

(This is a translation from the official Japanese version.
In case of conflict, the Japanese version shall prevail and be conclusive.)

**AY2025 Admission Guide
for Admission to
Department of Computer Science**
(for Examinations Conducted in AY2024)

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

**Master's Program
and
Doctoral Program**

Contact:

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Web page for admission:

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 implementations as computer systems, and applications to natural science, which provide foundations for information technologies indispensable in today's society. Of particular interest is 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, 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. The department does not receive applications for Master's program in Winter Entrance Examination.
- 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. Check the document "Faculty and Labs in Department of Computer Science" and enter your selection of (up to six) labs through the Web application system. Prepare a Research Plan document following the guideline on page 9 and submit it through the Web application system.

(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 Admission Guide of the graduate school. Applicants who have failed the document screening are not eligible for the written and oral examinations.

② Written Examinations

Date	Time	Venue	Subject
Thursday August 15, 2024		Refer to the Admission Guide of the Graduate School	Mathematics
Monday August 19, 2024	13:00- 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, approximately four problems will be asked 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

Study the specialized subjects in advance, based on the book list on the following website.

<https://www.i.u-tokyo.ac.jp/edu/course/cs/references.shtml>

- ✓ Java or C language may be used in the examinations.
- ✓ The time for the specialized subjects shown above is an approximate time including the time for collecting answer sheets, etc. The details on how the examinations will be conducted and the exact schedule will be notified to those who have passed the document screening in late July.

③ Oral Examinations

Date	Time	Venue	Subject
Wednesday August 21, 2024	10:00- 17:00	Online	Specialized Subjects

Remarks:

- ✓ The time shown above is an approximate time including waiting time, etc. You will be notified of the exact time and place by the examination day.

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 between Summer and Winter Entrance Examinations.
- B. Before sending an Application Form, applicants must contact their supervisor of choice and show their research proposals.
- C. Check the document "Faculty and Labs in Department of Computer Science" and enter the name of your prospective supervisor in the field "Supervising Professor of your choice" of the Web application system. Prepare a Research Plan document based on the guidelines given on page 9, and submit it through the Web application system.
- 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.
- E. For Winter Entrance Examinations:
 - I. All the examinations (including 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

(2) Examination Schedule

(2.1) Summer Entrance Examinations

① Primary Examinations (Document Screening)

Document screening will be 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

from 15:00, Tuesday, July 16th, 2024 (JST), for the period of three days (72 hours).

The announcement will be made by using the examinee number that is found on the examination admission card delivered in advance.

② **Primary Examinations (Written Examinations)**

Date	Time	Venue	Subject
Monday August 19, 2024	13:00- 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:

- ✓ In the Written Examinations of Specialized Subjects, approximately four problems will be asked 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
 Study the specialized subjects in advance, based on the book list on the following website.
<https://www.i.u-tokyo.ac.jp/edu/course/cs/references.shtml>
- ✓ Java or C language may be used in the examination.
- ✓ The time for the specialized subjects shown above is an approximate time including the time for collecting answer sheets, etc. The details on how the examinations will be conducted and the exact schedule will be notified to those who have passed the document screening in late July.

③ **Primary Examinations (Oral Examinations)**

Date	Time	Venue	Subject
Thursday August 22, 2024	10:00 - 17:00	Online	Specialized Subjects

Remarks:

- ✓ The time shown above is an approximate time including waiting time, etc. You will be notified of the exact time and place by the examination day.

④ **Secondary Examinations**

The applicant's Master's thesis or its equivalent is reviewed and examinations by oral presentation are conducted as described below. For 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, examinations are conducted separately from the above schedule and style.

- I. The examinations will be conducted on one of the days from Monday, January 27th, to Friday, January 31st, 2025, and the time and place will be announced later. For applicants who wish to enter the graduate school in October 2024, and those who wish to enter in April 2025 but have completed or are expected to complete a Master's or Professional degree program by September 30th, 2024, the Secondary Examinations will be conducted at the same time as Oral Examinations of Primary Examinations.
- II. Present the research from your Master's thesis or its alternative in 12 minutes and the research plan for your doctoral program in 3 minutes. Research results

after completion of Master's program can be included. Submit PDF copies of Master's thesis (which can be in Japanese, English or any other language) 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.

(2.2) Winter Entrance Examinations

① Document Screening

Document screening will be 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

from 15:00, Friday, December 20th, 2024 (JST), for the period of five days (120 hours).

The announcement will be made by using the examinee number that is found on the examination admission card delivered in advance.

