completed 16 years of school education in the respective foreign country, at an educational facility in Japan that has been accredited as having an approved curriculum under the educational system of the respective foreign country and is so designated by the Minister of Education, Culture, Sports, Science and Technology of Japan (hereinafter referred to as "the Minister of MEXT") (see note 1 below).
6. Applicants who have been awarded a degree equivalent to a bachelor's degree by completing a three-year or longer program at a foreign university or other foreign educational facility. The university or educational facility must have been accredited by the respective foreign government or a person certified by the appropriate foreign governmental agency, or have been so designated by the Minister of MEXT. (This includes applicants who have completed an appropriate program offered by the respective foreign educational facility through distance learning while residing in Japan, and applicants who have completed an appropriate foreign educational program at an educational facility in Japan as specified in the previous category.)
7. Applicants who have completed an advanced professional course at a higher vocational school designated by the Minister of MEXT, on or after the date designated by the Minister of MEXT.
8. Applicants designated by the Minister of MEXT.

9. Applicants who have been enrolled in a Japanese university for at least three years or have completed 15 years of school education in a foreign country, and who are recognized by the School as having acquired sufficient credits with an excellent academic record (see notes 1, 2 and 3 below).
10. Applicants who are recognized by the School as having a scholastic ability on par with or higher than that of a university graduate as a result of an individual screening of their application eligibility, and are at least 22 years old (see note 4 below).

(Notes)

- 1) In principle, applicants who have graduated from a foreign university or who have been awarded a bachelor's degree in a foreign country will be screened for their eligibility before application as follows.
  - Applicants who have graduated (or are expected to graduate) from a university in Mainland China, Hong Kong, and Taiwan will be screened by the **Admission Assistance Office (AAO), Kyoto University**.  
<http://www.kyoto-u.ac.jp/ja/education/international/students1/ku-ao.htm/>.  
For details, access the AAO website above directly. The AAO will subsequently inform the School of the screening results. Applicants who have previously undergone a screening by the AAO and were certified as eligible do not need to be screened again to determine eligibility.
  - Applicants who have graduated (or are expected to graduate) from a foreign university other than one in China must submit the appended Educational Background form and a Certificate of Graduation (or Prospective Graduation) issued by a university directly to the Student Affairs Division of the School (1st floor, Research Bldg. No. 8) no later than 5:00 p.m. on Monday, May 27, 2019. The certificate must be an original document that indicates the applicant's degree, as well as dates of enrollment and graduation. As the education system varies in each country, the above applicants may be asked to undergo a screening (refer to III. Screening for Application Eligibility).
- 2) Applicants from Japanese universities who have skipped grades fall into category 9 above.  
The outcome of the entrance examination will be made on the basis of the application materials (refer to IV. "Application Form and Supporting Materials") and the results of written and oral examinations.
- 3) Applicants who fall into category 9 and have passed the entrance examinations should note the following:  
The School may seek the submission of transcripts or other documents in March 2019 for confirmation of 2019 academic achievements. If it is found that the applicants have not actually obtained the number of credits they were anticipated to earn by the end of March or that the academic results are deficient, the School may nullify the preliminary acceptance.  
Admitted applicants must submit a certificate of withdrawal to their current university when enrolling in the School. (They will not, therefore, be able to obtain a bachelor's degree from their current university.)
- 4) Applicants falling into category 10 above must undergo a screening for Application Eligibility in advance.  
The School will not accept the application materials stated in section IV. "Application Form and Supporting Materials" otherwise. (refer to III. "Screening for Application Eligibility" below)

### **III. Screening for Application Eligibility (Applicants falling into eligibility category 10)**

Prior to application for the entrance examinations, applicants should submit the documents below in person to the Student Affairs Division of the School (1st floor, Research Bldg. No. 8) no later than 5:00 p.m. on Monday, May 27, 2019, or send the documents by registered express mail, with "Application for Eligibility Screening; April 2020 Admission to the Master's Program" written in red on the envelope.

1. Documents required for application eligibility screening  
(use the appended documents for the item with an asterisk \*)

All documents must be in Japanese or English, or accompanied by Japanese or English translations for the other languages.

*	1	Application Form for Eligibility Screening	Complete accurately.
	2	Certificate of Graduation (or Prospective Graduation)	Issued by the educational institution last attended and indicate the dates of enrollment and graduation (or prospective graduation).
	3	Transcript	Issued by the educational institution last attended.

## 2. Screening procedure and schedule

- 1) The School examines the above documents and conducts written examinations (on basic subjects and English language) and interviews (on specialized subjects) to confirm that scholastic abilities of the applicants are on par with those of university graduates. The School will administer written examinations and interviews on Wednesday, June 5, 2019. Applicants who have undergone an eligibility screening by the School in the past and were certified as eligible only need to submit the Application form (\*1) indicated above. The written examinations and interviews will be waived for such applicants.
- 2) The School will send the results of the screening by post to the applicants on Monday, June 10, 2019.

## IV. Application Form and Supporting Materials

All documents must be in Japanese or English, or accompanied by Japanese or English translations for the other languages. Applicants found to have falsified their documents will be deemed ineligible and will have their acceptances revoked, even after enrollment procedures have been completed.

### For Applicants Residing Outside Japan Only

For application, download these guidelines and use the appended documents for the items with an asterisk \*.

*	1	Application Form for Admission • Photograph Form • Examination Form	Complete the required forms accurately. Include a recent photograph (within three months of application) measuring 4 cm by 3 cm (length by width) for the Photograph and Examination Forms. The photograph should show the full head of the applicant looking straight into the camera and be affixed within the appropriate area on the forms.
	2	Certificate of Graduation (or Prospective Graduation)	The certificate must be issued by the university applicants are/were enrolled in and indicate the dates of enrollment and graduation (or prospective graduation). This is not necessary for applicants who have already submitted a certificate to the School in accordance with note 1 related to the category 3, 4 or 5 of section II. "Eligibility". <u>However, all applicants who undergo the screening conducted by the AAO must resubmit this certificate for this application.</u>
	3	Transcript	The transcript must be issued by the university in which applicants are/were enrolled.
	4	Statement of Personal Objectives	Describe the progress of study and research to date, motivations, and aspirations for study after entrance. If applicants who have completed (or are completing) courses for their bachelor thesis, they should describe the themes and content of those courses. There is no prescribed format for the statement, but it should be typed, two A4-sized pages or less, with the applicant's name on

		top of each page.
5	Residence Card or Photocopy of Passport (Foreign nationals only)	Foreign exchange students living in Japan should provide a copy of the front and back of their Residence Card showing their status of residence, duration of residence, and address. Foreign nationals should provide a copy of the photo ID page of their passport. These copies should be printed on A4-size paper
6	Evidence of Payment of Application Fee	<p><b>Application fee: 30,000 yen</b></p> <p><b>Payment procedure:</b> Access the Examination Settlement Service below and follow the instructions for payment. <a href="https://www3.univ-jp.com/kyoto-u/en/inf/">https://www3.univ-jp.com/kyoto-u/en/inf/</a></p> <p>Print out a certificate of payment from the completed application page and affix it to an A4-size paper and enclose the certificate with the other supporting materials for application.</p> <p><b>Payment period:</b> <b>Wednesday, June 12 – Tuesday, June 25, 2019 (no later than 5:00 p.m.)</b> <b>Payment must be made during the above period.</b></p> <p><b><u>For Applicants Residing Outside Japan</u></b> Make a payment by credit card (VISA, MasterCard, JCB, AMERICAN EXPRESS, or Diners Club INTERNATIONAL). It is acceptable to use a credit card which carries a name different from that of the applicant (e.g., applicant's parents). If it is difficult to pay using a credit card due to circumstances related to where the applicant is located, contact the School before Monday, June 3, 2019.</p> <p><b><u>For Applicants Residing in Japan</u></b> Make a payment at a designated convenience store, at a financial institution's ATM (Pay-easy), or online with one of the above credit cards or through designated internet banking. It is acceptable to use a credit card or a bank account which carries a name different from that of the applicant (e.g., applicant's parents).</p> <p><b>Exemption:</b> Payment of application fee is not necessary for the following applicants.</p> <ol style="list-style-type: none"> <li>1) Japanese Government (MEXT*) Scholarship Students. Submit a certificate or other document (photocopy is accepted) which shows the status as a MEXT Scholarship student. *Ministry of Education, Culture, Sports, Science and Technology of Japan</li> <li>2) Applicants for the 2020 admission of the recommendation-based selection to the Master's Program in the Department of Advanced Mathematical Sciences, who wish to apply for this admission, need not pay the application fee in this registration. Submit a copy of the examination voucher for the recommendation-based selection to the 2020 Master's Program.</li> <li>3) Applicants applying simultaneously for October 2019</li> </ol>



