Graduate School of Science, Tokyo Metropolitan University

Changes in the Application Guidelines for Academic Year 2022 Master's Program (April Enrollment)

Due to the influence of the novel coronavirus (COVID-19), the following changes will be made to the Winter entrance examination.

Department	Changes	BEFORE the change	AFTER the changes
Physics	Application document	Submit any one of the following external English test scores. TOEIC Listening & Reading Test TOEFL (TOEFL-iBT) IELTS Academic Module	A score certificate will not be required for the Winter examination.
	Foreign language examination	Assessed based on the TOEIC, TOEFL, or IELTS score (Perfect score: 50)	Foreign language examination (English) will be excluded from the Winter examination.

Information in this sheet is subject to change due to the influence of the novel coronavirus (COVID-19). Please confirm the latest information on the website of the Graduate School of Science regularly. (http://www.se.tmu.ac.jp/en/entrance_exam.html)

For any inquiries as to the application, please contact below.

[Contact]

Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences,

Administrative Affairs Department of Tokyo Metropolitan University

1-1 Minami-Osawa, Hachioji-shi, Tokyo 192-0397

E-mail: rikou.r@jmj.tmu.ac.jp

Tokyo Metropolitan University Graduate School of Science Application Guidelines for the Master's Program <2022 April Enrollment>

Summer examination: August 24 and 25, 2021

Winter examination: February 8 and 9, 2022

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

1-1 Minami-Osawa, Hachioji-shi, Tokyo 192-0397 Tel: 042-677-1111 (representative) ext. 3021

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

Information in these guidelines is subject to change due to the influence of the novel coronavirus (COVID-19). Please confirm the latest information on the website of the Graduate School of Science regularly.

(http://www.se.tmu.ac.jp/en/entrance exam.html)

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A	an envelope (24 × 33.2 cm) for sending application documents to the Graduate Sc	chool
A	an envelope (12×23.5 cm) for receiving the Exam admission card back from the	Graduate School

Application Guidelines for the Master's Program (2022 April Enrollment)

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

I Application Guidelines for the Master's Program <2022 April Enrollment>

Information in these Guidelines is subject to change due to the influence of the novel coronavirus (COVID-19). Please confirm the latest information on the website of the Graduate School of Science regularly. (http://www.se.tmu.ac.jp/en/index.html)

1. Entrance Examination Schedule

First-stage examination (written) Second-stage examination (oral)

[Summer examination] August 24 (Tue), 2021 August 25 (Wed), 2021 [Winter examination] February 8 (Tue), 2022 February 9 (Wed), 2022

2. Number of Students to be Accepted

Name of department	Number of students to be accepted
Mathematical Sciences	25
Physics	35
Chemistry	35
Biological Sciences	40

- The expected number of successful applicants in the winter examination is set at about 10-20% of the above number.
- As for the October enrollment, please refer to the "Application Guidelines for the Master's Program (2021 October Enrollment) of the Graduate School of Science, Tokyo Metropolitan University."

3. Qualification *

- (1) Individuals who have graduated or are expected to graduate from a university by March 2022 (Note 1)
- (2) Individuals who have been granted or are expected to be granted a bachelor's degree by March 31, 2022, under Article 104 Paragraph 4 of the School Education Act of Japan (Note 2)
- (3) Individuals who have completed 16 years of school education in a foreign country (Note 3)
- (4) Individuals who have completed 16 years of school education at a foreign school through distant learning in Japan
- (5) Individuals who have received a degree equivalent to a bachelor's degree or are expected to receive one by March 2022 from a foreign university or a foreign school (limited to one that has been evaluated by an organization accredited by the government or a related governmental organization of the said country for the overall performance of its education and research activities or designated separately as so by the Japanese Minister of Education, Culture, Sports, Science, and Technology) upon completion of a three-year or longer course of study (including completion of an educational course of a foreign school through distant learning in Japan or an educational course of a foreign school positioned as an educational

- institution under the educational system of the said country and designated separately by the Japanese Minister of Education, Culture, Sports, Science, and Technology)
- (6) Individuals who have completed a course of study at an educational institution located in Japan that is positioned as the one offering foreign university courses under the educational system of the said country (limited to those who are deemed to have completed 16 years of school education under the educational system of the said country) and designated separately by the Japanese Minister of Education, Culture, Sports, Science, and Technology
- (7) Individuals who have completed a specialized course at a vocational school designated by the Japanese Minister of Education, Culture, Sports, Science, and Technology (limited to the course with a duration of 4 years or more and satisfy the conditions set by the Minister) after the date set by the Minister
- (8) Individuals who are appointed by the Japanese Mister of Education, Culture, Sports, Science, and Technology (1953 Ministry of Education Notification No. 5) (Note 4)
- (9) Individuals who have been enrolled in a Japanese university for three years or more, or have completed 15 years of school education in a foreign country, or have completed a course of study at an educational institution in Japan that is positioned as the one offering foreign university courses under the educational system of the said country (limited to those who are deemed to have completed 15 years of school education under the educational system of the said country) and designated separately by the Japanese Minister of Education, Culture, Sports, Science, and Technology, and who are recognized to have acquired the predetermined credits with excellent results at the faculty meeting of the Graduate School of Science (Note 5)
- (10) Individuals who are recognized by the Graduate School of Science as having academic ability equal to or superior to a university graduate based on the individual application qualification screening and who are 22 years of age or over (as of April 1, 2022)
- * Those who are applying under the above (3) or (4) should submit Applicant's inquiry sheet under the qualification (3) or (4).
- * Those who are applying under the above (5) should consult with the Academic Affairs Section of Science before sending application documents.
- * Those who are applying under the above (9) or (10) must undergo the application qualification screening. Please make an application following the rules stated on pages 8-9 of these Guidelines.
- (Note 1) Universities as defined in Article 83 of the School Education Act of Japan
- (Note 2) Submission of a NIAD-UE certificate issued by the National Institution for Academic Degrees and University Evaluation is required during the admissions processing period.
- (Note 3) Including those who have completed a total of 16 years of school education in Japan and abroad combined.
- (Note 4) Graduates of National Defense Academy of Japan, National Fisheries University, Meteorological College, Polytechnic University, etc.
- (Note 5) This applies to "early admission students" (including those who have been enrolled in a university for at least three years as of March 31, 2022). This also applies to "prospective early graduating students" who cannot submit a certificate of expected graduation at the time of application.

