Doctoral Program

Tokyo Metropolitan University Graduate School of Science Application Guidelines for 2023 Doctoral Program <October Enrollment>

Examination: August 28 (Mon), 2023

Administrative affairs concerning entrance examinations of the Graduate School of Science are handled by the following office:

Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University

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https://www.se.tmu.ac.jp/

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Entrance Examination Fee Transfer Request Form Application Form/ Exam Admission Card/ Photo Card Certificate for a Fee Payment by Using Payment Slip or Online Payment System Student Visa Support Request Form

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Admissions Policies of the Graduate School of Science, Tokyo Metropolitan University

Graduate School of Science seeks individuals who acquire basic knowledge of and attitudes towards natural science and enthusiastically aim to become researchers/educators/engineers with creativity and applied skills. Such individuals who have the ability and motivation to deliver their research outcomes to the world are highly welcomed, especially in the Doctoral program.

Department of Mathematical Sciences

[Master's program]

1. Policy

Mathematics have been provided the basis of natural science and played a fundamental role in its development, whose significance is more widely recognized in the present day. The department intends to undertake education and research in the 4 areas of mathematical sciences, including algebra, geometry, analysis (main fields of mathematics) plus applied mathematics, from an extended position not bound by the field framework.

- 2. Ideal students
 - (1) Individuals with a basic understanding and awareness of various issues in mathematical sciences
 - (2) Individuals capable of acquiring knowledge from a global perspective and willingly taking on challenges in research tasks
 - (3) Individuals who are motivated to attain various abilities to solve problems
- 3. Ability required for students
 - (1) Fundamental academic ability of mathematical sciences and spirit of inquiry for the desired field
 - (2) Fundamental ability to discover and solve problems on their initiative in the field of their choice

[Doctoral program]

1. Policy

Mathematics have been provided the basis of natural science and played a fundamental role in its development, whose significance is more widely recognized in the present day. The department intends to undertake education and research in the 4 areas of mathematical sciences, including algebra, geometry, and analysis (main fields of mathematics) plus applied mathematics, from an extended position not bound by the field framework.

- 2. Ideal students
 - (1) Individuals having deep and extensive specialized knowledge for their research in mathematical sciences
 - (2) Individuals capable of carrying out ingenious and international research activities as an independent

researcher

- (3) Individuals having the ability to evaluate the significance of their research and their positioning in society objectively
- 3. Ability required for students
 - (1) Specialized knowledge in the field of their choice and academic ability to carry out their research
 - (2) Ability to discover and solve problems on their initiative in the field of their choice

Department of Physics

[Master's program]

1. Policy

The Department aims to develop persons with basic knowledge and research skills in physics, which covers a wide range of phenomena in the natural world from elementary particles/nuclei and atomic molecules, substances with diverse structures, and the universe. It also aims to develop those who can drive leading-edge scientific research in the next generation with a keen awareness of the social responsibilities involved in their research and those who can solve various social and environmental problems based on science fundamentals.

- 2. Ideal students
 - (1) Individuals who are curious about acquiring basic knowledge in the expertise field, logical thinking skills, and practical research approaches
 - (2) Individuals who are eager to acquire the necessary abilities to solve problems, conduct research, hold discussions, present research results, etc.
 - (2) Individuals aiming to become researchers, professional engineers, or educators in physics
- 3. Ability required for students
 - (1) Specialized knowledge in the field of their choice and extensive knowledge of physics
 - (2) Ability to discover and solve problems on their initiative in the field of their choice

[Doctoral program]

1. Policy

The Department aims to develop persons with deep specialized knowledge and excellent research skills in physics, which covers a wide range of phenomena in the natural world from elementary particles/nuclei and atomic molecules, substances with diverse structures, and the universe. It also aims to develop those who can drive leading-edge scientific research in the next generation with a keen awareness of the social responsibilities involved in their research and those who can solve various social and environmental problems based on science fundamentals.

2. Ideal students

- (1) Individuals who are curious about acquiring deep and extensive knowledge of basic and advanced physics
- (2) Individuals aiming to become independent researchers or educators capable of carrying out international and distinguished research activities, with a keen awareness of the social responsibilities involved in their research
- (3) Individuals who are eager to attain abilities to conduct research by formulating ingenious research plans, presenting the original treatises in international academic journals, participating in international research discussions, and reporting research results and their significances
- 3. Ability required for students
 - (1) Deep specialized knowledge in the field of their choice
 - (2) Ability to contribute to academic development through the studies of physics
 - (3) Excellent research skills capable of setting pioneering research tasks on their own and solving them in the field of their choice

Department of Chemistry

[Master's program]

1. Policy

The Department aims to develop persons who understand the structure, nature, and the reaction of substances at the atomic and molecular levels, and acquire the basic knowledge of as well as fundamental research skills of chemistry, which pursues to create a new substance by carrying out the structural conversion of the molecule. It also aims to develop those who can drive leading-edge scientific research in the next generation with a keen awareness of the social responsibilities involved in their research and those who can solve various social and environmental problems based on science fundamentals.

- 2. Ideal students
 - (1) Individuals who are keen to work on research towards the elucidation of the structures, reactions, functions, and circulations of atom/molecule and its compound/assembly as well as the synthesis of a new substance
 - (2) Individuals who wish to deepen their understanding of chemistry
 - (3) Individuals who have a desire to improve research skills
 - (4) Individuals who wish to develop global awareness through research to be able to perform internationally
 - (5) Individuals who have a passion for working as a chemistry expert in the future
- 3. Ability required for students
 - (1) Broad range of knowledge of chemistry
 - (2) Motivation for research towards the elucidation of the structures, reactions, functions, and circulations

of atom/molecule and its compound/assembly as well as the synthesis of a new substance, and the ability to pursue it

- (3) Ability to discover and solve problems on their initiative in the field of their choice
- (4) Ability of foreign language required to promote their research

[Doctoral program]

1. Policy

The Department aims to develop persons who understand the structure, nature, and the reaction of substances at the atomic and molecular levels, and acquire the deep knowledge of as well as excellent research skills of chemistry, which pursues to create a new substance by carrying out the structural conversion of the molecule. It also aims to develop those who can drive leading-edge scientific research in the next generation with a keen awareness of the social responsibilities involved in their research and those who can solve various social and environmental problems based on science fundamentals.