		<p>admission to the Master's Program with this April 2020 admission, need not pay the application fee for this registration.</p> <p>4) For households in regions where the Disaster Relief Act is effective and whose principal wage-earner has been adversely affected by the 2011 Great East Japan Earthquake (Tohoku earthquake and tsunami) and the 2016 Kumamoto Earthquake, the Heavy Rain Event of July 2018, and the 2018 Hokkaido Eastern Iburi Earthquake, an exemption may be made to the payment of Entrance Examination Fees for cases where a Risai-shomeisho (罹災証明書: Disaster Victim Certificate) has been issued. For further details, please contact the Student Affairs Division of the School by Monday, June 10, 2019.</p>
	7 Envelope for Delivery of Examination Voucher <u>for applicants residing in Japan only</u>	Affix a 682-yen stamp (for registered express mail), and write the applicant's full name, address, and postal code on the prescribed envelope for delivery of the examination voucher in late July 2019; or in early July for the Department of Advanced Mathematical Sciences.
	8 Envelope for Delivery of Outcome of Application <u>for applicants residing in Japan only</u>	Write the applicant's full name, address, and postal code on the prescribed envelope for delivery of the outcome of application in mid-August 2019; or in late July for the Department of Advanced Mathematical Sciences. (Promptly notify the School if the address is changed.)
*	9 Address Label A	Write the applicant's full name, address, and postal code on the appended form for the delivery of the examination voucher in late July, 2019 or in early July for the Department of Advanced Mathematical Sciences. (Promptly notify the School if the address is changed.)
*	10 Address Label B	Write the applicant's full name, address, and postal code on the appended form for the delivery of the outcome of application in mid-August, 2019 or in late July for the Department of Advanced Mathematical Sciences. (Promptly notify the School if the address is changed.)
*	11 Address Label C	Write the applicant's full name, address, and postal code on the appended form for the delivery of the enrollment materials for the successful applicants in early March 2020. (Promptly notify the School if the address is changed.)
*	12 Application Form for Eligibility Screening	Submit only if the applicant falls into category 9 of section II. "Eligibility" above.
	13 Letters of Recommendation	Submit only if the applicant falls into category 9 of section II. "Eligibility" above. Note that this is not necessary for applicants who intend to apply to register for the Department of Advanced Mathematical Sciences. The letters must be issued in a sealed envelope by the applicant's current university (free format). Letters which are not in an envelope sealed by the applicant's university will not be accepted.
	14 Curriculum Resume	Submit only if the applicants fall into category 9 of section II. "Eligibility" above. Detailed course descriptions etc. provided by their university must be described to the resume. This is not necessary for current students of Kyoto University.
	15 Evidence of English Proficiency	For applicants to the Department of Intelligence Science and Technology; Applied Mathematics and Physics; and

	<p>Communications and Computer Engineering:  Submit a copy for one of the following test score records.  - TOEFL Examinee Score Report  - TOEIC Official Score Certificate</p> <p>For applicants to the Department of Social Informatics:  Submit a photocopy of one of the following test score records.  - TOEFL Examinee Score Report  - TOEIC Official Score Certificate  - IELTS Test Report Form (TRF)</p> <p>For applicants to the Department of Systems Science:  Submit a copy of TOEFL Official Score Report.  TOEIC and IELTS are not accepted.</p> <p><b>For details, refer to section V. “English Test Scores (TOEFL, TOEIC, and/or IELTS).”</b></p>
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(Notes)

- 1) Applicants expected to fall into eligibility category 2 of II. “Eligibility” above, must submit a certificate (free format) to the effect that: “the applicant is expected to be awarded a bachelor's degree; in the event that a bachelor's degree is not awarded, this fact will be promptly notified to the School”.
- 2) Accepted applicants who are currently enrolled in another Graduate School of Kyoto University must submit a certificate of withdrawal (or completion) from their Graduate School at the time of enrollment into the School. Those who falsify their status when filing applications may have their acceptance revoked even after the enrollment procedure has been completed.
- 3) Applicants applying simultaneously for the October 2019 and April 2020 admissions to the Master's Program need to submit only one copy each of the documents noted under items 2, 3, 5, and 15 above.
- 4) For successful international students, at the time of enrollment procedure, they must submit a “Residence Certificate” which indicates both their visa status as a college student and the period of stay.
- 5) For the Departments of Intelligence Science and Technology; Social Informatics; Applied Mathematics and Physics; Systems Science; and Communications and Computer Engineering, submission of an original score record of one of the English language tests (TOEFL, TOEIC, and/or IELTS) will replace the written examination of English proficiency. Note that only the Department of Social Informatics will accept an IELTS Test Report Form, and the Department of Systems Science will only accept the TOEFL Examinee Score Report.
- 6) If applicants do not submit a score record for one of the above tests, the School will record their English test score as zero.

## **V. English Test Scores (TOEFL, TOEIC, and/or IELTS)**

1. The applicant is responsible for taking all the necessary steps and paying any related costs for taking the TOEFL, TOEIC and/or IELTS tests.
2. Submit a photocopy for one of the following score records:
  - TOEFL (TOEFL PBT)
  - Internet TOEFL (TOEFL iBT)
  - TOEIC Listening & Reading Test
  - IELTS
3. The School accepts only the score records of TOEFL, TOEIC, and/or IELTS tests taken within two years

prior to the School's application deadline. Note that score records of institutional testing programs (e.g., TOEFL ITP and College TOEIC) will not be accepted..

4. Applicants who have taken the TOEFL, TOEIC, and/or IELTS multiple times may submit the single result of their choice for application.
5. The School will convert TOEFL PBT and TOEFL iBT scores based on the conversion table published by the U.S. Educational Testing Service (ETS).

TOEIC scores will be converted to TOEFL PBT scores using the following formula:

TOEIC score x 0.348 + 296 = TOEFL PBT score

The School will convert IELTS scores to TOEFL scores based on the comparison table of English Language Test Scores published by the English Language Teaching Centre at the University of Sheffield.

6. Applicants who cannot submit their score record by the application deadline may still apply but must submit a letter (on A4-size paper, no specified format) to that effect together with their application materials to the School, and submit the score record at the examination room prior to the start of the first examination on August 5, 2019. Failure to fulfill this condition will result in their English test scores being recorded as zero.

## **VI. Application Procedures and Notices**

1. Applicants must bring all required application materials in person or send them by post to the address shown below. If sending by post, write **in red** "Application materials for April 2020 admission to the Master's Program enclosed" on the envelope, and send **by registered express mail**. The School may contact the applicants if their application materials are not in order.
2. Applications will be considered to be completed with dispatch of examination vouchers by the School.
3. In principle, once the materials have been accepted, no subsequent revision of the application items will be allowed and they will not be returned to the applicants. The School will not refund application fees after the materials have been accepted.
4. Simultaneous applications to multiple departments are not allowed. In this registration (including the special selection procedure), the School will accept only one application per applicant.
5. Applicants who have already passed the recommendation-based selection for the 2020 Master's Program in the School will not be allowed to file applications for this or any other registration procedures for the Master's Program in the School this academic year.
6. Applicants who are accepted in this selection will not be allowed to apply for the supplementary admission procedure for the Master's Program or for any other registration procedure for April 2020 Admission in the School.
7. Applicants who are also applying for October 2019 admission and are accepted will be excluded from the screening in this registration. (Applicants who are accepted for October 2019 admission therefore will not be accepted for this registration.)
8. For applicants who have graduated from a foreign university, or who have received a bachelor's degree in a foreign country, their eligibility for enrollment may be checked, if necessary, after the announcement of examination results is issued. If the School deems that they do not satisfy the eligibility requirements stipulated by Kyoto University, their documents for enrollment will not be accepted even after their results have been announced as successful.

