

**2022 Entrance Examination Guide  
for Admission to  
Department of Computer Science**

Entrance time: October 2021 or April 2022

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

Master's Programs  
and  
Doctoral Programs

Contact:

Administration Office of Department of Computer Science,  
Graduate School of Information Science and Technology,  
The University of Tokyo,  
7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8656, Japan  
EMAIL: [admissions@is.s.u-tokyo.ac.jp](mailto:admissions@is.s.u-tokyo.ac.jp) TEL: 03-5841-4111

Web page for admission:

[https://www.i.u-tokyo.ac.jp/edu/course/cs/admission\\_e.shtml](https://www.i.u-tokyo.ac.jp/edu/course/cs/admission_e.shtml)

In addition to this guide, be sure to refer to the Admission Guide of the Graduate School.



## Department Overview

The mission of Department of Computer Science is to contribute to research and education on fundamental theories of computer science, their implementation as computer systems, and application to natural science, which provide foundations for information technologies indispensable in today's society. Of particular interest is an in-depth research on the core of information and computation rather than the use of information technologies as a tool. The research focus includes, but is not limited to: Discrete Mathematics, Numerical Algorithms, Programming Languages, Algorithms, Quantum Computation, Molecular Computation, Computer Architecture, Operating Systems, Software, Machine Learning, Artificial Intelligence, Bioinformatics, Computational Science, Natural Language Processing, Information Retrieval, Computer Vision, Human Computer Interaction, and Graphics. For more details, refer to the document "Faculty and Labs in Department of Computer Science" provided separately.

## Master's Program

### (1) Introduction

- A. Department of Computer Science conducts Summer Entrance Examinations and Winter Entrance Examinations for Master's Program. The schedules and examination methods differ between Summer and Winter Entrance Examinations.
- B. Before sending Application Form, the applicants (except those who are completing the Undergraduate Program of Department of Information Science in the Faculty of Science at the University of Tokyo) should contact at least one of their prospective supervisors.
- C. Fill out the "Preference Card (Master's Program)" provided separately, write your Research Plan as instructed in the "Preference Card (Master's Program)", and submit them with the Application Form. For the selection of Labs, see "Faculty and Labs in Department of Computer Science" provided separately.
- D. For Winter Entrance Examinations:
  - I. All the examinations (submitted documents, questions and answers) are conducted in English.
  - II. Applications with a TOEFL score of **less than 90 (iBT)** will be rejected.
  - III. Together with the application form, submit a Letter of Recommendation. The letter should be submitted directly by your recommender. Typically, but not necessarily, the recommender is an academic who knows you well, such as your current supervisor. The recommender should not be a faculty member of Department of Computer Science, The University of Tokyo.
- E. In case that the examinations are conducted online, further information will be announced accordingly.

### (2) Examination Schedule

#### (2.1) Summer Entrance Examinations

##### ① Document Screening

Document screening will be conducted based on the submitted documents. Regarding the notification of the screening, refer to the Graduate School Application Guidelines.

## ② Written Examinations

Date	Time	Venue	Subject
Thursday August 5 2021		Refer to the Admission Guide of the Graduate School	Mathematics
Monday August 23 2021	10:00- 17:00	Room 83, Floor B1 Faculty of Engineering Bldg. 8 工学部 8 号館地下 83 講義室 (in Japanese)	Specialized Subjects

### Remarks:

- ✓ For the written examinations of Mathematics, refer to the Admission Guide of the Graduate School.
- ✓ In the Written Examinations of Specialized Subjects, four problems will be asked (the number of problems may vary) from the following subjects, and applicants are required to answer all the problems.  
**Information Mathematics, Numerical Algorithms, Discrete Mathematics, Algorithms and Complexity, Formal Languages, Logic, Programming Languages, Computer Architecture, Operating Systems, Digital Circuits, Machine Learning**
- ✓ Java or C language may be used in the examinations.
- ✓ For those who take the written examinations of Mathematics online, the examinations of Specialized Subjects will also be conducted online.

