2020 Admission Guide

Department of Information Physics and Computing

Graduate School of Information Science and Technology,

The University of Tokyo

Master’s Program

Doctoral Program

Contact [Department Administration Office]

7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8656

Department administration office (Department of Information Physics and Computing), Graduate School of Engineering / Information Science and Technology Administrative Group,
The University of Tokyo
TEL: +81 (0)3-5841-6889
office@office.keisu.t.u-tokyo.ac.jp

Visit: https://www.i.u-tokyo.ac.jp/index_e.shtml

In addition to this brochure, please be sure to review the application guidelines for the Graduate School of Information Science and Technology.
I. Master’s Program

Based on the interdisciplinary nature of the Department of Information Physics and Computing, this Department seeks applicants from a wide range of fields, both inside and outside The University of Tokyo, with a fundamental understanding and knowledge of mechanics, electricity, physics, mathematics, and information. Examination subjects have been selected to ensure that applicants from diverse disciplines who are not students of The University of Tokyo can take the Examinations under conditions that are fair to all, with no priority or advantages offered to persons already registered at The University of Tokyo. As described in Section B, examinees can choose other subjects which are not conducted by this department in the specialized subjects.

A. Preference Card

Fill in boxes to the right of the names of the Faculty Advisors listed on the Preference Card (for Master’s Program) enclosed with this Guide, using numbers to order the preference up to sixth choice or an ‘X’ if not preferred. When indicating your preferred field, please write a detailed description being as specific as possible. Your application will be rejected if you do not fall under the supervision of any of the particular Faculty Advisors you number or you keep empty. Submit the Preference Card together with the other application documents. The laboratories in this department conduct research closely together. Therefore, students can pursue cross-section studies about Information Physics and Computing in any laboratory.
B. Examination Schedules

1. Regular education subjects

<table>
<thead>
<tr>
<th>Examination Date</th>
<th>Location</th>
<th>Examination Time</th>
<th>Examination Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 19, 2019</td>
<td>Faculty of Law and Letters Bldg. 2 / Faculty of Engineering Bldg. 2</td>
<td>10:00 – 12:30</td>
<td>Mathematics</td>
</tr>
</tbody>
</table>

Details on the Examination location will be delivered to every applicant by postal mail with an examination admission card and posted on the bulletin board at the main entrance of Bldg. 6 of the Faculty of Engineering at 9:00 a.m. on the day of the Examination.

TOEFL scores will be used to determine English ability. No written English Examination will be administered. For details, refer to “2020 Guidelines for Submission of TOEFL Scores; Graduate School of Information Science and Technology, The University of Tokyo,” which is enclosed in the School Application Guidelines.

Those who were absent from the written exam are considered to have withdrawn from the entrance exam.

2. Specialized subjects

a) Written Examination

For Examinations on Specialized Subjects, students shall choose one subject from among the following: “Information Physics and Computing”, “Mathematical Informatics”, “Computer Science”, and “Information and Communication Engineering”. Please note that dates, times, and locations differ depending on the subject.
### Specialized Subjects

<table>
<thead>
<tr>
<th>Specialized Subjects</th>
<th>Examination Dates, Times, and Locations</th>
<th>Scope of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Physics and Computing</td>
<td>August 19, 2019 (Monday) 14:00 – 16:00 Faculty of Engineering Bldg. 6</td>
<td>Students will be required to select and solve two of five problems: “signal processing”, “electronic circuits”, “control”, “computer systems”, and “dynamics.”</td>
</tr>
<tr>
<td>Mathematical Informatics</td>
<td>Please refer to the “Guide to Department Entrance Examinations” for the Department of Mathematical Informatics.</td>
<td></td>
</tr>
<tr>
<td>Computer Science</td>
<td>Please refer to the “Guide to Department Entrance Examinations” for the Department of Computer Science.</td>
<td></td>
</tr>
<tr>
<td>Information and Communication Engineering</td>
<td>Please refer to the “Guide to Department Entrance Examinations” for the Department of Information and Communication Engineering.</td>
<td></td>
</tr>
</tbody>
</table>

Details on the Examination location for “Information Physics and Computing” will be posted on the bulletin board at the main entrance of Bldg. 6 of the Faculty of Engineering at 9:00 a.m. on the day of the Examination. For information on Examination locations for “Mathematical Informatics,” “Computer Science,” and “Information and Communication Engineering,” please refer to the Admission Guide for the department in question.

Those who were absent from the written exam are considered to have withdrawn from the entrance examination.

b) Oral Examination

Between 9:00 a.m. and 6:00 p.m. on Thursday and Friday, August 22 & 23, 2019.

