Doctoral Program

Graduate School of Medical and Dental Sciences

Syllabus

2026

Institute of Science Tokyo

Doctoral Program：Medical and Dental Sciences

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4	先端材料評価学	Advanced Biomaterials
5	歯科放射線診断・治療学	Dental Radiology and Radiation Oncology
6	顎口腔腫瘍外科学	Oral and Maxillofacial Surgical Oncology
7	歯科麻酔学	Dental Anesthesiology
8	小児歯科学・障害者歯科学	Pediatric Dentistry / Special Needs Dentistry
9	咬合機能矯正学	Orthodontic Science
10	う蝕制御学	Cariology and Operative Dentistry
11	咬合機能健康科学	Masticatory Function and Health Science
12	歯髄生物学	Pulp Biology and Endodontics
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32	生体情報継承学	Biosignals and Inheritance
33	無機生体材料学	Inorganic Biomaterials
34	公衆衛生学	Public Health
35	寄生虫学・熱帯医学	Parasitology and Tropical Medicine
36	法医学	Forensic Medicine
37	政策科学	Health Policy
38	人体模倣システム	Synthetic Human Body System
39	先進倫理医科学	Life Sciences and Bioethics
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41	歯学教育開発学	Dental Education Development
42	歯科公衆衛生学	Dental Public Health

No.	Department	
43	歯学教育システム評価学	Educational System in Dentistry
44	教育メディア開発学	Educational Media Development
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50	リハビリテーション医学	Rehabilitation Medicine
51	高齢者歯科学	Gerodontology and Oral Rehabilitation
52	摂食嚥下リハビリテーション学	Dysphagia Rehabilitation
53	臨床検査医学	Laboratory Medicine
54	生体集中管理学	Intensive Care Medicine
55	臨床医学教育開発学	Medical Education Research and Development
56	救急災害医学	Acute Critical Care and Disaster Medicine
57	臨床腫瘍学（腫瘍内科学・緩和医療学担当）	Clinical Oncology Ⅰ
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59	総合診療歯科学	General Dentistry
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61	総合診療医学	General Medicine
62	統合臨床感染症学	Infectious Diseases
63	神経機能形態学	Neuroanatomy and Cellular Neurobiology
64	薬理学	Pharmacology
65	細胞動態学	Cellular Dynamics
66	眼科学	Ophthalmology and Visual Science
67	耳鼻咽喉科学	Otorhinolaryngology
68	脳神経病態学	Neurology and Neurological Science
69	精神行動医科学（精神行動医科学担当）	Psychiatry and Behavioral Sciences Ⅰ
70	精神行動医科学（犯罪精神医科学担当）	Psychiatry and Behavioral Sciences Ⅱ
71	精神行動医科学（リエゾン精神医学-精神腫瘍学担当）	Psychiatry and Behavioral Sciences Ⅲ
72	統合ストレス医科学	Integrative Stress Science
73	血管内治療学	Endovascular Surgery
74	NCNP脳機能病態学	NCNP Brain Physiology and Pathology
75	マテリアル神経科学	Material-based Neuroscience
76	免疫学	Immunology
77	ウイルス制御学	Molecular Virology
78	生体防御学	Biodefense Research
79	免疫制御学	Immune Regulation
80	脂質生物学	Lipid Biology
81	発生発達病態学	Pediatrics and Developmental Biology
82	膠原病・リウマチ内科学	Rheumatology
83	皮膚科学	Dermatology

No.	Department	
84	NCCHD成育医学	NCCHD Child Health and Development
85	ハイリスク感染症研究マネジメント学	High-risk Infectious Disease Control
86	人体病理学	Human Pathology
87	細胞生理学	Physiology and Cell Biology
88	統合生理学	Integrative Physiology
89	統合呼吸器病学	Respiratory Medicine
90	消化器病態学（消化器病態学担当）	Gastroenterology and Hepatology Ⅰ
91	消化器病態学（肝臓病態制御学担当）	Gastroenterology and Hepatology Ⅱ
92	総合外科学（総合外科学担当）	Specialized Surgeries Ⅰ
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94	循環制御内科学	Cardiovascular Medicine
95	心肺統御麻酔学（心肺統御麻酔学担当）	Anesthesiology Ⅰ
96	心肺統御麻酔学（周産期・小児麻酔学担当）	Anesthesiology Ⅱ
97	心臓血管外科学（心臓血管外科学担当）	Cardiovascular Surgery Ⅰ
98	心臓血管外科学（末梢血管外科学担当担当）	Cardiovascular Surgery Ⅱ
99	腎臓内科学	Nephrology
100	生殖機能協関学	Comprehensive Reproductive Medicine
101	腎泌尿器外科学	Urology
102	消化管外科学	Gastrointestinal Surgery
103	都医学研疾患分子生物学	Igakuken Disease-oriented Molecular Biology
104	臨床解剖学	Clinical Anatomy
105	システム発生・再生医学	Systems BioMedicine
106	包括病理学	Comprehensive Pathology
107	分子腫瘍医学	Molecular Oncology
108	疾患モデル動物解析学	Experimental Animal Model for Human Disease
109	診断治療システム医工学	Department of Diagnostic and Therapeutic Systems Engineering
110	血液内科学	Hematology
111	分子内分泌代謝学	Molecular Endocrinology and Metabolism
112	肝胆膵外科学	Hepatobiliary and Pancreatic Surgery
113	整形外科学	Orthopaedic and Spinal Surgery
114	画像診断・核医学	Diagnostic Radiology and Nuclear Medicine
115	ゲノム機能多様性	Genomic Function and Diversity
116	疾患多様性遺伝学	Human Genetics and Disease Diversity
117	応用再生医学	Applied Regenerative Medicine
118	計算システム生物学	Computational and Systems Biology
119	創薬化学	Drug Discovery Science
120	JFCR腫瘍制御学	JFCR Cancer Biology
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124	生物統計学	Biostatistics
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No.	Department	
127	NIID統合微生物学	NIID Integrative Microbiology

No.	Department

・Information for Students
・Various procedures
・Major facilities
・Campus/Access Map

About the course content for each subject

Please check Dream Campus for the syllabus and schedule for each course.
You can view the details of a specific course by searching for the course name or Lecture code.

※If you are unable to access the page via the link above, please search for it using the URL below.
https://yushima2.tmd.ac.jp/portal/Public/Syllabus/SearchMain.aspx

Lecture No	041001				
Subject title	Initial Research Training			**Subject ID**	
Instructors					
Semester	Spring 2026	**Level**		**Units**	1
Course by the instructor with practical experiences				**Mode of Instruction**	Face-to-face

Same classes are offered in English on different schedules.

For those who want to register this subject, please let us know by Wednesday, April 8.

https://forms.office.com/Pages/ResponsePage.aspx?id=IbgL9w4edUa-MyJ2PTalPXan4S81oTVMv6r4VDGRTfhUNkVDMk9TOFBSRU00Q0RaUjNVRkJMNURVUCQlQCNjPTEkJUAjdD1n

or

https://forms.office.com/r/gPWQ6uDLL0

※If you want to register for a course, you must go throught not only the registration form the course but also registration procedures separately.

※Basic Research ID don't get to take the course from 2024.

Please contact the Research Safety Unit about details on "Basic Research ID,".

The 2026 edition of the course will be announced by info mail.So please check it.

home ＞ 研究・連携 ＞ 研究手続き ＞ 研究に必要な講習会案内

https://www.tmd.ac.jp/tmd-research/safety/koushoukaiannai/

Course Purpose and Outline

Research work should be done in accordance with various rules and regulations including those related to ethics, and those related to handling of toxic substances, radioactive materials and animals. This series of lectures introduce rules and regulations that the students should follow during research work. Also, the students learn how to use libraries and data bases, and how to avoid scientific misconducts.

Grading System

Attendance (more than 50%), and achievement of assignments given in the course (less than 50%).

Prerequisite Reading

Important Course Requirements

When you register for "Initial Research Training", you must Lecture No.041002. If you are the Japanese or the international students who are fluent speakers of Japanese, you should be advised to take part in "Initial Research Training for Japanese" (Lecture No: 041001). For those who want to register this subject, please let us know by Wednesday, April 8.

Lecture No	041002				
Subject title	Initial Research Training			**Subject ID**	
Instructors					
Semester	Spring 2026	**Level**		**Units**	1
Course by the instructor with practical experiences				**Mode of Instruction**	Face-to-face

Same classes are offered in English on different schedules.

For those who want to register this subject, please let us know by Wednesday, April 8.

https://forms.office.com/Pages/ResponsePage.aspx?id=IbgL9w4edUa-MyJ2PTalPXan4S81oTVMv6r4VDGRTfhUNkVDMk9TOFBSRU00Q0RaUjNVRkJMNURVUCQlQCNjPTEkJUAjdD1n

or

https://forms.office.com/r/gPWQ6uDLL0

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https://www.tmd.ac.jp/tmd-research/safety/koushoukaiannai/

Course Purpose and Outline

Research work should be done in accordance with various rules and regulations including those related to ethics, and those related to handling of toxic substances, radioactive materials and animals. This series of lectures introduce rules and regulations that the students should follow during research work. Also, the students learn how to use libraries and data bases, and how to avoid scientific misconducts.

Grading System

Attendance (more than 50%), and achievement of assignments given in the course (less than 50%).

Prerequisite Reading

Important Course Requirements

When you register for "Initial Research Training", you must Lecture No.041002. If you are the Japanese or the international students who are fluent speakers of Japanese, you should be advised to take part in "Initial Research Training for Japanese" (Lecture No: 041001). For those who want to register this subject, please let us know by Wednesday, April 8.

Lecture No	041003				
Subject title	Special Lecture of Global Medical and Dental Study			**Subject ID**	
Instructors					
Semester	YearLong 2026	**Level**		**Units**	2
Course by the instructor with practical experiences				**Mode of Instruction**	Face-to-face
Partial classes are taught in English					
Prerequisite Reading					

Lecture No	041004				
Subject title	Special Lecture of Advanced Medical and Dental Study			**Subject ID**	
Instructors					
Semester	YearLong 2026	**Level**		**Units**	4
Course by the instructor with practical experiences				**Mode of Instruction**	Face-to-face
Partial classes are taught in English					
Prerequisite Reading					

Lecture No	041005				
Subject title	Basic-Clinical Borderless Education			Subject ID	
Instructors					
Semester	YearLong 2026	Level	1st – 3rd year	Units	6
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

原則英語で行う/Most of the classes are taught in English

Lecture place

For venues and other detailed information, please access the website and bulletin board.

For the research progress meeting, the students arrange the venue by themselves.

Course Purpose and Outline

This course consists of "course lectures", "special lectures","research progress meetings" and "attendance at a basic science conference". At the end of the course, understanding and exploring the interrelation between the basic and clinical research is achieved.

Lecture Style

Course Lectures and group discussion (research progress meeting)

・Course Lectures (1st year)

Students should fill out the attendance sheet at the end of each lecture. The course which you attended the most is regarded as the selected course.

・Take 5 classes from the on-demand lecture series "Fundamentals of science writing and presentation"

・Group discussion – research progress meeting – (2nd year ～)

Research progress meeting is held after deciding the research theme and three supervisors. You receive a notification from Educational Planning Section,then you arrange a meeting. Please submit the report to the administrator after the meeting.The research report is evaluated a for grading and progress of your research by course instructors.

・Attendance to a basic science conference.

Course Outline

Course Outline:We will post this information on our website as soon as it is finalized. Please refer to the orientation materials for further details.
https://www.tmd.ac.jp/faculties/graduate_school/seminar/2026/

Grading System

Evaluation is made according to the participation in the lecture series, taking special course classes, attendance to a basic science conference and report submission of the research progress meetings. The attendance for the lecture series is required during the first year. The progress of research is evaluated at the end of the 3rd year (except for long-term Course students). The research progress meeting report needs to be submitted more than twice by the end of the 3rd year. (in the 2nd and the 3rd years in principle).

Course outline is introduced at the first lecture of each lecture series, therefore registered students are asked to attend it.

Prerequisite Reading

Taking the classes from the on-demand lecture series "Fundamentals of science writing and presentation" is used for preparing research progress meeting presentation.

Application what you study from taking course lectures and attendance to a scientific meeting to your research should be considered.

Note(s) to Students

In case of postponement of the research progress meeting, consult with the main-supervisor and inform Educational Planning Section. Change of the supervisor shall be discussed with the professor of affiliated section and informed to Educational Planning Section.

Lecture No	041006				
Subject title	Comprehensive dental clinical practice			**Subject ID**	
Instructors	金澤 学, 濵 洋平[KANAZAWA Manabu, HAMA Yohei]				
Semester	YearLong 2026	**Level**	1st – 4th year	**Units**	8
Course by the instructor with practical experiences				**Mode of Instruction**	Face-to-face
Prerequisite Reading					
Email KANAZAWA Manabu:m.kanazawa.gerd@tmd.ac.jp					
Instructor's Contact Information KANAZAWA Manabu:Tue-Fri, 16:00-18:00 Building 1 East 3F, Gerodontology and Oral Rehabilitation Lab9					

Lecture No	416001				
Subject title	Essential Expertise for Clinical Dentistry (EECD)			Subject ID	
Instructors	關 奈央子, 金澤 学, 駒田 亘, 駒ヶ嶺 友梨子, 水谷 幸嗣, 米滿 郁男, 前川 祥吾, 田澤 建人, 畑山 貴志, 金森 ゆうな, 服部 麻里子, 村瀬 舞, 永田 瑞, 牧 圭一郎, 原口 美穂子, 大石 晋也, 平野 恵子, 保坂 啓一, 矢野 孝星, Richard Foxton, 畑山 貴志, 保坂 啓一[SEKI Naoko, KANAZAWA Manabu, KOMADA Wataru, KOMAGAMINE Yuriko, MIZUTANI Koji, YONEMITSU Ikuo, MAEKAWA Shogo, TAZAWA Kento, HATAYAMA Takashi, KANAMORI Yuna, HATTORI Mariko, MURASE Mai, NAGATA Mizuki, MAKI Keiichiro, HARAGUCHI Mihoko, OISHI Shinya, HIRANO Keiko, HOSAKA Keiichi, YANO Kosei, Richard Foxton, HATAYAMA Takashi, HOSAKA Keiichi]				
Semester	YearLong 2026	Level	1st – 4th year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

All classes are taught in English.

Lecture place

Building #7 3/5floor pre-clinical training rooms

Course Purpose and Outline

This course offers you up-to-date dental clinical knowledge and techniques that are often publicized in journals or books. Experts in various fields will provide hands-on sessions.

This course aims at not only 1) updating participants' dental knowledge but also 2) developing and brushing up clinical techniques. You will have the chance to actually engage in discussions with your peers and join hands-on clinical focused sessions.

Course Objective(s)

In this course, you will:

- Learn dental knowledge through interactive lectures and discussion.
- Practice clinical techniques and skills in the hands-on sessions.

After this course, you will be able to:

- Have dental knowledge and new approaches for future treatments.
- Consider your clinical cases from a critical perspective.
- Use skills for clinical procedures.

Lecture plan

No	Date	Time	Room	Staff
1	8/27	17:00-20:00	7号館3階歯学科実習室1	KANAZAWA Manabu, KOMAGAMINE Yuriko
2	8/28	17:00-20:00	7号館5階歯学科実習室3	HATTORI Mariko, HARAGUCHI Mihoko, MURASE Mai
3	8/31	17:00-20:00	7号館5階歯学科実習室3	TAZAWA Kento, MAKI Keiichiro, HIRANO Keiko
4	9/1	17:00-20:00	7号館5階歯学科実習室3	MIZUTANI Koji, MAEKAWA Shogo, YANO Kosei, NAGATA

				Mizuki
5	9/3	17:00-20:00	7号館5階歯学科実習室3	HATAYAMA Takashi
6	11/30	17:00-20:00	7号館3階歯学科実習室1	KOMAGAMINE Yuriko, KANAZAWA Manabu
7	12/3	17:00-20:00	7号館5階歯学科実習室3	MIZUTANI Koji, MAEKAWA Shogo, NAGATA Mizuki, YANO Kosei
8	12/4	17:00-20:00	7号館5階歯学科実習室3	KOMADA Wataru, OISHI Shinya
9	12/7	17:00-20:00	7号館5階歯学科実習室3	HATAYAMA Takashi, HOSAKA Keiichi
10	12/8	16:00-19:00	7号館5階歯学科実習室3	YONEMITSU Ikuo
11	12/9	18:30-20:00	遠隔授業(同期型)	KANAZAWA Manabu, SEKI Naoko, KOMADA Wataru, KOMAGAMINE Yuriko, MIZUTANI Koji, MAEKAWA Shogo, HATAYAMA Takashi, NAGATA Mizuki, YONEMITSU Ikuo, YANO Kosei, HOSAKA Keiichi, Richard Foxton, KANAMORI Yuna

Lecture Style

Practice (hands-on) sessions.

Grading System

Combination of participation in discussion/case-study and performance in hands-on.

Prerequisite Reading

Designated parts in the textbook or literature, if any (informed).

Reference Materials

Instructor will provide the materials, if any.

Important Course Requirements

・Only those who have graduated from dental school can take this course.　・Only those who can participate in all dates should register for the course.

Note(s) to Students

・ Maximum enrollment for this course is 20-25.

・ Kindly keep in mind, that because of enrollment limitation, there may be cases where we cannot accept your participation.

Email

SEKI Naoko:seki.n.03df@m.isct.ac.jp

MAEKAWA Shogo:maekawa.peri@tmd.ac.jp

HATAYAMA Takashi:060371ds@gmail.com

KANAMORI Yuna:kanamori.ope@tmd.ac.jp

HATTORI Mariko:sasamfp@tmd.ac.jp

KANAZAWA Manabu:m.kanazawa.gerd@tmd.ac.jp

MIZUTANI Koji:mizutani.peri@tmd.ac.jp

Instructor's Contact Information

SEKI Naoko:Mondays, 15:00 - 16:00 M&D Tower 7th floor (office)

MAEKAWA Shogo:Every weekday except for Wednesday, PM.17:00-18:00, 3rd room in the 7th floor, 10th Building

HATTORI Mariko:Teams or Slack message to make an appointment, Building D 11F Advanced Prosthodontics #3

KANAZAWA Manabu:Tue-Fri, 16:00-18:00

Building 1 East 3F, Gerodontology and Oral Rehabilitation Lab9

Lecture No	041007				
Subject title	Overview of Public Health Medicine in Disease Prevention			Subject ID	
Instructors	石野 智子, 藤原 武男, 具 芳明, 瀬川 勝盛, 白銀 勇太, 那波 伸敏, 秋田 恵一, 中村 桂子[ISHINO Tomoko, FUJIWARA Takeo, GU Yoshiaki, SEGAWA Katsumori, SHIROGANE Yuta, NAWA Nobutoshi, AKITA Keiichi, NAKAMURA Keiko]				
Semester	YearLong 2026	Level	1st – 3rd year	Units	2
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Lectures and all communications are in English.

Lecture place

The lecture classes will be conducted either in an onsite classroom at Ochanomizu Campus and/or by ZOOM (web remote lecture system). ZOOM ID/PWD will be notified by e-mail from Graduate Student Affairs Group 1 to the registered students. Students are required to attend class on time.

Course Purpose and Outline

This course offers a general introduction to public health medicine, addressing fundamental topics and basic measures required for a global leader in disease prevention and data science medicine. The course focuses on development of essential knowledge and skills for global disease prevention and implementation science through lectures and discussions based on selected case studies.

Course Objective(s)

At the end of the course, participants will be able to:

1) Describe the roles and responsibilities of public health in disease prevention
2) Describe development in basic, clinical, and public health research using data science
3) Describe theory and application of implementation medical science
4) Describe and apply the basic principles and methods of medical research to disease prevention
5) Describe the main ethical issues in international medical research
6) Describe cross-border health issues in relation to globalization
7) Describe history of medical research
8) Describe leadership in medical education and medical research

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	11/6	16:00-19:10	大学院講義室2	Prevention and control of tropical disease	ISHINO Tomoko
2	11/12	08:50-12:15	ライブ	Life-course epidemiology	FUJIWARA Takeo
3	11/17	16:00-19:10	大学院講義室2	Prevention of infectious disease	GU Yoshiaki
4	12/1	16:00-19:10	大学院講義室2	Recent advances in medical research	SEGAWA Katsumori
5	12/3	16:00-19:10	大学院講義室2	Introduction to viral infections	SHIROGANE Yuta
6	12/8	16:00-19:10	大学院講義室1	Issues Related to Healthcare Access for Foreign Residents in Japan	NAWA Nobutoshi
7	1/12	16:00-19:10	ライブ	History of anatomy and body donation	AKITA Keiichi
8	1/19	16:00-19:10	大学院講義室2	Planetary health	NAKAMURA Keiko

Lecture Style

Lectures, group discussions, and team projects. All programs are conducted in English.

International students and Japanese students attend the same class and use English in the classroom.

Students from the Medical and Dental Science or Biomedical Science departments are both welcome to the course.

Attendance on time (synchronous learning) is the default style of attending class.

Course Outline

As in the a separate table.

Grading System

Grades are based on attendance at lectures, performances during group discussions and team projects as well as on assignments, and levels of attitude, skills, and knowledge.

Grading Rule

Grades are based on attendance at lectures, performances during group discussions and team projects as well as on assignments, and levels of attitude, skills,and knowledge.

Prerequisite Reading

When reading materials are distributed or specified in advance, participants are expected to read those materials beforehand.

Reference Materials

To be announced before or during individual classes, when relevant.

Important Course Requirements

This is a required course for students of the ″Global Infectious Disease Research Leadership Initiative through Data Science (GID-Leadership Initiative) ″ or ″ Data Science Medicine Global Leader Program ″, PhD candidates at departments of Medical and Dental Science who are enrolled in this program through a special selection must attain credits from this course. PhD candidates at the Departments of Medical and Dental Science who registered for this course must attain credits from this course. PhD candidates of general selection at departments of Medical and Dental Science and Biomedical Science can also participate in this course. Both international and Japanese students participate in the same program provided in English and learn together about public health medicine in disease prevention. The course is a core part of nurturing global leaders in disease prevention and datascience medical research that Institute of Science Tokyo provides. In cases where students cannot attend in person due to unavoidable circumstances, they may participate online or submit a report after watching the lecture video. Prior notification to the Graduate Student Affairs Group 1 (grad01@ml.tmd.ac.jp) and approval from the Chief Instructor (Prof. Ishino: tishino.vip@tmd.ac.jp) are required. All reports must be submitted by January 31, 2027.