- 2. Ideal students
 - (1) Individuals who show enthusiasm in contributing to deepening the human knowledge of chemistry
 - (2) Individuals who are curious about acquiring deep and extensive knowledge of basic and advanced chemistry
 - (3) Individuals aiming to become independent researchers or educators capable of carrying out international and distinguished research activities, with a keen awareness of the social responsibilities involved in their research
 - (4) Individuals who are eager to attain abilities to conduct research by formulating ingenious research plans, presenting the original treatises in international academic journals, participating in international research discussions, and reporting research results and their significances
 - (5) Individuals who wish to develop global awareness through research to be able to perform internationally
 - (6) Individuals who have a passion for working as a highly specialized chemical expert in the future
- 3. Ability required for students
 - (1) Deep specialized knowledge in the field of their choice
 - (2) Motivation for research towards the elucidation of the structures, reactions, functions, and circulations of atom/molecule and its compound/assembly as well as the synthesis of a new substance, and the ability to advance it
 - (3) Ability of foreign language required to promote their research

Department of Biological Sciences

[Master's program]

1. Policy

Department aims to develop students who attain basic skills to independently set and execute objectives,

methods, and problems towards the elucidation of fundamental mechanisms of biological growth and its higher-order structure, behavior, and ecology. It also aims to develop an integrated view of international perspective and communication skills to become researchers, educators, and developers capable of playing an active role domestically and internationally.

- 2. Ideal students
 - (1) Individuals who show a keen interest in biology and biological sciences and are eager to take the initiative in research and acquisition of specialized knowledge
 - (2) Individuals who have a desire to attain research skills, planning ability, and performance capability through the study of biological science
 - (3) Individuals who have a passion for contributing to society as researchers, educators, and developers equipped with international perspective and communication ability
- 3. Ability required for students
 - (1) Broad range of interests in biology and biological sciences, regardless of the university, faculty, or department they are from
 - (2) Potential capacity to take the initiative in discovering and solving problems in biology, biological sciences, or another field

[Doctoral program]

1. Policy

Department aims to develop students who attain basic and advanced skills to independently set and execute objectives, methods, and problems towards the elucidation of fundamental mechanisms of biological growth and its higher-order structure, behavior, and ecology. It also aims to develop an integrated view of both high international perspective and communication skills to become researchers, educators, and developers capable of playing an active and leading role domestically and internationally.

- 2. Ideal students
 - (1) Individuals who pursue ingenious and leading-edge research in the fields of biological sciences
 - (2) Individuals who are curious about acquiring specialized knowledge of biological sciences and attain research skills, planning ability, and performance capability to be able to be active in the front lines
 - (3) Individuals who have a passion for contributing to society as researchers, educators, and developers who can play an active and leading role in the expertise field internationally
- 3. Ability required for students
 - (1) A specialized knowledge in the field of their choice and a broad range of interests in biology and biological sciences, regardless of the university, faculty, or department they are from
 - (2) Ability to take the initiative in discovering and solving problems in biology, biological sciences, or another field

1. Number of Students to be Accepted

Name of department	Number of students to be accepted
Mathematical Sciences	A few
Physics	A few
Chemistry	A few
Biological Sciences	A few

2. Qualification *

- (1) Individuals who possess a master's degree or are expected to receive one by September 30, 2023
- (2) Individuals who possess a Professional degree (professional degree as defined in Article 5-2 of the Degree Regulations (1953 Ministry of Education Decree No. 9) under Article 104 Paragraph 1 of the School Education Act of Japan. The same applies to the following.) or who are expected to receive one by September 30, 2023
- (3) Individuals who have been conferred a master's degree or any other degree equivalent to a Professional degree or are expected to receive one by September 30, 2023 in a foreign country
- (4) Individuals who have been conferred a master's degree or any other degree equivalent to a Professional degree by completing a prescribed course of a foreign school via distant learning in Japan
- (5) Individuals who have been conferred a master's degree or any other degree equivalent to a Professional degree by completing a prescribed course of a study at an educational institution located in Japan that is positioned as the one offering foreign graduate courses under the educational system of the said country and separately designated by the Japanese Minister of Education, Culture, Sports, Science, and Technology
- (6) Individuals who are appointed by the Minister of Education, Culture, Sports, Science, and Technology (1989 Ministry of Education Notification No. 118) (Note)
- (7) Individuals who do not fall under any of (1) to (6) above, but are recognized based on the individual qualification screening as having an academic ability equal to or superior to those with a master's or a Professional degree
- * Those who are applying under the above (7) must undergo the application qualification screening. Please send an application following the rules stated on page 7 of these Guidelines.

(Note) The above qualification (6) refers to those who satisfy one of the following requirements.

- (1) Individuals who have engaged in research activities for two years or more at a university, research institute, etc. after graduating from a university and are recognized by the Graduate School, based on the research outcomes, as having an academic ability equal to or superior to those with a master's degree
- (2) Individuals who have engaged in research activities for two years or more at a university or research institute, etc., after completing 16 years of school education in a foreign country or 16 years of school education offered by a foreign school via distant learning in Japan, and are recognized by the Graduate School, based on the research outcomes, as having an academic ability equal to or superior to those with

a master's degree

3. Application Qualification Screening

Applicants who fall under the following must undergo the application qualification screening.