## ③ Oral Examinations

Date	Time	Venue	Subject
Wednesday August 25 2021	10:00- 17:00	Online	Specialized Subjects

### Remarks:

- ✓ You will be notified of the exact time and place by the examination day.
- ✓ Depending on the situation, the examinations may be partially conducted physically in Faculty of Science Bldg. 7.

## (2.2) Winter Entrance Examinations

### ① Document Screening

Document screening will be conducted based on the submitted documents. Regarding the notification of the screening, refer to the Admission Guide of the Graduate School of Information Science and Technology, the University of Tokyo.

## ② Written Examinations

Date	Time	Venue	Subject
Tuesday February 1 2022	10:00- 17:00	Room 214, Floor 2F Faculty of Science Bldg. 7 理学部 7 号館 2 階 214 講義室 (in Japanese)	Mathematics & Specialized Subjects

### Remarks:

- ✓ Four problems will be asked (the number may vary) from the following subjects, and applicants are required to answer all the problems.  
**Mathematics, Information Mathematics, Numerical Algorithms, Discrete Mathematics, Algorithms and Complexity, Formal Languages, Logic, Programming Languages, Computer Architecture, Operating Systems, Digital Circuits, Machine Learning**
- ✓ Exam questions will be given, and answers must be, in English.
- ✓ Java or C language may be used in the examinations.
- ✓ The examinations may be conducted online.

## ③ Oral Examinations

Date	Time	Venue	Subject
Wednesday February 2 2022	10:00- 17:00	Online	Specialized Subjects Additional Subjects Research Presentation

### Remarks:

- ✓ Applicants are required to:
  - Present your research plan within 5 minutes. You must be prepared; you are recommended to use slides. Prepare your own PC in that case.
  - Answer a few technical questions on the topics that are relevant to your research fields. You can use a whiteboard or a blackboard to answer the questions.
- ✓ All the presentations and answers must be given in English.
- ✓ Depending on the situation, the examinations may be partially conducted physically in Faculty of Science Bldg. 7.

# Doctoral Program and Doctoral Program (Special Selection for Professionals)

## (1) Introduction

- A. Department of Computer Science conducts Summer Entrance Examinations and Winter Entrance Examinations for its Doctoral Program. The schedules and examination methods differ for Summer and Winter Entrance Examinations.
- B. Before sending an Application Form, applicants must contact their supervisor of choice and show their research proposals. The application may not be accepted if this process is skipped.

- C. Fill out the "Preference Card (Doctoral Program)" provided separately, write "Research Results, Selected Publication List, and Research Plan" as instructed in "Preference Card (Doctoral Program)", and then submit them with the Application Form. Choose a prospective supervisor from the faculty members of Department of Computer Science, given in "Faculty and Labs in Department of Computer Science" provided separately.
- D. For Summer Entrance Examinations:
- I. Those who have completed the programs in Department of Computer Science in the Graduate School of Information Science and Technology at the University of Tokyo, or Department of Information Science in the Graduate School of Science at the University of Tokyo, are exempted from the following:
    - ✓ Submission of the TOEFL score
    - ✓ Written Examinations of Primary Examinations
  - II. Those who are completing the Master's Program of Department of Computer Science in the Graduate School of Information Science and Technology at the University of Tokyo are exempted from the submission of the TOEFL score and Primary Examinations. Secondary Examinations will be conducted separately.
  - III. Secondary Examinations for those who have completed their Master's Program at the time of the application, for those who are expected to complete Master's Program by the Primary Examinations, and for those who wish for October 2021 entry, will be conducted at the same time as Oral Examinations of Primary Examinations.
- E. For Winter Entrance Examinations:
- I. All the examinations (submitted documents, questions and answers) are conducted in English.
  - II. Applications with a TOEFL score of **less than 90 (iBT)** will be rejected.
  - III. Together with the application form, submit a Letter of Recommendation. The letter should be submitted directly by your recommender. Typically, but not necessarily, the recommender is an academic who knows you well, such as your current supervisor. The recommender should not be a faculty member of Department of Computer Science, the University of Tokyo.
  - IV. The applicants for Doctoral Program (Special Selection for Professionals) who have completed the programs in Department of Computer Science in the Graduate School of Information Science and Technology at the University of Tokyo, or Department of Information Science in the Graduate School of Science at the University of Tokyo, are exempted from the following:
    - ✓ Submission of the TOEFL score
    - ✓ Submission of the Letter of Recommendation
    - ✓ Document Screening
    - ✓ Written Examinations
 Oral Examinations are conducted in the following manner:
    - ✓ Present the research from your Master's course (in about 9 minutes) and the research plan for your doctoral course (in about 1 minute) in Japanese or in English. Research results after completion of Master's course can be included. Submit PDF copies of Master's thesis (which can be in any other language than Japanese and English) and of a few published papers on the presented research, if any, to the department in advance. The guideline of PDF submission will be notified later. Each examinee should prepare a PC for presentation.
- F. In case that the examinations are conducted online, further information will be provided accordingly.