Note(s) to Students

Both international and Japanese students participate in the same program provided in English and learn together about public health medicine in disease prevention. The course is a core part of nurturing global leaders in disease prevention and datascience medical research that Science Tokyo provides.

Lecture No	041008				
Subject title	Management			Subject ID	GC-c6331-L
Instructors	竹内 勝之, 板越 正彦, 今村 健, 吉野 宏志[TAKEUCHI Katsuyuki, ITAGOSHI Masahiko, IMAMURA Ken, YOSHINO Hiroshi]				
Semester	YearLong 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face
Same classes are offered in English on different schedules.					

Lecture place

Please check the course schedule.

Course Purpose and Outline

Course Purpose: Students will acquire a set of basic knowledge and skills of management (project management, career management, business communication, and so on) and will get training so that they apply it to daily medical and research activities.

Outline: The course provides lectures explaining management skills necessary for students to make success in the medical, research or business world in the future, focusing mainly on project management, career management, and business communication.

Course Objective(s)

Students will understand the essence of management skills and acquire basic skills so that they apply it to daily medical and research activities.

Lecture Style

Lectures on the essence of management skills, and workshops for practical skills.

Course Outline

The course schedule will be announced to the course registrants as soon as it is decided.

Grading System

Participation (70%) and discussion and attitude (30%).

Prerequisite Reading

None.

Email

TAKEUCHI Katsuyuki:takeuchi.k.mds@tmd.ac.jp

Instructor's Contact Information

TAKEUCHI Katsuyuki:Weekdays only. Advanced appointments are required.

Contact to Katsuyuki Takeuchi in Center for Education in Healthcare Innovation (E-mail: takeuchi.k.mds@tmd.ac.jp)

Lecture No	041009				
Subject title	Management			Subject ID	GC-c6331-L
Instructors	竹内 勝之, 板越 正彦, 吉野 宏志[TAKEUCHI Katsuyuki, ITAGOSHI Masahiko, YOSHINO Hiroshi]				
Semester	Fall 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face
Availability in English: All classes are taught in English.					

Course Purpose and Outline

Course Purpose: Students will acquire a set of basic knowledge and skills of management (project management, career management, business communication, and so on) and will get training so that they apply it to daily medical and research activities.

Outline: The course provides lectures explaining management skills necessary for students to make success in the medical, research or business world in the future, focusing mainly on project management, career management, and business communication.

Course Objective(s)

Students will understand the essence of management skills and acquire basic skills so that they apply it to daily medical and research activities.

Lecture Style

Lectures on the essence of management skills, and workshops for practical skills.

Course Outline

The course schedule will be announced to the course registrants as soon as it is decided.

Grading System

Participation (70%) and discussion and attitude (30%).

Prerequisite Reading

None.

Email

TAKEUCHI Katsuyuki:takeuchi.k.mds@tmd.ac.jp

Instructor's Contact Information

TAKEUCHI Katsuyuki:Weekdays only. Advanced appointments are required.

Contact to Katsuyuki Takeuchi in Center for Education in Healthcare Innovation (E-mail: takeuchi.k.mds@tmd.ac.jp)

Lecture No	041012				
Subject title	Intellectual Property			Subject ID	GC-c6351-L
Instructors	竹内 勝之, 杉光 一成, 川瀬 真, 平井 佑希[TAKEUCHI Katsuyuki, SUGIMITSU Kazunari, KAWASE Makoto, HIRAI Yuki]				
Semester	YearLong 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

All classes are taught in Japanese.

Lecture place

Please check the course schedule.

Course Purpose and Outline

Course Purpose：Students will acquire a basic knowledge of intellectual property necessary to engage in research and business activities.

Outline：The course gives lectures on the essence of intellectual property that is required to know in research and business activities, such as patents and copyrights. In addition, it gives case studies of intellectual property strategies in research and business activities so that students develop their understanding of intellectual property.

Course Objective(s)

The goal is that students acquire a basic knowledge of 'patents' and 'copyrights' and a set of basic skills of the patent search.

Lecture Style

Lectures on the basic knowledge of intellectual property, workshops, and case studies.

Course Outline

The course schedule will be announced to the course registrants as soon as it is decided.

Grading System

Participation (70%), discussion and attitude (30%)

Prerequisite Reading

None.

Email

TAKEUCHI Katsuyuki:takeuchi.k.mds@tmd.ac.jp

Instructor's Contact Information

TAKEUCHI Katsuyuki:Weekdays only. Advanced appointments are required.

Contact to Katsuyuki Takeuchi in Center for Education in Healthcare Innovation (E-mail: takeuchi.k.mds@tmd.ac.jp)

Lecture No	041015				
Subject title	Biomedical Science			Subject ID	GC-c6426-L
Instructors	二階堂　愛, 笹川　洋平, 後藤　利保, 仁科　博史, 小藤　智史, 松田　憲之, 瀬川　勝盛[NIKAIDO Itoshi, SASAGAWA Yohei, GOTO Toshiyasu, NISHINA Hiroshi, KOFUJI Satoshi, MATSUDA Noriyuki, SEGAWA Katsumori]				
Semester	YearLong 2026	Level	1st - year	Units	2
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

When an international student registers this subject for credits, this course is taught in English.

Lecture place

Online (Zoom) or on-demand video lecture

Course Purpose and Outline

Course purpose: The Bioscience Program offers lectures on several important topics in Molecular Biology, Genetics, Epigenetics, Bioinformatics, Developmental Biology and Engineering, Cell Biology and Biochemisty. The major purpose of the program is to obtain the latest information on these fields of science and to train scientific mind as well as logical thinking skills necessary to become independent researchers.

Outline: Molecular mechanisms on several fundamental biological phenomena related to embryonic development, cell differentiation and immune system are introduced and several human diseases due to breakdown of normal regulation, such as genomic imprinting diseases, cancers, immunodeficiency and allergy, will be discussed.

Course Objective(s)

Understand useful and critical information from basic to the latest biological sciences and medicine.

Lecture Style

Lecture by the lecturer, discussion with students, and writing reports.

Grading System

Attendance to lectures (80 %) and reports (20 %) are evaluated.

Prerequisite Reading

Instruct at first lecture if necessary.

Exam eligibility

More than 75% of attendance to the lectures

Reference Materials

Molecular cell biology／Harvey Lodish ... [et al.],Lodish, Harvey F.,:W.H. Freeman, 2016

Epigenetics／C. David Allis, Marie-Laure Caparros, Thomas Jenuwein, Danny Reinberg, editors ; Monika Lachner, associate editor,Allis, C. David,Caparros, Marie-Laure,Jenuwein, Thomas,Reinberg, Danny,Lachner, Monika,:Cold Spring Harbor Laboratory Press, 2015

エッセンシャル免疫学／ピーター・パーラム著,Parham, Peter,笹月, 健彦,:メディカル・サイエンス・インターナショナル, 2016

ゲノム : 生命情報システムとしての理解／T.A. ブラウン著,Brown, T. A. (Terence Austen),石川, 冬木,中山, 潤一,:メディカル・サイエンス・インターナショナル, 2018

“The immune system” (Third edition),Peter Parham, Garland Science

Molecular Cell Biology Eighth Edition, Harvey Lodish et al, ISBN-13: 978-1-4641-8339-3

Genome 4, Garland Science, 978-0815345084

Lecture No	041016				
Subject title	Advanced Biofunctional Molecules			Subject ID	GC-c6427-L
Instructors	伊藤 幸裕, 吉岡 広大[ITOU Yukihiro, YOSHIOKA Hiromasa]				
Semester	Spring 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face
Availability in English: When an international student registers this subject for credits, this course is taught in English.					

Course Purpose and Outline

Course Purpose:Fundamental knowledge and technology on the functional molecules and the recent topics on their applications will be educated.

Outline: Various topics related to the functional molecules in the fields of medicinal chemistry, chemical biology, and materials sciences will be discussed, including the presentation by the students. There is some experimental practice.

Course Objective(s)

Chemical knowledge and technology is significant in various fields including chemical biology, sensing biology, medicinal chemistry, and materials sciences. This course deals with fundamentals and applications of biofunctional molecules.

Lecture Style

This course includes seminar-type lectures, including the presentation by the students.

Course Outline

See the table.

Grading System

Attendance (50%) and Presentation or Report (50%)

Prerequisite Reading

Fundamental organic chemistryand biochemistry should be reviewed. The books listed in #9 are usuful for understanding the topics in this course.

Reference Materials

The Practice of Medicinal Chemistry (C. G. Wermuth, D. Aldous, P. Raboisson, D. Rognan eds, Academic Press); Chemical Biology(L. Schreiber, T. kapoor, G. Wess Eds, WILEY-VCH);The Nuclear Receptors FactsBook(Laudet, V & Gronemeyer, H.、Academic Press).

Email

ITOU Yukihiro:itoh.yukihiro@tmd.ac.jp

Instructor's Contact Information

ITOU Yukihiro:Every Monday, 2:00-5:00 PM

Surugadai Campus, Building 21, 3rd Floor, Room 302

Lecture No	041017				
Subject title	Development of Functional Molecules			Subject ID	GC-c6428-L
Instructors	細谷 孝充, 玉村 啓和, 小早川 拓也, 田口 純平, 辻 耕平, 隅田 有人, 落合 幸太郎[HOSOYA Takamitsu, TAMAMURA Hirokazu, KOBAYAKAWA Takuya, TAGUCHI Jumpei, TSUJI Kohei, SUMIDA Yuto, OCHIAI Kotaro]				
Semester	YearLong 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Availability in English:When an international student registers this subject for credits, this course is taught in English.

Course Purpose and Outline

Course Purpose:Fundamental knowledge and technology on the functional molecules and the recent topics on their applications will be educated.

Outline: Various topics related to the functional molecules in the fields of medicinal chemistry, chemical biology, and materials sciences will be discussed, including the presentation by the students. There is some experimental practice.

Course Objective(s)

Chemical knowledge and technology is significant in various fields including chemical biology, sensing biology, medicinal chemistry, and materials sciences. This course deals with fundamentals and applications of biofunctional molecules.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	5/23	15:00-17:15	1F第2会議室		HOSOYA Takamitsu, SUMIDA Yuto, TAGUCHI Jumpei
2	5/30	15:00-17:15	1F第2会議室		HOSOYA Takamitsu, SUMIDA Yuto, TAGUCHI Jumpei
3	6/13	15:00-17:15	1F第2会議室		HOSOYA Takamitsu, KANEMOTO Kazuya, TAGUCHI Jumpei
4	6/27	15:00-17:15	1F第2会議室		TAMAMURA Hirokazu, TSUJI Kohei, KOBAYAKAWA Takuya
5	7/11	15:00-17:15	1F第2会議室		ITOU Yukihiro, YOSHIOKA Hiromasa

Lecture Style

This course includes seminar-type lectures, including the presentation by the students.

Course Outline

See the table.

Grading System

Attendance (50%) and Presentation or Report　(50%)
Prerequisite Reading Fundamental organic chemistryand biochemistry should be reviewed. The books listed in #9 are usuful for understanding the topics in this course.
Reference Materials The Practice of Medicinal Chemistry (C. G. Wermuth, D. Aldous, P. Raboisson, D. Rognan eds, Academic Press); Chemical Biology(L. Schreiber, T. kapoor, G. Wess Eds, WILEY-VCH);The Nuclear Receptors FactsBook(Laudet, V & Gronemeyer, H.、Academic Press).
Email HOSOYA Takamitsu:thosoya.cb@tmd.ac.jp

Lecture No	041018				
Subject title	Reconstitution Materials Science			Subject ID	GC-c6405-L
Instructors	仲井 正昭[NAKAI Masaaki]				
Semester	Spring 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Availability in English: When an international student registers this subject for credits, this course is taught in English.

Lecture place

Department of Metallic Biomaterials, Laboratory for Biomaterials and Bioengineering

Course Purpose and Outline

Course Purpose:This course provides a fundamental understanding of metallic biomaterials and the knowledge required for new material development and property improvement.

Outline:This course covers the principles and technologies underlying the functional properties of metallic biomaterials and examines recent research trends in new material and process developments based on the latest literature.

Course Objective(s)

Students will learn how the functions of metallic biomaterials are governed by factors such as crystal structure, lattice defects, metastable phases, and surface states, and will acquire the knowledge needed to design materials and manufacturing processes for enhanced performance.

Lecture Style

Lectures by instructors, Presentation by students, and Discussion

Grading System

Grading is judged from participation and presentation during lectures.

Participation: 60%, Presentation: 40%.

Prerequisite Reading

Review of basic chemistry and physical chemistry and preparation of metallurgical engineering are desirable.

Reference Materials

医療用金属材料概論 = Metals for medicine／塙隆夫編,塙, 隆夫,:日本金属学会, 2010

金属バイオマテリアル／塙隆夫, 米山隆之共著,塙, 隆夫,米山, 隆之,:コロナ社, 2007

Metals for Medical Devices／M. Niinomi ed.:Woodman, 2019

Textbooks, references, and papers are suggested during lectures.

Important Course Requirements

Difficulty and problem in your research must be extracted and prepare to discuss on them are desirable.

Email

nakai.masaaki@tmd.ac.jp

Lecture No	041019				
Subject title	Tissue Regenerative Bioceramic Materials Science			Subject ID	GC-c6406-L
Instructors	横井 太史, 川下 将一, 島袋 将弥[YOKOI Taishi, KAWASHITA Masakazu, SHIMABUKURO Masaya]				
Semester	Spring 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Availability in English: When an international student registers this subject for credits, this course is taught in English.

Lecture place

Face-to-face lectures will be held in Department of Inorganic Biomaterials, Institute of Biomaterials and Bioengineering, TMDU (Bldg. 21, 3rd floor).

Course Purpose and Outline

Course Purpose: Students will understand how bioceramics are designed and manufactured, and understand that bioceramics are clinically applied in various fields based on their structures and properties.

Outline: Students will conduct a presentation summarizing literature on bioceramics, and if necessary, faculty members from the field of inorganic biomaterials will provide explanations.

Course Objective(s)

Students will understand that various bioceramics are clinically applied in various fields according to their structures and characteristics.

Lecture Style

Students will conduct a presentation summarizing literature on bioceramics. All participants will discuss the contents of the literature. Additional explanations by teachers will be given as needed.

Course Outline

Students will read the literature on bioceramics and related fields and discuss the contents of the literature. The typical topics are the following.

(1) Novel bioceramics

(2) Bioceramic-tissue adhesion

(3) Bioinert bioceramics

(4) Porous ceramics

(5) Bioactive glasses and glass-ceramics

(6) Interfacial reaction kinetics

(7) Clinical applications of bioactive glasses and glass-ceramics

(8) Calcium phosphate ceramics

(9) Composites

(10) Coatings

(11) Materials for cancer treatment

(12) Dental materials

Grading System

Grading is based on class participation and quality of final presentation.

Class participation: 70%, Final presentation: 30%.

Prerequisite Reading

none

Reference Materials

Textbooks, references, and papers are suggested during lectures.

Email

YOKOI Taishi:yokoi.taishi.bcr@tmd.ac.jp

Instructor's Contact Information

YOKOI Taishi:Monday, PM3:00-PM5:00, Building 21, 3rd floor, room 301B

Lecture No	041020				
Subject title	Organic Biomaterials Science			Subject ID	GC-c6407-L
Instructors	松元 亮, 堀 真緒[MATSUMOTO Akira, HORI Mao]				
Semester	Spring 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Availability in English:When an international student registers this subject for credits, this course is taught in English.

Course Purpose and Outline

Course Purpose: To offer lectures on several important aspects in self-organization and hierarchical structuring found in biomolecules and tissues along with their bioengineering applications. The major purpose of the program is to train scientific mind as well as logical thinking required for independent researchers.

Outline: To deepen our understanding of the above and discuss on the expected future of organic biomaterials.

Course Objective(s)

Introduce useful information on organic biomaterials from basis to possible applications to attendants.

Lecture Style

Lecture, discussion and presentation

Grading System

Participation to lectures (50 %) and question during the class (50 %) are evaluated.

Prerequisite Reading

Previous credits on Advanced Biomaterials Science and Applied Biomaterials Science or the equal academic level is required (preferable) .

TextBook

Biomaterials Science : An Introduction to Materials in Medicine／edited by Buddy D. Ratner ... [et al.],Ratner, B. D. (Buddy D.),Hoffman, Allan S.,Schoen, Frederick J.,Lemons, Jack E.,:Academic Press, 2013

Reference Materials

Advice appropriately.

Email

MATSUMOTO Akira:matsumoto.bsr@tmd.ac.jp

Lecture No	041021				
Subject title	Medical Materials Engineering			**Subject ID**	GC-c6408-L
Instructors	鳴瀧 彩絵, 宮本 昂明, 沖田 ひかり[NARUTAKI Ayae, MIYAMOTO Takaaki, OKITA Hikari]				
Semester	Spring 2026	**Level**	1st - year	**Units**	1
Course by the instructor with practical experiences				**Mode of Instruction**	Face-to-face
Not offered in 2026					
Prerequisite Reading					

Lecture No	041022				
Subject title	Mathematical and numerical methods for biomedical information analysis			Subject ID	GC-c6429-L
Instructors	中島 義和, 杉野 貴明, 周 東博, 小野木 真哉[NAKAJIMA Yoshikazu, SUGINO Takaaki, SHU Tohaku, ONOGI Shinya]				
Semester	Spring 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Availability in English: If an/some international students register this lecture series for credits, this course will be done in English.

Lecture place

All lectures are given online (zoom).

Course Purpose and Outline

Technologies for biomedical measurement and diagnosis are improved rapidly. It highlights expectation for integrative analyses of biomedical information and establishment of numerical computing theory. The lecture classes will provide principles, which are needed to research and develop systems, and introduce advanced applications.

Course Objective(s)

The students will understand principle methods for biomedical informatics and data processing. In addition, they will learn advanced technologies.

Lecture Style

Lecture and discussion

Course Outline

The lecture series will introduce statistical analyses, mathematical and numerical simulations and artificial-intelligence (AI) analyses for biomedical information. In addition, it will introduce fundamental methods to develop medical systems, as well.

Grading System

Class attendance, contribution for the lecture such as question and comments, and report quality will be considered on the assessment.

Grading Rule

The grade will consider class attendance and performance (50%) and reports (50%).

Prerequisite Reading

The students having this lecture will be required to study fundamental knowledge of mathematics to understand statistic analyses and data processing. Details will be introduced at the lecture guidance in the first class. As well, some introductions will be shown when necessary.

Exam eligibility

No restriction.

Composition Unit

Yoshikazu Nakajima, Shinya Onogi, Dongbo Zhou, Kenta Ichikawa

Module Unit Judgment

Grading will be done with the comprehensive consideration of lecture attendance and report quality.

TextBook

Handout will be provided if necessary.

Reference Materials

Handouts will be provided if necessary.

Important Course Requirements
Nothing.
Note(s) to Students
Nothing.
Email
NAKAJIMA Yoshikazu:nakajima.y.8203@m.isct.ac.jp
Instructor's Contact Information
NAKAJIMA Yoshikazu:15:00-16:30 on every Monday at Room 409A on the 4th floor, Building 21, Surugadai campus

Lecture No	041023				
Subject title	Lecture of RIKEN Molecular and Chemical Somatology			Subject ID	GC-c6190-L
Instructors	谷内 一郎, 田中 元雅, 三好 知一郎, 田上 俊輔, 今見 考志[Ichiroh Taniuchi, Motomasa Tanaka, MIYOSHI Tomoichiro, Shunsuke Tagami, IMAMI Kohshi]				
Semester	YearLong 2026	Level	1st - year	Units	2
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Availability in English:When non-Japanese students register this course, English will be used in all of the lectures.

Lecture place

Next Page

Course Purpose and Outline

Course Purpose:Students aim to understand the basis of Cellular Pathology, Therapeutic in vivo Synthetic Chemistry, Molecular Immunology, Molecular Neuropathology and Genome Biology, as well as their applications to Medicine and Biology by discussing about a variety of biomolecules, including proteins, sugars, and hormones, which regulate cellular functions.

Outline:Molecular and Chemical Somatology is an interdisciplinary field for understanding the basis of Cellular Pathology, Therapeutic in vivo Synthetic Chemistry, Molecular Immunology, and Molecular Neuropathology, as well as their applications to Medicine and Biology. Students will learn and discuss about the outlines and/or the latest topics on key biomolecules in each lecture, and are expected to deepen their understanding of various biomolecules.

Course Objective(s)

Students will learn and discuss about the latest topics from each instructor.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	6/18	09:45-12:00	和光理研 脳中央棟 5F セミナー室 S505	Plant molecular cell biology	IZUMI Masanori
2	6/18	13:00-15:15	和光理研 脳中央棟 5F セミナー室 S505	Structural biology	NOMURA Takashi
3	6/18	15:30-17:45	和光理研 脳中央棟 5F セミナー室 S505	Molecular Neurobiology	Ryo Endoh
4	8/19	13:00-15:15	和光理研 脳中央棟 5F セミナー室 S505	Molecular Neuropathology	Motomasa Tanaka
5	8/19	15:00-17:15	和光理研 脳中央棟 5F セミナー室 S505	Molecular Basis of Chemical Senses	Nobuhiko Miyasaka

6	8/25	09:45-12:00	横浜理研北研究棟5F 会議室	Biomacromolecular engineering	Shunsuke Tagami
7	8/25	13:00-15:15	横浜理研北研究棟5F 会議室	Immune Molecular Regulation-1	Ichiroh Taniuchi
8	8/25	15:30-17:45	横浜理研北研究棟5F 会議室	Advanced proteomics	IMAMI Koshi
9	9/3	13:00-15:15	横浜理研北研究棟5F 会議室	Genome Biology	MIYOSHI Tomoichiro
10	9/3	15:30-17:45	横浜理研北研究棟5F 会議室	Non-coding RNAs and Epigenetics	Gailhouste, Luc Nicolas

Lecture Style

Lectures by instructors, Presentation by students, and Discussion

Grading System

Attendance (40%) and Report (60%)

Prerequisite Reading

None

Reference Materials

Introduction to Glycobiology Third Edition (Maureen E. Taylor and Kurt Drickamer, Oxford University Press)、Fundamentals of Protein Structure and Function (Buxbaum and Engelbert, Springer)、Neuroscience: Exploring the Brain 4th Edition (Mark F. Bear, Barry Connors and Mike Paradiso, Wolters Kluwer)、Immunobiology, 10th ed. (K.Murphy, C.Weaver & L.Berg)

Email

Ichiroh Taniuchi:ichiro.taniuchi@riken.jp

Instructor's Contact Information

Ichiroh Taniuchi:Questions regarding the course content should be directed to the course instructor as needed.