• Those who apply under the qualification (7)

<Application period>

June 27 (Tue) to July 4 (Tue), 2023

The reception of the Academic Affairs Section of Science is available to receive the application documents on weekdays from 10:00 am - 12:00 pm and 2:00 pm - 4:00 pm only (excluding national holidays).

If you send the documents by post, they must be postmarked on or before the last day of the deadline.

<Documents to be submitted>

- Confirmation of qualification (Designated form by the Graduate School)
- Certificate of (expected) completion of the last educational institution
- Academic transcript of the last educational institution
- Curriculum vitae (Designated form by the Graduate School)
- Statement of purpose (A4, 1 page)
- Confirmation of educational background

Please write down your career and research experiences after the last educational institution attended. If there are any documents proving your engagement in research activities, etc. (for example, a paper, a summary of a presentation at an academic meeting, a certificate of research participation issued by a research institute, a certificate issued by a thesis adviser, etc.), attach them as well.

• A self-addressed stamped envelope (standard-size, with 344-yen postage stamps affixed <express delivery fee included>) (For notification of application approval/rejection purpose)

Note: Resubmission of both "certificate of (expected) graduation" and "academic transcript" from the last educational institution will not be required at the time of formal application.

<Designated form>

Please download the designated forms from the website of the Graduate School of Science (https://www.se.tmu.ac.jp/entrance_exam.html).

<Place for submission>

Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University

(Please send by registered express mail and write down in red "Qualification screening documents to the

Doctoral program [October enrollment] enclosed" on the front left side of the envelope.)

<Notice of results>

Notification will be sent out on July 21 (Fri), 2023.

<Application procedure>

Individuals who are admitted to undergoing application may proceed with the application procedures following these Guidelines.

4. Request for Special Consideration or Arrangement Related to Physical Disability

If you would like to request special consideration or arrangement related to physical disability at the time of examination or during school attendance, please notify us in advance. Please download the designated request form from the website of the Graduate School of Science (<u>https://www.se.tmu.ac.jp/entrance_exam.html</u>).

<Request acceptance period>

June 27 (Tue) to July 4 (Tue), 2023

The reception of the Academic Affairs Section of Science is available to receive the form on weekdays from 10:00 am - 12:00 pm and 2:00 pm - 4:00 pm only (excluding national holidays).

If you send the form by post, it must be postmarked on or before the last day of the deadline.

<Documents to be submitted>

Request for consultation regarding entrance examination to the Doctoral program (October enrollment) at the Graduate School of Science (Designated form by the Graduate School)

<Place for submission>

Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University

(Please send by registered express mail and write down in red "Request for consultation regarding entrance examination to the Doctoral program [October enrollment] enclosed" on the front left side of the envelope.)

5. Request for Adult Working Student Enrollment

Programs suitable for adult working students are available to individuals who fall under any of the items listed in "2 Qualification" on pages 6 - 7 of these Guidelines and ever worked at the same company or research/ educational institution for more than one year by the time of enrollment. The applicant must continue working for their current employer with being approved by their immediate manager after the enrollment in the Doctoral program. If you wish to enroll as an adult working student, notify us in advance in the way explained below. It is still possible to apply for the Doctoral program as a general student without using this system.

<Request acceptance period>

June 27 (Tue) to July 4 (Tue), 2023

The reception of the Science Office is available to receive the request on weekdays from 10:00 am - 12:00 pm and 2:00 pm - 4:00 pm only (excluding national holidays).

If you send the documents by post, they must be postmarked on or before the last day of the deadline.

<Documents to be submitted>

- Curriculum vitae (Designated form by the Graduate School)
- Certificate of approval for application (signed by applicant's immediate manager) (Designated form by the Graduate School)
- Research interest information sheet (Designated form by the Graduate School or a form created in accordance with it)
- Certificate of completion of the last educational institution or certificate of expected completion of the Master's program
- A self-addressed return envelope (standard-size, with 344-yen postage stamps affixed <express delivery fee included>) (For notification of application approval/rejection purpose)

Note: Resubmission of "certificate of (expected) completion from the last educational institution" will not be required at the time of formal application.

<Designated form>

Please download the designated form from the website of the Graduate School of Science (https://www.se.tmu.ac.jp/entrance exam.html).

<Place for submission>

Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University

<Notice of results>

Notification will be sent out on July 21 (Fri), 2023.

Note: Applicants who are deemed to require an interview will be notified separately.

<Application procedure>

Individuals who are admitted to undergoing application may proceed with the application procedures following these Guidelines. (In this regard, this Graduate School will adopt the Special Provision on Educational Method stipulated in Article 14 of the Standards for Establishment of Graduate Schools.)

6. Long-term Study System

Graduate School of Science has a system in which students may complete the program on a pre-planned basis during a fixed period exceeding the standard study duration (three years for the Doctoral program) under such

circumstances of occupation, childbirth, childcare, nursing needs, etc. The students should pay the same amount of tuition fees as regular students in installments over the period permitted for their long-term study.

<Qualification criteria>

Students who have difficulty completing their course within the standard study duration due to any of the following reasons:

- (1) Occupation as a full-time employee
- (2) Childbirth, childcare, or nursing needs
- (3) Other reasons approved as exceptional circumstances

<Application procedure>

Application Information and forms are available to download from the website of the Graduate School of Science (<u>https://www.se.tmu.ac.jp/entrance_exam.html</u>). Send the application forms together with other required application documents. For the details of this program, please confirm with the Application Information.

Notification of approval/rejection for the Long-term study system is scheduled to be sent out on **September 8** (Fri), 2023.