### **Submission of Application Materials in person**

**Date: Monday, June 24 - Tuesday, June 25, 2019**  
**10:00 a.m. - 5:00 p.m. (except noon to 1:30 p.m.)**

**Submit to: Administration Office (1st floor, Research Bldg. No. 8)**  
**Graduate School of Informatics, Kyoto University**  
**Yoshida-Honmachi, Sakyo-ku, Kyoto 606-8501 JAPAN**  
**(See the campus map)**

**Submission by post**

**Date: Tuesday, June 25, 2019**  
**Application materials must arrive by 5:00 p.m.**

**Submit to: Student Affairs Division**  
**Graduate School of Informatics, Kyoto University**  
**Yoshida-Honmachi, Sakyo-ku, Kyoto 606-8501 JAPAN**  
**TEL: +81-(0)75-753-4894, or 5500**

9. Applicants with disabilities needing accommodations for the examination should request such accommodations in advance. Because advanced preparation is required, send a request letter to the above address stating the following information and attach a copy of a disability certificate or medical certificate, or bring the required information to the school office in person before Friday June 14, 2019.

Required information:

- Applicant's name, date of birth, sex, address, phone number, and e-mail address
- Desired department and degree (Master's / Doctoral)
- Type and level of disabilities
- Accommodations requested

**VII. Screening Procedure and Examination Schedule**

1. The screening will be made on the basis of the application documents and results of examinations of scholastic ability (written examinations and interviews/oral examinations). For applicants to the Departments of Intelligence Science and Technology; Social Informatics; and Advanced Mathematical Sciences, eligibility for the interview/oral examination will be screened by the written examinations.
2. The School will administer the examination following the schedule.  
 (Note that the schedule differs depending on the department.)

**Examination Schedule**

Applicants must carefully read the detailed information on the subjects and scope of the examinations, how to answer the questions, etc. specified in VIII. Application Groups and Supplementary Information on Examination Subjects below.

Department	Date	Time	Subject/Format
Advanced Mathematical Sciences	Saturday, July 13	10:00 - 11:30 13:00 - 14:30 16:00 -	Basic subjects Advanced subjects Oral examination (see note 1)
	Sunday, July 14		Alternative examination date (see note 2)

(Notes)

- 1) For the Department of Advanced Mathematical Sciences, eligible examinees and the detailed schedule

for the oral examinations will be posted on a bulletin board of the School office (1st floor, Research Bldg. No. 8) by 3:45 p.m. on Saturday, July 13, 2019.

- 2) When it is difficult to conduct an examination due to emergencies such as weather warnings, the schedule may be postponed to the alternative examination date. In the event it is necessary to change the examination schedule, the School will place a notification on the website on the morning of the examination day (by 7:00 am). Accordingly, make sure to check the website: <http://www.i.kyoto-u.ac.jp/en/>

Department	Date	Time	Subject/Format
Intelligence Science and Technology	Monday, August 5	9:00 - 11:00 12:00 - 14:00	Fundamentals of informatics Specialized subjects
	Tuesday, August 6	15:00 -	Interview (see note 2)
	Wednesday, August 7 (see note 1)		Alternative examination date
Social Informatics	Monday, August 5	10:00 - 12:00 13:00 - 16:00	Fundamentals of informatics Specialized subjects
	Tuesday, August 6	10:00 -	Interview (see note 3)
	Wednesday, August 7 (see note 1)		Alternative examination date
Applied Mathematics and Physics	Monday, August 5	13:00 - 15:00 15:30 - 17:30	Specialized subjects Basic subjects
	Tuesday, August 6	10:00 - 12:00	Interview
	Wednesday, August 7 (see note 1)		Alternative examination date
Systems Science	Monday, August 5	10:00 - 12:00 13:00 - 16:00	Mathematics Specialized subjects
	Tuesday, August 6	10:00 -	Interview
	Wednesday, August 7 (see note 1)		Alternative examination date
Communications and Computer Engineering	Monday, August 5	13:00 - 16:00	Problem Set A
	Tuesday, August 6	9:00 - 12:00	Problem Set B
	Wednesday, August 7 (see note 1)		Alternative examination date

(Notes)

- 1) When it is difficult to conduct an examination due to emergencies such as weather warnings, the schedule may be postponed to the alternative examination date. In the event it is necessary to change the examination schedule, the School will place a notification on the website on the morning of the examination day (by 7:00 am).  
Accordingly, make sure to check the website: <http://www.i.kyoto-u.ac.jp/en/>
- 2) For the Department of Intelligence Science and Technology, eligible examinees and the detailed schedule for the interview will be posted on a bulletin board of the School office (1st floor of Research Bldg. No. 8)

by 1:00 p.m. on Tuesday, August 6, 2019.

- 3) For the Department of Social Informatics, eligible examinees and the detailed schedule for the interview will be posted on a bulletin board of the School office (1st floor of Research Bldg. No. 8) by 9:30 a.m. on Tuesday, August 6, 2019.
3. The examination voucher will be sent by post in late July (early July for the Department of Advanced Mathematical Sciences) to the address indicated on Address Label A (refer to V. “Application Form and Supporting Materials”). If the examination voucher will not be delivered by Wednesday, July 31, 2019 (by Monday, July 8 for the Department of Advanced Mathematical Sciences), make sure to inquire to the Student Affairs Division of the School by e-mail at: [jyoho-kyomu@mail2.adm.kyoto-u.ac.jp](mailto:jyoho-kyomu@mail2.adm.kyoto-u.ac.jp)  
Applicants residing outside Japan will be received PDF file of the scanned examination voucher via email to the address indicated on the application form. Print the PDF voucher and bring it at the examination room.
4. Posting of information on the examination room and other related items  
Make sure to check the information that has been posted in person. Inquiries by telephone will not be accepted.
  - Department of Advanced Mathematical Sciences  
Time: From 9:15 a.m. on Saturday, July 13, 2019  
Place: Bulletin board of the School office (1st floor, Research Bldg. No. 8)  
(see the campus map)
  - Departments of Intelligence Science and Technology; Social Informatics; Applied Mathematics and Physics; Systems Science; and Communications and Computer Engineering  
Time: From 1:00 p.m. on Friday, August 2, 2019  
Place: Bulletin board of the School office (1st floor, Research Bldg. No. 8)  
(see the campus map)
5. On the day of the examination, assemble in front of the examination room at least 20 minutes before the start of each examination. For the interviews, follow any separate instructions that may be provided by the relevant department.
6. Important notes on the written examinations
  - In the examination room, examinees should be sure to bring the examination voucher with them and to follow the proctor’s instructions.
  - The only stationery items that may be used during the examination are as follows:  
pencils, ink pens, ballpoint pens, mechanical pencils, pencil sharpeners, plastic/rubber erasers, rulers, clocks and watches (with time functions only). Smartphones, mobile telephones and other items may not be placed on desks.
  - The use of dictionaries (including electronic dictionaries) is not permitted.
  - For the use of other reference materials, examinees must follow the instructions given by the relevant department.
  - Examinees arriving late to the examination room will be permitted to enter the examination room within the first 30 minutes after the start of each examination.
  - For examinees who fail to sit an examination, the score to be given in that subject will be zero. Failure to sit an examination in two or more subjects will result in disqualification. Disqualified examinees may not sit any further examinations.
7. Important note on the interviews  
Where an examinee is scheduled to take an interview, failure to attend will result in disqualification.