Course Instructor: RIKEN Molecular and Chemical Somatology (Prof. Taniuchi), Collaborative Professor (available via email at any time).

Lecture No	416012				
Subject title	Special Lectures for Advanced Oral Healthcare Sciences			Subject ID	GCc6411
Instructors					
Semester	YearLong 2026	Level	1st – year	Units	2
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Partial classes are taught in English. When an international student registers this subject for credits, this course is taught in English.

Contact: Educational Planning Section, TEL:03-5803-4534、Email: grad02@ml.tmd.ac.jp

Yuji Kabasawa Email: kabasawa.ocsh@tmd.ac.jp

Availability in English: Partial classes are taught in English or When an international student registers this subject for credits, this course is taught in English.

Lecture place

Mainly Home for remote lectures

Course Purpose and Outline

Course Purpose: This course is designed to provide students with the latest basic and clinical knowledge necessary for research in oral health sciences. The course is designed to provide students with the necessary knowledge not only in the fields of medicine and dentistry

The course also covers the need for integration with related fields such as science, engineering, laboratory medicine (health science), and social welfare.

Course Objective(s)

The goal is for students to attend at least 2/3 of the lectures, understand the content of the lectures, and be able to formulate their own research themes.

Lecture Style

The lectures will be given mainly by remote lectures using web classes and ZOOM.

Course Outline

The course will focus on the latest findings in oral health science, and fusion research with related fields.

Application of oral health science in community and hospital settings.

Advanced clinical research in oral health

Social epidemiology, health disparities, and oral health studies

Oral health studies in public health

Grading System

Students will be evaluated comprehensively based on discussions, enthusiasm of efforts, and post-lecture assignments in each lecture.

Prerequisite Reading

Refer to the announcement of each lecture and seminar.

TextBook

Assigned by each lecturer.

Reference Materials

Assigned by each lecturer.

Important Course Requirements

Since most lectures are given remotely, if you have difficulty attending a lecture due to the communication environment, etc., be sure to contact the course instructor (Kabasawa).

Lecture No	416013				
Subject title	Advanced Oral Healthcare Sciences			Subject ID	GCc6412
Instructors	松尾 浩一郎, 吉田 直美, 日髙 玲奈, 竹内 康雄, 伊藤 奏, 安達 奈穂子[MATSUO Koichiro, YOSHIDA Naomi, HIDAKA Rena, TAKEUCHI Yasuo, ITO Kanade, ADACHI Naoko]				
Semester	YearLong 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

When an international student registers this subject for credits, this course is taught in English.

Lecture place

TMDU Hospital, Oral Health Center

Course Purpose and Outline

TMDU Graduate School and Hospital have established the Health Care Assistant (HCA) system, an internship program for graduate students qualified as dental hygienists, to provide training while actually working as part-time employees. This training is designed for students who wish to work at the Oral Health Center among the new HCA applicants, mainly to acquire the knowledge and skills necessary to perform perioperative and other oral health management.

Course Objective(s)

By the end, each student will:

1) To understand the outline of the work of the Oral Health Center.

2) Acquire the basics of patient care and how to deal with problems required of dental hygienists.

3) Understand the duties of an oral health center and perform the required duties appropriately under guidance.

Lecture Style

Lectures and exercises will be given at the oral health center.

Some of the lectures and exercises will incorporate active learning, such as case conferences and ZOOM.

Prerequisite Reading

Important Course Requirements

During your lesson in the hospital, take care of your manners as a medical staff.

Email

TAKEUCHI Yasuo:takeuchi.peri@tmd.ac.jp

MATSUO Koichiro:matsuo.ohcw@tmd.ac.jp

Instructor's Contact Information

TAKEUCHI Yasuo:PM.5:00-PM.6:30 Building 1, 8th floor, room 812B

MATSUO Koichiro:Monday 16:00-18:00 1st Building 8F Room 818B

Lecture No	416014				
Subject title	Advanced Oral Health Engineering			Subject ID	GCc6413
Instructors	池田 正臣, 大木 明子, 岩城 麻衣子, 土田 優美, 塩沢 真穂, 佐藤 隆明, 髙市 敦士[IKEDA Masaomi, OKI Meiko, IWAKI Maiko, TSUCHIDA Yumi, SHIOZAWA Maho, SATO Takaaki, TAKAICHI Atsushi]				
Semester	YearLong 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Media-enhanced courses

When an international student registers this subject for credits, this course is taught in English.

/KEy words: Dental laboratory work, dental treatment, CAD/CAM, Dental materials

Course Purpose and Outline

Course Purpose:The goal of this course is to understand actual applications of various basic researchs and technique supporting oral health engineering, and to obtain knowledge for solving objects in a wide range.

Outline:Various topics related to various basic researchs and technique supporting oral health engineering will introduced through recent textbooks and papers by instructors of Departments of Basic Oral Health Engineering, Oral Biomaterials Development Engineering, and Oral Prosthetic Engineering.

Course Objective(s)

Students will acquire the fundamental knowledge regarding basic researchs and technique supporting oral health engineering, discuss their development, application, function, and problems, and learn the strategy for promoting fundamental knowledge to specific application.

Lecture plan

No	Date	Time	Room	Lecture theme	Lecture content	Staff
1	10/2	16:00-17:00	オンデマンド			TAKAICHI Atsushi
2	10/9	16:00-17:00	オンデマンド			TAKAICHI Atsushi
3	10/16	16:00-17:00	オンデマンド			IWAKI Maiko
4	10/23	16:00-17:00	オンデマンド			IWAKI Maiko
5	11/6	16:00-17:00	オンデマンド			TSUCHIDA Yumi
6	11/13	16:00-17:00	オンデマンド			TSUCHIDA Yumi
7	11/20	16:00-17:00	オンデマンド			IKEDA Masaomi
8	11/27	16:00-17:00	オンデマンド			IKEDA Masaomi
9	12/4	16:00-17:00	ライブ			OKI Meiko
10	12/11	16:00-17:00	オンデマンド			SATO Takaaki
11	12/18	16:00-17:00	ライブ			OKI Meiko
12	1/8	16:00-17:00	オンデマンド			SHIOZAWA Maho
13	1/15	16:00-17:00	オンデマンド			SHIOZAWA Maho
14	1/22	16:00-17:00	オンデマンド			IKEDA Masaomi
15	1/29	16:00-17:00	オンデマ			SATO Takaaki

			ンド				

Lecture Style

Several professors give sereies of lectures in various themes. The students learn the content of the lecture through the question and discussions.

Grading System

The grading is comprehensively evaluated based on participation (50%), question and reports (50%).

Prerequisite Reading

None. However, there may be reference texts and books announced beforehand so pleasecheck before each lesson.

Reference Materials

Some references may be introduced by instructors prior to their lectures.

Note(s) to Students

Schedule will be changed depending on the number of students.

Email

IKEDA Masaomi:ikeda.csoe@tmd.ac.jp

Instructor's Contact Information

IKEDA Masaomi:Send an email to confirm the appointment.

Lecture No	416015				
Subject title	Advanced Bone Histomorphometry in the Hard Tissue Research			Subject ID	GCc6414
Instructors	青木 和広, 野中 希一, 上條 真吾, Masud Khan[AOKI Kazuhiro, NONAKA Kiichi, KAMIJO Shingo, MASUD Khan]				
Semester	YearLong 2026	Level	1st – year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Media-enhanced courses

English is also used for international students who register for courses.

Lecture place

Synchronous remote teaching

Course Purpose and Outline

Purpose of the course: To learn the theory and practice of bone mineral density analysis, undecalcified section preparation, and bone histomorphometry, which are indispensable for hard tissue research, and to apply bone morphometry to one's research.

Abstract: The actual preparation of undecalcified sections and bone morphometry will be practiced using rodents, i.e., mice and rats. In the lecture, students will learn bone histomorphometry of jawbone, regenerated bone, bone histomorphometry, including remodeling animals such as dogs and monkeys, and also learn the current analyses of bone densitometry.

Course Objective(s)

1. To explain the role of bone histomorphometry in hard tissue research.
2. To distinguish between osteoclasts and osteoblasts in the undecalcified sections.
3. To explain bone histomorphometry in trabecular and cortical bone.
4. To explain bone histomorphometry in modeling and remodeling animals.
5. To explain bone histomorphometry in regenerated bone and jawbone.
6. To explain bone densitometry.
7. To be able to apply bone histomorphometry to own research.

Lecture plan

No	Date	Time	Room	Lecture theme	Lecture content	Staff	Learning objectives・Learning methods・Instructions
1	4/16	08:00-08:45	遠隔授業(同期型)	Bone Histomorphometry: A Comprehensive Overview Part 1	Significance of Bone Histomorphometry in Hard Tissue Research	AOKI Kazuhiro	Explain the significance of bone morphometry TBL format
2	4/30	08:00-08:45	遠隔授業(同期型)	Bone Histomorphometry: A Comprehensive Overview Part 1(Including Dr. Amano's lecture)	Bone Histomorphometry in Hard Tissue Research	AOKI Kazuhiro, AMANO Hitoshi	Explain the significance of bone morphometry in relation to bone remodeling TBL format
3	5/15	08:00-08:45	遠隔授業(同期型)	Bone Morphometry Society Commentary	Preparation for the Society for Bone Morphometry	AOKI Kazuhiro	
4	6/5	08:00-08:45	遠隔授業(同期型)	BMD measurment Radiological Analysis: Part 1	MTheory and practice of bone densitometry (DXA, pQCT, ultrasound, etc.)	AOKI Kazuhiro, NONAKA Kiichi	Describe non-invasive bone mineral density

							analysis TBL format
5	6/18	08:00–08:45	遠隔授業（同期型）	Importance of Bone Morphometry in Papers Meeting ID: 946 6960 9953 Passcode: 804145	Journal club	AOKI Kazuhiro, NONAKA Kiichi	Explain the significance of bone morphometry TBL format
6	7/2	08:00–08:45	遠隔授業（同期型）	Importance of Bone Morphometry in Papers Meeting ID: 946 6960 9953 Passcode: 804145	Journal club	AOKI Kazuhiro	Explain the significance of bone morphometry TBL format
7	7/16	08:00–08:45	遠隔授業（同期型）	Bone Histomorphometry: A Comprehensive Overview Part 2(Including Dr. Amano's lecture)		AOKI Kazuhiro, AMANO Hitoshi	Explain the significance of bone morphometry in relation to bone remodeling TBL format
8	9/3	08:00–08:45	遠隔授業（同期型）	Importance of Bone Morphometry in Papers Meeting ID: 946 6960 9953 Passcode: 804145	Journal club	AOKI Kazuhiro	Explain the significance of bone morphometry TBL format
9	9/17	08:00–08:45	遠隔授業（同期型）	Bone Morphometry: A Comprehensive Overview (Part 1) Meeting ID: 946 6960 9953 Passcode: 804145	Methods for making undecalcified sections (both thin and grinding sections)	AOKI Kazuhiro, AMANO Hitoshi	Explain how to prepare non-decalcified sections TBL format Including Dr. Amano's lecture
10	10/1	08:00–08:45	遠隔授業（同期型）	Importance of Bone Morphometry in Papers Meeting ID: 946 6960 9953 Passcode: 804145	Journal club	AOKI Kazuhiro	Explain the significance of bone morphometry TBL format
11	11/6	08:00–08:45	遠隔授業（同期型）	Radiological Analysis: Part 1	Micro-CT imaging and its practice	AOKI Kazuhiro, AMANO Hitoshi	Describe the principles and imaging methods of μCT TBL format
12	11/19	08:00–08:45	遠隔授業（同期型）	Importance of Bone Morphometry in Papers Meeting ID: 946 6960 9953 Passcode: 804145	Journal club	AOKI Kazuhiro	Explain the significance of bone morphometry TBL format
13	12/3	08:00–08:45	遠隔授業（同期型）	Bone Morphometry: A Comprehensive Overview (Part 3) Meeting	Cortical bone measurements and measurements of bone regeneration sites and jaw bones	AOKI Kazuhiro	Explain the difference between

				ID: 946 6960 9953 Passcode: 804145			measuring cancellous bone and cortical bone TBL format
14	12/17	08:00-08:45	遠隔授業 (同期型)	Importance of Bone Morphometry in Papers Meeting ID: 946 6960 9953 Passcode: 804145	Journal club	AOKI Kazuhiro	Explain the significance of bone morphometry TBL format
15	1/14	08:00-08:45	遠隔授業 (同期型)	Summary (Part 1) Meeting ID: 946 6960 9953 Passcode: 804145	All students enrolled in this special course will present what they have learned in this special course and share their results.	AOKI Kazuhiro	Can explain bone morphometry and apply it to his/her own research Prepare presentation materials
16	1/28	08:00-08:45	遠隔授業 (同期型)	Summary (Part 2) Meeting ID: 946 6960 9953 Passcode: 804145	All students enrolled in this special course will present what they have learned in this special course and share their results.	AOKI Kazuhiro	Can explain bone morphometry and apply it to his/her own research Prepare presentation materials

Lecture Style

The course will be based on synchronous teleclasses.

If the teaching method changes, we will notify you in advance.

Students are required to watch the basic explanation videos prepared in advance before attending the lectures.

In the last two classes, each student will give a 5-minute presentation.

Please prepare in advance.(Refer to the evaluation method).

Course Outline

The methods for measuring bone remodeling activity in long-tubular bone are not similar to those for quantifying bone dynamics in regenerated bone.Also, the measurement methods for cortical and trabecular bone in long bones are different from those for jaw bones, and the effects of physiological changes or interventions can be quantified by using measurement methods that understand the characteristics of each type of bone.In the lectures and exercises, students will learn about the limitations of bone morphometry and how to deal with them. They will also learn about radiological analysis and bone densitometry, which are essential for hard tissue research.

(Omnibus / 8 sessions)

(Kazuhiro Aoki/4 times) Bone Morphometry: General and Specific Theories/Student Presentations (final session)

(Hitoshi Amano/2times) Radiographic analysis (μ CT), non-decalcified sectioning, bone remodeling

(Kiichi Nonaka/1 meeting) Bone densitometry (DXA, pQCT, Ultrasonic bone densitometry) + lecture in person

Grading System

Grading will be based on participation in lectures and the final presentation, with the following percentages as a guide

○Participation in lectures and practical training: 70% (This is the number of attendance evaluation points for the seven classes other than the last class where the presentation is given, with a maximum score of 10 points per class.)

○Final presentation: 30%.

(You will be asked to present how you were able to think about applying and developing what you have learned in your research)

Prerequisite Reading

(1) Read through the materials when they are uploaded in advance before coming to class.

2) Be sure to attend the final presentation. If you have no choice but to be absent, notify the instructor before the class starts.

The presentation should be about 5 minutes in length.

The presentation should include: 1) a description of the purpose of your research, 2) the area of interest, and 3) what parameters you will

measure.

(4) Keep the presentation simple and concise so that students from other fields can understand the purpose of the research.

5) For the abstract reading session, select five papers with IF 9 or higher, four of which you will outline and one of which you will abstract (about 25 minutes).

Reference Materials

新しい骨形態計測／山本智章編集,遠藤, 直人,山本, 智章,:ウイネット, 2014

骨形態計測からヒトの骨組織を見る、知る、学ぶ／山本智章, 平野徹, 田中伸哉編集,遠藤, 直人,山本, 智章,平野, 徹,田中, 伸哉,:ウイネット, 2019

Email

AOKI Kazuhiro:kazuhiro_aoki.bhoe@tmd.ac.jp

Instructor's Contact Information

AOKI Kazuhiro:16:00-18:00 on every Monday, Room 216, 2nd floor, Bldg. 2 (Department of Oral Basic Engineering)

please contact me by e-mail.

Lecture No	416002				
Subject title	Epidemiology Ⅱ			Subject ID	GC-c6200-L
Instructors	相田 潤[AIDA Jun]				
Semester	Fall 2026	Level	1st - year	Units	2
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Instructor(s):

Jun Aida, Professor, Department of Dental Public Health

Takeo Fujiwara, Professor, Department of Public Health

Shino Kino, Professor, Department of Preventive Oral Health Care Sciences

Ichiro Kawachi, John L. Loeb and Frances Lehman Loeb Professor of Social Epidemiology, Chair, Department of Social and Behavioral Sciences, Harvard T.H. Chan School of Public Health

Naoki Kondo, Professor, Department of Social Epidemiology, Kyoto University

Fumiaki Imamura, Senior Investigator Scientist, MRC Epidemiology Unit, Institute of Metabolic Science, University of Cambridge School of Clinical Medicine

Availability in English: All classes are taught in English.

Key word: Epidemiology

Lecture place

Refer to the course schedule

Course Purpose and Outline

Course Purpose:

This course applies advanced epidemiological methodologies to explore the health effects of major social variables.

Outline:

We will focus on social determinants of health, including social class, race, gender, poverty, income distribution, social networks/support, community cohesion, work and neighborhood environment, behavioral economics, and nutritional epidemiology. We also address the health consequences of social and economic policies, and the potential role of specific social interventions, including innovative methods based on behavioral economics. To deepen understanding of social epidemiology, oral health outcomes, their distributions in the populations, and its common determinants will be taught. Lectures by Professor Ichiro Kawachi from Harvard T.H. Chan School of Public Health form part of the Harvard/Johns Hopkins Lecture Series (HJLS).

Course Objective(s)

By the end of this course, students will be able to logically and scientifically:

a) Define social determinant of health, explain measurement methods of them, and describe mechanisms through which social determinant of health influence health.

b) Explain high risk and population strategies of prevention, and contrast benefit and drawbacks of two strategies.

c) Explain oral health outcome measurements, its distribution and common determinants of oral health.

d) Explain how can we incorporate novel insights from behavioral economics to improve the success of behavior change.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1-2	11/9	08:50-12:15	G-Lab	Lecture: Oral Epidemiology 1	AIDA Jun
3	11/9	13:30-15:00	G-Lab, オンデマンド	Lecture: Socioeconomic status and health (Video lecture)	KONDO Naoki

4	11/9	15:25–16:55	G-Lab, オンデマンド	Neighborhood and health (Ondemand)	ICHIRO Kawachi
5	11/10	08:50–10:20	G-Lab	Preparation for the group presentation	AIDA Jun
6	11/10	10:45–12:15	G-Lab	Presentation for the group presentation	AIDA Jun, KINO Shiho
7	11/10	13:30–15:00	G-Lab	Q & A session: Socioeconomic status and health	KONDO Naoki, AIDA Jun
8	11/10	13:30–15:00	G-Lab	Lecture: Social epidemiology	AIDA Jun, FUJIWARA Takeo, ICHIRO Kawachi, KINO Shiho
9	11/12	08:50–10:20	G-Lab, オンデマンド	Lecture: Life-course epidemiology (On-demand)	FUJIWARA Takeo
10	11/12	10:45–12:15	G-Lab	Lecture: Life-course epidemiology	FUJIWARA Takeo
11	11/12	13:30–15:00	G-Lab	Lecture for the final exam presentation	AIDA Jun
12	11/12	15:25–16:55	G-Lab	Lecture: Nutritional Epidemiology 1	IMAMURA Fumiaki, AIDA Jun
13	11/13	08:50–10:20	G-Lab	Case and group activity: Preparation for the final exam presentation	AIDA Jun
14	11/13	10:45–12:15	G-Lab	Case and group activity: Final exam presentation.	AIDA Jun, KINO Shiho
15	11/13	13:30–15:00	G-Lab	Case and group activity: Final exam presentation.	AIDA Jun, KINO Shiho
16	11/13	15:25–16:55	G-Lab	Lecture: Nutritional Epidemiology 2	IMAMURA Fumiaki, AIDA Jun

Lecture Style

This course will consist of lectures and case-based class activities. Students will be required to write a final report.

Course Outline

Refer to the course schedule

Grading System

Grades will be based on the following elements:

Participation 10%

Presentations 35%

Final paper 55%

Prerequisite Reading

Reading materials will be available online on the course webpage. Students are expected to have worked through the materials before attending the corresponding class.

Reference Materials

Reading materials will be available online at the course webpage. Students are expected to have worked thorough the materials before attending

the corresponding class.

The book is recommended for those whose research interests are related to social determinants of health.

Berkman LF, Kawachi I, Glymour MM, editor. Social Epidemiology. 2nd ed. New York: Oxford University Press; 2014.

Important Course Requirements

For students not in the MPH course, instructor's permission is required before registering to the course. Also, students are required to have TOEFL iBT with a minimum score of 80 (taken before January 21, 2026), 4.5 (taken on or after January 21, 2026), or IELTS with a minimum score of 6.5. Please submit an email when you receive permission through the Forms below. https://forms.office.com/r/3qSAXRwJbN

In addition, priority for course registration is given to MPH students, and registration may be limited depending on the number of applicants.

Note(s) to Students

An explanation of the assignment will be given in the lecture.

Syllabus is tentative so please refer to the "Schedule" in the MPH syllabus "Social Epidemiology"

Email

AIDA Jun:aida.ohp@tmd.ac.jp

Instructor's Contact Information

AIDA Jun:Department of Dental Public Health, Graduate School of Medical and Dental Sciences. Prof. Aida at aida.ohp@tmd.ac.jp

Every Tuesday, 4:30–5:30 PM, Department of Dental Public Health, 10th floor, Dental Building North

Lecture No	416003				
Subject title	Biostatisitcs Ⅱ			Subject ID	GC-c6210-L
Instructors	藤原　武男[FUJIWARA Takeo]				
Semester	Fall 2026	Level	1st - year	Units	2
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Instructor(s):

Takeo Fujiwara, Professor, Department of Public Health

Hisaaki Nishimura, Assistant Professor, Department of Public Health

Availability in English: All classes are taught in English.

Key word: Biostatistics

Lecture place

Refer to the course schedule

Course Purpose and Outline

Course Purpose:

To be able to analyze existing questionnaire data and/or clinical data quantitively.

