Advanced Information-Related Education & Digital Education Infrastructure Unit
(Center for the Promotion of Interdisciplinary Education and Research (C-PiER))

The Advanced Information-Related Education & Digital Education Infrastructure Unit was established in Kyoto University C-PiER to implement the budget request project: Fostering Global Human Resources by Innovating Undergraduate/Graduate-level Information-related Education & Digitized Education of the graduate school of informatics, Kyoto University. The unit develops and provides an innovative information-related educational program and digitized education environment such as active-learning classrooms and online lectures.

Innovative Educational Programs

Conventional Programs

- Computer Literacy
- Computer Engineering

Information Literacy

- Our information-related educational program
  - Information literacy (acquisition, generation, collecting, analysis, and presenting of information)

- Educating IT for research

Social Information Management

- Our information-related educational program
  - Social information management, IT impacts on society
  - Innovation by IT (technology management, business model)

Digitized Education Environment

BYOD Classroom Learning

- Usage of tablets & note PCs in usual classrooms
- Active learning classrooms

Conventional classrom learning

Learning using tablets

Active learning

Online Lectures and Digital Textbooks

- Digital Textbooks
- Online Lectures

Digital textbooks under development

Online Lectures

Faculties

YAMAMOTO Akihiro
Unit Leader / Professor
Graduate School of Informatics

KAWAKAMI Koji
Professor
Graduate School of Informatics

SUGIYAMA Kazunari
Assoc.Professor
Graduate School of Informatics

YAMASHITA Nobuo
Professor
Graduate School of Informatics

MAEGAWA Yoshikazu
Professor
Graduate School of Management

SEKIDO Hiroto
Senior Lecturer
Institute for Liberal Arts and Sciences

TAJIMA Keishi
Professor
Institute for Liberal Arts and Sciences

SATO Hiroyuki
Assoc.Professor
Graduate School of Informatics

MASUDA Hisashi
Senior Lecturer
Graduate School of Management

Courses

[Liberal Arts Courses]
- Fundamentals of Informatics
- Fundamentals & Practice of Informatics
- Introduction to Information & Intellectual Property
- Innovation and Information - Information and Enterprises
- Information and Society

[Graduate Courses]
- Information Analysis and Management - Practice of Information Analysis & Management
- Service Modeling - Computation Science for Big Data
- Introduction to Computational Science - Information and Intellectual Property
- Practice of Computational Science A - Practice of Computational Science B
- Innovation and Information - Information Security

Contact

Yoshida Honmachi, Sakyo, Kyoto 606-8501 Research Building #12, Rooms 110, 112 E-mail: iedu-contact@dl.kuis.kyoto-u.ac.jp
Kyoto University Collaborative Graduate Program in Design

To respond to the complex needs of our modern society, Kyoto University Collaborative Graduate Program in Design is Japan’s first program featuring an integrated, five-year curriculum for “Design” which seeks solutions by calling on knowledge from a variety of academic disciplines. This program aims at cultivating students who deepen their expertise in their own disciplines while working together with specialists in other disciplines as well as with stakeholders to deal with society’s variegated issues and create a new structure for the society of tomorrow.

Students enrolled in this program conduct their studies around the six core disciplines of informatics, mechanical engineering, architecture, management, psychology, and the arts (in cooperation with the Kyoto City University of Arts) while also engaging in a variety of training and field work aimed at acquiring the ability to design society. In order to participate in the program, a student must first be admitted into one of the five departments in the Graduate School of Informatics: Department of Intelligence Science and Technology, Department of Social Informatics, Department of Applied Mathematics and Physics, Department of Systems Science, and Department of Communications and Computer Engineering, and then can be considered for selection as a Preparatory Course student and Regular student in this program. Upon completing the program, students of the Doctorate Program of Graduate School of Informatics will earn either a Doctorate degree (Ph.D.) or a Doctoral Degree in informatics. As for the latter degree, certificate of the completion of the Program for Leading Graduate Schools ‘Collaborative Graduate Program in Design’ is specified in the diploma.

International Course Program in Graduate School of Informatics

Kyoto University was designated as one of the 13 hub universities for the “Project for Establishing Core Universities for Internationalization (Global 30),” which was launched in 2009 by the Ministry of Education, Culture, Sports, Science and Technology. In the initial phase of this project, participating universities were called upon to provide quality education according to their respective functions and to create an environment that makes it easier for foreign students to study in Japan. The G30 program was coordinated within Kyoto University and across all its participating graduate schools by the KU Profile Program.

As an ongoing result of the G30 initiative, we have simplified entrance procedures for foreign students and set up the International Course Program in the Departments of Intelligence Science and Technology, Social Informatics, and Communications and Computer Engineering of the Graduate School of Informatics. To be admitted in these departments, applicants can now take the entrance examination in English. Within those departments, a wide variety of courses are now taught in English.
Thanks to this, students willing to acquire Kyoto University Master and Doctoral degrees can do so using only English. Note that the International Courses Program is open both to Japanese and foreign students, regardless of nationality.