## **VIII. Application Groups and Supplementary Information on Examination Subjects**

Application Groups:

Because there is a capacity limit in each Application Group, applicants may not be able to enter the group that is their first choice. Therefore, in accordance with the department instructions, applicants must enter the groups in the order of their preference in the prescribed fields on the appended Application Form. (For the Department of Advanced Mathematical Sciences, the preferred groups will be confirmed during the oral examination, at which time, changes can be made.) Applicants will be regarded as having no desire to be attached to any groups for which they do not enter a preference, and will not be accepted to such groups even if their examination scores are higher than the minimum scores for acceptance.

In principle, once the Application Form for Admission has been accepted, no subsequent revision and/or altering to the application details will be allowed. Therefore, applicants must carefully enter the form.

Note: Application Groups of the department marked with an asterisk (\*) are not included in this registration; then may not be selected as preferred groups.

**Prior to application submission, make sure to check the “Application Group Guide” on our website at:**  
<http://www.i.kyoto-u.ac.jp/en/admission/application.html>

## (1) Department of Intelligence Science and Technology

### a. Supplementary information on the Fundamentals of Informatics

Examinees will be asked two questions one each on the following subjects.

- Linear Algebra, Calculus
- Algorithms and Data Structures

### b. Supplementary information on the Specialized Subjects

Examinees must select and answer two questions from six questions one each on the following subjects.

- Cognitive Neuroscience, Cognitive and Perceptual Psychology
- Statistics
- Pattern Recognition, Machine Learning
- Information Theory
- Signal Processing
- Formal Language, Theory of Computation, Discrete Mathematics

### c. Supplementary information on written examinations

Questions are provided in both Japanese and English. Examinees can answer in either Japanese or English.

### d. Supplementary information on interviews

Each applicant will be required to make a five-minute presentation in either Japanese or English regarding his/her own distinguishing features, motivations, reasons of selecting the first-choice application group, and the research he/she hopes to undertake. The examinees can use a document projector (not a video projector) to illustrate the presentation, and we recommend that examinees prepare several pages of A4-sized sheets for that purpose. There will be several minutes for questions after the presentation. Note that the interview may be omitted depending on the written examination results.

### e. Supplementary information on admission decisions

Admission decisions are based upon scores in the written examination, TOEFL/TOEIC test, interview (if scheduled), and the admission quota for each Application Group. The weighting is as follows: Fundamentals of Informatics (100-point scale), Specialized Subjects (100-point scale), English (the scores of the TOEFL/TOEIC test, converted to a 100-point scale), and the interview (200-point scale).

### f. Application groups and research fields

List the groups to which you would like to belong in the order of your preference. There is no need to list those to which you do not wish to belong.

Application Groups	Research Fields
IST-1	<b>Neuroinformatics</b> , Brain Decoding, Brain-Machine Interface, Brain Imaging, Computational Neuroscience, Vision Science
IST-2	<b>Psychoinformatics</b> , Higher Brain Function, Cognitive Neuropsychology, Cognitive Interface, Neuromarketing, Cognitive Science



IST-3	<b>Cognitive Communication</b> , Perceptual Informatics, Visual Media Technologies, Cognitive Neural Dynamics, Psychophysics, Functional Brain Measurements
IST-4 (Note)	<b>Computational Cognitive Neuroscience</b> , Cognitive Neuroscience, Decision Making and Reinforcement Learning, Neurocomputational Mechanism of Social Functions, Brain-based Intelligence and Machine Learning, Human fMRI Experiments with Quantitative Methods
IST-5	<b>Computational Intelligence</b> , Knowledge Discovery, Computational Learning Theory, Optimization for Machine Learning
IST-6	<b>Collective Intelligence</b> , Machine Learning, Data Mining, Human Computation
IST-7	<b>Conversational Informatics</b> , Artificial Intelligence, Interaction, Visual Computation, Cognitive Design
IST-8	<b>Language Media Processing</b> , Language Information Processing, Language Analysis, Language Synthesis, Machine Translation, Information Retrieval
IST-9	<b>Speech and Audio Processing</b> , Speech Recognition and Understanding, Music Information Processing, Human Robot Interaction, Statistical Signal Processing and Pattern Recognition
IST-10	<b>Visual Information Processing</b> , Image Media, Computer Vision
IST-11	<b>Video Media</b> , Processing of Large-scale Video Data, Human Action Understanding, Real-world Environmental Measurement and Recognition
IST-12	<b>Network Media</b> , the Internet, Information Security, Algorithm, Computational Complexity
IST-13	<b>Media Archiving Research</b> , Language Understanding, Language Generation, Language Knowledge Acquisition, Verbalizing for Thought and Understanding, Symbol Grounding
IST-14	<b>Biological Information Networks</b> , Bioinformatics, Mathematical and Computational Biology, Complex Networks

#### **Adjunct Units (Note: IST-4)**

To promote education and research on computational theory to understand the brain, which is a fundamental concept for Intelligence Science and Technology, the department has established the “Computational Theory Cognitive Neuroscience Science Adjunct Unit” jointly with RIKEN Brain Science Institute.

In addition to members of the department, the Adjunct Unit involves staff from our partner institution, who provide guidance and assistance under the supervision of the department. The requirements for registering and completing courses are the same as for the department. For details, please refer to the department’s website below.

#### **g. Department website:**

<http://www.ist.i.kyoto-u.ac.jp/>

## (2) Department of Social Informatics

### a. Supplementary information on specialized subjects

Two or more questions will be provided for each of the five topic areas listed below (Computer science, Biology and environments, Disaster management systems, Medical information, and Economics and information policy).

<b>Computer science</b>	Artificial intelligence, databases, information systems, computer software, information networks, data structure, algorithms, pattern recognition, information education, human interface
<b>Biology and environments</b>	Biology, environmental assessment, environmental problems, data collection methods, biostatistics
<b>Disaster management systems</b>	Planning, spatial informatics, disaster management engineering, disaster psychology, risk communication, risk management
<b>Medical information</b>	Overview of medical informatics, medical and biological engineering, hospital management
<b>Economics and information policy</b>	Management, information and communications policy, information and communications markets, IT corporate strategy, information organization

The applicant must answer three questions, which should be chosen based on his/her first preference for the Application Group as outlined below. If an applicant answers a question from a Subject Field which is not his/her first preference, the applicant will receive zero points for that question.

Application Groups	Subject Fields	Questions
SI-1a, SI-1b, SI-2, SI-3, SI-5b, SI-6, SI-14	Computer science	3
SI-7	Computer science	1
	Economics and information policy	2
SI-8, SI-9	Biology and environments	3
SI-10, SI-11, SI-12	Disaster management systems	3
SI-13	Medical information	3

#### **b. Supplementary information on fundamentals of informatics**

For the written examination on fundamentals of informatics, five questions will be provided that originate from information presented in the textbook specified below. The applicant must select and answer three of these questions.

*Computer Science: An Overview (12th Edition)*

*Author: Glenn Brookshear, Dennis Brylow*

*Publisher: Prentice Hall*

*ISBN-10: 0133760065*

*ISBN-13: 978-0133760064*

\*Note that Chapter 10: "Computer Graphics" is excluded from the scope of the exam.

#### **c. Supplementary information on written examinations**

Questions are provided in both Japanese and English. The applicant can give answers either in Japanese or in English.

#### **d. Supplementary information on TOEFL/TOEIC/IELTS**

The Department of Social Informatics accepts scores from IELTS as well as TOEFL or TOEIC.

For details, refer to "V. English test scores (TOEFL, TOEIC, and IELTS)".

#### **e. Supplementary information on interviews**

Interviews are scheduled to be held from 10:00 a.m. on August 6. Eligibility for interviews will be determined on the basis of the results of the written examinations on August 5.