Outline:

Be able to make research question

Be able to select exposure, outcome, and covariates

Be able to do data-cleaning, define analytic sample

Be able to handle missing data (dummy variable)

Be able to describe sample characteristics as Table 1

Be able to use simple regression

Be able to use multivariate regression

Be able to report the main outcome as Table　2

Be able to interpret the interaction term

Be able to use propensity score (propensity score matching, inverse probability weighting)

Be able to use multiple imputation for missing data

Course Objective(s)

By the end of this course, students will be able to choose appropriate statistical analyses, perform them using statistical software (STATA), interpret results and propose research and policy implication.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	10/5	08:50-10:20	情報検索室1	Session 1: Make clear, specific research question	NISHIMURA Hisaaki, FUJIWARA Takeo
2	10/5	10:45-12:15	情報検索室1	Session 2: Select exposure, outcome, covariates	NISHIMURA Hisaaki, FUJIWARA Takeo
3	10/5	13:30-15:00	情報検索室1	Session 3: Data cleaning	NISHIMURA Hisaaki, FUJIWARA

					Takeo
4	10/5	15:25–16:55	情報検索室1	Hands-on activity (1)	NISHIMURA Hisaaki, FUJIWARA Takeo
5	10/6	08:50–10:20	情報検索室1	Session 4: Summarize and report characteristics of data as Table 1	NISHIMURA Hisaaki, FUJIWARA Takeo
6	10/6	10:45–12:15	情報検索室1	Session 5: Correlations	NISHIMURA Hisaaki, FUJIWARA Takeo
7	10/6	13:30–15:00	情報検索室1	Session 6: Simple linear regression	NISHIMURA Hisaaki, FUJIWARA Takeo
8	10/6	15:25–16:55	情報検索室1	Hands-on activity (2)	NISHIMURA Hisaaki, FUJIWARA Takeo
9	10/8	08:50–10:20	情報検索室1	Session 7: Simple logistic regression	NISHIMURA Hisaaki, FUJIWARA Takeo
10	10/8	10:45–12:15	情報検索室1	Session 8: Multivariate regression	NISHIMURA Hisaaki, FUJIWARA Takeo
11	10/8	13:30–15:00	情報検索室1	Session 9: Making Table 2	NISHIMURA Hisaaki, FUJIWARA Takeo
12	10/8	15:25–16:55	情報検索室1	Hands-on activity (3)	NISHIMURA Hisaaki, FUJIWARA Takeo
13	10/9	08:50–10:20	情報検索室1	Session 10: Interaction	NISHIMURA Hisaaki, FUJIWARA Takeo
14	10/9	10:45–12:15	情報検索室1	Session 11: Propensity score	NISHIMURA Hisaaki, FUJIWARA Takeo
15	10/9	13:30–15:00	情報検索室1	Session 12: Multiple impulation	NISHIMURA Hisaaki, FUJIWARA Takeo

16	10/9	15:25-16:55	情報検索室1	Final Q&A	NISHIMURA Hisaaki, FUJIWARA Takeo	

Lecture Style

This course will consist of lectures and case-based class activities. Students will be required to submit assignments.

Course Outline

Refer to the course schedule

Grading System

Grades will be based on the following elements:

Participation 20%

Assignments 80% (10 assignments, 8% each)

Prerequisite Reading

If you want to analyze your own data, please prepare in Excel format or stata format. If not, we will provide data for this course.

Module Unit Judgment

2 units

Reference Materials

Hayes-Larson E, Kezios KL, Mooney SJ, Lovasi G. Who is in this study, anyway? Guidelines for a useful Table 1. J Clin Epidemiol. 2019 Oct;114:125-132.

Westreich D, Greenland S. The table 2 fallacy: presenting and interpreting confounder and modifier coefficients. Am J Epidemiol. 2013 Feb 15;177(4):292-8.

Important Course Requirements

For students not in the MPH course, instructor's permission is required before registering to the course. Also, students are required to have TOEFL iBT with a minimum score of 80 (taken before January 21, 2026), 4.5 (taken on or after January 21, 2026), or IELTS with a minimum score of 6.5. Please submit an email when you receive permission through the Forms below. https://forms.office.com/r/ZfAaDzZn0S In addition, priority for course registration is given to MPH students, and registration may be limited depending on the number of applicants.

Note(s) to Students

1. During the course, you will be asked to log onto the library computer, zoom, Webmail, websystem, and Microsoft365. Please make sure that you know Togo-ID, Science Tokyo-ID/passwords and user IDs and passwords for each tool before the course week starts.

- Zoom login: https://zoom.us/ja/signin#/login
- Webmail login/ https://webmail.tmd.ac.jp/cgi-bin/index.cgi
- Science Tokyo ID: https://tmdu.ex-tic.com/auth/session
- Science Tokyo ID Portal (LMS, Microsoft 365): https://isct.ex-tic.com/auth/session

*In case that you forgot your Togo-ID password, please ask for help from IT help desk (ithelp@ml.tmd.ac.jp). They cannot reset a password in a day so please ask for help beforehand.

2. The library computer will be automatically reset at the end of the day so you cannot save your work (report, modified dataset etc.) on the computer. Please bring your USB.

Email

FUJIWARA Takeo:fujiwara.hlth@tmd.ac.jp

Lecture No	416004				
Subject title	Public Health Biology			Subject ID	GC-c6220-L
Instructors	藤原 武男, 長谷川 久紀[FUJIWARA Takeo, HASEGAWA Hisanori]				
Semester	Spring 2026	Level	1st - year	Units	2
Course by the instructor with practical experiences				Mode of Instruction	Media-enhanced courses

(Course director)
Takeo Fujiwara, Professor, Department of Public Health
(Instructors)
Hisanori Hasegawa, MD, PhD Junior Associate Professor, Office of Global Affairs
Yoshimitsu Akiyama, PhD Junior Associate Professor, Department of Molecular Oncology
Takasato Fujiwara, MD Hospital Director, Tanaka Clinic
Sadakatsu Ikeda, MD, PhD Professor, Cancer Center, Medical Hospital
Janelle Moross, RN Associate Professor, Office of Education
Shun Nakagama, MD,PhD Clinical Lecturer, Department of Virology & Parasitology, Osaka Metropolitan University
Hiroshi Noto, MD, PhD Director, Endocrinology Department, St. Luke's International Hospital
Koh Okamoto, MD, PhD Associate Professor, Department of Infectious Diseases
Yasuaki Tagashira, MD, PhD Junior Associate Professor, Department of Infectious Diseases
Kentaro Takahashi, MD, PhD Assistant Professor, Department of Human Genetics and Disease Diversity
Akihito Uezato, MD, PhD Professor, Center for Basic Medical Research, International University of Health and Welfare

Availability in English: All classes are taught in English.
Key word: Public Health

Lecture place

·All lectures will be delivered on-demand (asynchronous).

Course Purpose and Outline

Course Purpose:

The goals of this course are to provide students with a fundamental understanding of the biology and pathophysiology underlying major human diseases which cause significant morbidity or mortality that are necessary for the practice of public health. This course is mandatory for MPH students without MD, DDS, DMD, or RN.

Outline:

Discusses the molecular, cellular, physiological, genetic and immunological determinants of human diseases and disease susceptibility, including infectious disease, pulmonary diseases related to air pollution, diabetes and obesity, cardiovascular diseases, stress-related conditions, psychiatric diseases, perinatal complications, and cancer. Focuses on how biological principles help to understand the development, treatment and prevention of disease, and to assess risk from potentially hazardous agents and behaviors.

Course Objective(s)

Upon successfully completing this course, students will be able to:

1) Describe the public health strategies for the prevention of the infectious diseases of public health concern worldwide

2) Explain how a vaccine works to achieve resistance to an infectious organism, define the term herd immunity, and explain how it provides protection for the non-immunized person as well as its philosophical consideration

3) Describe the psychophysiological effector mechanisms that represent the stress response and the effect of the stress response on the target organ systems and its public health implications

4) Describe the prevalence, clinical manifestations, natural history and societal impact, pathophysiology, and management of mood and anxiety disorders, schizophrenia, developmental disorders, and dementia

5) Outline normal pregnancy and parturition and describe the effects of host environment on fetus

6) Describe the public health strategies for the prevention of the pulmonary diseases related to air pollution and the respiratory tract infection of public-health concerns

7) Describe the public health burden (domestic and global) of and the public health strategies for the prevention of cardiovascular diseases

8) Describe the public health burden (domestic and global) of and the public health strategies for the prevention of diabetes/obesity

9) Define genetics and its relationship to the health of individuals and populations, and define major ethical, legal, and social implications of genetics as applied in the clinical setting and in public health

10) Describe the effects of epigenetic states on health outcomes related to cardiovascular and respiratory disease, aging, reproductive health, neurological and neuropsychological diseases, and cancer

11) Describe the public health burden (domestic and global) of and the public health strategies for various cancer

Lecture plan

No	Date	Time	Room	Lecture theme	Staff	Learning objectives・Learning methods・Instructions
1	4/21	08:50-10:20	オンデマンド	Host response to infection: the immune response and vaccination	HASEGAWA Hisanori	Objectives:2) Pre-Assignments: Refer course syllabus on the LMS
2	4/21	10:45-12:15	オンデマンド	Host response to infection: the immune response and vaccination	HASEGAWA Hisanori	Objectives:2) Pre-Assignments: Refer course syllabus on the LMS
3	4/21	13:30-15:00	オンデマンド	Pulmonary diseases related to air pollution and respiratory tract infection of public-health concern	FUJIWARA Takasato	Pre-Assignments: Refer syllabus on the LMS
4	4/23	08:50-10:20	オンデマンド	Genetics for public health students	TAKAHASHI Kentaro	Pre-Assignments: Refer syllabus on the LMS
5	4/23	10:45-12:15	オンデマンド	Genetics for public health students	TAKAHASHI Kentaro	Pre-Assignments: Refer syllabus on the LMS
6	4/24	13:30-15:00	オンデマンド	Cardiovascular diseases for public health students	NAKAGAMA Shunn	Pre-Assignments: Refer syllabus on the LMS
7	4/24	15:25-16:55	オンデマンド	Cardiovascular diseases for public health students	NAKAGAMA Shunn	Pre-Assignments: Refer syllabus on the LMS
8	4/27	13:30-15:00	オンデマンド	Diabetes and obesity for public health students	NOTO Hiroshi	Pre-Assignments: Refer syllabus on the LMS
9	4/27	15:25-16:55	オンデマンド	Diabetes and obesity for public health students	NOTO Hiroshi	Pre-Assignments: Refer syllabus on the LMS

10	4/28	10:45–12:15	オンデマンド	Essentials of obstetrics for public health students	JANELLE RENEE MOROSS	Pre-Assignments: Refer syllabus on the LMS
11	4/28	13:30–15:00	オンデマンド	Cancer for public health students	IKEDA Sadakatsu	Pre-Assignments: Refer syllabus on the LMS
12	4/30	13:30–15:00	オンデマンド	Pathogens, infection, and infectious diseases	OKAMOTO Koh	Pre-Assignments: Refer syllabus on the LMS
13	4/30	15:25–16:55	オンデマンド	Pathogens, infection, and infectious diseases	TAGASHIRA Yasuaki	Pre-Assignments: Refer syllabus on the LMS
14	5/1	08:50–10:20	オンデマンド	Epigenetics for public health students	AKIYAMA Yoshimitsu	Pre-Assignments: Refer syllabus on the LMS
15	5/7	08:50–10:20	オンデマンド	Stress Response / Essentials of neuroscience and psychiatric illnesses	UEZATO Akihito	Pre-Assignments: Refer syllabus on the LMS
16	5/7	10:45–12:15	オンデマンド	Stress Response / Essentials of neuroscience and psychiatric illnesses	UEZATO Akihito	Pre-Assignments: Refer syllabus on the LMS

Lecture Style

·All lectures will be delivered on-demand (asynchronous).

·Lecture videos will be uploaded to the

"Public Health Biology 2026 (Spring semester)" course in the Science Tokyo LMS.

Course Outline

Refer to the course schedule

Grading System

The final grade will be based on the sum of all points granted. For those students who fail to meet the requirements for grading or those students who did not fulfill attendance requirements or other necessary requirements, the grade will be marked as credit not granted.

Grading Criteria

Grades are finalized by considering the sum of all points granted for the following items.

(1) Class Attendance: 30% of the total course points

(2) Final Report: 70% of the total course points

Evaluation of the Final Report will be based NOT on the quantity (the length) but on the quality (content and organization) by taking into account the following factors:

·Analytical ability and insights

·Reasoning skills

·Ability to develop and evaluate hypotheses

·Comprehension of learned concepts and frameworks

·Strength of the argument presented

Prerequisite Reading

Preparation (reading, viewing, assignments, etc) will be specified in the course syllabus which will be provided to registered students on the LMS.

Exam eligibility

There will be no final exams in this course. Course gradings will be based on the sum of all points granted from the Preparation Assignment, Class Participation and Final Report.

Module Unit Judgment

2 units

TextBook

Human Genetic Diversity／Julian C. Knight：Oxford University Press, 2009

Please purchase the above textbooks before the session “Genetics for public health students”(Sessions 4 and 5)

Reference Materials

All other reference materials will be specified in the course syllabus on the LMS.

Important Course Requirements

(1) Lecture style ・All the other lectures will be delivered on-demand (asynchronous). ・Lecture videos will be uploaded on the LMS. ・Videos will be only available on the LMS during April 20th～June 8th, 2026. (2) Self Introduction Set your concrete goal for taking this course and post it, along with your self-introduction, to the course mailing list (phb@ml.tmd.ac.jp) by 20th of Apr (Mon) 19:00. (3) Attendance ・Attendance of at least 11 out of 16 sessions. ・Attendance will be checked through your browsing history of each session’s video. ・75% or more viewing per video on the LMS is required for attendance. (4) Preparation Assignments Students are required to do preparation assignments as specified by each session in this syllabus. Preparation Assignments assist you in understanding the topic for the class. (5) Preparation and Class Participation All sessions are conducted with the assumption that all students are fully prepared. Students attending class without having prepared will not benefit themselves. Therefore, all students are expected to prepare thoroughly. (6) Submission of Final Report A report is required for the completion of the course and its deadline will be specified in the course syllabus. The most important point in completing the Final Report is to develop and explain your own opinions which should be thought through thoroughly and lead you to make your own conclusion. Merely summarizing cases, methods or frameworks is not sufficient. Explain your thoughts clearly and concisely. Use simple and clear expressions. If you use any charts in your Report, clarify and explain what information those can tell readers. Detailed direction for Final Report will be given at the end of this course syllabus. Final report is due at 23:59 pm on June 8th (Mon), 2026. Note: Measures against cheating and plagiarism When writing your Final Report, it is strictly forbidden to copy or use ideas from Final Reports of your classmates or those students who took this course in past terms, handouts from other courses, or materials from past terms. Students should refrain from sharing solutions for Final Report exercises and any other information that could impact the outcome of it through any forms of communication. Both the provider and beneficiary of relevant information shall become disqualified from completing the course in the case of such cheating and plagiarism.

Note(s) to Students

Preparation assignments, dates, time, location of each session are subject to change. Please check with the most updated course syllabus.

For students not in the MPH course, instructor’s permission is required before registering to the course. Also, students are required to have TOEFL iBT with a minimum score of 80 (taken before January 21, 2026), 4.5 (taken on or after January 21, 2026), or IELTS with a minimum score of 6.5. Please submit an email when you receive permission through the Forms below.

https://forms.office.com/r/5S5i8Xwhit

In addition, priority for course registration is given to MPH students, and registration may be limited depending on the number of applicants.

For the most recent update, please refer to the web page.

The times shown in the “Lecture plan” may differ from the actual times.

Email

HASEGAWA Hisanori:hasegawa.rheu@tmd.ac.jp

Instructor’s Contact Information

HASEGAWA Hisanori:Please call 81600 or mail hasegawa.rheu@tmd.ac.jp if contact needed.

Lecture No	416005				
Subject title	Health System and Management			Subject ID	GC-c6230-L
Instructors	森田 彩子[MORITA Ayako]				
Semester	Spring 2026	Level	1st - year	Units	2
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Instructors:

Ayako Morita, Associate Professor, Department of Public Health

Ali Shehzad, Canada Research Chair and Professor, Department of Epidemiology & Biostatistics, Western University

Daisuke Shinjo, Associate Professor, Department of Health Policy and Informatics Section

Miho Ishimaru, Lecturer, Department of Dental Public Health

Tsuguhiko Kato, Associate Professor, Graduate School of Public Health, St. Lukes International University

Yuiko Nagamine, Ministry of Health, Labour and Welfare, Japan

Takeo Fujiwara, Professor, Department of Public Health

Nobutoshi Nawa, Professor, Department of Global Environmental Health

Yu Par Khin, Specially Appointed Assistant Professor, Department of Public Health

Availability in English: All classes are taught in English.

Keyword: Public Health

Lecture place

G-lab, 8F, M&D tower

Course Purpose and Outline

This course provides an overview of the Japanese health care system and introduces cost-benefit analysis methods used in medical and public health interventions.

Course Objective(s)

By the end of this course, students will be able to:

1)Describe the key features of the Japanese health care system.

2)Explain the basic concepts of cost-benefit analysis in health care.

3)Apply cost-benefit analysis methods to medical and public health interventions.

4)Interpret economic evaluation results for policy decision-making critically in a logical manner.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff	Learning objectives・Learning methods・Instructions
1	4/13	08:50-10:20	G-Lab	Course Overview and Syllabus Review, Lecture: Healthcare Systems in Japan and Beyond	FUJIWARA Takeo, NAWA Nobutoshi, MORITA Ayako, YU PAR KHIN, SHINJO Daisuke	
2	4/13	10:45-12:15	G-Lab	Lecture: Dental Healthcare System in Japan	FUJIWARA Takeo, NAWA Nobutoshi,	

					MORITA Ayako, YU PAR KHIN, ISHIMARU Miho	
3	4/13	13:30–15:00	G-Lab	Lecture: Maternal and Child Health Care System in Japan	FUJIWARA Takeo, NAWA Nobutoshi, MORITA Ayako, YU PAR KHIN	Guest lecturer: Tuguhiko Kato
4	4/13	15:25–16:55	G-Lab	Lecture: Longevity Health Care System in Japan	FUJIWARA Takeo, NAWA Nobutoshi, MORITA Ayako, YU PAR KHIN	Guest lecturer: Yuiko Nagamine
5	4/14	08:50–10:20	G-Lab	Lecture: Health Cost Benefit Analysis (1)	FUJIWARA Takeo, NAWA Nobutoshi, MORITA Ayako, YU PAR KHIN	Guest professor: Ali Shehzad
6	4/14	10:45–12:15	G-Lab	Lecture: Health Cost Benefit Analysis (2)	FUJIWARA Takeo, NAWA Nobutoshi, MORITA Ayako, YU PAR KHIN	Guest professor: Ali Shehzad
7	4/14	13:30–15:00	G-Lab	Lecture: Health Cost Benefit Analysis (3)	FUJIWARA Takeo, NAWA Nobutoshi, MORITA Ayako, YU PAR KHIN	Guest professor: Ali Shehzad
8	4/14	15:25–16:55	G-Lab	Lecture: Health Cost Benefit Analysis (4)	FUJIWARA Takeo, NAWA Nobutoshi, MORITA Ayako, YU PAR KHIN	Guest professor: Ali Shehzad
9	4/16	08:50–10:20	G-Lab	Lecture: Health Cost Benefit Analysis (5)	FUJIWARA Takeo, NAWA Nobutoshi, MORITA Ayako, YU PAR KHIN	Guest professor: Ali Shehzad
10	4/16	10:45–12:15	G-Lab	Lecture: Health Cost Benefit Analysis (6)	FUJIWARA Takeo, NAWA Nobutoshi,	Guest professor: Ali Shehzad

					MORITA Ayako, YU PAR KHIN	
11	4/16	13:30–15:00	G-Lab	Lecture: Health Cost Benefit Analysis (7)	FUJIWARA Takeo, NAWA Nobutoshi, MORITA Ayako, YU PAR KHIN	Guest professor: Ali Shehzad
12	4/16	15:25–16:55	G-Lab	Lecture: Health Cost Benefit Analysis (8)	FUJIWARA Takeo, NAWA Nobutoshi, MORITA Ayako, YU PAR KHIN	Guest professor: Ali Shehzad
13	4/17	08:50–10:20	G-Lab	Lecture: Health Cost Benefit Analysis (9)	FUJIWARA Takeo, NAWA Nobutoshi, MORITA Ayako, YU PAR KHIN	Guest professor: Ali Shehzad
14	4/17	10:45–12:15	G-Lab	Lecture: Health Cost Benefit Analysis (10)	FUJIWARA Takeo, NAWA Nobutoshi, MORITA Ayako, YU PAR KHIN	Guest professor: Ali Shehzad
15	4/17	13:30–15:00	G-Lab	Lecture: Health Cost Benefit Analysis (11)	FUJIWARA Takeo, NAWA Nobutoshi, MORITA Ayako, YU PAR KHIN	Guest professor: Ali Shehzad
16	4/17	15:25–16:55	G-Lab	Lecture: Health Cost Benefit Analysis (12)	FUJIWARA Takeo, NAWA Nobutoshi, MORITA Ayako, YU PAR KHIN	Guest professor: Ali Shehzad

Lecture Style

This four-day course will consist of lectures, discussion, breakout sessions for group work and daily group presentations of the previous day's group work.

Course Outline

Refer to the course schedule

Grading System

Grades will be based on the following elements:

Participation (Attendance and Active Class Engagement such as asking questions and involving in discussion) 20%

Individual report 30%

Group project 50%

Prerequisite Reading
Required and recommended readings will be introduced in class and will be made available on the web page.
Module Unit Judgment
2 units
Reference Materials
To be specified in the class.
Important Course Requirements
For students not in the MPH course, instructor's permission is required before registering to the course. Also, students are required to have TOEFL iBT with a minimum score of 80 (taken before January 21, 2026), 4.5 (taken on or after January 21, 2026), or IELTS with a minimum score of 6.5. Please submit an email when you receive permission through the Forms below. https://forms.office.com/r/xnqsxvRfWT In addition, priority for course registration is given to MPH students, and registration may be limited depending on the number of applicants.
Note(s) to Students
For the most recent update, please refer to Webclass
Email
MORITA Ayako:morita.hlth@tmd.ac.jp

Lecture No	416007				
Subject title	Global Health			Subject ID	GC-c6250-L
Instructors	那波 伸敏[NAWA Nobutoshi]				
Semester	Spring 2026	Level	1st - year	Units	4
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Instructor(s):

Nobutoshi Nawa, Professor, Department of Global Environmental Health

Takeo Fujiwara, Professor, Department of Public Health

Pamela Surkan, Professor, Department of International Health, Johns Hopkins Bloomberg School of Public Health

Ayako Morita, Associate Professor, Department of Public Health

Yui Yamaoka, Project Assistant Professor, Department of Public Health

Aya Goto, Professor, Department of International Health and Population Studies, Harvard School of Public Health

Yugo Shobugawa, Professor, Center for Well-being Research Advancement (CWRA)

Yu Par Khin, Adjunct Assistant Professor, Department of Public Health

Yoshiaki Gu, Professor, Department of Infectious Diseases, Institute of Science Tokyo

Shinjiro Nozaki, Regional Compliance and Risk Management Officer, Regional Office for the Western Pacific, World Health Organization

Masami Fujita, Director, Office of Partnership and Coordination, Bureau of Global Health Cooperation, Japan Institute for Health Security

Akimi Ota, Toke Studio

Akihiro Koido, Professor, Faculty of International Relations, Department of Multicultural Communication, Asia University

Availability in English: All classes are taught in English.