7. Application Procedure

Before making an application, make sure to obtain approval from your prospective thesis advisor.

(1) Application period

Sending by post: July 28 (Fri) to August 4 (Fri), 2023

(Application must be postmarked on or before the last day of the deadline.)

Place for submission:Academic Affairs Section of Science, Academic and Student Affairs Division of
Sciences, Administrative Affairs Department of Tokyo Metropolitan University

Note:

- Write down in red "Application form to the Doctoral program (October enrollment) enclosed" on the front side of the envelope and send it by registered express mail.
- Send the application well in advance, considering the days to be delivered.
- Be sure to contact the Academic Affairs Section of Science if you do not receive the Exam admission card by August 18 (Fri), 2023.

(2) Documents to be submitted

Application documentation	Remarks
(1)	Use the designated form by the Graduate School. (Reverse side must also be filled
Application form	in.)
Exam admission card	• Affix your photo (4 cm in height x 3 cm in width, upper-body, frontal and bare
Photo card	head, taken within the last three months of application) in the specified space.
(2)	Level by the president/deep of the president to the ded (Original hand server)
Academic transcript of the	Issued by the president/dean of the university attended (Original hard copy)
Master's program	[*Note]
(3)	
Certificate of (expected)	Issued by the president/dean of the university attended (Original hard copy)
completion of the Master's	[*Note]
program	
(4)	Submit a thesis abstract alternatively if you can't submit a master's thesis by the
Master's thesis or	application due date.
an equivalent work	application due date.
(5)	• 30,000 Japanese yen (Entrance examination fee)
Payment receipt (A part),	• The entrance examination fee will not be refunded for any reason once the
Payment certificate or	application is processed.
Printout of the "Results	• Applicants who completed the Master's program at Tokyo Metropolitan
page"	University in March 2023 or who are expected to complete it in September 2023
	are exempted from paying the entrance examination fee.
	[Payment using Transfer request form (payment slip)]
	After paying the entrance examination fee, confirm the bank receipt seal on the
	"payment receipt (A part)" and paste it on the "Certificate for a Fee Payment by
	Using Payment Slip or Online Payment System."
	[Online payment (e-payment site)]
	[Payment on the Japanese website]
	Paste the "Payment certificate" portion of the "Handling statement of entrance
	exam/screening fee" on the "Certificate for a Fee Payment by Using Payment
	Slip or Online Payment System" provided in these Guidelines.
	[Payment on the English website]
	Submit a printout of the "Results page."
	Note: For the payment made at a convenience store or Pay-easy ATM in Japan,
	submit the <u>original</u> payment certificate. For the payment using an electronic
	payment method such as credit card, internet banking, Alipay, and UnionPay

service, submit a printout of the payment certificate or the "Result page."
Write down your address, name, and postal code and affix 344-yen postage stamps
(express delivery fee included) on a return envelope (12 cm x 23.5 cm size).
It will be used after passing the entrance examination when the university sends
you the admission documents. Write your name and address clearly in block letters
so that the mail surely reaches you. If your address has been changed after making
an application to the Graduate school, make sure to promptly report it to the
Academic Affairs Section of Science and apply for the mail forwarding service at
a post office.
When any support is necessary for the acquisition/renewal of the visa, fill out the
"Request for support regarding acquisition/renewal of student visa" and submit it
together with the application documents.
Please note that support will be provided only for visa acquisition/renewal at the
time of enrollment, not at the time of entrance examination.
Government-financed international students (through Embassy recommendation or
Domestic selection) who are currently enrolled at another university but are
wishing to enter this University must submit the certificate of receipt of the
government-financed scholarship.
Note: For information on the scholarship period extension for a high-ranking
academic program (including this Doctoral program), please confirm with the
university currently attending.
If you wish to have the long-term study system applicable upon enrollment, obtain
the Application information and forms on the website of the Graduate School of
Science (https://www.se.tmu.ac.jp/entrance_exam.html). Submit the completed
forms together with other required application documents.

[*Note]

Applicants who completed the Master's program at Tokyo Metropolitan University in March 2023 or are expected to complete it in September 2023 are not required to submit documents (2) and (3).

8. Screening Method for Applicants

Successful applicants will be selected comprehensively based on the oral examination results, the contents of the master's thesis (or an equivalent work providing an outline of recent research), and the academic transcript issued at the university attended.

- (1) Examination date: August 28 (Mon), 2023
- (2) Examination venue: Building No. 8, 11 or 12 Minami-Osawa Campus, Tokyo Metropolitan University (Applicants will be notified of the details when receiving the Exam Admission Card.)

Examination subjects (oral examination): Specialized subjects mainly in the form of oral examination

Department	Subject
Mathematical Sciences	Math
Physics	Physics
Chemistry	Chemistry
Biological Sciences	Biology

See page 17 for the examination timetable.

9. Announcement of Results

Date & Time: September 8 (Fri), 2023 at 2:00 pm

Exam admission card numbers of the successful applicants will be posted on the website of the Graduate School of Science (<u>https://www.se.tmu.ac.jp/</u>). Therefore, make sure to confirm the results. Please note that telephone inquiries are not accepted.

(1) A Letter of acceptance and other documents will be provided to the successful applicants in exchange for the Exam admission card at the Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University on the dates below.

September 8 (Fri), 2023 from 2:00 pm - 5:00 pm September 11 (Mon), 2023 from 10:00 am -12:00 pm and 2:00 pm -5:00 pm

(2) If you wish to have the results sent to you by post, please submit, after the oral examination, your Exam admission card and an A4 size self-addressed return-mail envelope (24 cm x 33.2 cm, with your exam admission card number written and 720-yen postage stamps affixed) to the Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University.