The Department places importance on communication ability. During the interview, the applicant will need to present explanations within five minutes or less, in Japanese or in English, regarding the submitted "Statement of Personal Objectives". No projector or other devices are allowed. After the explanation, the applicant will be questioned about his/her research progress and research plans in the Master Program. Please see the next section for information on the Statement of Personal Objectives.

#### **f. Supplementary information on instructions and format of the Statement of Personal Objectives**

##### Instructions

In the interview, the applicant will be questioned, after a 5-minute explanation, about his/her education and research curriculum, motivations, and aspirations for study after entrance according to the submitted "Statement of Personal Objectives." No Computers, LCD projectors, OHP, and other devices are allowed to be used.

Copies of the "Statement of Personal Objectives" will be distributed to the examiners. (The applicants do not need to prepare the copies.)

Because the examiners' questions will refer to the "Statement of Personal Objectives," the statement should be clear and concise. (Use of diagrams and/or tables with captions to summarize the main points is recommended).

The copies will be printed in black and white (Colors may not be identified when they are printed in black and white).

Format

Paper size: A4

Pages: 2 pages or less with one-side printing

Margin: 2.5 cm or more for head, bottom, left and right respectively

Font size: 10.5 or more

Indicate the name of the applicant at the top of the sheet.

Indication of research themes is not mandatory.

Printed Power Point slides should cover an area of more than 1/4 of a page.

**g. Application groups and research fields**

Enter the groups to which you would like to belong by order of preference. There is no need to fill in those to which you do not wish to belong. Each of SI-1a, SI-1b, and SI-5b is regarded as one of the group. Applicants may enter up to 7th place of the groups.

Groups not listed in the table are not recruiting in this admission cycle.

Application Groups	Research Fields
SI-1a	Foundations of Data Science and its Social Deployment, Databases, Information Retrieval, Data Mining, Big Data
SI-1b	Interaction of Web and Real-World, Web Mining, Multimedia, User Generated Contents, Geographic Information System, O2O (Online to Offline)
SI-2	Human Robot Interaction, Intelligent Robotics, Wireless Sensor Networks, Interaction, Communication Robots, Artificial Intelligence, Cyber Physical System
SI-3	Environment for Sharing All Useful Information in the World, Social Information Analysis, Web Information Analysis, Social Network Analysis, Crowdsourcing, Information Retrieval, Information Access Interface
SI-5b	Services Computing, Internet of Things, Multiagent Systems, Design of Collaboration Infrastructure, Language Grid
SI-6	Establishing Secure and Reliable Information Society, Encryption, Authentication, Crypto Currency, Cloud Security, Privacy
SI-8	Utilization and Conservation of Bioresources, Evaluation of Agricultural Production System, Bio-logging, Conservation of Endangered Species
SI-9	Conservation and Utilization of Ecosystems, Assessment of Ecosystem Service, Monitoring of Hydrological and Biogeochemical Cycles, Archive and Utilization of Environmental Information
SI-10	Design of Integrated Disaster Management Strategies, Disaster Risk Management, Disaster Economic Analysis, Disaster Recovery, Disaster Risk Management Planning, Disaster Risk Governance, Disaster Risk Communication, Disaster Risk Control, Disaster Risk Finance

SI-11	Design of Disaster Risk Communication : Disaster Prevention Psychology, Disaster Information, Disaster Culture, Disaster Prevention Education, Disaster Recovery, Disaster Prevention System Theory, Disaster Risk Management Governance
SI-12	Design of Disaster Information Systems, Crisis Management, Disaster Response, Data Collection in Disaster, Rescue Activities, Evacuation Behavior, Disaster Risk Communication, GIS, Spatio-temporal DB, Data Science for Disaster Risk Management
SI-13	Create Clinical Medicine of the Information Age, Electronic Medical Record, Telemedicine, EHR, Data Health, Health Tourism, Medical Virtual Reality, Image Diagnosis Support , Medical and Hospital Management
SI-14	Educational/Learning Technologies, e-Learning Systems, Learning Analytics, Educational Data Science, Educational Big Data, Mobile/Ubiquitous Learning Environments, Collaborative Learning Environments, Intelligent Education/Learning Support Systems

#### **h. Supplementary information on admission decisions**

Admission decisions will be based upon: scores obtained in written examinations and interview; admission quota for each application group. The four subjects are weighted as follows; fundamentals of informatics (150-point scale), specialized subjects (300-point scale), English (TOEFL/TOEIC/IELTS scores converted to a 200-point scale), interview (100-point scale).

#### **i. Department website**

<http://www.soc.i.kyoto-u.ac.jp/>

### (3) Department of Advanced Mathematical Sciences

#### a. Supplementary information on the written examination

##### Basic subjects (150 points)

Examinees are required to choose and answer three from those problems given on the subjects below:

- fundamentals of “Linear Algebra” and “Calculus” intended for the first-year students in faculties of science and/or technology in Japanese universities
- elements on “Ordinary Differential Equations”
- elements on “Complex Functions of a Single Variable”
- “Mechanics (Dynamics of Particles and Rigid Bodies)”

##### Advanced subjects (150 points)

Examinees are required to choose and answer one problem from the five subjects given below:

“Analysis”, “Applied Mathematics”, “Engineering Mathematics”, “Statistical Mechanics” and “Continuum Mechanics”. The details for “Applied Mathematics” and “Engineering Mathematics” are as shown below.

Applied Mathematics:

- advanced materials on “Linear Algebra” and “Calculus (including Vector Analysis)”
- “Complex Functions of a Single Variable”
- elementary materials on “Ordinary and Partial Differential Equations”
- “Fourier Analysis”
- elements in “Numerical Analysis” and “Computation”, etc.

Engineering Mathematics:

- “Vector Analysis”, “Complex Analysis” and “Fourier Analysis” of the level taught in undergraduate schools of engineering (mainly calculation problems)
- elementary solution methods for “Ordinary and Partial Differential Equations”
- elements in “Numerical Methods” for “Differential Equations in Engineering”, etc.

For your reference, sample problems on the above subjects are given on the website of the Department. (See the item d. below.)

#### b. Supplementary information on oral examination

Applicants must first qualify to take the oral examination based on the total score of the both basic and advanced subjects and the submitted application materials. The qualified applicants will then be selected for admission and their application groups decided based on the oral examination (pass/fail).

Examinees are questioned about their motivations, the process of studies and research to date in their undergraduate courses (especially graduation research), their preference of research fields, and written examinations.

### c. Application Groups and Research Fields

The examinee should choose the groups to which he/she would like to belong, in the order of the preference up to three.

Application Groups	Research Fields
AMS-1	Applied Analysis, Inverse Problems, Nonlinear Problems, Partial Differential Equations, Numerical Analysis, Probability Theory, Fractal Analysis
AMS-2	Nonlinear Dynamics, Nonlinear Oscillations, Computational Physics
AMS-3	Theoretical Neuroscience, Non-equilibrium/Nonlinear Physics, Coupled Dynamical Systems with Networks
AMS-4	Numerical Simulation, Computational Mechanics, Computational Engineering
AMS-5	Fluid Dynamics, Rarefied Gas Dynamics, Numerical Simulation of Fluids

The order of preference will be reconfirmed at the time of the oral examination and the examinee may make changes at that time.

### d. Website of the Department

<http://www.acs.i.kyoto-u.ac.jp/>

#### Note:

While English skills are not part of the admissions criteria, they are required for the study and research in the Department.

#### **(4) Department of Applied Mathematics and Physics**

##### **a. Supplementary information on written examinations**

The subject areas covered in the examinations and the point distribution are as follows.

##### **Basic subjects (100 points each / 200 points total)**

1. Basic Mathematics I :
  - Calculus, etc.
2. Data Structures and Algorithms :
  - Data Structures, Sorting and Searching Algorithms, Graph Search, etc.
3. Linear Programming :
  - Simplex Method, Duality Theorem, Sensitivity Analysis, Convex Sets and Functions, etc.
4. Linear Control Theory :
  - System Modeling, Transfer Functions, Transient Responses, Stability of Feedback Control Systems, etc.
5. Basic Mechanics:
  - Mechanics of Particles and Vibration, Lagrange's Equations of Motion, etc.
6. Basic Mathematics II :
  - Linear Algebra, etc.