Key word: Global Health

Lecture place

G-Lab, M&D Tower 8F

Course Purpose and Outline

This course provides an overview of some of the major global health issues facing the world today, including conflict, migration, infectious disease pandemics and road traffic injuries. Students will also learn about questionnaire development and qualitative research methods to obtain data on these issues.

Course Objective(s)

By the end of this course, students are expected to be able to:

a) Explain the relationship between population dynamics, cultural, ethnic, and historical backgrounds, natural resources, human and socio-economic movements, and health status of a specific region.

b) Discuss impact of activities of governmental, intergovernmental, and nongovernmental institutions on the process of dealing with public health and human right.

c) Describe current global health challenges on the aspects of medicine, public health and social sciences.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff	Learning objectives・Learning methods・Instructions
1	6/29	08:50-10:20	G-Lab	Lecture: Qualitative method in global health (1)	PAMELA JEAN SURKAN, NAWA	

					Nobutoshi, YU PAR KHIN	
2	6/29	10:45–12:15	G-Lab	Lecture: Qualitative method in global health (2)	PAMELA JEAN SURKAN, NAWA Nobutoshi, YU PAR KHIN	
3	6/29	13:30–15:00	G-Lab	Lecture & groupwork: Qualitative method in global health (3)	PAMELA JEAN SURKAN, NAWA Nobutoshi, YU PAR KHIN	
4	6/29	15:25–16:55	G-Lab	Lecture & groupwork: Qualitative method in global health (4)	PAMELA JEAN SURKAN, NAWA Nobutoshi, YU PAR KHIN	
5	6/30	08:50–10:20	G-Lab	Lecture: Qualitative method in global health (5)	PAMELA JEAN SURKAN, NAWA Nobutoshi, YU PAR KHIN	
6	6/30	10:45–12:15	G-Lab	Lecture: Qualitative method in global health (6)	PAMELA JEAN SURKAN, NAWA Nobutoshi, YU PAR KHIN	
7	6/30	13:30–15:00	G-Lab	Lecture & groupwork: Qualitative method in global health (7)	PAMELA JEAN SURKAN, NAWA Nobutoshi, YU PAR KHIN	
8	6/30	15:25–16:55	G-Lab	Lecture & groupwork: Qualitative method in global health (8)	PAMELA JEAN SURKAN, NAWA Nobutoshi, YU PAR KHIN	
9	7/2	08:50–10:20	G-Lab	Lecture: Qualitative method in global health (9)	PAMELA JEAN SURKAN, NAWA Nobutoshi, YU PAR KHIN	

10	7/2	10:45–12:15	G-Lab	Lecture & groupwork: Qualitative method in global health (10)	PAMELA JEAN SURKAN, NAWA Nobutoshi, YU PAR KHIN	
11	7/2	13:30–15:00	G-Lab	Lecture & groupwork: Qualitative method in global health (11)	PAMELA JEAN SURKAN, NAWA Nobutoshi, YU PAR KHIN	
12	7/2	15:25–16:55	G-Lab	Lecture & groupwork: Qualitative method in global health (12)	PAMELA JEAN SURKAN, NAWA Nobutoshi, YU PAR KHIN	
13	7/3	08:50–10:20	G-Lab	Lecture: Qualitative method in global health (13)	PAMELA JEAN SURKAN, NAWA Nobutoshi, YU PAR KHIN	
14	7/3	10:45–12:15	G-Lab	Lecture & groupwork: Qualitative method in global health (14)	PAMELA JEAN SURKAN, NAWA Nobutoshi, YU PAR KHIN	
15	7/3	13:30–15:00	G-Lab	Lecture & groupwork: Qualitative method in global health (15)	PAMELA JEAN SURKAN, NAWA Nobutoshi, YU PAR KHIN	
16	7/3	15:25–16:55	G-Lab	Lecture & groupwork: Qualitative method in global health (16)	PAMELA JEAN SURKAN, NAWA Nobutoshi, YU PAR KHIN	
17	7/6	08:50–10:20	G-Lab	Lecture & Group activity: How to make a questionnaire ①	MORITA Ayako, FUJIWARA Takeo, YAMAOKA Yui, YU PAR KHIN	
18	7/6	10:45–12:15	G-Lab	Lecture & Group activity:	MORITA	

				How to make a questionnaire ②	Ayako, FUJIWARA Takeo, YAMAOKA Yui, YU PAR KHIN	
19	7/6	13:30–15:00	G-Lab	Lecture: Intersection of visual anthropology and public health	NAWA Nobutoshi	OTA Akimi
20	7/6	15:25–16:55	G-Lab	Lecture: Infectious disease control in hospital	GU Yoshiaki	
21–23	7/7	08:50–15:00	G-Lab, ライブ	Lecture: Human development in developing countries	GOTO Aya	
24	7/7	15:25–16:55	G-Lab	Lecture: Immigrants' Access to Healthcare	MORITA Ayako, YAMAOKA Yui, YU PAR KHIN, FUJIWARA Takeo	FUJITA Masami
25	7/9	08:50–10:20	G-Lab, ライブ	Lecture: Immigration Policy	NAWA Nobutoshi	KOIDO Akihiro
26	7/9	10:45–12:15	G-Lab	Lecture: Methodologies for migrant studies	YU PAR KHIN	
27	7/9	13:30–15:00	G-Lab, ライブ	Lecture & Group activity: How to make a questionnaire ③	MORITA Ayako, YAMAOKA Yui, YU PAR KHIN, FUJIWARA Takeo	
28	7/9	15:25–16:55	G-Lab	Lecture: Health in fragile and conflict-affected area – a case study in Myanmar	SHOBUGAWA Yugo	
29	7/10	08:50–10:20	G-Lab	Lecture & Group activity: How to make a questionnaire ④: Pre-checking	FUJIWARA Takeo, MORITA Ayako, YAMAOKA Yui, YU PAR KHIN	
30	7/10	10:45–12:15	G-Lab	Lecture: WHO	FUJIWARA Takeo, MORITA Ayako, YAMAOKA Yui, YU PAR	NOZAKI Shinjiro

					KHIN	
31	7/10	13:30–15:00	G-Lab	Lecture & Group activity: How to make a questionnaire ④: Preparation for presentation	FUJIWARA Takeo, MORITA Ayako, YAMAOKA Yui, YU PAR KHIN	
32	7/10	15:25–16:55	G-Lab	Individual presentation	FUJIWARA Takeo, MORITA Ayako, YAMAOKA Yui, YU PAR KHIN	

Lecture Style

Throughout the course we will review and discuss evidence, theory, and methods related to global health and approaches used to design, implement and evaluate policies to address global health problems.

Course Outline

This course will consist of lectures and case-based class activities. Students will be required to write a final report.

Grading System

Grades will be based on the following elements:

Participation 10%

Individual-based assignment (Create original questions) 50%

Group-based qualitative study report 40%

Prerequisite Reading

Reading materials will be available online at the course webpage. Students are expected to have worked thorough the materials before attending the corresponding class.

Important Course Requirements

For students not in the MPH course, instructor's permission is required before registering to the course. Also, students are required to have TOEFL iBT with a minimum score of 80 (taken before January 21, 2026), 4.5 (taken on or after January 21, 2026), or IELTS with a minimum score of 6.5. Please submit an email when you receive permission through the Forms below. https://forms.office.com/r/TQ0W1Arwxc In addition, priority for course registration is given to MPH students, and registration may be limited depending on the number of applicants.

Note(s) to Students

Syllabus is tentative so please refer to the "Schedule" in the MPH syllabus "Global Health"

Email

NAWA Nobutoshi:nawa.ioe@tmd.ac.jp

Lecture No	416008				
Subject title	Maternal and Child Health			Subject ID	GC-c6260-L
Instructors	山岡 祐衣, 伊角 彩[YAMAOKA Yui, ISUMI Aya]				
Semester	Fall 2026	Level	1st - year	Units	2
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Instructor(s):
Takeo Fujiwara, Professor, Department of Public Health
Yui Yamaoka, Associate Professor, Institute of Future Science (Chair)
Aya Isumi, Lecturer, Department of Health Policy

Availability in English: All classes are taught in English.
Key word: Public Health, Maternal and Child Health

Lecture place

Refer to the course schedule

Course Purpose and Outline

Course Purpose:
This course has been designed to provide students with a conceptual grounding in theoretical approaches and emerging research topics in maternal and child health.

Outline:
This course introduces emerging issues in maternal and child health, such as child maltreatment and nutrition. It provides students with basic knowledge and skills needed to apply a life course approach to solve these issues.

Course Objective(s)

Upon successfully completing this course, students will be able to understand and explain that childhood is the critical period of health issues. Also, students will obtain skills to develop research plans for emerging issues in maternal and child health, along with life-course perspectives.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff	Learning objectives・Learning methods・Instructions
1	1/18	08:50-10:20	G-Lab	Lecture: Theories and Models of Human Development	ISUMI Aya	
2	1/18	10:45-12:15	G-Lab	Lecture: MCH in Japan	FUJIWARA Takeo	KATO Tsuguhiko
3	1/18	13:30-15:00	G-Lab	Lecture: Developmental Origins of Health and Disease	TERADA Shuhei	
4	1/18	15:25-16:55	G-Lab	Instructions for assignments (テーマ? Group preparation for assignment	YAMAOKA Yui, ISUMI Aya, FUJIWARA Takeo	
5	1/19	08:50-10:20	G-Lab	Lecture: Injury prevention	FUJIWARA Takeo	KAWAHARA

6	1/19	10:45–12:15	G-Lab	Lecture: Paternal Origins of Health and Disease	MAEDA Yuto	
7–8	1/19	13:30–16:55	G-Lab	Group presentation preparation (consultations and feedback) 個別相談とFB？ Or brief presentation?	YAMAOKA Yui, ISUMI Aya, FUJIWARA Takeo	
9	1/21	08:50–10:20	G-Lab	Lecture: Brain development and mental health	KOYAMA Yuna	
10	1/21	10:45–12:15	G-Lab	Lecture: Early childhood intervention	YAMAOKA Yui	
11–12	1/21	13:30–16:55	G-Lab	Group preparation for assignment	YAMAOKA Yui, ISUMI Aya, FUJIWARA Takeo	
13–14	1/22	08:50–12:15	G-Lab	Lecture: Child maltreatment, Developmental disabilities	FUJIWARA Takeo	Makiko Okuyama
15–16	1/22	13:30–16:55	G-Lab	Group presentations	YAMAOKA Yui, ISUMI Aya, FUJIWARA Takeo	

Lecture Style

Lectures, readings and case-studies

Course Outline

Refer to the course schedule

Grading System

Grades will be based on the following elements:

Participation 30%

Individual presentation 40%

Reflection paper (regarding lectures) 30%

Prerequisite Reading

Reading materials will be available online at the course webpage. Students are expected to have worked thorough the materials before attending the corresponding class.

Module Unit Judgment

2 units

Reference Materials

To be specified in the class.

Important Course Requirements

For students not in the MPH course, instructor's permission is required before registering to the course. Also, students are required to have TOEFL iBT with a minimum score of 80 (taken before January 21, 2026), 4.5 (taken on or after January 21, 2026), or IELTS with a minimum score of 6.5. Please submit an email when you receive permission through the Forms below. https://forms.office.com/r/ZxwMUJT5yz In addition, priority for course registration is given to MPH students, and registration may be limited depending on the number of applicants.

Note(s) to Students

Participation in Zoom is permitted to participants with exceptional circumstances. Please inform and receive permission from the course instructor in advance.

Syllabus is tentative so please refer to the "Schedule" in the MPH syllabus "Maternal and Child Health"
Email YAMAOKA Yui:yamaoka.hlth@tmd.ac.jp
Instructor's Contact Information YAMAOKA Yui:Weekday from AM9:00 – PM5:00 at MD tower 16th floor (room: S1665)

Lecture No	416010				
Subject title	Behavioral Sciences			Subject ID	GC-c6280-L
Instructors	森田 彩子[MORITA Ayako]				
Semester	Fall 2026	Level	1st - year	Units	2
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Instructors

Ayako Morita, Associate Professor, Department of Public Health

Satomi Doi, Assistant Professor, Department of Health Policy

Takeo Fujiwara, Professor, Department of Public Health (Chair)

Yoshitake Takebayashi, Lecturer, Fukushima Medical University

Tsuyoshi Okuhara, Associate Professor, The University of Tokyo

Kota Katanoda, Chief, Division of Cancer Statistics Integration, National Cancer Center, Center for Cancer Control and Information Services

Masamitsu Kamada, Lecturer, Graduate School of Medicine, The University of Tokyo

Availability in English: All classes are taught in English.

Key word: Public Health

Lecture place

Refer to the course schedule

Course Purpose and Outline

Course Purpose:

This course has been designed to provide students with a conceptual grounding in theoretical approaches and hot research topics in health behaviors.

Outline:

This course provides students with basic knowledge and skills needed to understand individual, group, and community behaviors and change processes in cross-cultural contexts in order to design health promoting behavioral interventions.

Course Objective(s)

Upon successfully completing this course, students will be able to apply theories and models in diagnosing community and designing effective public health intervention in a logical manner.

Lecture plan

No	Date	Time	Room	Lecture theme	Lecture content	Staff
1	10/19	08:50-10:20	G-Lab	Lecture: Basic Theories and Models of Behavioral Change	Reflexive, Cognitive-Behavioral, and Ecological Models	MORITA Ayako
2	10/19	10:45-12:15	G-Lab	Lecture: Health Behavior Change Intervention in Clinical Practice	How to facilitate behavior change in patients through a patient-centered approach	TAKEBAYASHI Yoshitake
3	10/19	13:30-15:00	G-Lab	Lecture: Tobacco Control	How to introduce behavioral change in citizens with regulatory policies	KATANODA Kota
4	10/19	15:25-16:55	G-Lab	Group activity #1: Developing a theory-informed behaviour change interventions	"Who needs to do what, differently? Which barriers and enablers need to be addressed?"	MORITA Ayako, FUJIWARA Takeo, DOI Satomi, KATANODA Kota

5	10/20	08:50–10:20	G-Lab	Lecture: Mass Health Communication (1)	Basic Principles of Health Communication	OKUHARA Tsuyoshi
6	10/20	10:45–12:15	G-Lab	Lecture: Mass Health Communication (2)	Designing Affective Appeals in Health Communication	OKUHARA Tsuyoshi
7	10/20	13:30–15:00	G-Lab	Lecture: Social Networks	How Social Networks Influence Health Behaviors	MORITA Ayako
8	10/20	15:25–16:55	G-Lab	Group activity #2: Developing a theory-informed behaviour change interventions	"Which intervention components could overcome the modifiable barriers and enhance the enablers?"	MORITA Ayako, DOI Satomi, FUJIWARA Takeo
9	10/21	08:50–10:20	G-Lab	Lecture: Population strategies for promoting physical activity (1)	Social marketing and gamification techniques	KAMADA Masamitsu
10	10/21	10:45–12:15	G-Lab	Group activity #2: Developing a theory-informed behaviour change interventions	Social marketing and gamification techniques	KAMADA Masamitsu
11	10/21	13:30–15:00	G-Lab	Lecture: Strategic persuasive communication	How to communicate with key persons in the fields	DOI Satomi, KAMADA Masamitsu
12	10/21	15:25–16:55	G-Lab	Group activity #3: Strategic persuasive communication	"How to Present Yourself and Your Intervention to Key Stakeholders?"	DOI Satomi
13	10/23	08:50–10:20	G-Lab	Group activity #4 & 5: Time to finalize presentation		FUJIWARA Takeo, MORITA Ayako, DOI Satomi, NAWA Nobutoshi
14	10/23	10:45–12:15	G-Lab	Group activity #4 & 5: Time to finalize presentation		FUJIWARA Takeo, MORITA Ayako, DOI Satomi, NAWA Nobutoshi
15	10/23	13:30–15:00	G-Lab	Presentation		FUJIWARA Takeo, MORITA Ayako, DOI Satomi

Lecture Style

This four-day course will consist of lectures, discussion, breakout sessions for group work and daily group presentations of the previous day's group work, and individual works.

Course Outline

Refer to the course schedule

Grading System

Grades will be based on the following elements:

Participation (Attendance + Classroom Engagement such as asking questions and participating in discussions) 20% Assignment #1 30% Assignment #2 50%
Prerequisite Reading Reading materials are available online at the course webpage. Students are recommended to read the materials before the corresponding lectures.
Module Unit Judgment 2 units
Reference Materials To be specified in the class.
Important Course Requirements For students not in the MPH course, instructor's permission is required before registering to the course. Also, students are required to have TOEFL iBT with a minimum score of 80 (taken before January 21, 2026), 4.5 (taken on or after January 21, 2026), or IELTS with a minimum score of 6.5. Please submit an email when you receive permission through the Forms below. https://forms.office.com/r/42Z2XGgncy In addition, priority for course registration is given to MPH students, and registration may be limited depending on the number of applicants.
Note(s) to Students Guidance on the course assignments will be given during the lecture No.1
Email MORITA Ayako:morita.hlth@tmd.ac.jp

Lecture No	416025				
Subject title	Environmental Planetary Health			Subject ID	GC-c6291-L
Instructors	那波 伸敏[NAWA Nobutoshi]				
Semester	Spring 2026	Level	1st - year	Units	2
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Instructor(s):

Nobutoshi Nawa, Professor, Department of Global Environmental Health

Hisaaki Nishimura, Assistant Professor, Department of Public Health

Takeo Fujiwara, Professor, Department of Public Health

Brian Schwartz, Professor, Department of Environmental Health and Engineering, Johns Hopkins Bloomberg School of Public Health

Availability in English: All classes are taught in English.

Key word: Global Health

Lecture place

G-lab, 8F, M&D Tower

Course Purpose and Outline

This course introduces current topics in environmental health issues, scientific understanding of their causes, and possible future approaches toward control of the major environmental health problems.

Course Objective(s)

By the end of this course, students are expected to be able to:

a) Define environmental exposures important in public health and describe how they may cause illness or promote health scientifically and logically.

b) Describe specific factors (e.g., gene, demography, socioeconomic status, nutrition, etc.) that influence the likelihood of exposure and the risk of health outcomes scientifically and logically.

c) Explain how to identify environmental hazards, assess effects of hazards on health, control hazards, and monitor the control efforts scientifically and logically.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff	Learning objectives・Learning methods・Instructions
1-2	7/27	08:50-12:15	G-Lab	Lecture: Introduction to environmental health and guidance for group activity	NISHIMURA Hisaaki	
3-4	7/27	13:30-16:55	G-Lab	Case and group activity: Preparation for the presentation	FUJIWARA Takeo, NAWA Nobutoshi, NISHIMURA Hisaaki	
5-6	7/28	08:50-12:15	G-Lab	Lecture: Minamata disease	YORIFUJI Takashi	
7-8	7/28	13:30-16:55	G-Lab	Case and group activity: Preparation for the	FUJIWARA Takeo, NAWA	

				presentation	Nobutoshi, NISHIMURA Hisaaki	
9–10	7/30	08:50–12:15	G-Lab	Lecture: Water resources and health	NAWA Nobutoshi	Keisuke Fukushi
11–12	7/30	13:30–16:55	G-Lab	Case and group activity: Preparation for the presentation	FUJIWARA Takeo, NAWA Nobutoshi, NISHIMURA Hisaaki	
13–14	7/31	08:50–12:15	G-Lab	Lecture: Global environmental change	NISHIMURA Hisaaki	
15–16	7/31	13:30–16:55	G-Lab	Case and group activity: Presentation	FUJIWARA Takeo, NAWA Nobutoshi, NISHIMURA Hisaaki	

Lecture Style

This course will consist of lectures and case-based class activities. Students will be required to write a final report.

Course Outline

Throughout the course we will review and discuss topics including toxicology, exposure assessment, environmental epidemiology, risk assessment/management, air pollution, water pollution, and environmental justice.

Grading System

Grades will be based on the following elements:

Participation 10%

Presentation 35%

Final paper 55%

Prerequisite Reading

Reading materials will be available online at the course webpage. Students are expected to have worked thorough the materials before attending the corresponding class.

TextBook

Frumkin H, editor. Environmental health: from global to local. San Francisco: Jossey-Bass; 2016.

Important Course Requirements

For students not in the MPH course, instructor's permission is required before registering to the course. Also, students are required to have TOEFL iBT with a minimum score of 80 (taken before January 21, 2026), 4.5 (taken on or after January 21, 2026), or IELTS with a minimum score of 6.5. Please submit an email when you receive permission through the Forms below. https://forms.office.com/r/njk8XDjuvL In addition, priority for course registration is given to MPH students, and registration may be limited depending on the number of applicants.

Note(s) to Students

Syllabus is tentative so please refer to the "Schedule" in the MPH syllabus "Environmental Planetary Health"

Email

NAWA Nobutoshi:nawa.ioe@tmd.ac.jp

Lecture No	417005				
Subject title	Job-type research internship			Subject ID	
Instructors					
Semester	YearLong 2026	Level	1st - 4th year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

All classes are taught in Japanese.

Lecture place

face to face

Course Purpose and Outline

This course is a long-term (2 months or more) paid research internship for doctoral students as part of their graduate school education.
This internship is conducted based on the ``Job-type Research Internship (Advanced/Trial Initiatives) Implementation Policy (Guidelines) (hereinafter referred to as the ``Guidelines'') and related materials established by the Higher Education Bureau of the Ministry of Education, Culture, Sports, Science and Technology. This is an internship. Please note that these guidelines and related materials are subject to revision, so please always refer to the latest version if necessary. For job-type research internships conducted based on the guidelines, credits will be recognized by taking this subject.

Course Objective(s)

- Improvements must be seen in each of the following items and their overall performance.
-Research: Appropriate setting or understanding of research objectives, appropriate selection of research methods, appropriate information collection/analysis/integration, proposal of new research directions
-Practice: Understanding the differences between universities and companies regarding research objectives and research methods, appropriate understanding and practice of safety, compliance, and information management, and appropriate understanding and implementation of financial and time constraints. Practicing research according to your needs
-Interpersonal/Teamwork: Appropriate communication with others and appropriate teamwork with superiors and colleagues when performing work.

Course Outline

This is a long-term (2 months) paid research internship. This is indicated by the job description provided by each company. Please refer to the guidelines and related materials for details, as they vary depending on the matching company.