10. Admission Procedure

Successful applicants are requested to complete admission procedures by **September 15 (Fri)**, **2023**. Detail will be notified after the announcement of results.

11. Admission Fees, Tuition Fees, and Scholarships

(1) Admission fee

Residents of Tokyo:	141,000 Japanese yen (tentative amount)
Others:	282,000 Japanese yen (tentative amount)

Note:

• If the admission fee is revised, the new price shall apply.

- Successful applicants who completed the Master's program at Tokyo Metropolitan University in March 2023 or are expected to complete it in September 2023 are exempted from paying the admission fee.
- A "resident of Tokyo" refers to the one whom he/she, or his/her spouse or a first-degree relative has lived in Tokyo continuously for one year or longer (from October 1, 2022) before the day of enrollment (October 1, 2023). The decision for granting certification of "resident of Tokyo" will be made based on the applicant's "Certificate of Items Stated in Resident Register" if the applicant him/herself lives in Tokyo, or in other cases "Certificate of Items Stated in Resident and Resident Register" and "Extract of Family Register" of his/her relative living in Tokyo.

(2) Tuition fee

Annual amount: 520,800 Japanese yen (tentative amount)

Note:

- The tuition fee should be paid by account transfer. Half of the annual amount (260,400 Japanese yen) is charged from the bank account in late October and late April.
- If the tuition fee is revised during the Academic Year 2023, the new price shall apply.
- The tuition fee waiver is available.
- (3) Scholarships available

• Benefit type of scholarships

Benefit-type scholarships are available to those enrolled in the Doctoral program of Tokyo Metropolitan University. Details can be confirmed on the website of the Student Affairs Division (<u>https://gs.tmu.ac.jp/scholarship/</u>) (Japanese site).

Please note that a scholarship will not be provided to all applicants due to budgetary limits.

12. Opportunities to Participate in Education and Training

Teaching assistant/research assistant positions and the financial support for participating in domestic/international academic conferences are available to graduate students.

13. Important Reminders

- (1) Incomplete application documents will not be accepted.
- (2) No documents submitted will be returned, nor will the entrance examination fee be refunded for any reason after the application has been processed.
- (3) Make sure to bring the Exam admission card on the day of the examination.
- (4) If any fraud or other act of dishonesty is found during the entrance examination or in the application procedure, enrollment will be rescinded even after admission has been granted.

- (5) We do not recommend or introduce accommodations to examinees.
- (6) Tokyo Metropolitan University has established the "Tokyo Public University Corporation Security Export Control Regulations" based on the "Foreign Exchange and Foreign Control Trade Law" and carries out strict screening from the perspective of providing technology and exporting goods when accepting international students.

Please note that those falling under the regulated matters may not be admitted to the University or be restricted in the research activities they wish to do at the University. For further information, please refer to the following website of the University's Security Export Control.

https://www.tmu.ac.jp/cooperation/compliance/exportcontrol.html (Japanese site)

14. Payment of Entrance Examination Fee

- (1) Payment using Transfer request form (Payment slip)
 - A) Pay the entrance examination fee (30,000 Japanese yen) by bank transfer (wire) using the transfer request form provided in these Guidelines.
 - The transfer cannot be made at a post office.
 - Enclosing the postal money order or cash in the Application form envelope is not acceptable.
 - The entrance examination fee cannot be paid through an ATM (automatic teller machine).
 - B) Fill in the necessary information on the "Transfer request form for entrance examination fee" and submit it to a financial institution counter together with the entrance examination fee. The service charge should be shouldered by the remitter. No service charge is required for the payment made at the head or a branch office of Mizuho Bank
 - C) After the transfer, paste the "Payment receipt (A part)" (invalid without the receipt seal of the financial institution) in the "Certificate for a Fee Payment by Using Payment Slip or Online Payment System" and submit it together with application documents.
- (2) Online payment (e-shiharai.net)

Register for e-shiharai.net (<u>https://e-shiharai.net/</u>) in advance and pay either at a convenience store, through Pay-easy ATM/Internet Banking, by credit card or through UnionPay service. (In the case of payment made outside Japan, credit card and UnionPay service are acceptable).

For the payment method details, please refer to a separate sheet titled "How to Pay the Entrance Examination Fee to the Graduate School of Science of Tokyo Metropolitan University (Application from within and outside Japan)." The service charge should be shouldered by the remitter.

[Payment made on the Japanese website]

After the payment, detach the "Payment certificate" portion of the "Handling statement of entrance exam/screening fee," paste it on the "Certificate for a Fee Payment by Using Payment Slip or Online Payment System" and submit it together with the application documents.

[Payment made on English website]

After the payment, submit a printout of the "Results page" together with the application documents.

<Payment period>

July 13 (Thu) – August 4 (Fri), 2023

<Note>

For questions concerning the procedures of e-shiharai.net, please refer to "Frequently Asked Questions" on the following website (https://e-shiharai.net/ecard/sss/FAQ.html) and then contact the e-Service Support Center.

[Exemption from the entrance examination fee for the victims of natural disasters]

Applicants affected by any of the natural disasters (The Great East Japan Earthquake occurred in March 2011 and Heavy rain in July 2020) will be exempted from paying the entrance examination fee. Before paying the entrance examination fee, please consult with the Academic Affairs Section of Science, Administrative and Student Affairs Division of Sciences.

