

AY 2026

Science and Technology for Health Care and Medicine Graduate Major

Application Guidance for Medical and
Dental Sciences

Institute of Science Tokyo Graduate School

* Tokyo Medical and Dental University and Tokyo Institute of Technology
integrated on October 1, 2024 to establish "Institute of Science Tokyo."

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Overview of the Science and Technology for Health Care and Medicine graduate major

In this graduate major, we will promote cutting-edge integrated research and development into fields related to health and medicine to enrich people's lives across the global community. Our goal is to create a new academic field, functionally integrating human-centered sciences engineering, medical and dental sciences, nursing, medical technology, and health sciences and other specializations to help build a safe and secure foundation for global sustainable development, as well as an environment to foster the minds who will spearhead this new field.

To achieve this, we aim to cultivate globally competitive talents with a deep understanding of people and society built on solid academic foundations and advanced interdisciplinary expertise in science and technology. Students will develop broad perspectives, critical thinking abilities, comprehensive decision-making skills, and both a strong sense of ethics and an awareness of ethical issues in technology. They will thrive in international environments, capable of driving original and cutting-edge research and development, with the creativity and leadership to pioneer new fields beyond their own areas of expertise.

Requirements for Completion

Master Program

1. Required Courses

Students must take the following required courses (4 credits in total): Research Planning for Master Thesis I of STM (1 credit), Research Planning for Master Thesis II of STM (1 credit), and Interdisciplinary Research Training of STM(2 credits)

Students may also take 3 more credits from the following courses as an elective,

- Interdisciplinary Research Fundamentals I of STM (1 credit)
- Interdisciplinary Research Fundamentals II of STM (1 credit)
- Outline of Science and Technology for Health Care and Medicine I (1 credit)
- Outline of Science and Technology for Health Care and Medicine II (1 credit)
- Advanced Science and Technology for Health Care and Medicine I (1 credit)
- Advanced Science and Technology for Health Care and Medicine II (1 credit)
- Fundamentals of Creative Design (2 credits)

Credits obtained through this graduate major will count towards the completion requirements of degree programs.

2. Certificate of completion

Students who fulfill the course requirements and complete a graduate degree program will be issued a "Certificate of Completion for Science and Technology for Health Care and Medicine Graduate Major" upon application.

Please refer to your department's guidelines of graduate major for the requirements associated with your degree program.

Doctoral Degree Program

1. Required Courses

Students must take the following required courses (4 credits in total): Research Planning for Doctoral Thesis I of STM (2 credits) and Research Planning for Doctoral Thesis II of STM (2 credits)

Students may also take "Reaching Methods for Science and Technology for Health Care and Medicine" (2 credits) as an elective. Credits obtained through this graduate major will counted towards completion requirements of degree programs.

2. Certificate of completion

Students who fulfill the course requirements and complete a graduate degree program will be issued a "Certificate of Completion for Science and Technology for Health Care and Medicine Graduate Major" upon application.

Please refer to your department's guidelines of graduate major for the requirements associated with your degree program.

Course requirements for guideline for each department syllabi

URL: <https://www.tmd.ac.jp/campuslife/syllabus2/>

How to Apply, Register and Cancel

1. Application

After consulting with your academic supervisor, submit an application (See Page 12 and 13) to Yushima Student Office, Student Division during the application period.

2. Registration

After consulting with your academic supervisor to determine which courses to take, an application must be submitted within the designated period to complete the registration procedure. You may not register for two courses that are offered at the same time. Make sure that course times do not overlap in your schedule and that you meet all enrollment requirements.

3. Additional course registration

Applications to register for additional courses must be submitted during the specified period set by each department each academic year. If you wish to register additional courses, please contact Yushima Student Office, Student Division.

4. Course cancellation

“Course cancellation” refers to withdrawal from a registered course that you no longer wish to continue. Students may request to cancel a course registration by the deadline established by Institute of Science Tokyo. Cancelled courses are not recorded in academic transcripts and grades are not counted towards your grade point average (GPA).

To cancel a course registration, submit the course cancellation form to Yushima Student Office, Student Division. Be aware that if you drop a course without following the prescribed cancellation procedure by the established deadline, you will receive a failing grade (0-59 points). Cancellation procedures should be completed by the deadline established by each department.

Required and Elective Courses for Graduate Major

【Master's Program】

★English Language	Titles
★	Research Planning for Master Thesis I of STM (人間医療科学技術修士論文研究計画論第一)
★	Research Planning for Master Thesis II of STM (人間医療科学技術修士論文研究計画論第二)
★	Interdisciplinary Research Training of STM (人間医療科学技術実践プロジェクト)
★	Interdisciplinary Research Fundamentals I of STM (人間医療科学技術他分野専門基礎第一)
★	Interdisciplinary Research Fundamentals II of STM (人間医療科学技術他分野専門基礎第二)
★	Outline of Science and Technology for Health Care and Medicine I (人間医療科学技術概論第一)
★	Outline of Science and Technology for Health Care and Medicine II (人間医療科学技術概論第二)
★	Advanced Science and Technology for Health Care and Medicine I (先端人間医療科学技術第一)
★	Advanced Science and Technology for Health Care and Medicine II (先端人間医療科学技術第二)
	デザイン創造基礎 (Fundamentals of Creative Design)

