

*April 2010 Admissions*

*Graduate School of Informatics, Kyoto University*  
*Guide for Admission to the Doctoral Program*

*(Includes the special selection process for working professionals and international students)*



*Graduate School of Informatics, Kyoto University*

## Admission Policy of Graduate School of Informatics admission policy

The field of study referred to as informatics at Kyoto University consists of three core areas related to information in both natural and artificial systems: the interface between humans/society and information, mathematical modeling, and information systems. The aim of the Graduate School of Informatics (hereafter, “the School”) is not confined to the creation of a new field of learning that might be termed 21st-century informatics; more broadly, we seek to promote an understanding of the essence of ‘information’ and the immense influence of IT on society, and to advance information-related science and technology in the appropriate directions. Through this type of education and research, we hope to assist in achieving a more humanistic lifestyle and contribute to a harmonious coexistence in the global community.

The School welcomes students who aspire to develop this new academic area in the field of informatics. Thus far, we have accepted students from diverse backgrounds—unfettered by the conventional framework of sciences versus humanities—from throughout Japan and the world. This program also welcomes working professionals. For this reason, the entrance exam adopts a format allowing examinees to select questions from various specialized fields. In certain departments, we also permit the selection of candidates based on recommendations.

The education offered at this School seeks to nurture high-level research capabilities and rich scholarship in order to instill the skills of researchers and top-quality technicians who can contribute to a knowledge-based society. More specifically, we strive to instill a broad vision in our students that extends beyond any individual field of expertise. We have put together a closely knit fabric of graduate education in which the specialized instruction within the department may be likened to its warp, and the woof would be instruction that crosses departmental borders, such as the Perspective in Informatics. The School also extends its education to those who hail from fields other than information.

By providing such an education, we aspire to produce graduates who are endowed with communication skills that are necessary to contribute to the international stage and to be actively engaged in research, who excel in having the type of originality and creativity needed by industry, and who possess the rare ability to master and apply a wide range of basic technologies that can be used to develop interdisciplinary fields. Our mission is to produce skilled individuals who can exercise leadership as both researchers and engineers.

## I. Students to be admitted: 60

Department of Intelligence Science and Technology 15	Department of Social Informatics 14	Department of Applied Analysis and Complex Dynamical Systems 6
Department of Applied Mathematics and Physics 6	Department of Systems Science 8	Department of Communications and Computer Engineering 11
Total 60		

Each department will also select a small number of applicants under the special selections for working professionals and international students.

## II. Eligibility

- ◎ Only persons presently falling into one of the following categories, or anticipated to do so as of March 31, 2010, will be eligible to apply.
  - 1 Persons who have a master's degree, a master's-level professional degree, or a juris doctor (JD) degree.
  - 2 Persons who have completed a program equivalent to the School's Master's Program or Professional Degree Program in foreign countries (see note 1).
  - 3 Persons who have completed a program equivalent to the School's Master's Program or Professional Degree Program in countries other than Japan by completing a correspondence course conducted by a school in the said country while residing in Japan (see note 1)
  - 4 Persons who have completed a foreign graduate school curriculum (i.e., one that is equivalent to the Master's Program or Professional Degree Program) in Japan at an educational facility that has been accredited as having an approved curriculum under the educational system of said country and is so designated by the Minister of Education, Culture, Sports, Science and Technology (hereinafter referred to as the "Minister")
  - 5 Persons designated by the Minister (see notes 2 and 3)
  - 6 Persons who are recognized by the school as having a scholastic ability on par with or higher than that of a person with a master's degree as a result of an individual screening of their application, and who are at least 24 years old (see note 3)

Note 1: Persons who intend to apply and have graduated from a foreign university and completed a foreign graduate school or have been awarded a master's degree in a foreign country must provide documentation of their graduation and completion of degree in advance of their application, no later than **June 8 (Mon.), 2009**, to the General Affairs office of the Graduate School of Informatics (Faculty of Engineering Bldg. No. 10, 1st Floor).

Note 2: This refers to persons who have graduated from a university or who have completed 16 years of school education in a foreign country and subsequently spent at least two years conducting research in a university, research institute, research organization, company, or other such facility, and who are recognized through their publications (academic papers, books, research reports), patents, and the like, as having a scholastic ability on par with or

higher than that of a person who has completed the Master's Program at the school.