##### **Specialized subjects (100 points each / 200 points total)**

1. Applied Mathematics :
  - Complex Functions, Fourier Analysis, Computational Mathematics, etc.
2. Graph Theory :
  - Shortest Path Problems, Minimum Spanning Tree Problems, Maximum Flow Problems
3. Operations Research :
  - Mathematical Programming (Optimality Conditions, Duality Theorems, etc.)
4. Modern Control Theory
  - State Space Method (Controllability, Observability, Observers, Optimal Regulators, etc.)
5. Physical Statistics :
  - Equilibrium Statistical Mechanics, Stochastic Processes, etc.
6. Mathematics for Dynamical Systems :
  - Ordinary Differential Equations, Hamiltonian Mechanics, etc.

Choose and answer four questions, two from each of the basic and specialized subjects.

Questions are provided in both Japanese and English.

Give answers in either Japanese or English.

##### **b. Supplementary information on English requirements**

An applicant's English skills are evaluated out of 200 points. The TOEFL score or the TOEIC score converted to a TOEFL PBT score is converted to a 200-point scale.



**c. Supplementary information on interviews**

At the interview, each applicant is asked about his/her motivation for applying, undergraduate education, preferred field of specialization, and career goals after graduation. The interview is conducted in either Japanese or English. Applicants are selected for admission based on the written examinations, interview, and admission quota for Application Groups.

**d. Application Groups and Research Fields**

Enter the groups to which you would like to belong in the order of your preference.

There is no limit to the number you may enter.

\* The groups marked with an asterisk are not open for registration at this time.

Application Groups	Research Fields
AMP-1	Applied Mathematical Analysis, Soliton and Integrable Systems, Matrix and Eigenvalue Algorithms
AMP-2	Discrete Mathematics, Combinatorial Optimization Algorithms, Graph Networks, Computational Complexity
AMP-3	System Optimization, Mathematical Programming Theory and Application, Operations Research
AMP-4	Control Systems Theory, Robust/Optimal Control, System Identification/Modeling
AMP-5	Physical Statistics, Basic Theory of Nonlinear Dynamical Systems and Complex Systems, Fundamentals and Applications of Stochastic Processes
AMP-6	Dynamical Systems, Differential Equations, Mathematical Physics
*AMP-7	Mathematical Finance, Financial Engineering
AMP-8	Applied Mathematical Modeling, Modeling Theory, Social Information System Modeling

**e. Department website**

<http://www.amp.i.kyoto-u.ac.jp/>

## **(5) Department of Systems Science**

The following sections (a. - c.) outline the scope of the questions on the examination.

### **a. Supplementary information on the mathematics (120 points)**

The examination will contain questions from the fields of “Differential and Integral Calculus” and “Linear Algebra”.

### **b. Supplementary information on the specialized subjects (100 points each / 200 points total)**

The examination will contain questions on the subjects of “Logic Circuits”, “Engineering Mathematics”, “Basic Software”, “Probability and Statistics”, and “Control Engineering”. Examinees must select two subjects on their own choice.

The specific topics in these subjects are as follows:

Logic Circuits:	Logic function, Combinatorial logic circuits, Sequential logic circuits, Flip-flop, Digital arithmetic circuits, etc.
Engineering Mathematics:	Complex planes, Holomorphic functions and their properties, Complex integral, Residue and real integral, Power series expansion, Conformal mapping, etc.
Basic Software:	Operating systems, Basic programming language (C language), Language processing systems
Probability and Statistics:	Basic items related to probability and statistical inference
Control Engineering:	Topics in classical control theory, including transfer functions, Bode diagrams, stability criteria, root loci, lead-lag compensation (excluding nonlinear control and sampled-data control)

### **c. Supplementary information on the interview (150 points)**

In the interview, examinees will be asked questions about their research themes and plans, their university studies (currently enrolled or graduated), their preferred field of specialization, and postgraduate career plans.

### **d. Supplementary information on English requirements**

English skills are worth 100 points; the TOEFL score is converted to a 100-point scale.

### **e. Supplementary information on the written examination**

Questions are provided in Japanese. Examinees can answer in either Japanese or English.

### **f. Supplementary information on admission decisions**

The scores for the written examination, English skills, and the interview are totaled for each examinee. The examinees are then placed into their preferred application group in order of their total score (highest to lowest). An examinee that has been placed into an application group is considered admitted. Examinees are not placed into an application group that they did not indicate on their application. Therefore, even though an examinee may have a total score higher than the required minimum, he/she may not be admitted.

**g. Application groups and research fields**

Examinees should choose the groups to which they would like to apply in the order of the preference. There is no limit to the number they may enter.

In case SS-10 is chosen as preferred application groups, please follow the notes below.

Application Groups		Research Fields
SS-1*		Mechanical Systems Control, System Control Theory, Mechatronics Application
SS-2		Human-Centered Systems, Process Data Analysis & Process Control, Biological Information Processing, Agricultural Systems Engineering
SS-3		Integrated Dynamical Systems, Optimal Control, Nonlinear Systems Theory, Distributed Control Theory, Stochastic Systems Theory
SS-4		Adaptive Systems Theory, Statistical-Mechanics-Based Information Science, Information and Communication Theory, Statistical Learning Theory
SS-5		Mathematical System Theory, Statistics, Machine Learning, Data Science
SS-6		Information Systems, Markov Analysis, Stochastic Models, Stochastic Algorithms, Strategic Queues
SS-7		Integrated Systems Biology, Modeling of Intelligence (Brain) and Life, Reinforcement Learning, Computational Neuroscience, Bioinformatics
SS-8		Biomedical Engineering, Medical Systems, Medical Image Analysis
SS-9		Applied Informatics, Supercomputing, High-Performance Parallel Computing
SS-10	(a)	Computational Neuroscience, Brain Network Interface
	(b)*	Neural Circuit Information Processing, Neural Information Code
	(c)*	Basal Ganglia, Neuromodulators, Evolutionary Robotics
	(d)	Statistical Data Mining and Pattern Recognition

(Note 1)

The application groups in SS-10 correspond to adjunct units described in “i. Adjunct Units” below. Upon choosing a group in SS-10, specify the item from (a) to (d). Examinees are able to choose, for example, “SS-10 (a)”, and enter it with the other application groups to which they would like to apply, as preference on the application form.

Examinees are allowed to choose the items of SS-10 up to two out of four due to quotas. For example, both “SS-10 (a)” and “SS-10 (d)” can be chosen and entered in their preference. In case three or more items of SS-10 are chosen as preference, the third and fourth item(s) will be treated as void. Please enter one item per section of preference on the application form. (e.g., Do not enter “SS-10 (a) (d)” in a single section.) Please

contact “Enquiry for Adjunct Units” of “i. Adjunct Units” below, for queries about SS-10 in completing application form.

Attention: Do not select groups marked with asterisks (\*) as they are not recruiting this year.

#### **h. Department website**

<http://www.sys.i.kyoto-u.ac.jp/>

#### **i. Adjunct Units**

In order to educate high-quality human resources with a broad perspective in the sphere of systems science, the department has established the “Computational Neuroscience Adjunct Unit” jointly with ATR Computational Neuroscience Laboratories, RIKEN Center for Brain Science, and Okinawa Institute of Science and Technology Graduate University; and the “Computational Intelligence System Adjunct Unit” with NTT Communication Science Laboratories. Each of these units is described below.

Computational Neuroscience Adjunct Unit (Application Groups: SS-10 (a), (b), and (c)):

Computational neuroscience, brain-network interface, information processing in neural circuits, decoding of neural information, basal ganglia, neuromodulators, evolutionary robotics

Computational Intelligence Systems Adjunct Unit (Application Group: SS-10 (d)):

Statistical data mining and pattern recognition

In addition to members of the School faculty, each Adjunct Unit involves staffs from the partner institutions, who provide guidance and assistance under the supervision of the School faculty. The other requirements for registering for and completing the courses are the same as for the School department. For details, please contact below.