## (2) Examination Schedule

### (2.1) Summer Entrance Examinations

#### ① Primary Examinations (Written Examinations)

Date	Time	Venue	Subject
Thursday August 5 2021		Refer to the Admission Guide of the Graduate School	Mathematics
Monday August 23 2021	10:00- 17:00	Room 83, Floor B1 Faculty of Engineering Bldg. 8 工学部 8 号館地下 83 講義室 (in Japanese)	Specialized Subjects

#### Remarks:

- ✓ For the written examinations of Mathematics, refer to the Admission Guide of the Graduate School.
- ✓ Refer to the Admission Guide of the Graduate School for the Written Examinations of Mathematics.
- ✓ In the Written Examinations of Specialized Subjects, four problems will be asked (the number of problems may vary) from the following subjects, and applicants are required to answer all the problems.  
**Information Mathematics, Numerical Algorithms, Discrete Mathematics, Algorithms and Complexity, Formal Languages, Logic, Programming Languages, Computer Architecture, Operating Systems, Digital Circuits, Machine Learning**
- ✓ Java or C language may be used in the examination.
- ✓ For those who take the written examinations of Mathematics online, the examinations of Specialized Subjects will also be conducted online.

#### ② Primary Examinations (Oral Examinations)

Date	Time	Venue	Subject
Wednesday August 25 2021	10:00- 17:00	Online	Specialized Subjects

#### Remarks:

- ✓ You will be notified of the exact time and place by the examination day.
- ✓ Depending on the situation, the examinations may be partially conducted physically in Faculty of Science Bldg. 7.

#### ③ Secondary Examinations

The applicant's Master's thesis or its equivalent is reviewed and examinations by oral presentation are conducted.

- I. Details will be announced later. The examination will be conducted on one of the days from January 31st to February 4th, 2022, and the place will be located in Faculty of Science Bldg. 7. Secondary Examinations for those who have completed Master's Program at the time of the application, for those who are

expected to complete Master's Program by the Primary Examinations, and for those who wish for October 2020 entry, will be conducted at the same time as Oral Examinations of Primary Examinations.

- II. Present the research from your Master's course (in about 9 minutes) and the research plan for your doctoral course (in about 1 minute). Research results after completion of Master's course can be included. Submit PDF copies of Master's thesis (which can be in any other language than Japanese and English) and of a few published papers on the presented research, if any, to the department in advance. The guideline of PDF submission will be notified later. Each examinee should prepare a PC for presentation.
- III. The examinations may be conducted online.