Note 3: Persons falling in category 5 or 6 must undergo a screening for eligibility in advance. The School will not accept any application documents unless said persons undergo this screening in advance (see section on application eligibility screening).

### III. The special selection process for working professionals

There is a special selection process for persons who meet the application eligibility requirements noted in Section II, are employed by the public or private sector at the time of application, wish to maintain their employment status even after admittance, and have been recommended by their superior or other such party.

### IV. The special selection process for international students

There will be a special selection of international students who meet the application eligibility requirements noted in section II and file a letter of recommendation using the prescribed form. This letter is to be written in either Japanese or English.

### V. Screening of application eligibility (applicants falling in eligibility category 5 or 6)

Because this screening will be conducted before application, such applicants will submit the documents noted below to the General Affairs Office of the Graduate School of Informatics (Faculty of Engineering Bldg. No. 10, 1st Floor) no later than **5:00 PM on June 8, 2009 (Mon.)**. If mailed, these documents must be sent by **registered express delivery mail**, and the words "request for application eligibility screening for the **Doctoral Program** at the Graduate School of Informatics (April 2010 admissions)" must be written in red on the envelope.

1. Documents required for application eligibility screening (asterisks indicate those for which prescribed forms are appended to the Guide)

*	1	Application eligibility certification request and report	(Persons falling in application eligibility category 5 or 6)
	2	Diploma (last institution attended)	(Persons falling in application eligibility category 5 or 6) Issued by the educational institution last attended
	3	Academic transcript	(Persons falling in application eligibility category 5 or 6) Issued in a sealed envelope by the educational institution last attended (the transcript need not be sealed if it is made of material that prevents photocopying)
	4	Research progress report	(Persons falling in application eligibility category 5 or 6) Present brief, objective statement on progress of applicant's research in their field of specialization (on A4-sized paper; free format)
*	5	Certificate of content of research work	(Persons falling in application eligibility category 5) Issued in a sealed envelope by the institution or other organization to which the applicant belongs
	6	Qualifications, licenses, etc.	(Persons falling in application eligibility category 5) Copy of documents that might serve as a reference, such

	as licenses related to the field of specialization (on A4-sized paper, with a brief description)
--	--

2. Screening procedure and schedule

- (1) After examining the documents, the School will conduct an oral exam with the person requesting certification of application eligibility. The oral exam may be waived depending on the results of the examination of documents submitted. Persons who underwent an application eligibility screening by the School in the past and were certified as eligible for application may file only the request and report noted in \*1 above; they need not take the oral exam.
- (2) The oral exam will be conducted at the School on **June 17 (Wed.), 2009**.
- (3) The School will send the results of the screening by mail to the applicant on **June 22, 2009 (Mon.)**.

**VI. Doctoral Program application materials** (asterisks indicate those for which forms are appended to the Guide)

*	1	Entrance application	Correctly completed
*	2	Reception seal	Enter within the box enclosed by bold lines
*	3	School registry processing card	Correctly completed
	4	Academic transcript	Persons falling in application eligibility categories 5 or 6 do not have to submit a transcript.
	5	Certificate of expected completion	To be submitted only by persons who fall in application eligibility category 1 and expect to complete their studies ahead of the two years normally required for a master's program (free format)
	6	Master's thesis	Persons expecting to complete a master's program and persons falling in application eligibility categories 5 or 6 may submit a research progress report (research publications, etc., may also be appended) instead of a thesis (on A4-sized paper; no prescribed format)
	7	Research plan	Submit a document setting forth the applicant's research progress to date and plans for research in the <b>Doctoral Program</b> on two sheets of A4-sized paper (free format); clearly write the preferred group in the department of application and the applicant's name at the top.
	8	Certification of foreign residents registration	To be submitted only by foreign nationals (a certificate indicating visa status and period of stay). Photocopies of Foreign Resident Registration Cards are not acceptable. Persons unable to submit this certificate at the time of application must present a photocopy of their passport (the page bearing their photograph) and must submit the proper certificate by the time of admission.
*	9	Certificate of health	Persons who are undergraduates or research students at Kyoto University and have undergone the annual