Detailed schedules will be posted or distributed during the Examination period.
3. Guidance for Oral Examinations

<table>
<thead>
<tr>
<th>Date and Location</th>
<th>Time</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 19, 2019 (Monday)</td>
<td>After the completion of the Regular education subject, “mathematics,” examination</td>
<td>Guidance will be provided regarding all processes to be used during Oral Examinations.</td>
</tr>
</tbody>
</table>

Faculty of Law and Letters Bldg. 2 / Faculty of Engineering Bldg. 2

C. Notes of Caution

1. Persons who have not graduated from university by August 2019 wishing to enter the school in September are required to confirm their eligibility with the Department Team (the Department of Information Physics and Computing), Academic Affairs Group, Graduate School of Engineering / Information Science, The University of Tokyo.

2. Please carefully read the “Useful information for persons taking Entrance Examinations (Master’s and Doctoral Programs),” which is included in this Admission Guide.
II. Doctoral Program

A. Persons wishing to apply to the Doctoral Program should refer to the “2020 Admission Guide: Doctoral Program, Graduate School of Information Science and Technology,” and must contact the persons named below before submitting the application. Please call or write well in advance.

Contact:

Department of Information Physics and Computing, Graduate School of Information Science and Technology, The University of Tokyo
7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8656

Department of Information Physics and Computing Administration Office
+81 (0)3-5841-6889
office@office.keisu.t.u-tokyo.ac.jp

B. Preference Card

Indicate your preferences with regard to Faculty Advisors, etc., on the “Preference Card” (Doctoral Program) included with this Guide, and submit this card together with the application documents. Students admitted to the doctoral program carry out research under the guidance of a designated faculty member who serves as the student’s research and thesis advisor. Applicants must identify a faculty member with whom they propose to conduct their research and then contact the faculty member to arrange a face-to-face or online interview in which the applicant describes his or her academic achievements, research experience, research abilities, and research plans before submitting the
application form. The interview must be conducted from May 7, 2019 to June 14, 2019 for Summer Examinations or from October 1, 2019 to December 2, 2019 for Winter Examinations. Applicants may not be allowed to take the examinations if they fail to complete this procedure.

C. Outline of past research results and Research Plan for Doctoral Program

Submit the following reports together with the other application documents:

1. Describe the content and results of past research as well as the positioning of that research in the field in question. Summary should be in either English or Japanese, on no more than two A4-sized pages.

2. Provide a concrete plan for research to be conducted after admission to the Doctoral Program and describe how this research will contribute to the field in question. Summary should be in either English or Japanese, on no more than two A4-sized pages.

3. Provide the list of research achievement on A4-sized pages. Original articles, review articles, oral presentations, and others should be categorized. If there is no corresponding research achievement, describe as “not applicable”.

The above documents will be used as the basis for the Oral Examinations and subject to scoring. The documents are also used for preliminary screening for exemption from Oral Examination I, so please ensure to prepare these documents carefully in terms of length and content.

D. Examination Schedules

At the time of application, please select either the Summer Entrance Examination or the Winter Entrance Examination. Please note that the periods for acceptance of applications differ for the summer and winter Examinations.
1. Summer Examinations

(Primary Examinations)

<table>
<thead>
<tr>
<th>Examination Dates and Locations</th>
<th>Examination Times</th>
<th>Examination Subjects</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 19, 2019 (Monday) 15:00 –, or August 20, 2019 (Tuesday) 10:00 – Faculty of Engineering Bldg. 6</td>
<td>Detailed schedules will be posted at 10:00 on August 19.</td>
<td>Oral Examination I</td>
<td>Examinees will be required to answer questions related to the fundamentals of Information Physics and Computing and to the applicant’s research field.</td>
</tr>
<tr>
<td>August 21, 2019 (Wednesday) Faculty of Engineering Bldg. 6</td>
<td>Detailed schedules will be posted at 17:00 on August 20.</td>
<td>Oral Examination II</td>
<td>Examinees will be required to answer questions on their research results and research plan submitted beforehand.</td>
</tr>
</tbody>
</table>

TOEFL scores will be used to determine English ability. No written English Examination will be administered. For details, refer to “2020 Guidelines for Submission of TOEFL Scores; Graduate School of Information Science and Technology, The University of Tokyo,” which is enclosed in the School Application Guidelines.

Persons who have completed or are expected to complete The University of Tokyo Graduate School Master's Program will not be required to submit TOEFL scores. Also persons who have completed, are expected to complete a Master’s Program of Graduate School of Information Science and Technology in The University of Tokyo, or have passed the preliminary screening for exemption will exempt Oral Examination I.