## (2.2) Winter Entrance Examinations

### ① Document Screening

Document screening will be conducted based on the submitted documents. Your eligibility for the Written and Oral Examinations will be announced on the website

[https://www.i.u-tokyo.ac.jp/edu/course/cs/admission\\_e.shtml](https://www.i.u-tokyo.ac.jp/edu/course/cs/admission_e.shtml)

from Friday, December 24, 2021, 15:00 JST, for the period of three days (72 hours). The announcement will be according to the examinee's number that is found on the examination admission card delivered in advance.

### ② Written Examinations

Date	Time	Venue	Subject
Tuesday February 1 2022	10:00- 17:00	Room 214, Floor 2F Faculty of Science Bldg. 7 理学部 7 号館 2 階 214 講義室 (in Japanese)	Mathematics & Specialized Subjects

#### Remarks:

- ✓ Four problems will be asked (the number may vary) from the following subjects, and applicants are required to answer all the problems.  
**Mathematics, Information Mathematics, Numerical Algorithms, Discrete Mathematics, Algorithms and Complexity, Formal Languages, Logic, Programming Languages, Computer Architecture, Operating Systems, Digital Circuits, Machine Learning**
- ✓ Exam questions will be given, and answers must be, in English.
- ✓ Java or C language may be used in the examinations.
- ✓ The examinations may be conducted online.

### ③ Oral Examinations

Date	Time	Venue	Subject
Wednesday February 2 2022	10:00- 17:00	Online	Specialized Subjects Additional Subjects Research Presentation

#### Remarks:

- ✓ Applicants are required to:
  - Present your Master's thesis within 15 minutes. Research results obtained after the completion of Master's degree can be included. Submit PDF copies



of Master's thesis (which can be in any other language than Japanese and English) and of a few published papers on the presented research, if any, to the department in advance. The guideline of PDF submission will be notified later. You must be prepared; you are recommended to use slides. Prepare your own PC in that case.

- Present your research plan within 5 minutes. You must be prepared; you are recommended to use slides. Prepare your own PC in that case.
  - Answer a few technical questions on the topics that are relevant to your research fields. You can use a whiteboard or a blackboard to answer the questions.
- ✓ All the presentations and answers must be given in English.
- ✓ Depending on the situation, the examinations may be partially conducted physically in Faculty of Science Bldg. 7.



**Notices for Examinees of Entrance Examinations for Master's and Doctoral Program,  
Department of Computer Science,  
Graduate School of Information Science and Technology, the University of Tokyo,  
2022**

**1. Examination Schedule**

Refer to "Examination Schedule" listed in this Guide.

**2. Examination Location**

Hongo Campus, the University of Tokyo (7-3-1 Hongo, Bunkyo-ku, Tokyo)

Transportation by subway:

Marunouchi Line and Oedo Line: Get off at Hongo-sanhome Station (M21/E08)

Chiyoda Line: Get off at Nezu Station (C14)

Namboku Line: Get off at Todaimae Station (N12)

Mita Line: Get off at Kasuga Station (I12)

Transportation by bus:

Toei Bus "Todai Seimon Mae" or "Todai Konai"

Refer to "Venue" listed in this Guide.

Refer to "Map of Examination Locations".

Examinees should be in the designated examination room no later than 15 minutes before the start of examination. In the case of being late, the applicant should find the examination supervisor for further directions.

**3. What to bring**

- (1) Examination admission card (受験票)
- (2) Writing instruments (black pencils, black mechanical pencils, black fountain pens, or black ball-point pens), erasers, pencil sharpeners (electric pencil sharpeners are not accepted), and a clock or watch (only for checking the time; devices with other functions are not accepted).

Caution: During the examination period, all mobile phones must be turned off. Examinees will not be permitted to wear mobile phones (on neck straps, in pockets, etc.)