		physical examination conducted at the university in the 2009 academic year may submit a record of their physical exam (for current university students) in place of this certificate.
*	10 Form for affixing the certificate of payment of the entrance exam fee	<p>Entrance exam fee: ¥30,000</p> <p><b>【Japanese government [Monbukagakusho: MEXT] scholarship students and persons currently completing a master's degree at Kyoto University are exempt from this fee】</b></p> <p>Payment period: July 1 (Wed.)–July 7 (Tues.), 2009  <b>(Only payments marked as made within this period will be valid; those made outside this period will be invalid.)</b></p> <p>《Payment method》</p> <p>① Enter the applicant's full name in the payer boxes (three) on the prescribed fund transfer request form, present it at the window of a financial institution (excluding the Japan Post Bank or post offices), and transfer payment for the entrance exam fee.</p> <p>② <b>Payments cannot be made through ATMs, the Internet, or other such means.</b></p> <p>③ No handling fee will be charged for transfers made from Sumitomo Mitsui Bank locations (main or branch). The applicant is responsible for the handling fee for transfers made from other financial institutions.</p> <p>④ After making the transfer, check to see that the seal for payment receipt has been impressed on the certificate of payment of the entrance exam fee and the entrance exam fee (and handling fee) payment receipt. Receive these documents, and affix the certificate of payment of the entrance exam fee (the left half) on the mount provided for it. <b>(Applications will not be accepted if these documents are not impressed with the proper seal.)</b> The applicant must retain the entrance exam fee (and handling fee) payment receipt (i.e., the right half, with revenue stamp affixed).</p>
*	11 Envelope for mailing the exam admission ticket	Affix the postage for ¥350 (express delivery to within Japan) and write your full name, address, and postal code on the envelope for delivery of the ticket in late July.
*	12 Address card A	To receive the notification of acceptance. Write your full name, address, and postal code on the prescribed form for delivery in mid-August. (Promptly notify the School of any change of address after submission.)
*	13 Address card B	To receive the matriculation documents. Write your full name, address, and postal code on the prescribed form for delivery in early March 2010. (Promptly notify the School of any change of address after

		submission.)
	14 Record of TOEFL/TOEIC score	(Required only for persons who are applying for designated departments.) Submit the original copy of the examinee's score record from the TOEFL test, or of the TOEIC personal official certificate. For more details, see items concerning TOEFL/TOEIC testing in Section VII.

- Note 1: International students who file an application for the special selection of international students shall submit a recommendation using the prescribed “Letter of Recommendation” form.
- Note 2: Persons who are graduates of Kyoto University and pass the entrance exam must submit a certificate of their withdrawal (or completion of studies) at the time of matriculation. Those who falsify their status when filing applications may have their acceptance revoked even after they have matriculated.
- Note 3: If you wish to receive by mail a list of the exam numbers of those applicants who successfully passed the entrance exam, submit the attached return envelope for this purpose (the envelope must be self-addressed and you must affix postage of ¥350).
- Note 4: Persons applying for the Intelligence Science and Technology, Social Informatics, or Communication and Computer Engineering departments shall use their TOEFL/TOEIC test score in place of the written exam to assess their proficiency in English. For more details, see items concerning TOEFL/TOEIC testing in Section VII.
- Note 5: Persons who are found to have falsified their TOEFL/TOEIC examinee's score record will be deemed ineligible and will have their acceptance revoked, even after they have matriculated.

◎In addition to the documents noted above, persons who are applying for the special selection of working professionals must submit the following documents.

*	Letter of recommendation	Prepared by the applicant's superior or other person in a position to supervise the applicant
	Research achievement record	Describing research achievements in your profession in relation to your preferred research field (on A4-sized paper; any format or length)

## VII. Items concerning TOEFL/TOEIC testing

1. Applicants must apply for and take the TOEFL/TOEIC themselves, and are responsible for the related costs.
2. When applying, file an original copy of the examinee's score record for test results from either the paper TOEFL (TOEFL PBT) or Internet TOEFL (TOEFL iBT), or of the TOEIC personal official certificate (no photocopies will be accepted for any of these test result requirements).
3. The school will only accept the score records from TOEFL/TOEIC tests taken no more than two years before the School's application deadline. Please note that score records from group TOEFL ITP and college TOEIC or other special group exam programs (IP test) will not be accepted.
4. The School will send the original copy of the score record back to the applicant along

with the exam admission ticket in late July. If you wish to have this copy returned earlier, submit written instructions to this effect at the time of application and provide a stamped, self-addressed return envelope (affix ¥350 in postage for express delivery to within Japan) in addition to the return envelope for mailing the exam admission ticket.