Grading System

Evaluations are conducted using evaluation reports and evaluation certificates prepared by companies based on principle guidelines.
A separate report may be required. If a report is required, it will be an evaluation report (50%) and a report (50%).

Prerequisite Reading

・Understand that this internship is for educational purposes, unlike a part-time job.
・Understand that the main purpose of this internship is to develop practical skills and promote understanding of companies, and not to job search for companies.
・Act out your pre-training and main internship duties with a sense of responsibility, as if you were working as a new employee at a company.
・Strive to improve literacy regarding confidentiality, handling of intellectual property and know-how, and ensuring safety.

Important Course Requirements

According to the guidelines, a job-type research internship is defined as an internship that meets all of the following requirements: ・Targeted at graduate school students who have the basic knowledge and ability to carry out research. ・Long-term (2 months or more) and paid research internships. ・Implemented as a credit subject in the regular curriculum ・Present job descriptions (job content, required knowledge and abilities, etc.) in accordance with these guidelines ・After completing the internship, conduct an interview evaluation with the student and issue an evaluation report/certificate. ・The results of internships can be appropriately evaluated by companies and reflected in recruitment

selection activities.In addition, job-type research internships, unlike part-time jobs, are for educational purposes. In addition, the main purpose is to develop practical skills and promote understanding of companies, not job hunting for companies. You are expected to perform your pre-training and main internship duties with a sense of responsibility, as if you were working as a new employee at a company. Furthermore, it is necessary to strive to improve literacy regarding confidentiality, handling of intellectual property and know-how, and ensuring safety. ・If a student registers for the relevant course but does not match with an internship site, the course will be automatically cancelled.

Note(s) to Students

Science Tokyo SPRING (MD)TDMU-SPRING Support Team General Contact: wise-ura@ml.tmd.ac.jp

Lecture No	041024				
Subject title	Integrative Biomedical Sciences for Preemptive Medicine Ⅰ			Subject ID	
Instructors	石川 欽也, 田中 敏博, 永田 有希, 髙橋 健太郎, 大川 龍之介, 茂櫛 薫, 飯谷 健太, 那波 伸敏[ISHIKAWA Kinya, TANAKA Toshihiro, NAGATA Yuki, TAKAHASHI Kentaro, OKAWA Ryunosuke, MOGUSHI Kaoru, IITANI Kenta, NAWA Nobutoshi]				
Semester	YearLong 2026	Level	1st－ year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Media-enhanced courses

Same classes are offered in English on different schedules.

Lecture place

ZOOM(Web)

Course Purpose and Outline

【Course Purpose】

To understand the basic concepts of integrative biomedical sciences for preemptive medicine, a learning system for preemptive medicine that enables prevention of diseases by collecting omics information such as genome information, information about environmental factors, clinical information and lifestyle information, discovering the factors and mechanism involved in diseases including cancer and lifestyle-related diseases, developing the predictive models and instructing/intervening in individuals.

【Outline】

To understand the following topics: the biological process from the healthy state to disease onset, the basic relationship between the genetic factors and environmental factors/epigenetics, the basic concepts regarding acquiring methods of omics and biological information, the method to estimate the risk of developing diseases, the basic method for instruction or intervention, ethics and genetic counseling.

Course Objective(s)

This course will provide a broad-based education that helps to develop a comprehensive overview of the field of Integrative Biomedical Sciences for Preemptive Medicine.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	8/4	15:00-16:30	ライブ		ISHIKAWA Kinya
2	8/17	08:50-10:20	ライブ		ISHIKAWA Kinya
3	8/17	15:00-16:30	ライブ		MOGUSHI Kaoru
4	8/20	13:00-14:30	疾患バイオリソースセンター		TANAKA Toshihiro, NAGATA Yuki, TAKAHASHI Kentaro
5	8/25	15:00-16:30	ライブ		IITANI Kenta
6	8/26	13:00-14:30	ライブ		NAWA Nobutoshi
7	8/28	13:00-14:30	ライブ		ISHIKAWA Kinya
8	9/1	15:00-16:30	ライブ		OKAWA Ryunosuke

Lecture Style

The leading experts in Integrative Biomedical Sciences for Preemptive Medicine will be invited and the course will focus on student participation

and discussion.
Grading System Participation (50%), question and answer (20%), and reports (30%).
Prerequisite Reading None.
Reference Materials None.
Important Course Requirements None.
Note(s) to Students This is compulsory elective course for Integrative Biomedical Sciences Programs for Preemptive Medicine students. Enrollment will be limited, with priority given to the course students.
Email ISHIKAWA Kinya:pico.nuro@tmd.ac.jp
Instructor's Contact Information ISHIKAWA Kinya:0:00PM–3:00PM, every Monday, at Personalized Genomic Medicine for Health, 15th Floor, Building 3, Yushima Campus

Lecture No	041025				
Subject title	Integrative Biomedical Sciences for Preemptive Medicine Ⅰ			Subject ID	
Instructors	石川 欽也, 吉田 雅幸, 田中 敏博, 永田 有希, 髙橋 健太郎, 大川 龍之介, 茂櫛 薫, 那波 伸敏[ISHIKAWA Kinya, YOSHIDA Masayuki, TANAKA Toshihiro, NAGATA Yuki, TAKAHASHI Kentaro, OKAWA Ryunosuke, MOGUSHI Kaoru, NAWA Nobutoshi]				
Semester	YearLong 2026	Level	1st－ year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Media-enhanced courses

Lectures and all communications are in English.

Course Objective(s)

This course will provide a broad-based education that helps to develop a comprehensive overview of the field of Integrative Biomedical Sciences for Preemptive Medicine.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	11/5	10:30-12:00	ライブ	Introduction	ISHIKAWA Kinya
2	11/5	13:00-14:30	ライブ	Concepts of preemptive medicine and individualized medicine, the process from the healthy state to disease onset, and instruction/intervention	ISHIKAWA Kinya
3	11/6	10:30-12:00	ライブ	The basics to develop the health management algorithm based on the omics data	ISHIKAWA Kinya
4	11/10	13:00-14:30	ライブ	Genomic Medicine and Bioinformatics	MOGUSHI Kaoru
5	11/12	14:00-15:30	ライブ	TBA	YOSHIDA Masayuki
6	11/18	10:30-12:00	疾患バイオリソースセンター	Establishment of biobanks for preemptive medicine and omics profiling (including a touraround Science Tokyo biobank)	TANAKA Toshihiro, NAGATA Yuki, TAKAHASHI Kentaro
7	11/20	10:30-12:00	ライブ	Pitfalls of sample handling and lipidomics	OKAWA Ryunosuke
8	11/24	17:30-19:00	ライブ	Epidemiology as a Foundation for PrecisionMedicine: Theory and Practice	NAWA Nobutoshi
9	11/26	13:00-14:30	ライブ	Practical aspects of personalized medicine for common disease	ISHIKAWA Kinya

Lecture Style

The leading experts in Integrative Biomedical Sciences for Preemptive Medicine will be invited and the course will focus on student participation and discussion.
Grading System Participation (50%), question and answer (20%), and reports (30%).
Prerequisite Reading None.
Note(s) to Students This is compulsory elective course for Integrative Biomedical Sciences Programs for Preemptive Medicine students. Enrollment will be limited, with priority given to the course students.
Email ISHIKAWA Kinya:pico.nuro@tmd.ac.jp
Instructor's Contact Information ISHIKAWA Kinya:0:00PM–3:00PM, every Monday, at Personalized Genomic Medicine for Health, 15th Floor, Building 3, Yushima Campus

Lecture No	041026				
Subject title	Integrative Biomedical Sciences for Preemptive Medicine Ⅱ			Subject ID	
Instructors	石川 欽也[ISHIKAWA Kinya]				
Semester	YearLong 2026	Level	1st － year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

All classes are taught in English.

Course Purpose and Outline

【Course Purpose】

To widely understand the applications for integrative biomedical sciences for preemptive medicine, a learning system for preemptive medicine that enables prevention of diseases by collecting omics information such as genome information, information about environmental factors, clinical information and lifestyle information, discovering the factors and mechanism involved in diseases such as cancer and lifestyle related diseases, developing the predictive models and instructing/intervening in individuals.

【Outline】

To learn the following case examples, instruction, and intervention: utilization of the practical health/medical information to promote preemptive medicine and individualized medicine, advanced omics experiment/analysis methods using the next-generation sequencers, topics about the development story of biological information sensing such as wearable mobile, utilization of analytical technologies including AI.

Course Objective(s)

This course will provide a broad-based education that helps to develop a comprehensive overview of the field of disease prevention sciences.

Lecture Style

The leading experts in Integrative Biomedical Sciences for Preemptive Medicine will be invited and the course will focus on student participation and discussion.

Course Outline

TBA

Grading System

Participation (50%), question and answer (20%), and reports (30%).

Prerequisite Reading

None.

Reference Materials

None.

Important Course Requirements

None.

Note(s) to Students

This is compulsory elective course for Integrative Biomedical Sciences Programs for Preemptive Medicine students. Enrollment will be limited, with priority given to the course students.

We will inform the students who registered these lectures as soon as the date, time and venue have been decided upon conclusively.

Lecture No	041027				
Subject title	Data Science I			Subject ID	GC-c6360-L
Instructors	竹内 勝之, 小島 寛之[TAKEUCHI Katsuyuki, KOJIMA Hiroyuki]				
Semester	Spring 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Same classes are offered in English on different schedules.

Lecture place

Please check the course schedule.

Course Purpose and Outline

Course Purpose：Students will acquire the essence of statistics that is necessary to learn data science as its basis.

Outline：This course gives lectures on the Neyman-Pearson statistics without using difficult formulae.

Course Objective(s)

The goal is that students acquire the key knowledge of the statistics.

Lecture Style

The course consists of lectures.

Course Outline

The course schedule will be announced to the course registrants as soon as it is decided.

Grading System

Participation (70%), and discussion (30%)

Prerequisite Reading

None.

TextBook

完全独習統計学入門／小島寛之：ダイヤモンド社, 2006

Note(s) to Students

This is a compulsory elective course for students in the Integrative Biomedical Sciences Programs for Preemptive Medicine. Other students can attend this course as long as seats are available, but the course students are given priority over others.

Email

TAKEUCHI Katsuyuki:takeuchi.k.mds@tmd.ac.jp

Instructor's Contact Information

TAKEUCHI Katsuyuki:Weekdays only. Advanced appointments are required.

Contact to Katsuyuki Takeuchi in Center for Education in Healthcare Innovation (E-mail: takeuchi.k.mds@tmd.ac.jp)

Lecture No	041028				
Subject title	Data Science I			Subject ID	GC-c6360-L
Instructors	髙橋 邦彦, 安齋 達彦[TAKAHASHI Kunihiko, ANZAI Tatsuhiko]				
Semester	Fall 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Media-enhanced courses

All classes are taught in English

Lecture place

Online (Zoom)

Course Purpose and Outline

Course Purpose: Students will acquire the essence of statistics/biostatistics that is necessary to learn data science as its basis.

Outline: This course gives lectures on the theoretical frameworks of the basic statistics/biostatistics that is the basis of data analysis methods.

Course Objective(s)

The goal is to have an image of an error (a probabilistic phenomenon) in data, to became to explain the hypothesis testing as a means of evaluating objects of interest in the data, and to be able to interpret the performance of statistical analyses in accordance with the research objectives.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	10/22	14:30-16:00	ライブ	Concept of statistical inference for data science	TAKAHASHI Kunihiko
2	10/22	16:10-17:40	ライブ	Comparing groups - categorical data	ANZAI Tatsuhiko
3	11/5	14:30-16:00	ライブ	Comparing groups - continuous data	ANZAI Tatsuhiko
4	11/5	16:10-17:40	ライブ	Correlation and regression	TAKAHASHI Kunihiko, ANZAI Tatsuhiko
5	11/19	14:30-16:00	ライブ	Generalized linear model	TAKAHASHI Kunihiko
6	11/19	16:10-17:40	ライブ	Survival analysis	ANZAI Tatsuhiko
7	12/3	14:30-16:00	ライブ	Classification and prediction	ANZAI Tatsuhiko
8	12/3	16:10-17:40	ライブ	Multivariate methods in data science	TAKAHASHI Kunihiko

Lecture Style

Lectures on data sciences, mainly statistics/biostatistics.

Grading System

Participation (40%) and reports (60%).

At least five classes must be attended to recieve a grade.

Prerequisite Reading

Those who feel less knowledge about math are encouraged to personally learn it with introductory textbooks on statistics.

Email

TAKAHASHI Kunihiko:biostat.dsc@tmd.ac.jp
Instructor's Contact Information TAKAHASHI Kunihiko:Weekdays only. Advanced appointments are required. Contact to Department of Biostatistics, M&D Data Science Center(E-mail: biostat.dsc@tmd.ac.jp).

Lecture No	041029				
Subject title	Data Science Ⅱ			Subject ID	GC-c6370-L
Instructors	竹内 勝之, 茂櫛 薫, 長谷 武志[TAKEUCHI Katsuyuki, MOGUSHI Kaoru, HASE Takeshi]				
Semester	Spring 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Same classes are offered in English on different schedules.

Lecture place

Please check the course schedule.

Course Purpose and Outline

Course Purpose:R (programming language) is an essential tool for statistical analysis, analysis using machine learning, and other analyses. Students will acquire a programming skill of R and learn methods of statistical analysis and machine learning.

Outline:This course gives lectures on the basic skills that are necessary to use statistical analysis and machine learning, through practical data analysis using R.

Course Objective(s)

The goal is that students acquire the basic knowledge of the programming skill of R and statistical analysis and machine learning so that they can analyse data by means of the basic methods of statistical analysis and machine learning using R.

Lecture Style

The course gives both lectures and practices. The course lectures will be held only on Saturday.

Course Outline

The course schedule will be announced to the course registrants as soon as it is decided.

Grading System

Participation (70%) and assignments (30%)

Prerequisite Reading

Students are recommended to prepare their classes with Reference Materials.

Reference Materials

RStudio ではじめる R プログラミング入門／Garrett Grolemund 著,大橋真也 監訳,長尾高弘 訳:オライリー・ジャパン, 2015

Note(s) to Students

This is a compulsory elective course for students in the Integrative Biomedical Sciences Programs for Preemptive Medicine. Other students can attend this course as long as seats are available, but the course students are given priority over others.

Email

TAKEUCHI Katsuyuki:takeuchi.k.mds@tmd.ac.jp

Instructor's Contact Information

TAKEUCHI Katsuyuki:Weekdays only. Advanced appointments are required.

Contact to Katsuyuki Takeuchi in Center for Education in Healthcare Innovation (E-mail: takeuchi.k.mds@tmd.ac.jp)

Lecture No	041030				
Subject title	Data Science Ⅱ			Subject ID	GC-c6370-L
Instructors	長谷川 嵩矩[HASEGAWA Takanori]				
Semester	Spring 2026	Level		Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Availability in English : All classes are taught in English.

Lecture place

PC room 2 in Library（M&D Tower 4F）and/or　student can access to class materials remotely.

Course Purpose and Outline

Course Purpose :

R (programming language) is an essential tool for statistical analysis, analysis using machine learning, and other analyses. Students will acquire a programming skill of R and learn methods of statistical analysis and machine learning.

Outline :

This course gives lectures on the basic skills that are necessary to use statistical analysis and machine learning, through practical data analysis using R.

Course Objective(s)

The goal is that students acquire the basic knowledge of the programming skill of R and statistical analysis and machine learning so that they can analyse data by means of the basic methods of statistical analysis and machine learning using R.

Lecture plan

No	Date	Time	Room	Lecture theme	Lecture content	Staff	Learning objectives・Learning methods・Instructions
1	5/12	14:30-16:00	情報検索室	Introduction to Data Science Ⅰ	1. How to use R for data science and 2. Data Visualization and Comparison	HASEGAWA Takanori	PC room 2 in Library（M&D Tower 4F）and/or student can access to class materials remotely.
2	5/12	16:10-17:40	情報検索室	Introduction to Data Science Ⅱ	1. How to use R for data science and 2. Data Visualization and Comparison	HASEGAWA Takanori	PC room 2 in Library（M&D Tower 4F）and/or student can access to class materials remotely.
3	5/26	14:30-16:00	情報検索室	Data science in practice Ⅰ	3. Correlation, and Regression and 4. Survival analysis	HASEGAWA Takanori	PC room 2 in Library（M&D Tower 4F）and/or student can access to class materials remotely.
4	5/26	16:10-17:40	情報検索室	Data science in practice Ⅱ	3. Correlation, and Regression and 4. Survival analysis	HASEGAWA Takanori	PC room 2 in Library（M&D Tower 4F）and/or

							student can access to class materials remotely.
5	6/16	14:30-16:00	情報検索室	Data science in practice Ⅲ	4. Survival analysis and 5. Classification and Prediction	HASEGAWA Takanori	PC room 2 in Library (M&D Tower 4F) and/or student can access to class materials remotely.
6	6/16	16:10-17:40	情報検索室	Data science in practice Ⅳ	4. Survival analysis and 5. Classification and Prediction	HASEGAWA Takanori	PC room 2 in Library (M&D Tower 4F) and/or student can access to class materials remotely.
7	6/30	14:30-16:00	情報検索室	Data science in practice Ⅴ	6. Multivariate methods in data science	HASEGAWA Takanori	PC room 2 in Library (M&D Tower 4F) and/or student can access to class materials remotely.
8	6/30	16:10-17:40	情報検索室	Data science in practice Ⅵ	6. Multivariate methods in data science	HASEGAWA Takanori	PC room 2 in Library (M&D Tower 4F) and/or student can access to class materials remotely.

Lecture Style

The course gives both lectures and practices.

Course Outline

1. How to use R for data science
2. Data Visualization and Comparison
3. Correlation and Regression
4. Survival analysis
5. Classification and Prediction
6. Multivariate methods in data science

Grading System

Participation (0%) and assignments (100%)

Grading Rule

A report will be imposed for each lecture and evaluated by the instructor.

Prerequisite Reading

Students are encouraged to attend "Data Science Ⅰ".

Exam eligibility

No tests will be conducted. Please submit the assignments given after each class.

Composition Unit

1. How to use R for data science
2. Data Visualization and Comparison
3. Correlation and Regression
4. Survival analysis

5. Classification and Prediction 6. Multivariate methods in data science
Module Unit Judgment Submit and pass assignments for all units. Class materials and assignments will be published on the web.
Relationship With Other Subjects "Data Science I" or equivalent level knowledge is assumed.
Note(s) to Students This is a compulsory elective course for students in the Integrative Biomedical Sciences Programs for Preemptive Medicine. Other students can attend this course as long as seats are available, but the course students are given priority over others.
Email t.hasegawa.dsc@tmd.ac.jp
Instructor's Contact Information Please contact me in advance.

Lecture No	041510				
Subject title	Data Science Ⅲ			Subject ID	GC-c6371-L
Instructors	竹内 勝之, 下川 朝有[TAKEUCHI Katsuyuki, SHIMOKAWA Asanao]				
Semester	Spring 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

All classes are taught in Japanese.

Lecture place

Please check the course schedule.

Course Purpose and Outline

Course Purpose:Python is the essential tool for data analyses using the Machine Learning. Students will acquire the Python programming skills in this course.

Outline:This course gives the practical training for beginners to master the Python programming skills.

Course Objective(s)

The goal is that students learn the basic Python programming skills.

Lecture Style

The course consists of lectures and practices. It will be held only on Saturday.

Course Outline

The course schedule will be announced to the course registrants as soon as it is decided.

Grading System

Participation (70%), and discussion (30%)

Prerequisite Reading

Students are recommended to prepare their classes with Reference Materials.

Reference Materials

ゼロから学ぶ Python プログラミング : Google Colaboratory でらくらく導入／渡辺宙志 著,渡辺, 宙志,:講談社, 2020

Important Course Requirements

None

Note(s) to Students

This is a compulsory elective course for students in the Integrative Biomedical Sciences Programs for Preemptive Medicine. Other students can attend this course as long as seats are available, but the course students are given priority over others.

Email

TAKEUCHI Katsuyuki:takeuchi.k.mds@tmd.ac.jp

Instructor's Contact Information

TAKEUCHI Katsuyuki:Weekdays only. Advanced appointments are required.

Contact to Katsuyuki Takeuchi in Center for Education in Healthcare Innovation (E-mail: takeuchi.k.mds@tmd.ac.jp)

Lecture No	041511				
Subject title	Data Science Ⅳ			Subject ID	GC-c6372-L
Instructors	竹内 勝之, 小島 寛之, 飯田 頼嗣[TAKEUCHI Katsuyuki, KOJIMA Hiroyuki, IIDA Yoritsugu]				
Semester	YearLong 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

All classes are taught in Japanese.

Lecture place

Please check the course schedule.

Course Purpose and Outline

Course Purpose：Students will acquire the essence of the statistics, which is the basis of learning data science.

Outline：This course gives lectures on the Bayesian statistics, which is the basis of the Artificial Intelligence and other technologies, without using difficult formulae.

Course Objective(s)

The goal is that students acquire the key knowledge of the Bayesian statistics.

Lecture Style

The course consists of lectures.

Course Outline

The course schedule will be announced to the course registrants as soon as it is decided.

Grading System

Participation (70%), and discussion (30%)

Prerequisite Reading

None

TextBook

完全独習ベイズ統計学入門／小島寛之：ダイヤモンド社, 2015

完全独習統計学入門／小島寛之：ダイヤモンド社, 2006

Email

TAKEUCHI Katsuyuki:takeuchi.k.mds@tmd.ac.jp

Instructor's Contact Information

TAKEUCHI Katsuyuki:Weekdays only. Advanced appointments are required.

Contact to Katsuyuki Takeuchi in Center for Education in Healthcare Innovation (E-mail: takeuchi.k.mds@tmd.ac.jp)

Lecture No	041031				
Subject title	Epidemiology			Subject ID	
Instructors	那波 伸敏[NAWA Nobutoshi]				
Semester	Spring 2026	Level	1st － year	Units	2
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Instructor(s):

Nobutoshi Nawa, Professor, Department of Global Environmental Health

Takeo Fujiwara, Professor, Department of Public Health

Hisaaki Nishimura, Assistant Professor, Department of Public Health

Yu Par Khin, Specially Appointed Assistant Professor, Department of Public Health

Shuhei Terada, Assistant Professor, Department of Public Health

Availability in English: All classes are taught in English.

Key word: Epidemiology

Lecture place

G-Lab, M&D Tower 8F

Course Purpose and Outline

This course is a lesson to learn the basics of the Clinical Statistics and Bioinformatics Graduate Program of the Integrative Biomedical SciencesPrograms for Preemptive Medicine aiming at the training of personnel who can promote precision medicine.