**4. Examination Rules**

- (1) Examinees will not be permitted to leave the examination room, even when he or she finishes or gives up answering.
- (2) As a rule, examinees will not be allowed to leave the examination room temporarily during the examination period. An examinee should tell the examination supervisor when she/he feels ill or wants to use the washroom facilities.
- (3) Examination admission cards (受験票) must be kept on top of the desk throughout the entire examination period.
- (4) Examinees must enter their examinee's number on all answer sheets. Examinees must not write their names. Enter answers on the corresponding answer sheets. If there is not enough space, write answers on the back of the answer sheets.
- (5) Examinees are not allowed to remove and take out answer sheets or problem booklets from the examination room.
- (6) Examinees should not use any devices other than writing instruments, pencil sharpeners, and erasers.



Map of Examination Locations:  
Hongo Campus, the University of Tokyo,  
7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8656

Department of Computer Science,  
Graduate School of Information Science and Technology



By subway:

Marunouchi Line and Oedo Line: Get off at Hongo-sanchohome Station (M21/E08)

Chiyoda Line: Get off at Nezu Station (C14)

Namboku Line: Get off at Todaimae Station (N12)

Mita Line: Get off at Kasuga Station (I12)

By Bus:

Toei Bus "Todai Seimon Mae" or "Todai Konai"



Required Documents (Department of Computer Science)

	Summer Examination		Winter Examination	
	Documents to be Submitted	Who to Submit	Documents to be Submitted	Who to Submit
Master's Course	Preference Card (for Master's Program)	All Applicants	Preference Card (for Master's Program)	All Applicants
	Application Form for Online Examination	Those who wish to take online written examination	Application Form for Online Examination	Those who wish to take online written examination
	Research Plan (written in Japanese or English, two A4-sized pages)	All Applicants	Research Plan (written in English, three A4-sized pages)	All Applicants
	TOEFL Score	All Applicants	TOEFL Score (TOEFL-iBT score: no less than 90) Recommendation Letter from 1 person who is not a faculty member of Department of Computer Science, The University of Tokyo	All Applicants
Doctoral Course	Preference Card (for Doctoral Program)	All Applicants	Preference Card (for Doctoral Program)	All Applicants
	Application Form for Online Examination	Those who wish to take online written examination	Application Form for Online Examination	Those who wish to take online written examination
	Research Results, Selected Publication List, and Research Plan in the Doctoral Program (written in Japanese or English, four A4-sized pages)	All Applicants	Research Results, Selected Publication List, and Research Plan in the Doctoral Program (written in English, four A4-sized pages)	All Applicants
	TOEFL Score	All applicants except those who have completed (or are expected to complete) programs in Department of Computer Science in the Graduate School of Information Science and Technology or Department of Information Science in the Graduate School of Science at the University of Tokyo	TOEFL Score (TOEFL-iBT score: no less than 90) Recommendation Letter from 1 person who is not a faculty member of Department of Computer Science, The University of Tokyo	All Applicants
Doctoral Course <Special Selection for Professionals>	Preference Card (for Doctoral Program)	All Applicants	Preference Card (for Doctoral Program)	All Applicants
	Application Form for Online Examination	Those who wish to take online written examination	Application Form for Online Examination	Those who wish to take online written examination
	Research Results, Summary of Study or Research Achievements during Period of Employment, Selected Publication List, and Research Plan in the Doctoral Program (written in Japanese or English, four A4-sized pages)	All Applicants	Research Results, Summary of Study or Research Achievements during Period of Employment, Selected Publication List, and Research Plan in the Doctoral Program (written in English, four A4-sized pages)	All Applicants
	TOEFL Score	All applicants except those who have completed (or are expected to complete) programs in Department of Computer Science in the Graduate School of Information Science and Technology or Department of Information Science in the Graduate School of Science at the University of Tokyo	TOEFL Score (TOEFL-iBT score: no less than 90) Recommendation Letter from 1 person who is not a faculty member of Department of Computer Science, The University of Tokyo	All applicants except those who have completed (or are expected to complete) programs in Department of Computer Science in the Graduate School of Information Science and Technology or Department of Information Science in the Graduate School of Science at the University of Tokyo