5. Persons who have taken the TOEFL and/or TOEIC tests more than once may choose to submit the score record for the test of their choice.
6. The School will convert TOEFL PBT and TOEFL iBT scores based on the conversion table published by the U.S. Educational Testing Service (ETS) and enter it in your test record as the English score. The School will convert TOEIC scores to TOEFL PBT scores by applying the following equation.  
$$\text{TOEIC score} \times 0.348 + 296 = \text{TOEFL PBT}$$
7. Even if you cannot submit an original copy of the score record at the time of application filing, the School will accept your application provided that you submit a written notice to that effect when filing your application and present an original copy at the exam site before the start of the exam for the first subject on August 10. However, if an original copy is not submitted at this time, the School will give the applicant a 0 grade for English proficiency. Original copies submitted at the exam site will be returned along with the notice of exam results (pass/fail).

### **VIII. Application filing procedure**

1. Applicants must file application documents with the office (reception desk) noted below. When sending these documents by mail, write on the front of the envelope **in red**: "application documents for the **Doctoral Program** in the Graduate School of Informatics (April 2010 admissions) enclosed" and send it **by registered express delivery mail** to the address noted below.
2. Once the application documents have been received, the School will not allow any revisions to be made to application items. Also, there will be no refunds of entrance exam fee payments under any circumstances.

### **【Dates for submission of application materials】**

**July 6 (Mon.) and July 7 (Tues.), 2009**

Submission hours: 10:00 AM–5:00 PM

(excluding the one-hour period 12:00–1:00 PM)

Submission by mail: **Documents must be delivered between July 1 (Wed.) and 5:00 PM on July 7 (Tues.).**

#### **Filing in Person**

##### **【Reception desk】**

**Graduate School of Informatics Conference Room  
(Faculty of Engineering Bldg. No.10, 3F), Kyoto University,  
Yoshida-Honmachi, Sakyo-ku, Kyoto**  
(see campus map on back cover of this guide)

#### **Filing by mail**

##### **【Mailing address】**

**General Affairs Office, Graduate School of Informatics,  
Kyoto University, Yoshida-Honmachi, Sakyo-ku,  
Kyoto 606-8501 Japan  
Tel. +81 (0)75-753-4894, 5508**

## IX. Selection method and examination schedule

1. The selection of candidates will be carried out at the School in accordance with **the schedule noted below**. (Note that the schedule differs depending on the department.)

### ©Schedule of entrance exams for April 2010 admission to the Doctoral Program

Details concerning matters such as the test subjects, scope of questions, and selection format are presented in Section X, which all applicants are advised to read carefully.

Department	Date	Test time	Test subjects	Special selection of international students	Special selection of working professionals
Intelligence Science and Technology	August 10 (Mon.)	10:00 - 11:30 AM	Specialized short essay	*	*
	August 11 (Tues.)	10:00 AM -	Oral exam	*	*
Social Informatics	August 10 (Mon.)	10:00 AM - 12:00	Fundamentals of informatics	*	*
		1:00 - 3:00PM	Specialized subjects	*	*
		3:30 PM -	Oral exam		
Applied Analysis and Complex Dynamical Systems	August 10 (Mon.)	10:00 AM - 12:00	Specialized subjects	*	*
		10:30 AM	Oral exam (see note)	*	*
	August 11 (Tues.)	10:00 AM -	Oral exam (see note)	*	*
Applied Mathematics and Physics	August 10 (Mon.)	10:00 -11:30 AM	English	*	
		1:00-4:00 PM	Specialized subjects	*	
	August 11 (Tues.)	1:30 PM -	Oral exam	*	*
Systems Science	August 10 (Mon.)	10:00 AM - 12:00	Specialized subjects	*	*
		1:00 PM -	Oral exam	*	*
Communications and Computer Engineering	August 10 (Mon.)	1:00-4:00 PM	Specialized subjects	*	
	August 11 (Tues.)	1:00 PM -	Oral exam	*	*

※1 All or part of the written test may be waived depending on the results of the examination of application forms and other documents submitted (excluding the certificate of health). In this case, the School will notify the examinee at the address indicated on the application no later than July 31 (Fri.).