Note: A refund can be made only when an applicant paid the entrance examination fee but didn't send the application documents or paid the fee twice by mistake. For details, please see the following University's website. https://www.tmu.ac.jp/campus_life/tuition/expenses.html (Japanese site)

15. Handling of Personal Information

Please acknowledge beforehand that Tokyo Metropolitan University handles personal information strictly following laws and regulations as follows:

- (1) Personal information obtained through the admission selection, including applicants' names and addresses, etc., shall be used for screening (processing applications, conducting selection, and announcing successful applicants) and admission procedures. Additionally, personal information of enrolled students will be used for the procedures concerning 1) academic affairs (school register, educational guidance, etc.), 2) student support service (healthcare, employment support, tuition fee reduction/exemption, scholarship application, etc.), and 3) clerical work for tuition collection.
- (2) Admission evaluation results gained through the admission selection will be used to prepare documents for future admission selection procedures.

16. Timetable for the 2023 Entrance Examinations to the Graduate School (Doctoral Program)

Department August 28 (Mon), 2023		Remarks		
Mathematical 10:00 am – 3:00 pm		The oral examination consists of a presentation on		
Sciences	Math	the contents of the master's thesis (approx. 15		
	(Oral examination)	minutes). Own laptop PC can be used for the		
		presentation.		
Physics	10:00 am – 3:00 pm	The oral examination consists of a presentation on		
	Physics	the contents of the master's thesis or an outline of		
	(Oral examination)	recent research followed by an interview.		
Chemistry	10:00 am – 3:00 pm	The oral examination consists of a presentation on		
	Chemistry	the contents of the master's thesis or an outline of		
(Oral examination)		recent research followed by an interview.		
Biological 10:00 am – 3:00 pm		The oral examination consists of a presentation on		
Sciences	Biology	the contents of the master's thesis or an outline of		
	(Oral examination)	recent research followed by an interview.		

Graduate School of Science, Tokyo Metropolitan University

Precautions for taking the entrance examinations:

- 1. Make sure to arrive at the exam anteroom 10 minutes before the specified examination time on the examination day. Follow the instructions of the test proctor.
- 2. Locations of examination venue will be indicated by displays on the examination day.

17. Introduction of Thesis Advisors, Visiting Professors from Partner Institutions, and Study Fields of the Graduate School of Science

(1) Professors whose names are marked with "*" are scheduled to retire in March 2025 and those marked with "**", in March 2026.

(2) Numbers 1, 2, ...on the rightmost column should correspond to the field number written down in the "application field" of the Application Form. In the case of applicants of the Department of Physics, however, enter only the field number in the first choice column under "application field" of the Application Form and enter only group numbers A to D in the second choice column. (For details, refer to "Important Reminders for Applicants of the Department of Physics.) Further, in the case of applicants of the Department of Chemistry, enter at most 4 field numbers from the second choice to the fifth one in the second choice column under "application field" of the Application Form, from the left in the order of preference. (For details, refer to "Important

(3) The Graduate School of Science has concluded an agreement on a joint graduate school program with research institutes based on which students

(3) The Graduate School of Science has concluded an agreement on a joint graduate school program with research institutes based on which students can receive research guidance from visiting professors from the partner institutes. The names, study fields, and study descriptions of visiting professors are mentioned separately after the list of this University's faculty members in each Department. For details, please contact a university faculty member who has the same field number as the visiting professor from a partner institute.

As of April, 2024 (Scheduled)

Research Field	Thesis Advisor		Research Subject	Field Number
Analysis	Professor	KURATA, Kazuhiro **	Partial Differential Equations, Nonlinear Variational Problems	1
Algebra	Professor	KURODA, Shigeru	Affine Algebraic Geometry, Polynomial Ring Theory	2
Geometry	Associate Professor	HISAMOTO, Tomoyuki	Geometric Complex Analysis	3
Analysis	Associate Professor	SHIMOJO, Masahiko	Reaction Diffusion Equations, Dynamical Systems	4
Analysis	Professor	YOSHITOMI, Kazushi	Partial Differential Equations, Pseudo-Differential operators	5
Geometry	Associate Professor	TAKATSU, Asuka	Differential Geometry, Geometric Analysis	6
Geometry	Associate Professor	FUKAYA, Tomohiro	Geometric Group Theory, Coarse Geometry	7
Algebra	Professor	TSUMURA, Hirofumi	Analytic Number Theory	8
Algebra, Geometry	Professor	TOKUNAGA, Hiro-o	Algebraic geometry, Topology of algebraic curves and surfaces, The Arithmetic of Branched Covers	9
Geometry	Professor	YOKOTA, Yoshiyuki	Knot, 3-Manifold, Quantum Invariant	10
Geometry	Associate Professor	AKAHO, Manabu	Symplectic Geometry, Floer Theory, Morse Theory	11
Algebra, Geometry	Professor	UEHARA, Hokuto	Algebraic Geometry, Classification Theory of Higher Dimensional Algebraic Varieties, Derived Categories of Coherent Sheaves	12
Algebra, Geometry, Applied Mathematics	Associate Professor	KOBAYASHI, Masanori	Algebraic Geometry, Mirror Symmetry, Related Mathematical Sciences	13
Geometry	Professor	SAKAI, Takashi	Differential Geometry, Submanifold Theory	14
Applied Mathematics, Algebra	Professor	UCHIYAMA, Shigenori	Cryptography, Algorithmic Number Theory	15
Applied Mathematics, Algebra	Associate Professor	YOKOYAMA, Shun-ichi	Symbolic Computation, Computational Number Theory, Cryptography	16
Applied Mathematics, Analysis	Associate Professor	ISHITANI, Kensuke	Probability Theory, Mathematical Finance	17
Applied Mathematics, Algebra	Associate Professor	UCHIDA, Yukihiro	Algorithmic Number Theory, Arithmetic Geometry, Cryptography	18
Applied Mathematics	Associate Professor	SUZUKI, Toshio	Theory of Computing, Mathematical Logic	19
Analysis	Associate Professor	SEKI, Yukihiro	Nonlinear Partial Differential Equations, Reaction-Diffusion Systems, Asymptotic Analysis	20