Course Objective(s)

By the end of this course, students will be able to:

a) measure health-related conditions or events in defined populations

b) understand and explain DAGs, information bias, confounding factors and sampling bias.

b) design an epidemiological study to address a public health issue

c) critically appraise published work

d) write peer review comments

Lecture plan

No	Date	Time	Room	Lecture theme	Staff	Learning objectives・Learning methods・Instructions
1-3	6/22	08:50-15:00	G-Lab	Lecture: Measurement and Sampling	FUJIWARA Takeo, NAWA Nobutoshi, NISHIMURA Hisaaki, YU PAR KHIN, TERADA Shuhei	
4	6/22	15:25-16:55	G-Lab	Group work A (field work and group presentation): Measurement and Sampling	FUJIWARA Takeo, NAWA Nobutoshi, NISHIMURA Hisaaki, YU	

					PAR KHIN, TERADA Shuhei	
5–7	6/23	08:50–15:00	G-Lab	Lecture: Study designs and Confounder	FUJIWARA Takeo, NAWA Nobutoshi, NISHIMURA Hisaaki, YU PAR KHIN, TERADA Shuhei	
8	6/23	15:25–16:55	G-Lab	Group discussion: Critical Appraisal	FUJIWARA Takeo, NAWA Nobutoshi, NISHIMURA Hisaaki, YU PAR KHIN, TERADA Shuhei	Download Yu (2024) from web system and read in advance
9	6/25	08:50–10:20	G-Lab	Exam: Writing a Review Comment	FUJIWARA Takeo, NAWA Nobutoshi, NISHIMURA Hisaaki, YU PAR KHIN, TERADA Shuhei	
10	6/25	10:45–12:15	G-Lab	Comments on answers: Writing a Review Comment	FUJIWARA Takeo, NAWA Nobutoshi, NISHIMURA Hisaaki, YU PAR KHIN, TERADA Shuhei	
11–12	6/25	13:30–16:55	G-Lab	Group work B (preparation): Drafting a Research Proposal for a Public Health Issue	FUJIWARA Takeo, NAWA Nobutoshi, NISHIMURA Hisaaki, YU PAR KHIN, TERADA Shuhei	
13–14	6/26	08:50–12:15	G-Lab	Lecture Advanced Epidemiology to Apply for the Real World	FUJIWARA Takeo, NAWA Nobutoshi, NISHIMURA Hisaaki, YU PAR KHIN, TERADA	

					Shuhei	
15-16	6/26	13:30-16:55	G-Lab	Group work B (group presentation): Drafting a Research Proposal for a Public Health Issue	FUJIWARA Takeo, NAWA Nobutoshi, NISHIMURA Hisaaki, YU PAR KHIN, TERADA Shuhei	

Course Outline

Epidemiology is defined as the study of the causes and distribution of health-related conditions or events in defined populations, and the application of this knowledge to address these health problems. Throughout the course we will provide an overview of the knowledge and skills required for descriptive statistics and causal inference. In particular, we will explain the knowledge required to design and conduct epidemiological studies, such as cross-sectional studies, cohort studies, case-control studies and RCTs. We will also focus on conceptual and practical issues in analysis, such as drawing directed acyclic graphs (DAGs), information bias, confounding, and sampling bias.

Grading System

Grades will be based on the following elements:

1. Attendance 10%
2. Assignments 40% (Group-based presentation A 20%, Group-based presentation B 20%)
3. Exam 50%

Prerequisite Reading

Please read relevant pre-reading materials uploaded on Websystem before the lectures.

Reference Materials

Epidemiology: with student consult／Gordis L.:Elsevier, 2013

Gordis L. Epidemiology: with student consult. 5th edition. Philadelphia: Elservier; 2013

Szklo M, Nieto EJ, Epidemiology: Beyond the Basics. 3rd edition, Jones & Bartlett Learning; 2012.

Rothman KJ, Greenland S, Lash T. Modern Epidemiology. LWW; 2012.

Important Course Requirements

For students not in the MPH course, instructor's permission is required before registering to the course. Also, students are required to have TOEFL iBT with a minimum score of 80 (taken before January 21, 2026), 4.5 (taken on or after January 21, 2026), or IELTS with a minimum score of 6.5. Please submit an email when you receive permission through the Forms below. https://forms.office.com/r/6HkNqXk111 In addition, priority for course registration is given to MPH students, and registration may be limited depending on the number of applicants.

Note(s) to Students

Please bring your laptop for group works and exam.

Syllabus is tentative so please refer to the "Schedule" in the MPH syllabus "Introduction to Epidemiology"

Lecture No	041032				
Subject title	Clinical Biostatistics and Statistical Geneticsm			Subject ID	GC-c8608-L
Instructors	髙橋 邦彦, 安齋 達彦[TAKAHASHI Kunihiko, ANZAI Tatsuhiko]				
Semester	Spring 2026	Level	1st - year	Units	2
Course by the instructor with practical experiences				Mode of Instruction	Media-enhanced courses

Instructor(s):
Kunihiko Takahashi, Professor, Department of Biostatistics
Tatsuhiko Anzai, Associate Professor, Department of Biostatistics

Availability in English: All classes are taught in English.
Key word: Biostatistics

Lecture place

Online video

Course Purpose and Outline

Course Purpose:
This course introduces the basic techniques important for analyzing data from epidemiologic, biomedical (including clinical and genetic) and other public health related research. Statistical reasoning will be emphasized through problem solving and practical applications.

Outline:
Biostatistics is the application of statistical methods to data in biological, biomedical and health sciences. It is a key technique for the collection, analysis, and presentation of data especially in quantitative studies. This course gives lectures on fundamental biostatistical methods through their applications to data in medical research field including clinical and epidemiological studies.

Course Objective(s)

By the end of this course, students will be able to:
a) Interpret basic statistical terminologies.
b) Explain assumptions and conditions for basic statistical techniques, and judge which statistical technique to use in a given situation.
c) Conduct basic statistical techniques both by hand and using a statistical software, and present results using publication quality tables.
d) Describe results of statistical analysis using standard statistical expressions.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff	Learning objectives・Learning methods・Instructions
1	6/1	08:50-10:20	オンデマンド	Lecture: Introduction to Biostatistics (online video)	TAKAHASHI Kunihiko	
2	6/1	10:45-12:15	オンデマンド	Lecture: Data presentation; Numerical summary measures (1) (online video)	ANZAI Tatsuhiko	
3	6/2	08:50-10:20	オンデマンド	Lecture: Data presentation; Numerical summary measures (2) (online video)	ANZAI Tatsuhiko	

4	6/2	10:45-12:15	オンデマンド	Lecture: Probability and Theoretical distributions (1) (online video)	ANZAI Tatsuhiko	
5	6/4	08:50-10:20	オンデマンド	Lecture: Probability and Theoretical distributions (2) (online video)	TAKAHASHI Kunihiko	
6	6/4	10:45-12:15	オンデマンド	Lecture: Estimation (online video)	TAKAHASHI Kunihiko	
7	6/4	13:30-15:00	オンデマンド	Laboratory session (online video)	TAKAHASHI Kunihiko, ANZAI Tatsuhiko	Optional 1
8	6/4	15:25-16:55	オンデマンド	Laboratory session (online video)	TAKAHASHI Kunihiko, ANZAI Tatsuhiko	Optional 2
9	6/5	08:50-10:20	オンデマンド	Lecture: Comparing groups - continuous data (1) (online video)	TAKAHASHI Kunihiko	
10	6/5	10:45-12:15	オンデマンド	Lecture: Comparing groups - continuous data (2) (online video)	TAKAHASHI Kunihiko	
11	6/5	13:30-15:00	オンデマンド	Laboratory session (online video)	TAKAHASHI Kunihiko, ANZAI Tatsuhiko	Optional 3
12	6/5	15:25-16:55	G-Lab, ライブ	Q&A session (In person or via live Zoom)	TAKAHASHI Kunihiko, ANZAI Tatsuhiko	Optional 4
13	6/8	08:50-10:20	オンデマンド	Lecture: Comparing groups - categorical data (online video)	ANZAI Tatsuhiko	
14	6/8	10:45-12:15	オンデマンド	Lecture: Analysis of Variance; Multiple comparison (online video)	ANZAI Tatsuhiko	
15	6/8	13:30-15:00	オンデマンド	Laboratory session (online video)	TAKAHASHI Kunihiko, ANZAI Tatsuhiko	Optional 5
16	6/8	15:25-16:55	オンデマンド	Laboratory session (online video)	TAKAHASHI Kunihiko, ANZAI Tatsuhiko	Optional 6
17	6/9	08:50-10:20	オンデマンド	Lecture: Correlation; linear regression (online video)	TAKAHASHI Kunihiko	
18	6/9	10:45-12:15	オンデマ	Lecture: Multivariate	TAKAHASHI	

			ンド	analysis (1) (online video)	Kunihiko	
19	6/9	13:30–15:00	オンデマンド	Laboratory session (online video)	TAKAHASHI Kunihiko, ANZAI Tatsuhiko	Optional 7
20	6/9	15:25–16:55	G-Lab, オンデマンド	Q&A session (In person or via live Zoom)	TAKAHASHI Kunihiko, ANZAI Tatsuhiko	Optional 8
21	6/11	08:50–10:20	オンデマンド	Lecture: Multivariate analysis (2) (online video)	ANZAI Tatsuhiko	
22	6/11	10:45–12:15	オンデマンド	Lecture: Multivariate analysis (3) (online video)	ANZAI Tatsuhiko	
23	6/11	13:30–15:00	オンデマンド	Laboratory session (online video)	TAKAHASHI Kunihiko, ANZAI Tatsuhiko	Optional 9
24	6/11	15:25–16:55	G-Lab, ライブ	Q&A session (In person or via live Zoom)	TAKAHASHI Kunihiko, ANZAI Tatsuhiko	Optional 10
25	6/12	08:50–10:20	オンデマンド	Lecture: Survival analysis (online video)	ANZAI Tatsuhiko	
26	6/12	10:45–12:15	オンデマンド	Lecture: Genomics data analysis (online video)	ANZAI Tatsuhiko	

Lecture Style

This course will consist of lectures and optional laboratory sessions (online video). Q&A system on web system and some optional hours will be prepared. There will be some reports. (Details will be announced later.)

Course Outline

Refer to the course schedule

Grading System

Grades will be based on the following elements:

Participation (Watch online video (Lecture) : 60% or more) 50%

Reports 50%

Prerequisite Reading

Reading textbook will be available online at the course webpage. Students are expected to have worked thorough the materials before attending the corresponding class.

Reference Materials

Pagano M, Gauvreau K. Principles of Biostatistics. 2nd ed. Belmont: Brooks/Cole; 2000.

Rosner B. Fundamentals of Biostatistics. 8th ed. Brooks/Cole; 2015.

Altman DG. Practical Statistics for Medical Research. Chapman & Hall; 1991.

Armitage P. Statistical Methods in Medical Research. 4th ed. Blackwell Science Ltd; 2002.

Important Course Requirements

For students not in the MPH course, instructor's permission is required before registering to the course. Also, students are required to have TOEFL iBT with a minimum score of 80 (taken before January 21, 2026), 4.5 (taken on or after January 21, 2026), or IELTS with a minimum

score of 6.5. Please submit an email when you receive permission through the Forms below. https://forms.office.com/r/iVjqUEipAR In addition, priority for course registration is given to MPH students, and registration may be limited depending on the number of applicants.

Note(s) to Students

Online Q&A system is available during the course, and a realtime Q&A session (optional, via zoom or face-to-face class) is prepared.

This course uses the Stata and other statistical software. Stata is available for each student during the course.

Students are expected to perform basic algebra, including logarithms and exponentials, by hand or using calculator.

Syllabus is tentative so please refer to the "Schedule" in the MPH syllabus "Introduction to Biostatistics".

Email

TAKAHASHI Kunihiko:biostat.dsc@tmd.ac.jp

Instructor's Contact Information

TAKAHASHI Kunihiko:Weekdays only. Advanced appointments are required.

Contact to Department of Biostatistics, M&D Data Science Center(E-mail: biostat.dsc@tmd.ac.jp).

Lecture No	041033				
Subject title	Advanced Biosensing Devices			Subject ID	GC-c6418-L
Instructors	中島 義和, 飯谷 健太, 小椋 俊彦, Friedrich Daniel Dieter[NAKAJIMA Yoshikazu, IITANI Kenta, OGURA Toshihiko, FRIEDRICH Daniel Dieter]				
Semester	Spring 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Availability in English:When an international student registers this subject for credits, this course is taught in English.

Lecture place

All lectures are given online (zoom).

Course Purpose and Outline

Course Purpose:This program offers lectures on several important topics in Sensing devices, Biochemistry, Recognition materials, MEMS and Optics for Biosensing in the medicaland dental fields. The major purpose of the program is to obtain the latest information and to train scientific mind as well as logical thinking skills necessary to become independent researchers.

Outline:Several types of the advanced biosensing devices and technologies are introduced and some potential applications in the medical and dentalfields will be discussed.

Course Objective(s)

Introduce useful information from the basic biosensors to latest biochemical sensing devices in the medical and dental fields to attendants.

Lecture Style

Lectures on the essence of advanced biosensing devices.

Grading System

Grading is given by taking all activities of the students into account such as participation of lecture class and discussion (50%), quality of discussion and presentation (30%), as well as willingness and understanding of discussion (20%).

Prerequisite Reading

Any students who prepare for this course, they can refer to the following books and paper.

Reference Materials

Wearable Biosensing in Medicine and Healthcare／edited by Kohji Mitsubayashi:Springer Nature, 2024

「非接触」が拓く新しいバイタルモニタリング = Non-Contact Vital Signs Monitoring : 革新的な健康管理と医療・介護への応用／三林浩二監修,三林, 浩二,:シーエムシー出版, 2021

Chemical, gas, and biosensors for internet of things and related applications／edited by Kohji Mitsubayashi, Osamu Niwa, Yuko Ueno,三林, 浩二,Niwa, Osamu. [丹羽修],Ueno, Yuko. [上野祐子],:Elsevier, 2019

代謝センシング = Metabolic sensing : 健康, 食, 美容, 薬, そして脳の代謝を知る／三林浩二 監修,三林, 浩二,:シーエムシー出版, 2018

生体ガス計測と高感度ガスセンシング／ 三林浩二監修／三林, 浩二,:シーエムシー出版, 2017

スポーツバイオ科学と先進スポーツギアの開発／三林浩二監修,三林, 浩二,:シーエムシー出版, 2015

スマート・ヒューマンセンシング : 健康ビッグデータ時代のためのセンサ・情報・エネルギー技術／三林, 浩二,:シーエムシー出版, 2014

ヘルスケアとバイオ医療のための先端デバイス機器／三林浩二監修,三林, 浩二,:シーエムシー出版, 2009

Micro Electronic and Mechanical Systems／Kenichi Takahata:IntechOpen, 2009

刺激応答性高分子ハンドブック = Stimuli-responsive polymers handbook／宮田隆志 監修,宮田, 隆志,:エヌ・ティー・エス, 2018

To be distributed during the lecture.

Important Course Requirements

To be announced during the lecture.

Email

NAKAJIMA Yoshikazu:nakajima.y.8203@m.isct.ac.jp

Instructor's Contact Information

NAKAJIMA Yoshikazu:15:00-16:30 on every Monday at Room 409A on the 4th floor, Building 21, Surugadai campus

Lecture No	041034				
Subject title	Advanced Medical Device and System			Subject ID	GC-c6419-L
Instructors	中島 義和, 梶 弘和, 坂内 英夫, 池内 真志, 周 東博, 清水 秀幸[NAKAJIMA Yoshikazu, KAJI Hirokazu, BANNAI Hideo, IKEUCHI Masashi, SHU Tohaku, SHIMIZU Hideyuki]				
Semester	Spring 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Availability in English:When an international student registers this subject for credits, this course is taught in English.

Introduce latest research and development of medical devices and systems such as real time image measurement device, image analysis technology with AI, and assist robot for surgery.

Lecture place

All lectures are given online (zoom).

Course Purpose and Outline

The course will introduce the latest research topics and development of medical devices and systems to assist surgery that integrate IoT or AI. The students will acquire the basic knowledge to promote the development of medical devices and systems.

Course Objective(s)

The aim of the course is to understand the basic knowledge to promote the development of medical devices and systems integrated IoT and AI.

Lecture Style

Lecture and discussion

Course Outline

The details are shown in another table.

Grading System

Attendance to lectures (60 %) and reports (40 %) will be evaluated.

Grading Rule

Attendance to lectures (60 %) and reports (40 %)

Prerequisite Reading

Instruction will be done at the first lecture. It will be done in any class if necessary.

Exam eligibility

No restriction.

Composition Unit

Yoshikazu Nakajima, Hirokazu Kaji, Masashi Ikeuchi, Hideo Bannai, Hideyuki Shimizu, Shinya Onogi, Dongbo Zhou

Module Unit Judgment

1 unit

TextBook

Handout will be provided in each class if necessary.

Reference Materials

Handouts will be provided if necessary.

Important Course Requirements

Nothing.

Note(s) to Students

Nothing.

Email
NAKAJIMA Yoshikazu:nakajima.y.8203@m.isct.ac.jp
Instructor's Contact Information
NAKAJIMA Yoshikazu:15:00–16:30 on every Monday at Room 409A on the 4th floor, Building 21, Surugadai campus

Lecture No	041035				
Subject title	Wearable & IoT Devices and Applications			Subject ID	GC-c6420-L
Instructors	池内 真志[IKEUCHI Masashi]				
Semester	Spring 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Availability in English:When an international student registers this subject for credits, this course is taught in English.

Lecture place

All lectures are given online (zoom).

Course Purpose and Outline

Course Purpose:The program offers lectures on several important topics in Sensing devices & instruments, IoT technologies & Security and Energy harvesting devices in the medical and dental fields. The major purpose of the program is to obtain the latest information and to train scientific mind as well as logical thinking skills necessary to become independent researchers.

Outline:Several types of the advanced wearable IoT devices and technologies are introduced and some potential applications in the medical and dentalfields will be discussed.

Course Objective(s)

Introduce useful information from the basic wearable sensors to latest IoT devices in the medical and dental fields to attendants.

Lecture Style

Lectures on the essence of wearable IoT technologies.

Grading System

Grading is given by taking all activities of the students into account such as participation of lecture class and discussion (50%), quality of discussion and presentation (30%), as well as willingness and understanding of discussion (20%).

Prerequisite Reading

Any students who prepare for this course, they can refer to the following books and paper.

Reference Materials

Wearable Biosensing in Medicine and Healthcare／edited by Kohji Mitsubayashi:Springer Nature, 2024

「非接触」が拓く新しいバイタルモニタリング = Non-Contact Vital Signs Monitoring : 革新的な健康管理と医療・介護への応用／三林浩二監修,三林, 浩二,:シーエムシー出版, 2021

Chemical, gas, and biosensors for internet of things and related applications／edited by Kohji Mitsubayashi, Osamu Niwa, Yuko Ueno,三林, 浩二,Niwa, Osamu. [丹羽修],Ueno, Yuko. [上野祐子],:Elsevier, 2019

代謝センシング = Metabolic sensing : 健康, 食, 美容, 薬, そして脳の代謝を知る／三林浩二 監修,三林, 浩二,:シーエムシー出版, 2018

生体ガス計測と高感度ガスセンシング/ 三林浩二監修／三林, 浩二,:シーエムシー出版, 2017

スポーツバイオ科学と先進スポーツギアの開発／三林浩二監修,三林, 浩二,:シーエムシー出版, 2015

スマート・ヒューマンセンシング : 健康ビッグデータ時代のためのセンサ・情報・エネルギー技術／三林, 浩二,:シーエムシー出版, 2014

ヘルスケアとバイオ医療のための先端デバイス機器／三林浩二監修,三林, 浩二,:シーエムシー出版, 2009

ユビキタス・バイオセンシング : 健康モニタリング&日常ケアのための計測技術／三林浩二 監修,三林, 浩二,:シーエムシー出版, 2006

テレワーク社会を支えるリモートセンシング／三林, 浩二,三林浩二 監修:シーエムシー出版, 2021.4

To be distributed during the lecture.

Important Course Requirements

To be announced during the lecture.

Email

IKEUCHI Masashi:ikeuchi.mech@tmd.ac.jp

Instructor's Contact Information

IKEUCHI Masashi:10:00-14:00 Mon. & Thu. @ Building#22, Room312

Lecture No	041036				
Subject title	Molecular Pathophysiology			Subject ID	GC-c6422-L
Instructors	佐々木 純子, 鈴木 啓道, 瀬川 勝盛, 小松谷 史香, 小林 芳彦[SASAKI Junko, SUZUKI Hiromichi, SEGAWA Katsumori, KOMATSUYA Fumika, KOBAYASHI Yoshihiko]				
Semester	Spring 2026	Level	1st year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Media-enhanced courses

Availability in English:When an international student registers this course for credits, this course is done in English.

Course Purpose and Outline

Course Purpose: The purpose of this course is to obtain an overview of the current progress in the research on molecular pathophysiology of diseases based on the basic biosciences including molecular biology, genome science, and biochemistry, and also a practical approach to the development of prevention and therapies of the diseases.

Outline: This course offers lectures on the molecular pathophysiology of diseases such as cancer, metabolic diseases, and congenital diseases based on basic biosciences including molecular biology, genome science, and biochemistry. Developing novel and rational prevention and therapies according to molecular physiology will also be discussed.

Course Objective(s)

To obtain an overview of the molecular pathophysiology of cancer, metabolic diseases and congenital heart diseases, and to discuss the development of rational prevention and therapies for these diseases. Introduce useful information from the latest biology to basic medicine to attendants.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	5/1	13:00-15:15	ライブ	Molecular pathophysiology of cancer: Lessons from phospholipids	SASAKI Junko
2	5/7	13:00-15:15	大学院講義室4	Cholesterol and diseases: from plaques to genes to drugs	SEGAWA Katsumori
3	5/8	13:00-15:15	ライブ	Mechanism for mitochondrial quality control	KOMATSUYA Fumika
4	5/14	13:00-15:15	ライブ	Cancer genome analysis for basic and translational research	SUZUKI Hiromichi
5	5/19	13:00-15:15	ライブ	Molecular pathophysiology of congenital heart diseases	KOBAYASHI Yoshihiko

Lecture Style

Lecture, discussion and presentation

Grading System

Participation to lectures is evaluated.

Prerequisite Reading

Basic knowledge on molecular biology and biochemistry is required.