※2 Asterisks in the columns for the special selection of international students and working professionals indicate subjects for which exams will be conducted.

**Note:** In the Department of Applied Analysis and Complex Dynamical Systems, the oral exam may be waived depending on the results of the written test. The schedule for the oral exam for applicants who do not have to take the written test will be posted on the bulletin board in front of the School office (Faculty of Engineering Bldg. No. 10, 1st floor) by 9:30 AM on August 10 (Mon.), and the testing will begin at 10:30 AM on the same day. The schedule for the oral exam for applicants who also took

the written exam will be posted on the same bulletin board by 1:30 PM of the same day. Each candidate who is requested to take the oral exam will be assigned a time on one of the two exams days (either August 10 or August 11).

2. The exam admission ticket will be mailed in late July to the address indicated at the time of application.
3. Posting of information on the exam room and other related items
  - Time: From 1:00 PM on August 6 (Thurs.)
  - Place: Bulletin board in front of the School office (Faculty of Engineering Bldg. No.10, 1st Floor; see the campus map on the back cover)
  - Please confirm the posted items in person no later than 30 minutes before the start of the exam on the first exam day. The School will not respond to inquiries about these items by telephone or other means.
4. On the day of the exam, assemble in front of the exam room no later than 20 minutes before the start of the test. For the oral exam, if the department issues separate instructions, please follow those instructions.
5. Instructions regarding the examination of scholastic ability (written exam)
  - 1) Be sure to bring the exam admission ticket with you to the exam room, and follow the instructions of the proctor.
  - 2) The only writing utensils examinees are allowed to use at the exam are pencils, fountain pens, ballpoint pens, pencil sharpeners, erasers, rulers, and clocks (with only a timekeeping function). Examinees will not be allowed to place cell phones or other such devices on their desk.
  - 3) Examinees will not be allowed to use dictionaries or encyclopedias (including electronic ones).
  - 4) Follow the instructions of the individual department regarding use of other reference materials.
  - 5) Examinees who arrive after the start of the exam will be permitted to enter the exam room up to 30 minutes after the start for all subjects.
  - 6) Examinees who are absent will be given a score of 0 for the subject in question. Those who are absent for two or more subjects will be disqualified and will not be allowed to take exams for any additional subjects.

## **X. Supplementary information regarding the application groups and exam subjects in each department**

1. Supplementary information regarding the application groups and exam subjects in each department is presented on pages 11–18[KI1].
2. Supplementary information regarding the application groups

**Choose and enter only one preferred group in the department for which you are applying** in the prescribed box of the entrance application form and at the top of the research plan. In order to make your selection, it is recommended that, prior to filing your application, you contact School faculty who belong to the group in which you are interested and ask their advice on such issues as the appropriateness of your

research orientation.

## **The Universal Communication Course under the Joint Program of the Keihanna Graduate Schools and Research Institutes**

In order to educate high-quality human resources with a broad perspective in the sphere of informatics, Kyoto University, Osaka University, the Nara Institute of Science and Technology, and research institutes in the Keihanna zone including the ATR Institute International, the NTT Communication Science Laboratories, and the NICT Knowledge Creating Communication Research Center have jointly established the Universal Communication Course. As part of this course, four joint units were instituted within the School: Knowledge Cluster, Universal Society, High-Presence Communications, and Universal Interaction Agent. Each of these units is described below (for further information, see the School website).

### **Joint Unit 1: Knowledge Cluster**

Keywords: information organization, information retrieval, information personalization, information credibility, knowledge extraction, real-space orientation, information distribution platform, contents access, human interface

### **Joint Unit 2: Universal Society**

Keywords: human communication, speech interface, vision interface, group interface

### **Joint Unit 3: High-Presence Communications**

Keywords: ubiquitous sensing, compound reality, context-aware, five-sense interface

### **Joint Unit 4: Universal Interaction Agent**

Keywords: interaction processing, knowledge acquisition/expression/use, natural language processing, speech information processing, agent

In addition to members of the School faculty, each joint unit will involve faculty and staff from (all or some) partner institutions, who will provide guidance and assistance under the leadership of the School faculty. It should be noted, however, that the requirements for registering for and completing the courses will be the same as for the School department to which the enrollee belongs. The Departments of Intelligence Science and Technology and Social Informatics allow application to some of these four units.