4. Application Qualification Screening

Applicants who fall under the following should undergo the application qualification screening:

- Those who apply under the Qualification (9)
- Those who apply under the Qualification (10)

(1) Those who apply under Qualification (9)

Please notify the Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University during the application period specified below. Documents to be submitted will be instructed separately.

<Application period>

[Summer examination] June 24 (Thurs) to July 1 (Thurs), 2021
[Winter examination] November 11 (Thurs) to 18 (Thurs), 2021

(Weekdays from 10:00 am - 12:00 pm and 2:00 pm - 4:00 pm only [excluding national holidays])

(2) Those who apply under Qualification (10)

<Application period>

[Summer examination] June 24 (Thurs) to July 1 (Thurs), 2021 [Winter examination] November 11 (Thurs) to 18 (Thurs), 2021

Please bring the required documents to the Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University during the period specified above.

(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 arrive no later than the last day of the application period.

<Documents to be submitted>

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

[Note for the applicants to the Department of Biological Sciences]

Please write down your career and research experiences after the last educational institution, if any. In addition, if there are any documents proving your engagement in research work, etc. (for example, a paper, a presentation summary for an academic conference, 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 374-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 forms>

Designated forms can be downloaded from the website of the Graduate School of Science (http://www.se.tmu.ac.jp/en/entrance_exam.html). Alternatively, send a letter of request with a self-addressed return envelope (standard-size, with an 84-yen postage stamp affixed) to the Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University. Write down in red "Request for application forms for qualification screening to the Master's program" on the front left side of the envelope.

<Place for submission>

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

(Send by registered express mail and write down in red "Documents for qualification screening to the Master's program enclosed" on the front left side of the envelope.)

<Notice of screening results>

[Summer examination] July 16 (Fri), 2021 (to be sent out on)

[Winter examination] December 3 (Fri), 2021 (to be sent out on)

<u>Individuals who are admitted to undergoing application may proceed with the formal application procedure following these Guidelines.</u>

5. Request for Written Examination in English

Applicants who wish to take the written examination in English must contact the Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University during the following period. We will respond to the request after consultation. A request form be downloaded from the website of the Graduate School of Science (http://www.se.tmu.ac.jp/en/entrance exam.html).

<Request acceptance period>

[Summer examination] June 17 (Thurs) to July 1 (Thurs), 2021
[Winter examination] November 4 (Thurs) to 18 (Thurs), 2021

Please bring the form to the Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University during the period specified above. (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 arrive no later than the last day of the application period.

6. 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 on the website of the Graduate School of Science (http://www.se.tmu.ac.jp/en/entrance_exam.html), or send a letter of request to the Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University together with a self-addressed return envelope (standard-size, with an 84-yen postage stamp affixed).

<Request acceptance period>

[Summer examination] June 24 (Thurs) to July 1 (Thurs), 2021
[Winter examination] November 11 (Thurs) to 18 (Thurs), 2021

Please bring the request form to the Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University during the period specified above. (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 arrive no later than the last day of the application period.

<Documents to be submitted>

Request for consultation regarding entrance examination to the Master's program 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

(Send by registered express mail and write down in red "Request for consultation regarding entrance examination to the Master's program enclosed" on the front left side of the envelope.)

7. 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 "3 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 Master's 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 Master's program as a general student without using this system.

<Request acceptance period>

[Summer examination] June 24 (Thurs) to July 1 (Thurs), 2021
[Winter examination] November 11 (Thurs) to 18 (Thurs), 2021

Please bring the required documents to the Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University during the period specified above. (Weekdays from 10:00 am - 12:00 pm and 2:00 pm - 4:00 pm only [excluding national holidays])

If you send them by post, they must arrive no later than the last day of the application period.

<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 document created in accordance with it)
- Certificate of (expected) graduation from the last educational institution
- A self-addressed return envelope (standard-size, with 374-yen postage stamps affixed [express delivery fee included]) (For notification of application approval/rejection purpose)

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

<Designated forms>

Please download the designated forms on the website of the Graduate School of Science (http://www.se.tmu.ac.jp/en/entrance_exam.html). Alternatively, you can request the forms by sending a letter of request with a self-addressed return envelope (12 cm x 23.5 cm size, with an 84-yen postage stamp affixed) to the Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University. Please write down in red "Request for forms for consultation regarding application for adult working student to the Master's program" on the front left side of the envelope.

<Place for submission>

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

(Send by registered express mail and write down in red "Request for consultation regarding application for adult working student to the Master's program enclosed" on the front left side of the envelope.)

<Notice of results>

[Summer examination] July 16 (Fri), 2021 (to be sent out on)

[Winter examination] **December 3 (Fri), 2021** (to be sent out on)

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

<Application procedure>

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

<Partial exemption from the written examination>

Applicants to the Department of Biological Sciences as a working adult student shall be exempted from the written biology examination when they have taken two or more department courses (4 credits or more) as a credited auditor and are approved as having a sufficient level of academic ability enough to obtain credits. (The Graduate School of Science adopts the Special Provision on Educational Method stipulated in Article 14 of the Standards for Establishment of Graduate Schools.)

8. Applicants Residing Outside Japan

Applicants residing outside Japan require individual support for the application. Please inform the Academic Affairs Section of Science by e-mail (<u>rikou.r@jmj.tmu.ac.jp</u>) before the application period starts.

9. 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 (two years for the Master's program) under such circumstances of occupation, childbirth, childcare, nursing needs, etc. Under this system, students shall 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 courses 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 (http://www.se.tmu.ac.jp/en/entrance_exam.html). Send the application forms together with other required documents. For the details of this program, please confirm with the Application Information.

Notification of approval/rejection is scheduled to be sent out on the date below.

[Summer examination] September 3 (Fri), 2021 [Winter examination] February 21 (Mon), 2022

10. Application Procedure

Applicants must submit the following documents by the prescribed date.