#### Enquiry for Adjunct Units

Prof. Matsuda Tetsuya

Department of Systems Science

Graduate School of Informatics, Kyoto University

Address: Yoshida Honmachi, Sakyo-ku, Kyoto 606-8501, Japan

Telephone: Domestic (075) 753 3372

International +81 75 753 3372

Weekdays: 1:00p.m. – 5:00p.m.

## (6) Department of Communications and Computer Engineering

### a. Supplementary information on Problem Set A

Each applicant must select and answer a total of four questions from the following nine questions:

'Mathematics (Calculus, Linear algebra)', 'Mathematics (Complex function, Fourier analysis, Differential equation)', 'Electromagnetic theory', 'Electric and electronic circuits', 'Information theory', 'Data structures and Algorithms', 'Computer architecture', 'Programming languages', and 'Graph theory'.

### b. Supplementary information on Problem Set B

Each applicant must select and answer a total of four questions from the following eight questions:

'Communication engineering', 'Foundational theories of communication', 'Radio engineering', 'Logic circuits', 'Computer systems', 'Theory of automata and algorithms', 'Compilers and Operating systems', and 'Computation and logic'.

### c. Supplementary information on written examinations

Questions are provided in both Japanese and English. Give answers either in Japanese or in English.

### d. Application groups and research fields

Enter the groups to which you would like to belong in the order of your preference. There is no limit to the number of the groups you may enter.

Application groups	Research Fields
CCE-1	Algorithms, Discrete structures, Computational complexity, Logic circuits
CCE-2	Arithmetic circuits, Technology of embedded systems design, Superconducting processors
CCE-3	Computer software, Theory of programs, Programming languages
CCE-4	Digital communications, Mobile communications, Radio signal processing
CCE-5	Multimedia communications methods, Multiaccess methods, Satellite communications systems
CCE-6	Information and communication network, Communications system architecture, Traffic analysis and control
CCE-7	Electrical system design automation, Parallel processing architecture, LSI architecture and system synthesis
CCE-8	Integrated circuit engineering, Integrated circuit design technology, LSI architecture
CCE-9*	Digital signal processing, Radar signal processing
CCE-10	Radar remote sensing engineering, Radar atmospheric physics, Equatorial space and upper atmospheric physics

CCE-11	Optical-radio wave atmospheric observations, Equatorial atmospheric science, Atmospheric environmental measurement
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Do not select Application Groups marked with an asterisk as they are not recruiting this year.

**e. Admission Decisions**

To select “Qualified Applicants”, applicants are judged on their combined total of the scores of the TOEFL/TOEIC test (converted to a 200-point scale) and our written examinations (800-point scale).

Qualified applicants are assigned, in order of their combined scores, to their preferred application group as indicated on their application forms. Their order of preference is taken into consideration. They are not assigned to an application group that they did not include in their list of preferred groups. A qualified applicant who has been assigned to an application group is defined as a successful applicant.

**f. Department website**

<http://www.cce.i.kyoto-u.ac.jp/index-e.html>

## IX. Announcement of Successful Applicants

A list of the examinee's numbers of successful applicants will be posted on the bulletin board as shown below. Results will also be sent by post to successful applicants by the dates indicated below. Inquiries by telephone or any other means will not be accepted.

The School will notify successful applicants of the enrollment procedures in early March 2020.

### - Department of Advanced Mathematical Sciences

Date: 3:00 p.m. on Friday, July 19, 2019

Place: Bulletin board of the School office (1st floor, Research Bldg. No. 8)

In addition to the above, results will be published on the website of the School from 3:00 p.m. on Friday, July 19 to 3:00 p.m. on Friday, July 26, 2019.

### - Departments of Intelligence Science and Technology; Social Informatics; Applied Mathematics and Physics; Systems Science; and Communications and Computer Engineering

Date: 3:00 p.m. on Friday, August 9, 2019

Place: Bulletin board of the School office (1st floor, Research Bldg. No. 8)

For these five departments, in addition to the above, results will be published on the website of the School from 3:00 p.m. on Friday, August 9 to 3:00 p.m. on Friday, August 16, 2019:

<http://www.i.kyoto-u.ac.jp/admission/pass.html> (Japanese)

<http://www.i.kyoto-u.ac.jp/en/admission/pass.html> (English)

## X. Admission Fee and Tuition

Admission Fee: 282,000 yen (tentative)

Annual Tuition: 535,800 yen (tentative)

Notes:

1) Japanese Government (MEXT\*1) Scholarship Students are exempt from paying the admission fee and tuition.

\*1 Ministry of Education, Culture, Sports, Science and Technology of Japan

2) If the admission fee and tuition are revised after enrollment, the revised amount will be applied from the time at which the revision comes into effect.

## XI. Entrance Examination Support

Applicants may access further information regarding support for entrance examinations. Please see the home page of the Graduate School of Informatics (<http://www.i.kyoto-u.ac.jp/>) for details on fees and application deadlines.

## XII. Handling of Personal Information

Personal information, such as name, gender, date of birth, address, and performance evaluation, shall be handled according to the Act on the Protection of Personal Information Held by Private Institutions and the Regulations on the Protection of Personal Information of Kyoto University. Such information acquired through the application process will be used only for administrative purposes including:

- 1) entrance examinations
- 2) enrollment procedures, scholarship, etc.
- 3) administrative preparation for accepting students

**How to obtain a copy of the guidelines and application forms for admission:**

**For Applicants Residing in Japan**

Receive the admission guidelines at the School office. In case that an applicant wishes to receive the guidelines by post, the applicant must enclose a self-addressed envelope (approx. 24 cm x 34 cm) with a 250-yen stamp attached, and send it to the address for “inquiries” shown below, stating “Request for the Guidelines for April 2020 Admission to the Master’s Program” clearly in red on the envelope. The Application Form and Supporting Materials are appended to the admission guidelines (in Japanese) which are necessary at the time of application for entrance examination.

**For Applicants Residing Outside Japan Only**

For application, download these guidelines and use the appended application forms.

**Inquiries :**

Student Affairs Division (1st floor, Research Bldg. No. 8)

Graduate School of Informatics, Kyoto University

Yoshida-Honmachi, Sakyo-ku, Kyoto 606-8501 Japan

E-mail: jyoho-kyomu@mail2.adm.kyoto-u.ac.jp

Tel: +81-(0)75-753-4894, or 5500

Monday - Friday,

9:00 a.m. - 5:00 p.m. (except noon to 1:00 p.m.)

April 2019



## Application Form for April 2020 Admission to the Master's Program

### Graduate School of Informatics, Kyoto University

**Complete the fields enclosed by thick lines.**

**(Entrance Examination in July and August 2019)**

Department							(School use only) Examinee's Number		
Name in English Alphabet *1	Family name			Current Status:	Undergraduate  Working Professional  Research Student  Other				
	Given name		Middle name						
	Name in Chinese Characters *1 and *4								
Date of Birth	Family name			Given name		Middle name			
Sex	year/month/day								
	Male		Female						
Most Recent Education	Enrolled in		year/month		University	Japanese national university		Japanese public university	
	Graduated in		year/month			Japanese private university		University outside Japan	
	Expected to graduate in		year/month			University name:			
					Faculty:				
					Department:				
					Institution name:				
International Students	Nationality:				Japanese government (MEXT) scholarship student				
	Visa status:				International student sent by home government (privately funded international student)				
	Student				Privately funded international student				
	Other ( )								
Order of Preference	1	2	3	4	5	6	7		
Preferred Group *2	8	9	10	11	12	13	14		
Current Address *3	Postal code:					Country:		Telephone no.:	
								Cellular phone number	
Contact Address *3 (Parent's home, etc.)	Postal code:					Country:		Telephone no.:	
E-mail Address									
(School use only) Result	Passed / Failed			Approval Seal by the Department Chair:					

(Notes)

\*1. Fill in your name as shown on your official family register. For an international student, fill in your name as shown on your passport. Note that all the official documents to be issued for the School's administration purposes will be based on the information stated here.