Examinees who are rejected in Oral Examination I cannot take Oral Examination II. The passing status of Oral Examination I will be posted with the schedules of Oral Examination II.
(Secondary Examinations)

As a rule, Secondary Examinations will be conducted during the period from late January to mid February, 2020. Applicants will be notified later regarding details of schedules and locations. Applicants should bring their Master’s thesis (or some equivalent material) to the Secondary Examinations. For persons wishing to start school in September and for persons already holding a master's degree at the time of application, the Secondary Examination will be conducted based on the schedule for the Oral Examinations II.

2. Winter Examinations

As a rule, primary and secondary Examinations will be conducted during the period from late January to mid February, 2020. Acceptance will be limited to a few students. Examination methods will be in accordance with those used for Summer Examinations. Applicants will be notified regarding details of schedules and locations after applications have been received.

E. Notes of Caution

1. Persons wishing to start school in September 2019 but have not been conferred Master’ degree by August 2019, are required to confirm their eligibility with the Department Team (the Department of Information Physics and Computing), Academic Affairs Group, Graduate School of Engineering / Information Science, The University of Tokyo.

2. Persons wishing to be included in the “Special Selection for Professionals” MUST contact the Administration Office described above before submitting the application. Additional documents will be needed for the “Special Selection for Professionals.”

3. Please carefully read the “Department of Information Physics and Computing, Graduate School of Information Science and Technology, The University of Tokyo: Useful information for persons taking Entrance Examinations (Master’s and Doctoral Programs),” which is included in the Admission Guide.
Useful information for persons taking Entrance Examinations
(Master’s and Doctoral Programs)

1. Examination dates and times

Please refer to the “Examination schedules” listed in this Guide.

2. Examination locations

By subway:

Marunouchi Line / Oedo Line: Get off at Hongo-sanchome Station

Chiyoda Line: Get off at Nezu Station

Namboku Line: Get off at Todaimae Station

Mita Line: Get off at Kasuga Station

(a) Specified Examination rooms are subject to change depending on the number of examinees. Please confirm all locations on the bulletin board at the main entrance to Bldg. 6 of the Faculty of Engineering on the day of the Examination.

(b) Examinees should be in the designated Examination room no later than 15 minutes before the scheduled start of the Examination.

3. What to bring

(a) Examination admission card;
(b) Black pencils (mechanical pencils are OK);
(c) Erasers;
(d) Pencil sharpener (only the small, handheld, non-electric type is acceptable);
(e) Clock or watch (for showing time only; devices with other functions are not acceptable).

No writing implements or tools other than those noted above will be allowed during written Examinations.

Caution: During the Examination period, all mobile phones must be turned off. Mobile phones must also not be carried on the examinee’s person (on neck straps, in pockets, etc.).

4. Items to keep in mind during Examinations

(a) Examinees will not be allowed to leave the Examination room during the Examination period.
(b) Examination admission cards must be kept on the desktop throughout the entire Examination period.
(c) Examinees must write their examination admission number. Examinees must not write your name. Examinees must write each answer on the designated sheet. If there is not enough space, examinees may write on the back of the answer sheet.
(d) Examinees cannot take answer sheets or question booklets out of the Examination room.
Access Map to Examination Location

By subway:
- Marunouchi Line / Oedo Line: Get off at Hongo Sanchome Station
- Chiyoda Line: Get off at Nezu Station
- Namboku Line: Get off at Todai Mae Station
- Mita Line: Get off at Kasuga Station

By bus:
- Take Toei Bus No. 43 or 51 to “Todai Seimon Mae” (Main Gate of The University of Tokyo), or Toei School Bus No. 1 or 7 to “Todai Konai” (Campus of The University of Tokyo).
**Preference card (for Master’s Program)**

**Department of Information Physics and Computing, Graduate School of Information Science and Technology, The University of Tokyo**

<table>
<thead>
<tr>
<th>Program</th>
<th>Master’s Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examinee’s name</td>
<td>Examination admission number (leave blank)</td>
</tr>
<tr>
<td>Graduating university (only if applicable)</td>
<td>University / School / Department:</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone number and e-mail where examinee can be contacted during the Examination period</td>
<td>Address:</td>
</tr>
<tr>
<td></td>
<td>Tel:</td>
</tr>
<tr>
<td></td>
<td>Mobile phone:</td>
</tr>
<tr>
<td></td>
<td>E-mail:</td>
</tr>
</tbody>
</table>

**Preferred Faculty Advisor (in order of preference)**

Fill in boxes with numbers indicating order of preference up to sixth choice.