【Doctoral Program】

★English Language	Titles
★	Research Planning for Doctoral Thesis I of STM (人間医療科学技術博士論文研究計画論第一)
★	Research Planning for Doctoral Thesis II of STM (人間医療科学技術博士論文研究計画論第二)
	人間医療科学技術教育指導法 (Teaching methods for Science and Technology for Health Care and Medicine)
	デザイン創造基礎 ※看護先進科学専攻のみ (Fundamentals of Creative Design)

Syllabuses are uploaded on the URL below.

<https://syllabus.s.isct.ac.jp/search>

Courses offered in Science and Engineering

Students may take science and engineering courses offered in the Science and Technology for Health Care and Medicine graduate major.

If you wish to enroll in one of the courses listed, please check the schedule for that course using the search feature on the Science Tokyo Syllabus in Science and Engineering website.

Syllabus Search site:

<https://syllabus.s.isct.ac.jp/search?hl=en>

Courses offered for Science and Engineering

	Science and Engineering
Schedule	Fixed * Except for intensive courses and research seminars
Semester break	Quarter System
Class format (terms may vary)	In-person (Ookayama, Suzukakedai campuses), live, on-demand, hybrid, HyFlex
Learning Management System	Science Tokyo LMS
Syllabus	Science Tokyo Course Syllabus

★ English Language	Titles
	情報と知識のマネジメントⅠ (Management of Information and Knowledge I)
	情報と知識のマネジメントⅡ (Management of Information and Knowledge II)
★	Introduction to Biomedical Instrumentation (医療機器概論)
★	Introduction to Neural Engineering (神経工学概論)
	人間医療科学技術特別講義 (Special Lecture of STM)
★	Nanobio Materials and Devices (ナノバイオ材料・デバイス概論)
★	Complex Networks (複雑ネットワーク)

★	Modeling of Bio-Systems II (生体システムモデリング II)
★	Mechanisms of Visual Perception (視覚情報処理機構)
★	Computational Brain (計算論的脳科学)
★	Soft Materials Functional Physics (ソフトマテリアル機能物理)
★	Soft Materials Physics (ソフトマテリアル物理)
★	Characterization of Nanomaterials (ナノ材料計測)
★	Thermal Properties of Materials (材料熱物性特論)
★	Advanced Biofunctional Chemistry I (生体機能化学特論第一)
★	Advanced Biofunctional Chemistry II (生体機能化学特論第二)
★	Science of Metabolism (生物代謝科学)
★	Advanced Neuroscience (神経科学)

Course Application

Course Application must be submitted during the specified period set by each department via email or to the office of each department.

Name : _____

Student ID Number : _____

E-mail : _____

- ☐ **Apply for Science and Technology for Health Care and Medicine Graduate Major
(Check the box)**
- ☐ **Approved by academic supervisor (check the box)**

Courses to apply

【Master's Program】

(Required course) (必修科目)

☒ 人間医療科学技術修士論文研究計画論第一 (1単位) Research Planning for Master Thesis I of STM (1 credit)
☒ 人間医療科学技術修士論文研究計画論第二 (1単位) Research Planning for Master Thesis II of STM (1 credit)
☒ 人間医療科学技術実践プロジェクト (2単位) Interdisciplinary Research Training of STM (2 credits)

(Elective course) (Students may also take 3 more credits from the following courses as an elective, and check the boxes)

(選択科目) (3単位以上選択、履修する科目の□に✓)

☐ 人間医療科学技術他分野専門基礎第一 (1単位) Interdisciplinary Research Fundamentals I of STM (1 credit)
☐ 人間医療科学技術他分野専門基礎第二 (1単位) Interdisciplinary Research Fundamentals II of STM (1 credit)
☐ 人間医療科学技術概論第一 (1単位) Outline of Science and Technology for Health Care and Medicine I (1 credit)
☐ 人間医療科学技術概論第二 (1単位) Outline of Science and Technology for Health Care and Medicine II (1 credit)
☐ 先端人間医療科学技術第一 (1単位)

Submission:

● Medical and Dental Sciences Track

Graduate Student Affairs Group 1, Yushima Student Office, Student Division

Building 1 West, 1st floor

E-mail: grad01@ml.tmd.ac.jp

● Health Sciences and Biomedical Engineering (other than Master of Public Health in Global Health (MPH) Course, Biomedical Sciences and Engineering, Track of Nursing Innovation Science

Graduate Student Affairs Group 2, Yushima Student Office, Student Division

Building 1 West, 1st floor

E-mail: grad02@ml.tmd.ac.jp

● Master of Public Health in Global Health (MPH) Course

JD&MPH Group, Yushima Student Office, Student Division

Building 1 West, 1st floor

E-mail: jd@ml.tmd.ac.jp