\*2. Preferred application group:

- Refer to the relevant department's information in the guidelines and enter the application groups in which you would like to belong in the order of your preference.

- You will be regarded as having no interest in joining the application groups that are not listed on this form.

\*3. Promptly notify the School of any change of addresses made after submission.

\*4. If you have Chinese characters in your name, print this form and write your name legibly in this field.

Complete the other fields in this form first by typing before printing it out and handwriting your name.

Confirmation of application fee payment
*School use only

Curriculum Vitae				
Name in English Alphabet				
Name in Chinese Characters *1		Date of Birth (year/month/day)		
Education *2		Name of educational institution	Years attended	
	Elementary education	Name	From (year/month)	To (year/month) years
		Name	From (year/month)	To (year/month) years
	Secondary education	Name	From (year/month)	To (year/month) years
		Name	From (year/month)	To (year/month) years
	Higher education	Name	From (year/month)	To (year/month) years
			From (year/month)	To (year/month) years
			From (year/month)	To (year/month) years
			From (year/month)	To (year/month) years
	Total years of schooling			years
(For undergraduate students) Periods of absence from school		From (year/month/day)	To (year/month/day)	
		From (year/month/day)	To (year/month/day)	
Employment	Employer name		Period of employment	
			From (year/month)	To (year/month) years
			From (year/month)	To (year/month) years
			From (year/month)	To (year/month) years
			From (year/month)	To (year/month) years
			From (year/month)	To (year/month) years
Current Status	Status	Current school (include laboratory) or employer		
	Undergraduate student ( year)	Telephone number (laboratory, etc.) :		
	Master's Degree student ( year)			
	Working professional			
Research student				
Other				
(For current undergraduate students of Kyoto University) Enter your student ID				

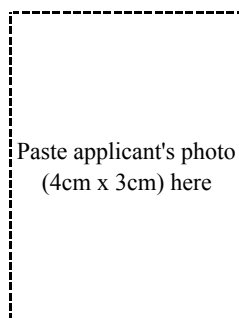
**(Notes)**

- \*1. If you have Chinese characters in your name, print this form and write your name legibly in this field.  
Complete the other fields in this form first by typing before printing it out and handwriting your name.
- \*2 Applicants who have graduated or are expecting to graduate from a Japanese university need only enter information from their secondary education onward. All others must enter information from their primary education. Periods spent as a research student must also be entered in this section.

April 2020 Admission to the Master's Program

Graduate School of Informatics, Kyoto University

<b>Photograph Card</b>	
(School use only) Examinee's Number	
Name (in the English alphabet)	
Department	



(Note)

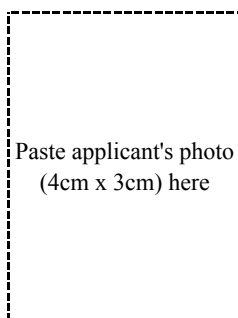
Paste a photo of the applicant's upper body (no hat) taken within three months prior to application submission.

**(Entrance Examination in July and August 2019)**

April 2020 Admission to the Master's Program

Graduate School of Informatics, Kyoto University

Examination Voucher	
(School use only) Examinee's Number	
Name (in the English alphabet)	
Department	



(Note)

Paste a photo of the applicant's upper body (no hat) taken within three months prior to application submission.

Notes

- Make sure to bring your examination voucher with you to the examination room and follow the proctor's instructions there.
- The only stationery items that may be used during the examination are as follows:  
pencils, ink pens, ballpoint pens, mechanical pencils, pencil sharpeners, plastic/rubber erasers, rulers, clocks and watches (with time functions only).  
Mobile telephones and other items may not be placed on desks.
- The use of dictionaries (including electronic dictionaries) is not permitted.
- For the use of other reference materials, examinees must follow the instructions given by the relevant department.
- Examinees arriving late to the examination room will be permitted to enter the examination room within the first 30 minutes after the start of each examination.
- For examinees who fail to sit an examination, the score to be given in that subject will be zero.  
Failure to sit an examination in two or more subjects will result in disqualification. Disqualified examinees may not sit any further examinations.

(Entrance Examination in July and August 2019)

# 〔学歴調書〕

Preferred Department  
(志望専攻名) \_\_\_\_\_

専攻 \_\_\_\_\_

Doctoral Program  
Master's Program

## Educational background

Full name in native language

姓名 (自国語)

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
(Family name) (Given name) (Middle name)

Nationality

(国籍)

\_\_\_\_\_

Full name in the English alphabet

in BLOCK CAPITALS

(ローマ字)

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
(FAMILY NAME) (GIVEN NAME) (MIDDLE NAME)

Date of birth (生年月日)

Age \_\_\_\_\_ Year \_\_\_\_\_ Month \_\_\_\_\_ Day \_\_\_\_\_  
(年齢) (年) (月) (日生)

	Name and Address of School (学校及び所在地)	Required Number of years of schooling (修学年数)	Year and Month of Entrance and Completion (入学及び卒業年月)	Majoring Subject (専攻科目)	Diploma or Degree awarded (学位 資格)
Elementary Education (初等教育) Elementary School (小学校)	Name (学校名)	years (年)	From (year/month) (入学) To (year/month) (卒業)		
Secondary Education (中等教育) Lower and Upper Secondary School (中学及び高校)	Name (学校名)	years (年)	From (year/month) (入学) To (year/month) (卒業)		
Higher Education (高等教育) Undergraduate Level (大学)	Name (学校名)	years (年)	From (year/month) (入学) To (year/month) (卒業)		
Graduate Level (大学院)	Name (学校名)	years (年)	From (year/month) (入学) To (year/month) (卒業)		
Total years of schooling above (以上を通算した全学校教育修学年数)		years (年)			

<Contact>(連絡先)

Email address(メールアドレス) \_\_\_\_\_

Cell-phone number(携帯電話番号) \_\_\_\_\_

<b>Application Form for Eligibility Screening</b>			(School use only)
<b>April 2020 Admission to the Master's Program</b>			Eligible
<b>Graduate School of Informatics, Kyoto University</b>			Not eligible
Department		Application Date	year/month/day
Name in the English Alphabet	Family name	Address:	
	Given name		
Middle name			
-----			
Name in Chinese Characters *1	Family name	Postal Code:	
	Given name		
	Middle name		
Date of Birth	year/month/day	Telephone Number:	
	Age*2 (     )		
Check the box if you have undergone an eligibility screening by the School in the past and were certified as eligible.			<input type="checkbox"/>
Years Attended	Educational Institutions Attended (Secondary education onward)		
Period of Employment	Name of Employer		
Date	Qualifications, licenses, and other research activities, etc.		

**If you need more space to complete the information above (education, employment, qualifications, etc.), please make more copies of this form and attach them as necessary.**

(Notes)

\*1 If you have Chinese characters in your name, print this form and write your name legibly in this field.

Complete the other fields in this form first by typing before printing it out and handwriting your name.

\*2 Enter your age as of the application date stated on this form.

## Address Label

<b>Address Label A (for Examination Voucher)</b>	
Address	Postal Code: _____ Country: _____
Name	
Phone Number	Country Code (        )

Note: Enter the address where your examination voucher should be sent.

<b>Address Label B (for Outcome of Application)</b>	
Address	Postal Code: _____ Country: _____
Name	
Phone Number	Country Code (        )

Note: Enter the address where the outcome of your application should be sent.

<b>Address Label C (for Enrollment Documents)</b>	
Address	Postal Code: _____ Country: _____
Name	
Phone Number	Country Code (        )

Note: The School will send the enrollment documents to successful applicants after the outcome of applications is announced. Enter the address where the documents should be sent.