Application	Remarks					
documentation (1)	Use the designated form by the Graduate School. (Fill in the reverse side as well.)					
Application Form	• Enter the desired application field number corresponding to the fields of research					
Exam admission card	listed on pages 26-28.					
Photo card	[Department of Physics]					
Exam desk card						
Exam desk card	Write the desired field number in the first-choice column and at most 2 group					
	numbers from A to D in the second-choice column, from the left in the order					
	of preference					
	[Department of Chemistry]					
	Write the desired field number of the first choice in the first-choice column					
	and at most four field numbers from the second to the fifth choices in the					
	second-choice column, from the left in the order of preference.					
	[Department of Biological Sciences]					
	Write the desired field number in the first-choice column and the second and					
	third choices in the second-choice column, from the left in the order of					
	preference.					
	For further details, please read carefully "Precautions for Taking the Entrance					
	Examinations" on page 29 and following.					
	· Affix your photo (4 cm in height x 3 cm in width, upper-body, frontal and bare					
	head, taken within the last three months of application) in the specified space.					
(2)	Issued by the president/ dean of the university attended (For the one written in					
Academic transcript	other than Japanese or English, attach its English translation.)					
(Original hard copy)	Note: Current TMU students (except early graduating students) don't need to					
	submit the academic transcript.					
(3)	Issued by the president/ dean of the university attended (For the one written in					
Certificate of (expected)	other than Japanese or English, attach its English translation.)					
graduation	Note: Current TMU students (except early graduating students) don't need to					
(Original hard copy)	submit the certificate of expected graduation.					
(4)	· 30,000 Japanese yen (Entrance examination fee)					
Payment certificate for	· The entrance examination fee will not be refunded for any reason once the					
the entrance examination	application is processed.					

fee	【Payment using a Transfer request form (Payment slip)】
(or printout of the "Result	After paying the fee, confirm the bank receipt seal on the "Payment receipt (A
page")	part)" and paste it on the specified space in the "Certificate for a Fee Payment
	by Using Payment Slip or Online Payment System."
	[Online payment (e-shiharai net)]
	[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 original 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."
(5)	Write down your address, name, and postal code, and affix 374-yen postage
Return-mail envelope	stamps (express delivery fee included) on the return-mail envelope provided in
	these Guidelines.
(6)	It will be used after passing the entrance examination when the university sends
Return address label	you the admission documents. Write your name and address clearly in block letters
sticker	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.
(7)	The validity of an English proficiency test score is within two years before the
Applicants to the	entrance examination date. Therefore, the test score taken in and after August 2019
Departments of Physics	and in and after February 2020 is valid for applying for the summer and winter
and Biological Sciences	examinations, respectively.
(except those exempted	1. Using the TOEIC score
from the written exam)	· A score of the TOEIC Listening & Reading Test is valid.
	· A score of a group test (TOEIC-IP) is not acceptable.
Any one of the scores	· Submit the original Official Score Certificate together with application
from the following tests:	documents within the application period.
TOEIC Listening &	2. Using the TOEFL (TOEFL-iBT) score
Reading Test	· The score of a group test (TOEFL-ITP) is not acceptable.
· TOEFL (TOEFL-iBT)	· Submit either a photocopy of the "Examinee Score Report" (paper score sheet
• IELTS (Academic Module)	sent from ETS) or a printout of the "Test Taker Score Report" from the My
(Note)	Home Page on the ETS website, together with other application documents

Applicants to the	within the application period.					
Departments of	• Present the original copy of the "Examinee Score Report" at the test site of the					
Chemistry are not	written examination for cross-checking with the document already submitted					
required to submit the	at the time of application. When it is difficult to bring the original to the test					
score for this year only.	site by any possibility, contact the Academic Affairs Section of Science for					
	advance checking of the original copy.					
	Note: <u>Test fee includes one free Examinee Score Report. However, please</u>					
	note that the report will be mailed to you if you have selected "Online score					
	report AND a paper copy" on the "Score Reporting Preference" page when					
	registering for a test. (As of May 2021)					
	· Successful applicants will be requested to submit the Official Score Reports at					
	a later date. As the due date is indicated together with the Letter of acceptance,					
	make sure to obtain one from the Educational Testing Service (ETS) so that it					
	can be submitted by the due date. The code for Tokyo Metropolitan University					
	is "7169." If any falsification is found when comparing the Official Score					
	Reports and the already-submitted score, the entrance permission will be					
	withdrawn.					
	[Reference] https://www.cieej.or.jp/toefl/ (CIEE Japan)					
	3. Using the IELTS score					
	· The score of the IELTS General Training Module is not acceptable.					
	· Submit the original Test Report Form, together with the application form and					
	other documents within the application period.					
	For the information on the handling of scores, see the website of the Graduate					
	School of Science (http://www.se.tmu.ac.jp/prospect/index%21M_Japanese.html).					
(8)						
Applicant's inquiry sheet						
under the qualification	Required for those who apply under the Qualification (3) or (4)					
(3) or (4)						
(9)	If you need any assistance for an acquisition/renewal of a visa, fill out the "Request					
Request for support	for support regarding acquisition/renewal of student visa" and submit it together					
regarding	with application documents.					
acquisition/renewal of	Please note that support will be provided only for visa acquisition/renewal at the					
student visa	time of enrollment, not at the entrance examination.					
(10)	Government-financed international students (through Embassy recommendation					
Certificate of receipt of	or Domestic selection) who are currently enrolled at another university but are					
the government-financed	wishing to enter this University must submit the certificate of receipt of the					
scholarship	government-financed scholarship.					
	Note: For information on the scholarship period extension for a high-ranking					

	academic program (including this Master's program), please confirm with the
	university currently attending.
(11)	For those wishing to have the long-term study system applicable upon enrollment,
Application form for the	obtain the Application information and necessary forms on the website of the
long-term study system	Graduate School of Science (http://www.se.tmu.ac.jp/en/entrance_exam.html).
	Submit the completed forms together with other required application documents.

Note: Due to the Novel Coronavirus (COVID-19) influence, the Department of Chemistry will not conduct a written examination of the foreign language for this year only.

11. 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 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.

12. 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, such as applicants' names and addresses, shall be used for screening (processing applications, conducting selections, and announcing successful applicants) and admission procedure. Additionally, personal information of enrolled students will be used for 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 selections will be used for future admission selection procedures.

II Payment of Entrance Examination Fee

(1) Payment using a 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 (https://e-shiharai.net/) in advance and pay either at a convenience store, through Pay-easy ATM/Internet Banking, by credit card, through Alipay international settlement service or UnionPay service. (In the case of payment made outside Japan, credit card, Alipay international settlement service, 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>

[Summer examination] July 5 (Mon) to August 2 (Mon), 2021

[Winter examination] December 28 (Tue), 2021 to January 12 (Wed), 2022

Note: For questions concerning the e-shiharai.net procedure, please refer to "FAQ (frequently asked questions)" on the website and then contact the e-Service Support Center.