② Primary Examinations (Oral Examinations)

Date	Time	Venue	Subject
Wednesday January 29, 2025	9:00- 17:00	Online	Specialized Subjects

Remarks:

- ✓ Applicants are required to:
 - Answer several questions on the following specialized subjects. You can use a whiteboard or a blackboard to answer the questions.
Information Mathematics, Numerical Algorithms, Discrete Mathematics, Algorithms and Complexity, Formal Languages, Logic, Programming Languages, Computer Architecture, Operating Systems, Digital Circuits, Machine Learning
 Study the specialized subjects in advance, based on the book list on the following website.
<https://www.i.u-tokyo.ac.jp/edu/course/cs/references.shtml>
 - Answer a few 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 answers must be given in English.
- ✓ The time shown above is an approximate time including waiting time, etc. You will be notified of the exact time and place by the examination day.

③ Secondary Examinations

The applicant's Master's thesis or its equivalent is reviewed and examinations by oral presentation are conducted as described below. The examinations by oral presentation will be conducted at the same time as the oral examinations of the primary examinations above. For 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, examinations are conducted in a different schedule and style announced.

- I. Present the research from your Master's program in 12 minutes and the research plan for your doctoral program in 3 minute. Research results after completion of Master's program can be included. Each examinee should prepare a PC for presentation. 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. Those who have not yet written a Master's thesis at the time of the secondary examinations should submit a plan of the Master's thesis (which should summarize the research goal and method, the results obtained so far, etc. in English, on at least 5 pages in A4 size, in a free format) as an alternative. Those who have not written a Master's thesis and do not plan to write it (i.e., those whose eligibility to apply for the Doctoral program is not based on a Master's degree) should contact the department admission office in advance on alternative documents to be submitted.

II. All the presentations and answers must be given in English.

Guidelines for Preparing the Research Plan Document

For Master's Program

Describe your research plan in the following format on A4 paper and submit it with the Application Form. The description should be two pages long in Japanese or English.

Plagiarism is strictly prohibited.

<p>Research Plan Name: Xxx Yyy (your name)</p>
<p>New information processing is enabled by the progress of computers. Still there remains a problem of In Master's Course I want to tackle this problem based on the following ideas: (For example, describe the research plan with required specialized knowledge, related work, and/or programming skills)</p> <p>(1) ...</p>
<p>References [1] ...</p>
<p>(Describe your notable achievements if any) Notable achievements: ...</p>

For Doctoral Program and Doctoral Program [Special Selection for Professionals]

Describe your research results, your major publications, and your research plan for the Doctoral Program (try lucid explanations, e.g., using figures), in four A4 pages using the following format. Submit it with the Application Form. Use Japanese or English for Summer Examination and English for Winter Examination. Plagiarism is strictly prohibited.

<p>Research Plan Name: Xxx Yyy (your name)</p>
<p>1. Research results 1.1 Fast algorithm of linear solution [1] We have developed a fast algorithm for solution of large scale systems of linear equations... 1.2 Summary of study or research achievements during your period of employment (Include this section if you are taking examinations as a working graduate)</p>
<p>2. Selected Publication list [1] Xxx Yyy, "Fast algorithm of linear solution," Master's thesis, Graduate School of Information Science and Technology, the University of Tokyo (2011). [2] Xxx Yyy and Aaa Bbb, "Fast algorithm of linear solution," proceedings of 2011 annual meeting of research society, pp. 101-102, 2011.</p>
<p>3. Research Plan In Doctoral Program I am planning to improve the above algorithm to solve larger problem...</p>
<p>References [1] ...</p>

AY2025 Entrance Examinations (Conducted in AY2024)
Notices for Examinees of Onsite Examinations (Specialized Subjects)
for Master's and Doctoral Program, Department of Computer Science,
Graduate School of Information Science and Technology, the University of Tokyo

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 each 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 (desktop pencil sharpeners are not accepted), and a clock or watch (only for checking the time; devices with other functions are not accepted).