♦Mathematical Sciences

♦Physics

Research Field	Thesis Adviser		Research Subject	Field Number	Group
Nuclear Hadron Physics	Associate Professor	HYODO, Tetsuo	Hadron Physics, Etoxic Hadrons, Theory of Resonances	3	
Theoretical Astrophysics	Professor	FUJITA, Yutaka	High-Energy Astrophysics, Cosmology	4 A	
Quantum Condensed Matter Theory	Professor	MORI, Hiroyuki	Low-Dimensional Systems, Cold Atoms, Quantum Phenomena		
Quantum Condensed Matter Theory	Associate Professor	ARAHATA, Emiko	Quantum Gases, Superconductivity, Superfluidity	6	
	Professor	HOTTA, Takashi	Theory of Magnetism and Superconductivity in Strongly Correlated Electron Systems	7	В
Strongly Correlated Electron Theory	Associate Professor	HATTORI, Kazumasa	Condensed Matter Theory, Strongly Correlated Electron Systems, Quantum Critical Phenomena	7	
Experimental High Energy Physics	Professor	KAKUNO, Hidekazu	Experimental High Energy Physics, Experimental Neutrino Physics	8	
Atomic Physics	Professor	TANUMA, Hajime	Atomic Collisions and Spectroscopy, Electrostatic Ion Storage Ring, Highly Charged Ions, Ion Mobility in Gases, Laboratory Astrophysics	9	С
Experimental Astrophysics	Associate Professor	ISHISAKI, Yoshitaka	X-ray Astronomy, Observations and Instrumentation	10	
Experimental Astrophysics	Associate Professor	EZOE, Yuichiro	A-ray Astronomy, Observations and instrumentation	10	
Soft Matter Physics	Professor	KURITA, Rei	Soft Matter, Phase Transition, Non Equilibrium	11	
Correlated Electron Physics	Professor	AOKI, Yuji	Topological and Strongly-Correlated Electron Systems, Superconductivity and	13	
Concated Electron Physics	Professor	MATSUDA, Tatsuma	Magnetism	15	D
Superconducting Material	Associate Professor	MIZUGUCHI, Yoshikazu	Condensed Matter Physics, Superconductivity, Functional Materials	14	U
Surface and Interface Physics	Professor	YANAGI, Kazuhiro	Condensed Matter Physics in Nano Materials, Material Science	15	
Nano-science Research	Associate Professor	MIYATA, Yasumitsu	Synthesis of Nanoscale Materials, Electrical and Optical Properties	16	

 $\ensuremath{\mathbb{X}}$ There are no Field Numbers 1, 2, 5 and 12 in Physics group.

Affiliated graduate school					
Research Field	Guest teacher	Affiliation	Research Subject		
Strongly Correlated Electron Theory (Field 7)	KUBO, Katsunori	JAEA	Theory of Superconductivity and Multipole Ordering Emerging from Multiple Degrees of Freedom		
Experimental High Energy Physics (Field 8)	ADACHI, Ichiro NISHIDA, Shohei	KEK	High Energy Physics using SuperKEKB collider and Belle II detector, Search for New Physics beyond the Standard Model		
Atomic Physics (Field 9)	AZUMA, Toshiyuki	RIKEN	Atomic and Molecular Physics using an Electrostatic Ion Storage Ring, Resonance Coherent Excitation of Highly Charged Heavy Ions		
Astrophysics (Field 10)	ISHIDA, Manabu	JAXA	X-ray Astronomy, Observations and Instrumentation		

♦ Chemistry

Research Field	Thesis Adviser		Research Subject	Field Number
Coordination Chemistry	Professor	SUGIURA, Ken-ichi	Synthetic Chemistry	
Coordination Chemistry	Associate Professor	ISHIDA, Masatoshi	Coordination Chemistry, Dye Chemistry	1
Environmental Geochemistry	Professor	TAKEGAWA, Nobuyuki	Atmospheric Chemistry, Aerosol, Online Particle Analysis	2
Inorganic Chemistry	Professor	YAMAZOE, Seiji	Functional Materials Chemistry, Catalytic Chemistry, X-ray Spectroscopy	3
morganic Chemistry	Associate Professor	OURA, Yasuji	Radiochemistry, Cosmochemistry, Cosmogenic Nuclides	3
Organic and Structural	Professor	ITO, Yutaka	Solution-State NMR, In-cell NMR, Structural Biology	4
Biochemistry	Associate Professor	IKEYA, Teppei	Biophysical Chemistry, NMR-based Structural Biology, Computational Biology	4
	Professor	NOMURA, Kotohiro	Organometallics, Molecular Catalysis, Organic Synthesis	
Organic Chemistry	Associate Professor	Abdellatif Mohamed Mehawed	Polymer Chemistry, Materials Science	5
Biochemistry	Professor	HIROTA, Kouji	DNA Repair, Chromatin, Replication	6
Biochemistry	Associate Professor	TAOKA, Masato	Proteomics, RNA, Biochemistry	0
Solid State Physical Chemistry	Professor	HIROSE, Yasushi	Solid State Chemistry, Thin Film Synthesis, Oxide Electronics	7
Solid State Physical Chemistry	Associate Professor	OKA, Daichi	Solid State Chemistry, 1 nn Finn Synthesis, Oxide Electronics	/
Physical Chemistry of Molecular Structure and Reaction	Professor	KANYA, Reika	Physical Chemistry, Atomic Molecular Optical Physics	9
Theoretical and Computational Chemistry	Professor	NAKATANI, Naoki	Quantum Chemistry, Electronic Structure Theory, Transition Metal Complexes	11
Isotope Chemistry	Associate Professor	KUBUKI, Shiro	Chemistry of Glass and Ceramics, Radiochemistry of fullerenes	12

 $\ensuremath{\ensuremath{\mathbb{X}}}$ There are no Field Numbers 8 and 10 in Chemisry group.