- ◆ Applicants affected by any of the following natural disasters will be exempted from paying the entrance examination fee. Please consult with the Academic Affairs Section of Science, Administrative and Student Affairs Division of Sciences before paying the entrance examination fee.
 - The Great East Japan Earthquake occurred in March 2011,
 - A series of earthquakes occurred in the Kumamoto region in April 2016
 - A series of torrential rains occurred in the northern part of Kyushu in July 2017
 - A series of torrential rains occurred in the Western region of Japan after June 2018
 - Hokkaido Eastern Iburi earthquake occurred in September 2018
 - Heavy rain from the storm front in August 2019
 - Typhoon No. 15 in 2019
 - The power outage caused by Typhoon No. 15 in 2019
 - Typhoon No. 19 in 2019
 - Heavy rain in July 2020

III Summer Examination (August 24 and 25, 2021)

1. Application Period

July 26 (Mon) to August 2 (Mon), 2021 (Documents must arrive by.)

- The application will be accepted only by post. The application directly delivered in person will not be accepted.
- Send the application in the envelope provided in these Guidelines to the Academic Affairs Section of Science,
 Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo
 Metropolitan University by registered express mail.
- Send the application well in advance, considering the days to be delivered.
- Make sure to contact the Academic Affairs Section of Science if you do not receive your Exam admission card by August 13 (Fri), 2021.

2. Entrance Examination Fee

30,000 Japanese yen

- Please see the previous page for the payment method.
- The entrance examination fee will not be refunded for any reason once the application is processed.

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. http://www.tmu.ac.jp/campus life/tuition/expenses.html (Japanese site)

3. Screening Method for Applicants

Screening of applicants is conducted based on the results of written and oral examinations and the academic transcript of the last educational institution in a comprehensive manner. However, a predetermined number of applicants currently enrolled in the Faculty of Science at Tokyo Metropolitan University may be exempted from taking the written examination based on their academic performance, an evaluation of which is conducted separately.

- (1) Examination subjects and screening date and time: See the next page.
- (2) Examination venue:

Buildings No. 8 and 11, Minami-Osawa Campus, Tokyo Metropolitan University (Details will be posted in front of the Science Office in Building No. 8 and in front of Building No. 11 on the examination day.)

(3) Announcement of the first examination results:

[Place] In front of the Science Office in Building no. 8

[Date] Departments of Mathematical Sciences and Biological Sciences --- <u>August 25 (Wed) at 9:30 am</u> Departments of Physics and Chemistry --- <u>August 25 (Wed) at 12:00 pm</u>

Successful applicants can proceed with the second examination.

4. Announcement of Results

Date & time: September 3 (Fri), 2021 at 2:00 pm

Place: In front of the Science Office, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University

Exam admission card numbers of the successful applicants will also be posted on the website of the Graduate School of Science (http://www.se.tmu.ac.jp/) for reference purposes. Therefore, make sure to confirm the results by checking the announcement posted in front of the Science Office. Please note that telephone inquiries are not accepted.

(1) A letter of acceptance will be issued to the successful applicants at the Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences in exchange for the Exam admission card.

[Period] September 3 (Fri) to September 10 (Fri), 2021

(Weekdays from 10:00 am - 12:00 pm and 2:00 pm - 5:00 pm only [excluding national holidays]) (2:00 pm - 5:00 pm on Sept 3)

- (2) To request the results by post, submit, after the oral examination, the 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 postage stamps* affixed) to the Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University.
 - 860-yen postage stamps for the results and scholarship information
 - 750-yen postage stamps for the results only

Summer examination: Examination subjects, examination date and time, etc.

	Exan	nination	Date and time				
Department	Specialized	Foreign language	First examination	Second examination			
	subject		(written examination)	(oral examination)			
Mathematical Sciences	Math (perfect score: 300)	English (perfect score: 60)	August 24 (Tue) 9:30 am - 11:30 am Math I 1:00 pm - 2:30 pm Math II 2:50 pm - 3:40 pm English	August 25 (Wed) 10:00 am – 5:00 pm			
Physics	Physics Math (perfect score: 250)	Assessed based on the TOEIC, TOEFL, or IELTS score (Perfect score: 50)	August 24 (Tue) 9:30 am - 11:45 am Math Physics I 1:00 pm - 2:40 pm Physics II [Adult working applicants are exempted from "Math and Physics I" examinations.]	August 25 (Wed) 1:00 pm - 7:00 pm			
Chemistry	Chemistry (perfect score: 250)	No written examination to be conducted for this year only	August 24 (Tue) 9:30 am -11:10 am Chemistry I 11:30 am - 12:50 pm Chemistry II	August 25 (Wed) 1:00 pm - 5:00 pm			
Biological Sciences	Biology (perfect score: 200)	Assessed based on the TOEIC, TOEFL, or IELTS score (Perfect score: 200)	August 24 (Tue) 9:30 am - 11:30 am Biology	Successful applicants from the written examination August 25 (Wed) 10:00 am - 5:00 pm Applicants exempted from the written examination August 24 (Tue) 10:00 am - 3:00 pm			

[Important reminders]

- (1) Any applicant found to have committed fraud shall be banned from taking the examination.
- (2) No dictionaries are allowed for the "foreign language" examination of the Department of Mathematical Sciences.
- (3) Applicants to the <u>Department of Mathematical Sciences</u> must read the "Precautions for taking the entrance examinations" on page 31.
- (4) Applicants to the <u>Department of Physics</u> must read the "Precautions for taking the entrance examinations" page 32.
- (5) Applicants to the <u>Department of Chemistry</u> must read the "Precautions for taking the entrance examinations" on page 33.
- (6) Applicants to the <u>Department of Biological Sciences</u> must read the "Precautions for taking the entrance examinations" on pages 34-35.

IV Winter Examination (February 8 and 9, 2022)

1. Application Period

January 5 (Wed) to January 12 (Wed), 2022 (Documents must arrive by.)

- The application will be accepted only by post. The application directly delivered in person will not be accepted.
- Send the application by <u>registered express mail</u> in the envelope provided in these Guidelines to the Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University.
- Send the application well in advance, considering the days to be delivered.
- Be sure to contact the Office if you do not receive your Exam admission card by January 24 (Mon), 2022.

2. Entrance Examination Fee

30,000 Japanese yen

- As for the payment method, please see pages 17-18.
- The entrance examination fee will not be refunded for any reason once the application is processed.

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 University's website. http://www.tmu.ac.jp/campus_life/tuition/expenses.html (Japanese site)

3. Screening Method for Applicants

Screening of applicants is conducted based on the results of written and oral examinations and the academic transcript of the last educational institution in a comprehensive manner.