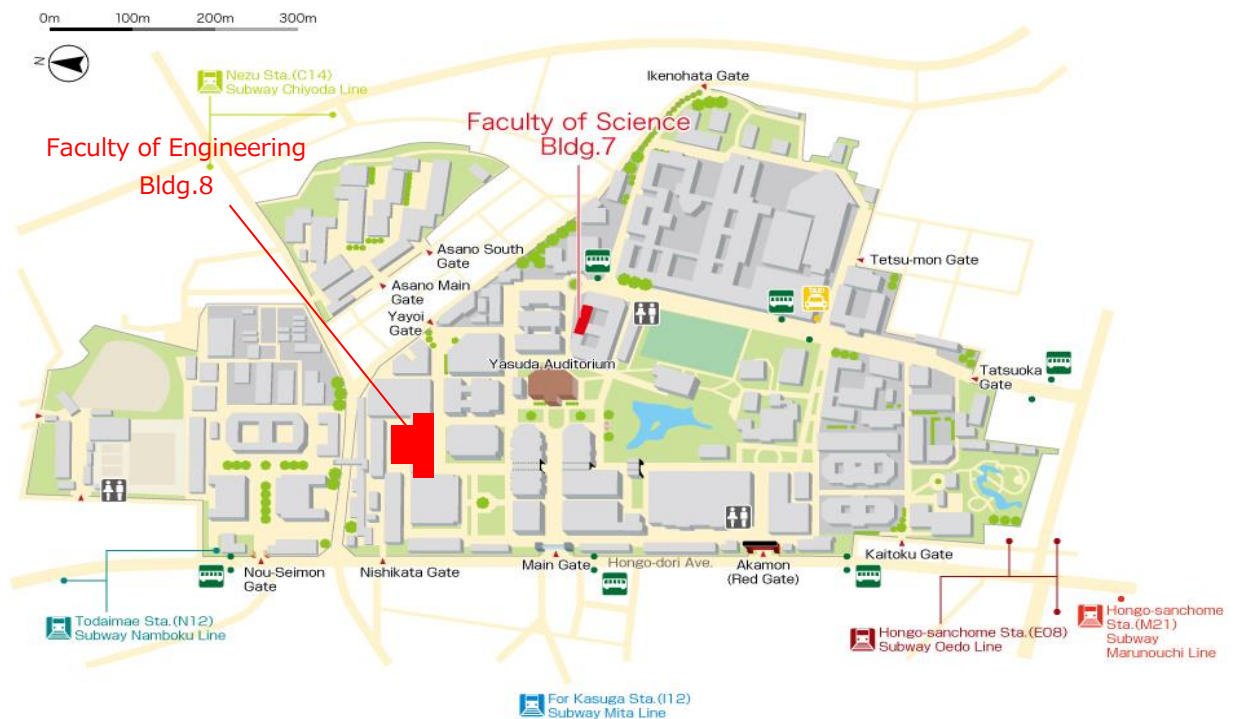
Caution: During the examination period, all mobile phones must be turned off. Examinees will not be permitted to wear mobile phones.

4. Examination Rules

- (1) Examinees will not be permitted to leave the examination room, even after they finish or give 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 or he feels ill or wants to use 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 write 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 take out answer sheets or problem booklets from the examination room.
- (6) Examinees should not use any devices other than writing instruments, pencil sharpeners, erasers, and a clock or watch.

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

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



By subway:

Marunouchi Line and Oedo Line: Get off at Hongo-sanchoe 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”

Department-specific Conditions on Submitted Documents,

Department of Computer Science

For other conditions on submitted documents common to all the departments, check the Admission Guide of the Graduate School.

List of Department-Specific Documents

	Summer Entrance Examinations		Winter Entrance Examinations	
	Documents to be Submitted	Who to Submit	Documents to be Submitted	Who to Submit
Master's Program	Research Plan (written in Japanese or English, two A4-sized pages; follow the instructions on page 9)	All Applicants	/	/
Doctoral Program	Research Plan (written in Japanese or English, four A4-sized pages; follow the instructions on page 9)	All Applicants	Research Plan (written in English, four A4-sized pages; follow the instructions on page 9)	All Applicants
			Recommendation Letter from a person who is not a faculty member of Department of Computer Science, The University of Tokyo	All Applicants
Doctoral Program (Special Selection for Professionals)	Research Plan (written in Japanese or English, four A4-sized pages; follow the instructions on page 9)	All Applicants	Research Plan (written in English, four A4-sized pages; follow the instructions on page 9)	All Applicants
			Recommendation Letter from a person who is not a faculty member of Department of Computer Science, The University of Tokyo	All applicants except those who have completed 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

Department-specific Conditions on TOEFL Scores

	Summer Entrance Examinations	Winter Entrance Examinations
Master's Program	All applicants must submit.	/
Doctoral Program	All applicants must submit, except those who have completed (or are expected to complete) Master's program 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.	No less than 90. All applicants must submit.
Doctoral Program (Special Selection for Professionals)	All applicants must submit, except those who have completed Master's program 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.	No less than 90. All applicants must submit, 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.