Affiliated graduate school

Research Field	Guest teacher	Affiliation	Research Subject
Organic and Structural Biochemistry (Field 4)	MIKAWA, Tsutomu	RIKEN	Biofuel cell which mimics metabolic pathways, Functional analysis of proteins which are important for homologous recombination
Biochemistry (Field 6)	KAJI, Hiroyuki	National Institute of Advanced Industrial Science and Technology (AIST)	Glycoscience and Glycotechnology

◆Biological Sciences

Section	Research Field	Thesis Adviser		Research Subjects		
Biology	Molecular Neuroscience	Assoc. Prof.	ANDO, Kanae	Neuroscience, Cell Biology, Molecular Biology, Neurological Diseases and Aging		
	Developmental Biology	Assoc. Prof.	FUKUDA, Kimiko	Morphogenesis, Digestive Tract, Extra-embryonic tissue		
		Assoc. Prof.	TAKATORI, Naohito	Germ Layer Fates, mRNA localization, Cell polarity, Nuclear Migration	3	
	Cellular Biochemistry	Prof.	KAWAHARA, Hiroyuki	Protein Quality Control, Cell Cycle Control, Ubiquitin System		
	Cellular Genetics	Prof.	SAKAI, Takaomi	Molecular and celluler mechanisms of learning and memory		
	Molecular Genetics	Prof.	EHIRA, Shigeki	Molecular Biology & Molecular Physiology of Microorganisms		
	Plant Development and Physiology	Prof.	OKAMOTO, Takashi	Plant Development, Plant Reproduction		
	Evolutionary Genetics	Prof.	TAMURA, Koichiro	Evolutionary Genetics, Evolutionary Genomics, Bioinformatics		
		Prof.	TAKAHASHI, Aya	Evolutionary Genetics, Molecular Basis of Speciation, Population Genomics Evolutionary Genetics, Evolution of Sex Chromosomes, Evolution of Small RNAs		
		Assoc. Prof.	NOZAWA, Masafumi			
	Plant Environmental Responses	Assoc. Prof.	KANEGAE, Takeshi	Plant Cell & Molecular Biology, Photoreceptor, Fern	10	
		Assoc. Prof.	NARIKAWA, Rei	Photobiology, Photosynthesis, Optogenetics	1	
	Environmental Microbiology	Prof.	HARUTA, Shin	Microbial Ecosystems, Interspecies Interaction, Ecophysiology	12	
	Animal Ecology	Assoc. Prof.	OKADA, Yasukazu	Ecology, Behavior, Evolutionary Ecology, and Ecological Developmental Biology of animals	13	
	Plant Ecology	Prof.	SUZUKI, Jun-Ichirou	Plant Ecology, Conservation Ecology, Theoretical Ecology	14	
	Systematic Zoology	Assoc. Prof.	EGUCHI, Katsuyuki	Systematics and Biogeography of Terrestrial Invertebrates (mainly Terrestrial Arthropods)	15	
		Assoc. Prof.	CRONIN, Adam L.	Behaviorual Ecology, Evolutionary Ecology, Collective Behavior, Systems biology	16	
Biomedicine and Biotechnology	Molecular Neuroscience	Assoc. Prof.	ANDO, Kanae	Neuroscience, Mechanisms underlying Alzheimer's disease and other tauopathies, Drosophila models of neurodegenerative disease	1	
	Developmental Biology	Assoc. Prof.	TAKATORI, Naohito	Asymmetric Cell division, Cell morphology, Cell cycle	3	
	Cellular Biochemistry	Prof.	KAWAHARA, Hiroyuki	Protein quality control mechanisms related to immunology, oncology, diabetes and neurodegenerations	4	
	Cellular Genetics	Prof.	SAKAI, Takaomi	Stress-induced brain plasticity in Drosophila	5	
	Plant Development and Physiology	Prof.	OKAMOTO, Takashi	Production of new crops by in vitro fertilization system	7	
	Molecular Regulation of Aging 1)	Prof.	ISHIGAMI, Akihito	Elucidation of aging mechanism and anti-aging research	17	

1) Tokyo Metropolitan Institute of Gerontology

% There is no Field Number 8 in Biological Sciences group.

 \diamondsuit Affiliated graduate school

Field Number	Guest Professor	Affiliation	Research Subjects
1	MIURA, Yuri	Tokyo Metropolitan Institute of Gerontology	Search for diagnostic markers using proteome-based technologies
1	NONAKA, Takashi	Tokyo Metropolitan Insitute of Medical Science	Molecular mechanisms of neurodegenerative diseases
2	MARUYAMA, Chiaki	Tokyo Metropolitan Insitute of Medical Science	Brain development, Cell Migration, Neocortical Evolution
4	4 INOUE, Azusa RIKEN Integrative Medical Science		Intergenerational epigenetic inheitance in mammals
5	UENO, Kohei	Tokyo Metropolitan Insitute of Medical Science	Neural plasticity in the Drosophila brain
7	MIYADO, Kenji	National Center for Child Health and Development	Molecular mechanisms of fertilization and embryo implantation, and establishment of intrauterine environment by symbiotic bacteria in animals
11	YOSHITANE, Hikari	Tokyo Metropolitan Insitute of Medical Science	Circadian Clock and Lifespan/Aging Timer
12	IINO, Takao	RIKEN, BioResource Research Center	Isolation and polyphasic taxonomy of yet-to be cultured archaea and bacteria.
12	SOMEYA, Yuichi	National Institute of Infectious Diseases	Cell biology, biochemistry and structural biology of diarrheal viruses