- (1) Examination subjects and screening date and time: See the next page.
- (2) Examination venue:

Buildings No. 8 and 11, Minami-Osawa Campus, Tokyo Metropolitan University

(Details will be posted in front of the Science Office in Building No. 8 and in front of Building No. 11 on the examination day.)

(3) Announcement of results of the first examination:

[Place] In front of the Science Office in Building no. 8

[Date] February 9 (Wed), 2022 at 9:30 am

Successful applicants can proceed with the second examination.

4. Announcement of Results

Date & time: February 21 (Mon), 2022 at 2:00 pm

Place: In front of the Science Office, Academic and Student Affairs Division of Sciences, Administrative

Affairs Department of Tokyo Metropolitan University

Exam admission card numbers of the successful applicants will also be posted on the website of the Graduate School of Science (http://www.se.tmu.ac.jp/) for reference purposes. Therefore, make sure to confirm the results by checking the announcement posted in front of the Science Office. Please note that telephone inquiries are not accepted.

- (1) A letter of acceptance will be issued to the successful applicants at the Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences in exchange for the Exam admission card.
 - [Period] **February 21 (Mon) 28 (Mon), 2021** (excluding Saturdays, Sundays, and national holidays) (Weekdays from 10:00 am 12:00 pm and 2:00 pm 5:00 pm only [excluding national holidays]) (2:00 pm 5:00 pm on February 21)
- (2) To request the results by post, submit, after the oral examination, the 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 750-yen postage stamp affixed) to the Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University.

Winter examination: Examination subjects, examination date and time, etc.

		•	<u> </u>				
	Written e	examination	Date and time				
Department	Specialized	Foreign language	First examination	Second examination			
	subject		(written examination)	(oral examination)			
Mathematical	Math	English	February 8 (Tue)	February 9 (Wed)			
Sciences	(perfect score: 200)	(perfect score: 40)	9:30 am - 11:30 am Math I	10:00 am - 5:00 pm			
			11:50 am - 12:40 pm English	-			
Physics	Physics, math	Assessed based	February 8 (Tue)	February 9 (Wed)			
	(perfect score: 250)	on the TOEIC,	9:30 am - 10:40 am Math,	10:00 am - 5:00 pm			
		TOEFL, or	Physics I				
		IELTS score	11:00 am - 11:50 am				
		(perfect score: 50)	Physics II				
			[Adult working applicants are				
			exempted from "Math and				
			Physics I" examinations.]				
Chemistry	Chemistry	No written	February 8 (Tue)	February 9 (Wed)			
	(perfect score: 100)	examination to	9:30 am - 11:00 am Chemistry	10:00 am - 5:00 pm			
		be conducted for					
		this year only					
Biological	Biology	Assessed based	February 8 (Tue)	February 9 (Wed)			
Sciences	(perfect score:	on the TOEIC,	9:30 am - 11:30 am Biology	10:00 am - 5:00 pm			
	200)	TOEFL, or					
		IELTS score					
		(perfect score: 50)					

[Important reminders]

- (1) Any applicant found to have committed fraud shall be banned from taking the examination.
- (2) No dictionaries are allowed for the "foreign language" examination of the Department of Mathematical Sciences.
- (3) Applicants to the <u>Department of Mathematical Sciences</u> must read the "Precautions for taking the entrance

examinations" on page 31.

(4) Applicants to the <u>Department of Physics</u> must read the "Precautions for taking the entrance examinations"

page 32.

(5) Applicants to the <u>Department of Chemistry</u> must read the "Precautions for taking the entrance examinations"

on page 33.

(6) Applicants to the Department of Biological Sciences must read the "Precautions for taking the entrance

examinations" on pages 34-35.

V Admission Procedure, Admission Fees, Tuition Fees, and Others

1. Admission Procedure

Admission-related documents are scheduled to be provided in late February 2022 to the successful applicants

from both the summer and winter examinations. Please complete the admission procedure during the designated

period.

Successful applicants from the summer examination must submit a "Letter of intent to register" by the date

specified by the Graduate School. Failure to do so will result in the cancellation of admission. For details,

please refer to the document to be provided at the time of issuance of the Letter of acceptance.

2. Admission Fee

Residents of Tokyo:

141,000 Japanese yen (tentative amount)

Others:

282,000 Japanese yen (tentative amount)

Notes:

• The admission fee should be paid at the time of submission of admission documents.

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

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 April 1, 2021) before the day of enrollment

(April 1, 2022). The decision for granting certification of "resident of Tokyo" will be made based on

the "Certificate of Items Stated in Resident Register" if the applicant him/herself lives in Tokyo, or in

other cases the "Certificate of Items Stated in Resident Register" and "Extract of Family Register" of

his/her relative living in Tokyo.

3. Tuition Fee

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

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Notes:

- 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 April and in late October.
- If the tuition fee is revised during the Academic Year 2021, the new price will apply to the students entering in the Academic Year 2022.
- The tuition fee waiver is available.

4. Scholarships

Scholarship by the Japan Students Services Organization (JASSO)
 Scholarship loan is available after enrollment to those whose application is successfully accepted by JASSO.

(2) Benefit type scholarships

The following scholarship programs are available to those who are enrolled in the Doctoral program of the Graduate School of Tokyo Metropolitan University. (Please note that the scholarship will not be provided to all applicants due to budgetary limits.)

[Research Encouragement Scholarship for Doctoral Program Students]

This is a benefit type of scholarship to outstanding students enrolled in the Doctoral program, aiming to encourage their research by offering an environment where they can devote themselves to their research activities.

- <Amount to be provided> 1,800,000 Yen/year (150,000 Yen/month)
- <Benefit period> Up to 3 years after enrollment in Doctoral program
- <Eligible students>

Students who:

- · are accepted to or wish to enter the Doctoral program of the Graduate school; and
- · applied for Research Fellowship for Young Scientists DC1 to JSPS and were not selected.
- <How to apply>

Contact the <u>Academic Affairs Section of Science</u> by the end of December 2021. Program details are available on the website of the Student Affairs Division.

[Scholarship in Support of Graduate Students]

This is a benefit type of scholarship to be provided to outstanding students enrolled in the Doctoral program, aiming to give them financial support and, at the same time, to produce competent personnel. This scholarship can be received up to three times per student.

<Amount to be provided> 260,000 Yen/year (lump-sum distribution)

- <Benefit period> 1 year
- <Eligible students>

Students enrolled in the Doctoral program who have achieved outstanding academic and research results

<How to apply>

Application is not required. (Graduate school will select the candidates after an examination.) Please contact the <u>Academic Affairs Section of Science</u> for details.