## (1) Department of Intelligence Science and Technology

### a. Supplementary information on the specialized short essay

The test will contain questions from each application group concerning research topics in the School's Post-Master's Doctoral Program.

### b. Supplementary information on the oral exam

Examinees will make a presentation of about 10 minutes' duration outlining their research to date and preferred future research. (Because the only equipment available for use in the presentation will be a visual presenter, examinees are asked to prepare their presentation materials on a few sheets of A4-sized paper). After the presentation, there will be a period of several minutes in which the examinee will be asked questions.

### c. Application groups and research fields

Application groups	Research fields
IST-1	Biological information, temperature reception and control mechanisms, neurobiology
IST-2	Cognitive information, cognitive science, computational neuroscience
IST-3	Foundation of software science, constructive programming, programming language, theorem proving
IST-4	Intelligence information processing principles, inductive logic, machine learning, knowledge discovery, logic programming
IST-5	Applied intelligence information processing, artificial intelligence, human-computer interaction
IST-6	Language media processing, language information processing, language analysis, language generation, machine translation, information retrieval
IST-7	Speech media processing, auditory environment understanding, speech interaction, music information processing, robot audition, speech imitation development
IST-8	Visual information processing, image recognition / understanding / generation / editing, 3D video, human interface
IST-9	Computational biology, genetic information analysis, protein information analysis
IST-10	Video media, 3D modeling, interaction, ubiquitous sensor environment
IST-11	Network media, Internet, multimedia communications, information security
IST-12	Media archiving, speech language processing, speech recognition/ summarization, interactive information retrieval, CALL
IST-13	Biological information networks, Bioinformatics, Computational Systems Biology

### d. Department website

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

The Department allows candidates to apply for any of the three following joint units of the Universal Communication Course under the Joint Program of the Keihanna Graduate

Schools and Research Institutes.

Joint Unit 2: Universal Society

Joint Unit 3: High-Presence Communications

Joint Unit 4: Universal Interaction Agent

Joint units 2, 3, and 4 belong to application groups IST-12, 10, and 5 respectively. Persons who wish to belong to any of these units must state this desire on the statement of personal objectives at the time of application.

## (2) Department of Social Informatics

### a. Supplementary information on the specialized subjects exam

The examinees will reply to a total of three questions, consisting of two (mandatory) questions from the preferred group indicated on their application and one question (selected during the test) from other groups of preference.

### b. Supplementary information on the oral exam

In the oral exam, examinees will make a presentation of no more than 10 minutes' duration on the content of their research plan. They will be asked questions after the presentation (no OHPs or other equipment will be available for use).

For the proper format for the research plan, see the attached document ("Format for preparation of the research plan for the Department of Social Informatics")

### c. Application groups and research fields

Application groups	Research fields
SI-1	Databases, information retrieval, XML, web information systems, web link analysis, multimedia information systems, knowledge and scientific data management, access control and security
SI-2	Digital libraries, information organization and retrieval, multimedia contents, information distribution, semi-structured databases, data mining and information extraction
SI-3	Information organization, information retrieval, information personalization, information reliability, knowledge extraction, real-space orientation, information distribution platforms, contents access, human interface
*SI-4	Intellectual property rights (copyrights, patents, design rights, trademarks), intellectual assets generation/analysis technology
SI-5	Multiagent systems, semantic web, web services, service computing, communication, intercultural collaboration, usability, information economics, business processes
SI-6	Cryptography, security, authentication
*SI-7	Ubiquitous networks, telecommunications policy theory, telecommunications market theory, IT corporate strategy, information organization theory
SI-8	Land and sea bioresources, forests, biostatistics, remote sensing
SI-9	Environmental assessment, biosphere monitoring, geographical information systems, environmental education
SI-10	Disaster management planning, integrated disaster management systems, disaster economic analysis, spatiotemporal databases, local government GIS, systems to support rescue operations
SI-11	Culture of disaster reduction and prevention, disaster prevention education, social psychology, disaster information, disaster recovery, risk communication
SI-12	Human behavior in times of disaster, human resource development systems, disaster information systems, strategic planning for disaster management, standardization of disaster response operations
SI-13	Remote medical services, digital medical records, medical VR, medical data mining, medical knowledge databases, hospital management analysis (medical cost analysis), medical market research

SI-14

Information education, education information systems, system security, learning/evolution systems, privacy, ethnography

The groups marked with an asterisk are not included in this registration.