- **Website**: [http://www.design.kyoto-u.ac.jp](http://www.design.kyoto-u.ac.jp)
- **E-mail**: contact@design.kyoto-u.ac.jp

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**Participant Organizations**

Graduate School of Education (Division of Educational Studies), Graduate School of Engineering (Department of Architecture and Architectural Engineering, Department of Mechanical Engineering and Science, Department of Micro Engineering, and Department of Aeronautics and Astronautics), Graduate School of Informatics (Department of Intelligence Science and Technology, Department of Social Informatics, Department of Applied Mathematics and Physics, Department of Systems Science, and Department of Communications and Computer Engineering), and Graduate School of Management (Department of Business Administration, Department of Management Science)

**Partner Organizations**

Kyoto City University of Arts, NEC Corporation, Nippon Telegraph and Telephone Corporation (NTT), Ernst & Young Institute Co., Ltd., Panasonic Corporation, Mitsubishi Electric Corporation, and about 60 members in Design Innovation Consortium (Osaka Gas Co., Ltd., OMRON Corporation, Kawasaki Heavy Industries Ltd., Sony Corporation, Toshiba Corporation, Daikin Industries Ltd., Takenaka Corporation, Toray Industries Inc., Nippon Telegraph and Telephone West Corporation (NTT WEST), Nomura Research Institute, HAKUHODO Inc., Yokogawa Electric Corporation, etc.)

- **Website**: [http://www.design.kyoto-u.ac.jp](http://www.design.kyoto-u.ac.jp)
- **E-mail**: contact@design.kyoto-u.ac.jp
Academic Programs

The Graduate School of Informatics provides graduate study programs that lead to Master’s and Doctoral degrees. Taking into account the many different aspects of Informatics, students are required to take several compulsory credits outside their own department as a way to encourage interdepartmental education.

Requirements for the Master’s Program
To receive a Master’s Degree, every student is required to earn at least 30 credits from the courses specified by the departments; to receive the appropriate instructions through the classes; and to pass the course examinations and the assessment of Master’s thesis. To encourage a well-rounded curriculum of study, students are asked to take subjects offered not only by one’s own department but by other departments as well.

Requirements for the Doctoral Program
A Doctoral degree requires original, high-quality research in an individual field. To receive a Doctoral Degree, students are required to earn at least 6 credits from the courses specified by the departments; to receive the appropriate instructions through the classes; and to pass the course examinations and the assessment of Doctoral thesis.

Entrance Examination
The academic year begins in April. In general, a Master’s degree requires two academic years of study, and a Doctoral degree three years. Admission to graduate programs is granted to those individuals who have passed the entrance examination of the Graduate School of Informatics conducted by the relevant departments. The examination is held in July and August. Supplementary examinations may be held in December and February.

Applications for the International Course, in which the degree will be earned in a solely English language medium, are also accepted in the departments of Intelligence Science and Technology; Social Informatics; Communications and Computer Engineering.

The Number of Students to be Admitted by Department

<table>
<thead>
<tr>
<th></th>
<th>Master’s Program</th>
<th>Doctoral Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Intelligence Science and Technology</td>
<td>37</td>
<td>15</td>
</tr>
<tr>
<td>Department of Social Informatics</td>
<td>36</td>
<td>14</td>
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<tr>
<td>Department of Advanced Mathematical Sciences</td>
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<td>6</td>
</tr>
<tr>
<td>Department of Applied Mathematics and Physics</td>
<td>22</td>
<td>6</td>
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<tr>
<td>Department of Systems Science</td>
<td>32</td>
<td>8</td>
</tr>
<tr>
<td>Department of Communications and Computer Engineering</td>
<td>42</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>189</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

Both non-Japanese and working professionals are eligible for admission into the graduate program. Students may enroll in this graduate school concurrently with their professional responsibilities.

For further information, please contact:
Graduate School of Informatics
Kyoto University
Yoshida-Honmachi, Sakyo-ku,
Kyoto 606-8501 JAPAN
Tel. +81 75-753-4894,5500
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Definition of Informatics

Informatics in Kyoto University is the study of information in natural and artificial systems.

Informatics studies the creation, recognition, representation, collection, organization, optimization, transformation, communication, evaluation and control of information in complex and dynamic systems.

Informatics has human, social, cognitive, biological, linguistic, computational, mathematical and engineering aspects. It includes systems science and communications engineering.

Informatics has close relations with a number of disciplines in the natural and human sciences. It is developed employing contributions from many different areas; in turn, it can contribute to their further development.

Interfaces to human and social areas, mathematical modeling and information systems are the three pillars of Informatics in Kyoto University.