For further details, please contact the Academic Affairs Section of Science, Academic and Student Affairs Division of Sciences, Administrative Affairs Department of Tokyo Metropolitan University.

Tel: 042-677-1111 Ext.3022 Email: <u>rikou.r@jmj.tmu.ac.jp</u>

VII Precautions for Taking the Entrance Examinations

Department of Mathematical Sciences	 31
Department of Physics	 32
Department of Chemistry	 33
Department of Biological Sciences	 34 - 35

Important Reminders for Applicants to the Department of Mathematical Sciences

Department of Mathematical Sciences

1. Mathematics I

Answer 4 questions in total, including 2 questions from differential/integral and 2 from linear algebra (matrix, linear mapping, and vector space).

2. Mathematics II (Only for summer examination)

9 basic questions from the following scope. Choose 2 questions to answer.

Scope of questions:

- · Field of algebra (standard form of linear transformation, metric vector space, basics of group theory & ring theory)
- · Field of geometry (general topology, differential geometry of curved surface/line)
- · Field of analysis (vector analysis, differential equations theory, complex functions theory)
- · Field of applied mathematics (discrete mathematics, algorism)

3. English language

- 2 English questions on mathematics: one English-Japanese translation and one English composition (Japanese-English translation) questions. Answer those 2 questions.
- 4. Previous examination questions (Mathematics I, Mathematics II) are available on the Department's website (URL: http://www.se.tmu.ac.jp/mis/).
- 5. A questionnaire survey is conducted, which is used as reference material for the second-stage examination (oral examination). As the questionnaire sheet is enclosed with the exam admission card, please fill out the sheet and bring it with you on the day of the oral examination. It will be collected at the examination venue.
- 6. Please enter the application field number and name of the faculty member in the "application field number" column.

*Application field number First choice Second choice (1) Hiroo (2) Yoyogi

(Entry example)

Important Reminders for Applicants to the Department of Physics

Department of Physics

1. Subjects on the examination

Physics I: Mechanics, Electromagnetics

Physics II: Quantum mechanics, Thermal and statistical mechanics

2. Selection procedures

• First examination

Examinees receiving high scores in the written examination are selected from each of groups A to D.

Second examination

An oral examination is conducted for each of groups A to D, and applicants are assessed comprehensively based on the results of the first and second examinations. Those who receive scores above the passing score are accepted.

Enter the application fields in the "application field number" column of the Application Form as follows:

• First choice: Write down one field number from (1) to (16).

• Second choice Choose at most two from group codes A to D and write them down from the

<u>left</u> in the order of preference.

(Note)

Even when the second choice field group is the same as that of the first choice field, you must still enter group code A to D in the "second choice application field" column.

- 3. In the case that the thesis advisor in the field you are applying is due to retire during your enrollment in the Master's Program, a replacement advisor or any other advisor in the group will take over and be in charge of supervising your research.
- 4. Important information on the entrance examination for the Department of Physics is available on the following websites. Make sure to check the latest information.
 - Entrance examination in general http://www.phys.se.tmu.ac.jp/outside/daigakuin/
 - Previous examination questions
 http://www.phys.se.tmu.ac.jp/outside/daigakuin/kakomon/

Important Reminders for Applicants to the Department of Chemistry

Department of Chemistry

- 1. Each laboratory has its own quota. Therefore, even if an applicant satisfies the eligibility criteria, he/she may not be admitted to the laboratory of his/her choice. Please contact the thesis advisor of the laboratory of choice for the quota and the number of applicants.
- 2. In the "application field number" column of the Application Form, enter the field number of your first choice in the "first choice" column. Then, in the "second choice" column, enter the field numbers of the second choice to the fifth choice in the order of preference. Failure to do so would mean rejection of application or failure to be assigned to a laboratory of your second or lower choice.

(Entry example)

*Application field number

Second choice

5, 12, 6, 4

3. Questions in chemistry are related to four fields: organic chemistry, biochemistry, inorganic/analytical chemistry, and physical chemistry. How to choose questions is explained on the front page of the question leaflet distributed on the day of the examination.

Previous chemistry examination questions are available on the Department's website.

http://www.se.tmu.ac.jp/chem/

Important Reminders for Applicants to the Department of Biological Sciences

Department of Biological Sciences

1. In the "application field number" column of the Application Form, enter the field number of your first choice in the "first-choice" column. Then, in the "second-choice" column, enter the field numbers of your second and third choices in the order of preference.

(Entry example) *Application field number

First choice Second choice

1 15, 2

- 2. As each field has a quota, you may not be admitted to the field of your choice even if you have successfully passed the entrance examination. When you satisfy an acceptability criterion but the quota for your first and second choices fields has been filled by other applicants with far more superior results, you will be accepted under the status of "Field Undecided." Taking the above into consideration, carefully decide the fields of your first and second choices. It is recommended that you contact the teachers in your first and second choices fields and make yourself informed of the research contents, laboratory members, etc., before making an application.
- 3. The field of the "Field Undecided" successful applicants shall be decided based on the consultations after enrollment. However, they may be assigned to the field of their initial choice if there is any admission cancellation.
- 4. When you are admitted to the field of your second or third choice, you may become a "Field Undecided" successful applicant by waving the right to your admitted field after admission registration is completed.
- 5. Detailed information on the field availability, waiver application, and field determination of the "Field Undecided" successful applicants shall be given after admission registration is completed.
- 6. When you wish to be admitted to a research field of a Visiting professor/associate professor from any of the partner institutions, enter both the field number and teacher's name in the "application field number" column of the Application Form.

(Entry example) *Application field number

First choice Second choice

(1) Miura 15, 1

7. Past entrance examination questions can be requested on the Department's website. https://www.biol.se.tmu.ac.jp/exam/en/

- 8. Assessment of foreign language proficiency
 - "Foreign language proficiency" is assessed based on the TOEFL (TOEFL-iBT), TOEIC Listening & Reading Test, or IELTS (Academic Module) test score. Please refer to "10. Application Procedure" in these Application guidelines.
 - Each score is converted into a scale of zero to 200 points for assessment.

TOEFL: TOEFL score/80 x 200, where the score of 80 points or more is taken as 200 points.

TOEIC: TOEIC score/800 x 200, where the score of 800 points or more is taken as 200 points.

IELTS: The score is converted according to the table below. A score of 6.0 or more is taken as 200 points.