Fill in each box with an ‘X’ if not preferred.

Note that your application will be rejected if you do not fall under the supervision of any of the Faculty Advisors you number or you keep empty.

<table>
<thead>
<tr>
<th>Faculty Advisor</th>
<th>Preferred Faculty Advisor</th>
<th>(in order of preference)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof. Hiroshi Saruwatari</td>
<td>Prof. Hiroshi Nakamura</td>
<td></td>
</tr>
<tr>
<td>Shoichi Koyama(Lecturer)</td>
<td>Associate Prof. Masaaki Kondo</td>
<td></td>
</tr>
<tr>
<td>Associate Prof. Ayumu Matani</td>
<td>Masashi Ikeuchi (Lecturer)</td>
<td></td>
</tr>
<tr>
<td>Prof. Takaaki Nara</td>
<td>Prof. Masahiko Inami</td>
<td></td>
</tr>
<tr>
<td>Prof. Hiroyuki Shinoda</td>
<td>Atsushi Hiyama (Lecturer)</td>
<td></td>
</tr>
<tr>
<td>Associate Prof. Yasutoshi Makino</td>
<td>Associate Prof. Takahiro Shinagawa</td>
<td></td>
</tr>
<tr>
<td>Associate Prof. Koji Tsumura</td>
<td>Prof. Hiroki Ueda</td>
<td></td>
</tr>
<tr>
<td>Prof. Makoto Naruse</td>
<td>Prof. Hiroshi Saito</td>
<td></td>
</tr>
</tbody>
</table>

**Specialized subjects to be tested on the Examination (Please circle the appropriate responses)**

Information Physics and Computing / Mathematical Informatics / Computer Science / Information and Communication Engineering

**Preferred start date (Please circle the appropriate response)**

September 2019 / April 2020

**Residence Card**

☐ Retain

Status: student/other ( ) ☐ Not Retain

**Preferred field (Please describe in detail)**

Submit this form together with your application.

Persons who have not graduated from university by August 2019 wishing to enter the school in September are required to confirm the eligibility with the Department Team (the Department of Information Physics and Computing), Graduate School of Engineering / Information Science and Technology, Academic Affairs Group, The University of Tokyo, and circle “September 2019” in the appropriate column above.
# Preference card (for Doctoral Program)

**Department of Information Physics and Computing, Graduate School of Information Science and Technology, The University of Tokyo**

<table>
<thead>
<tr>
<th>Program</th>
<th>Doctoral Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examinee’s name</td>
<td>Examination admission number (leave blank)</td>
</tr>
</tbody>
</table>
| Graduating university or graduate school | University:___________________  
School:___________________  
Department:___________________  
Graduate School:___________________  
School:___________________  
Department:___________________ |
| E-mail and phone number where examinee can be contacted during the Examination period | Address:  
Tel:  
E-mail:  
Mobile phone: |
| Preferred Faculty Advisor | Advisor: (Interview Date:__)

Application Category  
SUMMER Entrance Examination / WINTER Entrance Examination  
Circle “Professionals” if you wish to apply based on the Special Selection for Professionals.

Preferred time of entry (Please circle the appropriate response)  
September 2019 / April 2020

Residence Card  
□ Retain  
□ Not Retain  
Status: student／other(____) _

Outline of past research results and Research Plan for Doctoral Program

Submit the following reports together with the other application documents.

1. Describe the content and results of past research as well as the positioning of that research in the field in question. Summary should be in either English or Japanese, on no more than two A4-sized pages.
2. Provide a concrete plan for research to be conducted after admission to the Doctoral Program and describe how this research will contribute to the field in question. Summary should be in either English or Japanese, on no more than two A4-sized pages.
3. Provide the list of research achievement on A4-sized pages. Original articles, review articles, oral presentations, and others should be categorized. If there is no corresponding research achievement, describe as “not applicable”.

The above documents will be used as the basis for the Oral Examinations and subject to scoring. The documents are also used for preliminary screening for exemption from Oral Examination I, so please ensure to prepare these documents carefully in terms of length and content.

◆ Submit this form together with your application.
◆ Please note that the periods for acceptance of applications differ for the summer and winter Examinations. Application documents that arrive outside of the applicable period for acceptance of applications shall be deemed invalid.
◆ Persons who have not earn Master’s degree by August 2019 wishing to enter the school in September via the Summer Examination are required to confirm the eligibility with the Department Team (the Department of Information Physics and Computing), Graduate School of Engineering / Information Science and Technology, Academic Affairs Group, The University of Tokyo, and circle “September 2019” in the appropriate column above.