**d. Department website**

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

The Department of Social Informatics allows examinees to apply for the following joint unit of the Universal Communication Course under the Joint Program of the Keihanna Graduate Schools and Research Institutes.

Joint Unit 1: Knowledge Cluster

This unit is accepted by application group SI-3.

### (3) Department of Applied Analysis and Complex Dynamical Systems

#### a. Supplementary information on documents to be submitted

For examinees who intend to submit a research progress report in place of the master's thesis (application materials #6), if they are completing a master's program and have a preliminary manuscript of their master's thesis, they should submit that manuscript as their report. Those who do not have such a preliminary manuscript must prepare a research progress report (about 10 A4-sized pages in length).

#### b. Supplementary information on the specialized subjects exam

The written exam will cover specialized knowledge related to the preferred group entered on the application form.

#### c. Supplementary information on the oral exam

The oral exam may be waived depending on the results of the written specialized subjects exam. The oral exam is scheduled to last for about 40 minutes, but the duration may be shortened depending on the results of the screening of the documents submitted by the applicant. The test room will be equipped with a blackboard, OHP, and computer-use projector, but not with laptop computers or other such devices. If you have any requests or questions about equipment to be used in the presentation, contact the General Affairs Office of the Graduate School of Informatics in advance, when filing your application.

#### d. Application groups and research fields

Application groups	Research fields
ACS-1	Applied analysis, inverse problems, nonlinear problems, partial differential equations, numerical analysis, probability theory, analysis on fractal
ACS-2	Nonlinear dynamics, fluid dynamics, stochastic dynamics application, dynamic system chaos and bifurcation
*ACS-3	
ACS-4	Computer simulation, computational mechanics, computational engineering
ACS-5	Control theory, digital control, digital signal processing, control application

The group marked with an asterisk is not included in this registration.

#### e. Faculty adviser

In the Department of Applied Analysis and Complex Dynamical Systems, the faculty member who advises the candidate once they are accepted will generally be selected from among the professors and associate professors in the department.

#### f. Department website

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

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

**a. Supplementary information on the specialized subjects exam**

The examinees will reply to a total of three questions, consisting of two (mandatory) questions from the preferred group indicated on their application and one from another group of preference (selected during the test).

**b. Supplementary information on the oral exam**

In the oral exam, examinees will make a presentation of about 20 minutes' duration on the progress of their research to date and their plans for future research. They will be asked questions after the presentation for about 10 minutes. OHPs and other such equipment will be available for use.

**c. Application groups and research fields**

Application groups	Research fields
AMP-1	Applied mathematical analysis, soliton/integrable system mathematics, matrix/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 optimization technology, system identification/modeling
AMP-5	Physical statistics, nonlinear dynamical systems, complex systems, fundamentals and applications of stochastic processes
AMP-6	Dynamical systems theory, mathematical physics, geometric mechanics
AMP-7	Mathematical finance, financial engineering
AMP-8	Applied mathematical modeling, modeling theory, social information system modeling

**d. Department website**

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

**(5) Department of Systems Science**

**a. Supplementary information on the specialized subjects exam**

The examinees will reply to a total of two questions, consisting of one from the preferred group indicated on their application and one from another group of preference.

**b. Supplementary information on the oral exam**

In the oral exam, examinees will make a presentation of about 20 minutes' duration on the progress of their research to date and their plans for future research. After the presentation, they will be asked questions for about 10 minutes. Presentations are to be prepared using personal computers or other such equipment.