IELTS	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
Points	50	60	70	80	100	110	125	150	180	200

VI 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 2023 and those marked with "**", in March 2024.
- (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 Reminders for Applicants of the Department of Chemistry.)
- (3) The Graduate School of Science and engineering has concluded an agreement on a joint graduate school program with research institutes operated by the Tokyo Metropolitan Government, the Institute of Physical and Chemical Research ("RIKEN," a national research and development agency), the National Institute of Advanced Industrial Science and Technology ("AIST," a national research and development agency), and Japan Aerospace Exploration Agency ("JAXA," also a national research and development agency), 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.
- (4) For applicants of the winter examination: Please directly contact the prospective thesis advisors regarding the availability of laboratories after the summer examination.

As of April, 2022 (Scheduled)

◆Mathematical Sciences

Research Field	Thesis	s 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
Analysis, Applied Mathematics	Professor	TAKAKUWA Shoichiro *	Global Analysis, Partial Differential Equations	8
Algebra	Professor	TSUMURA Hirofumi	Number Theory	9
Algebra, Geometry	Professor	TOKUNAGA Hiro-o	Algebraic geometry, Topology of algebraic curves and surfaces, The Arithmetic of Branched Covers	10
Geometry	Professor	YOKOTA Yoshiyuki	Knot, 3-Manifold, Quantum Invariant	11
Geometry	Associate Professor	AKAHO Manabu	Symplectic Geometry, Floer Theory, Morse Theory	12
Algebra, Geometry	Associate Professor	UEHARA Hokuto	Algebraic Geometry, Classification Theory of Higher Dimensional Varieties, Derived Categories of Coherent Sheaves	13
Algebra, Geometry, Applied Mathematics	Associate Professor	KOBAYASHI Masanori	Algebraic Geometry, Mirror Symmetry, Related Mathematical Sciences	14
Geometry	Professor	SAKAI Takashi	Differential Geometry, Submanifold Theory	15
Applied Mathematics, Algebra	Professor	UCHIYAMA Shigenori	Cryptography, Algorithmic Number Theory	16
Applied Mathematics, Algebra	Associate Professor	YOKOYAMA Shun-ichi	Symbolic Computation, Computational Number Theory, Cryptography	17
Applied Mathematics, Analysis	Associate Professor	ISHITANI Kensuke	Probability Theory, Mathematical Finance	18
Applied Mathematics, Algebra	Associate Professor	UCHIDA Yukihiro	Algorithmic Number Theory, Arithmetic Geometry, Cryptography	19
Applied Mathematics	Associate Professor	SUZUKI Toshio	Theory of Computing, Mathematical Logic	20
Applied Mathematics	Associate Professor	MURAKAMI Hiroshi	Computer Algebra (Algorithm), Numerical Analysis (Algorithm), Parallel Computation (Algorithm)	21

♦Physics

Research Field	Thesis Adviser		Research Subject	Field Number	Group
Particle Theory	Professor	YASUDA Osamu	Physics beyond the Standard Model, Neutrino Physics		
High-Energy Theoretical Physics Associate Professor		KETOV Serguei	Quantum Field Theory, Theoretical High Energy Physics, Cosmology	2	A
Nuclear Hadron Physics Associate Professor		HYODO Tetsuo	Hadron Physics, Etoxic Hadrons, Theory of Resonances	3	A
Theoretical Astrophysics	Professor	FUJITA Yutaka	High-Energy Astrophysics, Cosmology	4	
Nonlinear Physics	Professor	SHUDO Akira	Nonlinear Dynamics, Classical and Quantum Chaos 5		
Quantum Condensed Matter	Professor	MORI Hiroyuki	Low-Dimensional Systems, Cold Atoms, Quantum Phenomena		
Theory	Associate Professor	ARAHATA Emiko	Quantum Gases, Superconductivity, Superfluidity	6	В
Strongly Correlated Electron	Professor	HOTTA Takashi	Theory of Magnetism and Superconductivity in Strongly Correlated Electron Systems	_	1
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		
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		
	Associate Professor	EZOE Yuichiro			
Soft Matter Physics	Professor	KURITA Rei	Soft Matter, Phase Transition, Non Equilibrium	11	
Neutron Scattering and Magnetism	Associate Professor	KADOWAKI Hiroaki*	Quantum State of Matter, Neutron Scattering	12	
Correlated Electron Physics	Professor	AOKI Yuji	Topological and Strongly-Correlated Electron Systems, Superconductivity and	13	
	Professor	MATSUDA Tatsuma	Magnetism	13	D
Superconducting Material	Associate Professor	MIZUGUCHI Yoshikazu Condensed Matter Physics, Superconductivity, Functional Mater		14	
Surface and Interface Physics	and Interface Physics Professor YANAGI Kazuhiro Condensed Matte		Condensed Matter Physics in Nano Materials, Material Science	15	
ano-science Research Associate Professor MIYATA Yasumitsu		MIYATA Yasumitsu	Synthesis of Nanoscale Materials, Electrical and Optical Properties	16	

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		
Constitution Chamistre	Professor	SUGIURA Ken-ichi	Synthetic Chemistry	1	
Coordination Chemistry	Associate Professor	NISHINAGA Tohru	Physical Organic Chemistry, π-Conjugated Molecules, Organic Semiconductors		
Environmental and Analytical Chemistry	Professor	TAKEGAWA Nobuyuki	Atmospheric Chemistry, Aerosol, Online Particle Analysis	, Aerosol, Online Particle Analysis 2	
	Professor	YAMAZOE Seiji	Functional Materials Chemistry, Catalytic Chemistry, X-ray Spectroscopy	3	
Inorganic Chemistry	Associate Professor	OURA Yasuji	Radiochemistry, Cosmochemistry, Cosmogenic Nuclides	3	
Organic and Structural Biochemistry	Professor	ITO Yutaka	Solution-State NMR, In-cell NMR, Structural Biology	4	
	Professor	NOMURA Kotohiro	Organometallics, Molecular Catalysis, Organic Synthesis		
Organic Chemistry	Associate Professor	INAGAKI Akiko	Organometallics, Molecular Catalyst, Photocatalyst	5	
	Associate Professor	Abdellatif Mohamed Mehawed	Polymer Chemistry, Materials Science		
Biochemistry	Professor	HIROTA Kouji	DNA Repair, Chromatin, Replication	6	
Biochemistry	Associate Professor	TAOKA Masato	Proteomics, RNA, Biochemistry	0	
Physical Chemistry of Molecular Structure and Reaction	Professor	KANYA Reika	Physical Chemistry, Atomic Molecular Optical Physics	9	
Synthetic Organic Chemistry	Organic Chemistry Professor SHIMIZU Toshio** Organic Chemistry, Main Group Element Chemistry, Host-Guest Chemistry		10		
	Professor	HADA Masahiko*	Quantum Chemistry, Electronic Structure Theory, Molecular Magnetic Properties		
Theoretical and Computational Chemistry	Associate Professor	NAKATANI Naoki	Quantum Chemistry, Electronic Structure Theory, Transition Metal Complexes	11	
	Associate Professor	KOMURA Shigeyuki	Physical Chemistry of Biological and Soft Matter	11	
	Associate Professor	SATO Soichi	Organic Chemistry, Main Group Chemistry, Material Chemistry		
Isotope Chemistry	Associate Professor	KUBUKI Shiro	Chemistry of Glass and Ceramics, Radiochemistry of fullerenes	12	

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	
	Molecular Neuroscience	Assoc. Prof.	ANDO, Kanae	Neuroscience, Cell Biology, Molecular Biology, Neurological Diseases and Aging	
	Developmental	Assoc. Prof.	FUKUDA, Kimiko	Morphogenesis, Digestive Tract, Extra-embryonic tissue	
	Biology	Assoc. Prof.	TAKATORI, Naohito	Germ Layer Fates, Polarity, Nuclear Migration	3
	Cellular Biochemistry	Prof.	KAWAHARA, Hiroyuki	Protein Quality Control, Cell Cycle Control, Ubiquitin System	4
	Cellular Genetics	Prof.	SAKAI, Takaomi	Molecular and celluler mechanisms of learning and memory	5
	Molecular Genetics	Prof.	KATO, Jun-ichi**	Genetics, Molecular Biology, Genome Sciences	6
		Assoc. Prof.	EHIRA, Shigeki	Molecular Biology & Molecular Physiology of Microorganisms	7
	Plant Development and Physiology	Prof.	OKAMOTO, Takashi	Plant Development, Plant Reproduction	8
		Assoc. Prof.	KUROKAWA, Makoto*	Neurobiology, Comparative Physiology, Neural Control of Behavior	9
	Neurobiology	Assoc. Prof.	WEITEMIER,Zachary Adam	Behavior, Neurotransmission, Electrochemistry	10
		Prof.	TAMURA, Koichiro	Evolutionary Genetics, Evolutionary Genomics, Bioinformatics	
Biology	Evolutionary Genetics	Assoc. Prof.	TAKAHASHI, Aya	Evolutionary Genetics, Molecular Basis of Speciation, Population Genomics	11
Bį		Assoc. Prof.	NOZAWA, Masafuni	Evolutionary Genetics, Evolution of Sex Chromosomes, Evolution of Small RNAs	
	Dhart Emirana tal Dana	Assoc. Prof.	KANEGAE, Takeshi	Plant Cell & Molecular Biology, Photoreceptor, Fern	12
	Plant Environmental Responses	Assoc. Prof.	NARIKAWA, Rei	Photobiology, Photosynthesis, Optogenetics	13
	Environmental Microbiology	Prof.	HARUTA, Shin	Microbial Ecosystems, Interspecies Interaction, Ecophysiology	14
	Animal Ecology	Prof.	HAYASHI, Fumio*	Ecology, Behavior, Evolutionary Ecology, and Ecological Developmental Biology of animals	
		Assoc. Prof.	OKADA, Yasukazu		
	Plant Ecology	Prof.	SUZUKI, Jun-Ichirou	Plant Ecology, Conservation Ecology, Theoretical Ecology	
		Assoc. Prof.	EGUCHI, Katsuyuki	Systematics and Biogeography of Invertebrates (mainly Terrestrial Arthropods)	18
	Systematic Zoology	Assoc. Prof.	CRONIN, Adam L.	Behaviorual Ecology, Evolutionary Ecology, Collective Behavior of Social Insects and Others	19
	Systematic Botany	Prof.	MURAKAMI, Noriaki	Molecular Systematics, Evolutionary Biology and Island Biology of Plants and Fungi, Pteridology	
		Assoc. Prof.	KAKUGAWA, Yoko	Phylogenetic Taxonomy of Plants, Evolutionary Biology	20
	Molecular Neuroscience	Assoc. Prof.	ANDO, Kanae	Neuroscience, Mechanisms underlying Alzheimer's disease and other tauopathies, Drosophila model neurodegenerative disease	
	Developmental Biology	Assoc. Prof.	TAKATORI, Naohito	Asymmetric Cell division, Microtubules, mRNA localization	3
	Cellular Biochemistry	Prof.	KAWAHARA, Hiroyuki	Protein quality control mechanisms related to immunology, oncology, diabetes and neurodegenerations	4
logy	Cellular Genetics	Prof.	SAKAI, Takaomi	Stress-induced brain plasticity in Drosophila	5
otechnology	Molecular Genetics	Prof.	KATO, Jun-ichi**	Bacterial Synthetic Biology, Genome Sciences	6
Biomedicine and Bio	Plant Development and Physiology	Prof.	OKAMOTO, Takashi	Production of hybrid and polyploid plants by gamete breeding	8
nedicine	Stem Cell Modulation 1)	Prof.	HARA, Takahiko	Blood regeneration by using ES/iPS cells and development of anti-cancer/leukemia drugs	21
Bion	Protein and organelle degradation 1)	Assoc. Prof.	MATSUDA, Noriyuki	Elucidate mechanisms underlying mitochondrial quality control to suppress familial forms of Parkinson disease	
	Molecular Regulation of Aging 2)	Prof.	ISHIGAMI, Akihito	Elucidation of aging mechanism and anti-aging research	23
	Plant Growth Regulation 3)	Assoc. Prof.	SEO, Mitsunori	Plant Hormones, Seed Biology	24
	Chemical Biotechnology 3)	Prof.	ITO, Yoshihiro**	Design and development of bioconjugated molecules and materials for biomedical applications	25

1)Tokyo Metropolitan Insitute of Medical Science

2)Tokyo Metropolitan Institute of Gerontology

3)RIKEN

♦ 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	INOUE, Azusa	RIKEN Integrative Medical Sciences	Intergenerational epigenetic inheitance in mammals				
5	UENO, Kohei	Tokyo Metropolitan Insitute of Medical Science	Neural plasticity in the <i>Drosophila</i> brain				
14	IINO, Takao	RIKEN, BioResource Research Center	Isolation and polyphasic taxonomy of yet-to be cultured archaea and bacteria.				