**c. Application groups and research fields**

Application groups	Research fields
SS-1	Mechanical systems control, system control theory, applied mechatronics
SS-2	Human systems, automobile driving support and intelligent driving, dynamics design, safety and reliability
SS-3	Symbiotic systems, universal design, soundscapes, care and art
SS-4	Adaptive systems theory, statistical-mechanics-based information science, information and communication theory, statistical learning theory
SS-5	Mathematical system theory, signal processing, wireless communications
SS-6	Information systems, information networks, modeling and performance evaluation, queueing theory
SS-7	Integrated systems biology, intelligence and life modeling, computational neuroscience, reinforcement learning, bioinformatics
SS-8	Biomedical engineering, medical systems, medical image analysis
SS-9	Applied informatics, supercomputing, high-performance parallel computing

**d. Department website**

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

**(6) Department of Communications and Computer Engineering**

**a. Supplementary information on the specialized subjects exam**

There will be three questions in fields related to communications and computer engineering, and examinees must reply to all three.

**b. Supplementary information on the oral exam**

The oral exam will take about 15 minutes for each examinee. The examinees will make a presentation on the content of their research to date and their research plan for the Doctoral Program. The presentation should be 8 minutes long, and a visual presenter (document reader) will be available for use. Examinees who intend to use the visual presenter are advised to prepare materials on no more than about two sheets of A4-sized paper in order to save time.

**c. Application groups and research fields**

Application groups	Research fields
CCE-1	Logic circuits, algorithms, complexity theory
*CCE-2	Computer architecture, parallel processing, 3D graphics
CCE-3	Programming language systems, symbolic processing, parallel processing
CCE-4	Digital communications, mobile communications, wireless information networks
CCE-5	Multimedia communications methods, multiaccess methods, satellite communications systems
CCE-6	Multimedia networks, protocols, communications system architecture
CCE-7	Processor architecture and design methodology, parallel processing, system integration for multimedia and communications
CCE-8	Integrated circuit engineering, integrated circuit design technology, LSI architecture
CCE-9	Digital signal processing, radar signal processing, optical information processing
CCE-10	Radar remote sensing engineering, radar atmospheric physics, equatorial atmospheric science
CCE-11	Optical-radio wave atmospheric observations, global positioning system (GPS) meteorology, atmospheric environmental science

The group marked with an asterisk is not included in this registration.

**d. Department website**

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

**e. Supplementary information on the special selection of working professionals**

Examinees who are applying in this category do not have to submit TOEFL/TOEIC score records.

## **XI. Announcement of successful applicants**

Time: 3:00 PM, August 14, 2009 (Fri.)

Place: Bulletin board in front of the School office (Faculty of Engineering Bldg. No. 10, 1st Floor)

In addition to posting a list of the successful applicants on this bulletin board, a notification will go out by mail (**inquiries by telephone or other means will not be responded to**). Please send a separate request if you wish to receive a list of the exam numbers of those applicants who passed the entrance exam (the procedure is explained on page 6, in note 3 of section VI regarding the Post-Master's Doctoral Program application materials).

The School will notify successful applicants of the matriculation procedures in early March 2010.

## **XII. Matriculation fee and tuition**

Matriculation fee: ¥282,000 \* tentative;

subject to revision by the time of matriculation

(Applicants who will complete a master's degree at Kyoto University at the end of March 2010 do not have to pay this fee.)

Tuition (yearly): ¥535,800 \* tentative;

subject to revision by the time of matriculation

(Japanese government [Monbukagakusho: MEXT] scholarship students do not have to pay either fee.)

Note: If the tuition fee is revised after enrollment, the revised amount will apply from the time of the revision.

### **[To request the guide for admissions]**

To receive a copy of the Guide for Admission to the Doctoral Program by mail, enclose a self-addressed return envelope (Japanese envelope Kaku #2 size, measuring 24 x 34 cm) with postage of ¥390 affixed. Write "request for the Guide for Admission to the Post-Master's Doctoral Program of the Graduate School of Informatics (April admissions)" in red on the front of the envelope in which the return envelope is inserted, and send it to the inquiries address noted below.

May 2009

### **[Inquiries]**

**General Affairs Office of the Graduate School of Informatics**

**(Faculty of Engineering Bldg. No. 10), Kyoto University, Yoshida-Honmachi,**

**Sakyo-ku, Kyoto 606-8501 Japan**

**Tel. +81 (0)75-753-4894, 5508**

**Hours: weekdays, 9:00 AM - 5:00 PM**