Important Course Requirements

・Your attendance will be taken by the attendance system. Please make sure to pass your student ID card over the card reader of system roughly 10 minutes prior to each lecture starts. Usually, the card reader is on the wall by the back door of the lecture room.

Lecture No	041037				
Subject title	Advanced Chemical Biology			Subject ID	GC-c6423-L
Instructors	玉村 啓和, 隅田 有人, 辻 耕平, 花園 祐矢, 藤井 晋也[TAMAMURA Hirokazu, SUMIDA Yuto, TSUJI Kohei, Yuya Hanazono, FUJII Shinya]				
Semester	Spring 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Media-enhanced courses

Availability in English:When an international student registers this subject for credits, this course is taught in English.

Course Purpose and Outline

Course Purpose:Fundamental knowledge and technology on the development of chemical biology used in several research fields (life science, analytical chemistry, organic chemistry, material science, etc) and the recent topics on their advanced researches will be educated.

Outline:Various basic methods required for chemical biology researches will be discussed based on recent advanced results.

Course Objective(s)

Chemical biology is a research field, in which biological phenomena are analyzed and regulated, and is complicatedly correlated to several research fields such as medicinal chemistry and nanotechnologies. This course deals with their up-to-date advanced research tendencies.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	6/6	14:00-16:15	オンデマンド	Advanced Chemical Biology Research1	TSUJI Kohei
2	6/13	12:40-14:55	ライブ	Advanced Chemical Biology Research2	Yuya Hanazono
3	6/20	14:00-16:15	ライブ	Advanced Chemical Biology Research3	OCHIAI Kotaro
4	6/27	12:40-14:55	ライブ	Advanced Chemical Biology Research4	SUMIDA Yuto
5	7/4	14:00-16:15	ライブ	Advanced Chemical Biology Research5	TAMAMURA Hirokazu

Lecture Style

This course includes seminar-type lectures, exercises about organic chemistry, and practices about chemical biology techniques.

Grading System

Attendance (50%) and Presentation (50%)

Prerequisite Reading

Fundamental organic chemistry should be reviewed. The books listed in #9 are useful for understanding the topics in this course.

Reference Materials

Chemical Biology (L. Schreiber, T. kapoor, G. Wess Eds, WILEY-VCH); PROTEIN TARGETING WITH SMALL MOLECULES - Chemical Biology Techniques and Applications (Wiley)

Email

TAMAMURA Hirokazu:tamamura.mr@tmd.ac.jp

Instructor's Contact Information

TAMAMURA Hirokazu:Mon-Fri, 3-5 pm

Bldg22, Fl6, Rm603B

Lecture No	041038				
Subject title	Molecular and Chemical Somatology			Subject ID	GC-c6424-L
Instructors	萩原 伸也, 新冨 圭史, 渡邉 力也 , 安藤 潤[HAGIHARA Shinya, SHINTOMI Keishi, WATANABE Rikiya, ANDO Jun]				
Semester	Spring 2026	Level	1st - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

Availability in English: When an international student registers this subject for credits, this course is taught in English.

Lecture place

Online or RIKEN Wako campus.

Course Purpose and Outline

Course Purpose:We aim to understand basis of Bioorganic Chemistry, Chemical Biology as well as their applications to Medicine and Biology by dealing with variety of molecules that regulate cellular functions including low molecular organic compounds, proteins,and hormones.

Outline:Molecular and Chemical Somatology is an interdisciplinary fields to understand basis of Bioorganic Chemistry, Chemical Biology as well as their applications to Medicine and Biology by dealing with variety of molecules that regulate cellular functions including low molecular organic compounds, proteins, and hormones. Students will hear and discuss about outlines and/or latest topics on discovery, structure, synthesis, biology, and management of these key molecules/factors, and deepen their understanding this new study field.

Course Objective(s)

Students will hear and discuss about latest topics from each instructor.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	5/14	13:00-15:15	ライブ	Regulation of physiological function with synthetic molecules	HAGIHARA Shinya
2	5/21	13:00-15:15	理研生物科学研究棟 S310	Three-dimentional strcuture of the genome	SHINTOMI Keishi
3	5/21	15:30-17:45	理研生物科学研究棟 S252	Single molecule biophysics and its application	WATANABE Rikiya, ANDO Jun
4	5/28	13:00-15:15	理研物質科学研究棟 S507 大会議室	in vivo synthesis of fucntional molecule	UEDA Ayaka
5	6/11	13:00-15:15	ライブ	Development of Novel Methodologies for Chemical Biology	EGOSHI Syusuke

Lecture Style

Lectures by instructors, Presentation by students, and Discussion

Grading System

Attendance (40%) and Report (60%)

Prerequisite Reading

None

Reference Materials

Chemical Biology(L. Schreiber, T. Kapoor, G. Wess Eds.、WILEY-VCH)、PROTEIN TARGETING WITH SMALL MOLECULES - Chemical Biology Techniques and Applications (H. Osada Ed, Wiley)

Email

HAGIHARA Shinya:hagi@riken.jp
Instructor's Contact Information HAGIHARA Shinya:HAGIHARA Shinya:3:00–5:00 pm, every Tuesday to : Dr. Shinya Hagihara, Chief Instructor of Molecular and Chemical Somatology

Lecture No	416016				
Subject title	Epidemiology: Basic			Subject ID	GC-c6430-L
Instructors					
Semester	Spring 2026	Level	1st year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

All classes are taught in Japanese.

Lecture place

Library Active Learning Room(4th floor of M&D Tower)

Course Purpose and Outline

Course Objectives

To understand the fundamentals of epidemiology and learn the basics of properly interpreting and writing clinical research papers.

Course Objective(s)

Acquire the knowledge of epidemiology to conduct clinical epidemiological studies.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	5/7	18:00-19:30	アクティブラーニング教室, ライブ	Introduction to Epidemiology	TANI Yukako
2	5/13	18:00-19:30	アクティブラーニング教室, ライブ	Disease measurement, sensitivity and specificity	TANI Yukako
3	5/20	18:00-19:30	アクティブラーニング教室, ライブ	Epidemiological study design, ecological studies	TANI Yukako
4	5/27	18:00-19:30	アクティブラーニング教室, ライブ	confounding factors, validity and reliability	TANI Yukako
5	6/3	18:00-19:30	アクティブラーニング教室, ライブ	Sampling, Cross-sectional studies	TANI Yukako
6	6/10	18:00-19:30	アクティブラーニング教室, ライブ	Cohort and case-control studies	TANI Yukako
7	6/17	18:00-19:30	アクティブラーニング教室, ライブ	Randomized controlled trials, bias	TANI Yukako
8	6/24	18:00-19:30	アクティブラーニング教室,	Critical Appraisal	TANI Yukako

			ライブ			

Lecture Style

Depends on the lectures of the course instructor.

Course Outline

See table.

Grading System

Attendance at least 5 out of 8 sessions is required.

Grading will be based on the content of the submitted report (50 points) and participation (50 points).

Prerequisite Reading

It is recommended that students prepare in advance for the lectures of each instructor listed in the lecture outline by referring to the reference books and literature listed below. Also, please note that some classes require students to watch video clips in advance.

Reference Materials

日本疫学会, はじめて学ぶやさしい疫学 第 3 版. 南江堂; 2018.

木原正博. 疫学 -医学的研究と実践のサイエンス. メディカルサイエンスインターナショナル. 2010

Gordis L. Epidemiology. 6th edition. Philadelphia: Elservier; 2018

Important Course Requirements

Attendance at lectures is mandatory. All assigned reports and other materials must be submitted.

Lecture No	416017				
Subject title	Biostatistics: Basic			Subject ID	GC-c6431-L
Instructors					
Semester	Spring 2026	Level	1st year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

All classes are taught in Japanese.

Lecture place

Library Active Learning Room(4th floor of M&D Tower)(or via zoom)

Course Purpose and Outline

Course Purpose:

This course aims to review fundamentals of biostatistics.

Outline:

This course gives lectures on the basis of biostatistical methods and their application to studies in clinical epidemiology.

Course Objective(s)

The goal is to be able to apply appropriate statistical methods to data and, to be able to interpret the performance of statistical analyses in accordance with the research objectives.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	4/28	18:00-19:30	アクティブラーニング教室,ライブ		TAKAHASHI Kunihiko, ANZAI Tatsuhiko
2	5/12	18:00-19:30	アクティブラーニング教室,ライブ		TAKAHASHI Kunihiko, ANZAI Tatsuhiko
3	5/19	18:00-19:30	アクティブラーニング教室,ライブ		TAKAHASHI Kunihiko, ANZAI Tatsuhiko
4	5/26	18:00-19:30	アクティブラーニング教室,ライブ		TAKAHASHI Kunihiko, ANZAI Tatsuhiko
5	6/2	18:00-19:30	アクティブラーニング教室,ライブ		TAKAHASHI Kunihiko, ANZAI Tatsuhiko
6	6/9	18:00-19:30	アクティブラーニング教室,ライブ		TAKAHASHI Kunihiko, ANZAI Tatsuhiko
7	6/16	18:00-19:30	アクティブラーニング教室,ライブ		TAKAHASHI Kunihiko, ANZAI Tatsuhiko

8	6/23	18:00-19:30	アクティブラーニング教室, ライブ		TAKAHASHI Kunihiko, ANZAI Tatsuhiko	

Lecture Style

Lectures

Course Outline

Refer to the course schedule

Grading System

Participation (50%) and report (50%).

At least five classes must be attended to recieve a grade.

Prerequisite Reading

Students are expected to have worked thorough the materials in accordance with the topics before attending the class.

Reference Materials

・古川俊之(監修), 丹後俊郎(著). 医学への統計学. 第3版. 朝倉書店. 2013.

・Pagano M, Gauvreau K. Principles of Biostatistics. 2nd ed. CRC Press. 2000.

Lecture No	416018				
Subject title	Biostatistics: Advanced I			Subject ID	GC-c6432-L
Instructors	星野 崇宏, 野間 久史, 服部 聡[HOSHINO Takahiro, NOMA Hisashi, HATTORI Satoshi]				
Semester	Fall 2026	Level	1st year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

All classes are taught in Japanese.

Lecture place

Library Active Learning Room(4th floor of M&D Tower)(or via zoom)

Course Purpose and Outline

Course Purpose: This course aims to develop the knowledge on Bayesian statistics and meta-analysis.

Outline: This course gives lectures on fundamentals and applications of Bayesian statistics and meta-analysis as the advanced topics in biostatistics.

Course Objective(s)

The objective of this course is to be able to conduct Bayesian inference and meta-analysis on a small number of studies.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	9/16	18:00-19:30	アクティブラーニング教室, ライブ		TAKAHASHI Kunihiko
2	9/30	18:00-19:30	アクティブラーニング教室, ライブ		ANZAI Tatsuhiko
3	10/7	18:00-19:30	アクティブラーニング教室, ライブ		TAKAHASHI Kunihiko
4	10/14	18:00-19:30	アクティブラーニング教室, ライブ		HOSHINO Takahiro
5	10/21	18:00-19:30	アクティブラーニング教室, ライブ		TAKAHASHI Kunihiko
6	11/4	18:00-19:30	アクティブラーニング教室, ライブ		TAKAHASHI Kunihiko
7	11/11	18:00-19:30	アクティブラーニング教室, ライブ		HATTORI Satoshi
8	11/18	18:00-19:30	アクティ		NOMA Hisashi

			ブラーニング教室, ライブ			

Lecture Style

Lectures

Course Outline

Refer to the course schedule

Grading System

Participation (50%) and report (50%).

At least five classes must be attended to recieve a grade.

Prerequisite Reading

Students are expected to have worked thorough the materials in accordance with the topics before attending the class.

Reference Materials

・Lesaffre E, Lawson AB. Bayesian Biostatistics. Wiley. 2012.

・Spiegelhalter DJ, Abrams KR, Myles JP. Bayesian Approaches to Clinical Trials and Health-Care Evaluation.Wiley. 2004.

・丹後俊郎, 横山徹爾, 高橋邦彦. 空間疫学への招待. 朝倉書店. 2007.

・丹後俊郎. 新版メタアナリシス入門. 朝倉書店. 2016.

・Borenstein M, et al. Introduction to Meta-Analysis. 2nd ed. Wiley. 2021.

Lecture No	416019				
Subject title	Biostatistics: Advanced Ⅱ			Subject ID	GC-c6433-L
Instructors					
Semester	Fall 2026	Level	1st year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

All classes are taught in Japanese.

Lecture place

Library Active Learning Room(4th floor of M&D Tower)(or via zoom)

Course Purpose and Outline

Course Purpose: This course aims to develop the knowledge on pharmacoepidemiology and artificial interigence in the medical research as the advanced topics in biostatistics.

Outline: This course gives lectures on fundamentals and applications in pharmacoepidemiology, and artificial interigence in the medical research.

Course Objective(s)

The goal is to be able to conduct the risk assessment of drug use in pharmacoepidemiology, and to be able to interpret the performance of artificial interigence analysis in the medical research.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	9/15	18:00-19:30	アクティブラーニング教室,ライブ		TAKAHASHI Kunihiko
2	9/29	18:00-19:30	アクティブラーニング教室,ライブ		TAKAHASHI Kunihiko
3	10/6	18:00-19:30	アクティブラーニング教室,ライブ		ANZAI Tatsuhiko
4	10/13	18:00-19:30	アクティブラーニング教室,ライブ		URUSHIHARA Hisashi
5	10/20	18:00-19:30	アクティブラーニング教室,ライブ		TAKAHASHI Kunihiko, ANZAI Tatsuhiko
6	11/10	18:00-19:30	アクティブラーニング教室,ライブ		TAKAHASHI Kunihiko, ANZAI Tatsuhiko
7	11/17	18:00-19:30	アクティブラーニング教室,		SHIMIZU Hideyuki

			ライブ			
8	11/24	18:00–19:30	共用講義室2, ライブ		SHIMIZU Hideyuki	

Lecture Style

Lectures

Course Outline

Refer to the course schedule

Grading System

Participation (50%) and report (50%).

At least five classes must be attended to recieve a grade.

Prerequisite Reading

Students are expected to have worked thorough the materials in accordance with the topics before attending the class.

Reference Materials

・くすりの適正使用協議会. 実例で学ぶ薬剤疫学の第一歩. レーダー出版センター. 2008.

・佐藤俊哉, 山口拓洋, 石黒智恵子(編). これからの薬剤疫学. 朝倉書店. 2021.

・景山茂, 久保田潔(編). 薬剤疫学の基礎と実践. 改訂第 3 版. ライフサイエンス出版. 2021.

・Naqa I, Murphy M (eds). Machine and Deep Learning in Oncology, Medical Physics and Radiology. Springer. 2022.

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Lecture No	416020				
Subject title	Clinical Trial Methodology: Basic			Subject ID	
Instructors					
Semester	Spring 2026	Level	1st year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Media-enhanced courses

All classes are taught in Japanese.

Lecture place

online lesson (by Zoom)

Course Purpose and Outline

Course Objectives

To learn the basic concepts of clinical trial methodology and statistical considerations for planning and analyzing clinical trials.

Outline

To learn the basic concepts of clinical trial methodology and statistical considerations (e.g., study design, randomization, blinding, endpoints, analysis population, sample size calculation).

Course Objective(s)

Be able to design appropriate clinical trials based on research objectives and feasibility. Be able to assess the level of evidence from clinical trial publication.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	6/25	18:00-19:30	ライブ		HIRAKAWA Akihiro
2	6/30	18:00-19:30	ライブ		HIRAKAWA Akihiro
3	7/2	18:00-19:30	ライブ		HIRAKAWA Akihiro
4	7/7	18:00-19:30	ライブ		HIRAKAWA Akihiro
5	7/9	18:00-19:30	ライブ		HIRAKAWA Akihiro
6	7/21	18:00-19:30	ライブ		HIRAKAWA Akihiro
7	7/23	18:00-19:30	ライブ		HIRAKAWA Akihiro
8	7/28	18:00-19:30	ライブ		HIRAKAWA Akihiro

Lecture Style

Lectures

Grading System

Attendance at least 5 out of 8 sessions required.

Participations (50%) and essay (50%)

Prerequisite Reading

To read the Ethical Guidelines for Medical and Health Research Involving Human Subjects and ICH E9 (Statistical Principles for Clinical Trials).

TextBook

臨床試験方法論:エビデンス創出のための試験デザインと統計解析／平川晃弘:メディカル・サイエンス・インターナショナル, 2025

Lecture No	416021				
Subject title	Clinical Trial Methodology: Advanced			Subject ID	GC-c6435-L
Instructors	佐藤 宏征[SATO Hiroyuki]				
Semester	Fall 2026	Level	1st year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Media-enhanced courses

All classes are taught in Japanese.

Lecture place

online lesson (by Zoom)

Course Purpose and Outline

Course Objectives

To acquire innovative clinical trial designs

Overview

To learn group sequential design, adaptive design, Bayesian design, platform studies, along with clinical trial designs in oncology.

Course Objective(s)

Be able to design appropriate clinical trials based on research objectives and feasibility. Be able to assess the level of evidence from clinical trial publication.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	10/1	18:00-19:30	ライブ		HIRAKAWA Akihiro, SATO Hiroyuki
2	10/8	18:00-19:30	ライブ		HIRAKAWA Akihiro, SATO Hiroyuki
3	10/15	18:00-19:30	ライブ		HIRAKAWA Akihiro, SATO Hiroyuki
4	10/22	18:00-19:30	ライブ		HIRAKAWA Akihiro, SATO Hiroyuki
5	10/29	18:00-19:30	ライブ		HIRAKAWA Akihiro, SATO Hiroyuki
6	11/5	18:00-19:30	ライブ		HIRAKAWA Akihiro, SATO Hiroyuki
7	11/19	18:00-19:30	ライブ		HIRAKAWA Akihiro, SATO Hiroyuki
8	11/26	18:00-19:30	ライブ		HIRAKAWA Akihiro, SATO Hiroyuki

Lecture Style

Lectures

Grading System
Attendance at least 5 out of 8 sessions required. Participations (50%) and essay (50%)
Prerequisite Reading
Required to participate in course of Clinical Trial Methodology (Basic).
TextBook
臨床試験方法論:エビデンス創出のための試験デザインと統計解析／平川晃弘:メディカル・サイエンス・インターナショナル, 2025

Lecture No	416022				
Subject title	Oral epidemiology: Basic			Subject ID	GC-c6436-L
Instructors					
Semester	Spring 2026	Level	1st year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Media-enhanced courses

All classes are taught in Japanese.

Lecture place

Zoom

Course Purpose and Outline

Course Objectives

To understand the basics of dental epidemiology.

Overview

To understand the fundamentals of dental epidemiology. To understand the international context and build a foundation for writing papers.

Course Objective(s)

Acquire basic knowledge in conducting clinical epidemiological research in the field of dentistry and oral health.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	6/29	18:00-19:30	オンデマンド		AIDA Jun
2	7/1	18:00-19:30	ライブ		AIDA Jun
3	7/6	18:00-19:30	オンデマンド		KINO Shiho
4	7/8	18:00-19:30	オンデマンド		ISHIMARU Miho
5	7/22	18:00-19:30	ライブ		AIDA Jun
6	7/27	18:00-19:30	オンデマンド		MATSUYAMA Yusuke
7	7/29	18:00-19:30	ライブ		AIDA Jun, MATSUYAMA Yusuke
8	8/3	18:00-19:30	ライブ		AIDA Jun, MATSUYAMA Yusuke, KINO Shiho, ISHIMARU Miho

Lecture Style

Depends on the lectures of the course instructor.

Course Outline

See table.

Grading System

Attendance at least 5 out of 8 sessions is required. Grading will be based on the content of the submitted report (50 points) and participation (50 points).

Prerequisite Reading

It is recommended that students prepare in advance for the lectures of each instructor listed in the lecture outline by referring to the reference books and literature listed below. Also, please note that some classes require the viewing of videos, etc., prior to the lecture.

Lecture No	416023				
Subject title	Epidemiology: Advanced			Subject ID	GC-c6437-L
Instructors					
Semester	Fall 2026	Level	1st year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Media-enhanced courses

All classes are taught in Japanese.

Lecture place

Zoom

Course Purpose and Outline

Course Objectives

To understand the development of epidemiology.

Overview

In order to understand the advanced contents of epidemiology, students will learn the actual and advanced contents of analysis using statistical software.

Course Objective(s)

Acquire developmental knowledge and practical skills in conducting epidemiological studies.

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	9/18	18:00-19:30	情報検索室1		TANI Yukako
2	9/25	18:00-19:30	情報検索室1		TANI Yukako
3	10/2	18:00-19:30	ライブ		ISUMI Aya, DOI Satomi
4	10/9	18:00-19:30	オンデマンド		KINO Shiho
5	10/16	18:00-19:30	オンデマンド		AIDA Jun
6	10/23	18:00-19:30	情報検索室1		AIDA Jun, MATSUYAMA Yusuke
7	11/6	18:00-19:30	オンデマンド		MATSUYAMA Yusuke
8	11/20	18:00-19:30	オンデマンド		KINO Shiho, ISHIMARU Miho

Lecture Style

Depends on the lectures of the course instructor.

Course Outline

See table.

Grading System

Attendance at least 5 out of 8 sessions is required. Grading will be based on the content of the submitted report (50 points) and participation (50 points).

Prerequisite Reading

It is recommended that students prepare in advance for the lectures of each instructor listed in the lecture outline by referring to the reference books and literature listed below. Also, please note that some classes require the viewing of videos, etc., prior to the lecture.

Reference Materials
Epidemiology: Beyond the Basics 4th edition, Jones & Bartlett Learning
Important Course Requirements
Attendance at lectures is mandatory. All assigned reports and other materials must be submitted.

Lecture No	416024				
Subject title	Statistical Analysis of Clinical Data			Subject ID	GC-c6438-L
Instructors	西村 久明, 谷 友香子[NISHIMURA Hisaaki, TANI Yukako]				
Semester	YearLong 2026	Level	2nd - year	Units	1
Course by the instructor with practical experiences				Mode of Instruction	Face-to-face

All classes are taught in Japanese.

Lecture place

Library Information Search Room(4th floor of M&D Tower)

Lecture plan

No	Date	Time	Room	Lecture theme	Staff
1	4/7	18:00-19:30	情報検索室1		FUJIWARA Takeo, NISHIMURA Hisaaki
2	4/9	18:00-19:30	アクティブラーニング教室		FUJIWARA Takeo, NISHIMURA Hisaaki
3	4/14	18:00-19:30	情報検索室1		FUJIWARA Takeo, NISHIMURA Hisaaki
4	4/16	18:00-19:30	情報検索室1		FUJIWARA Takeo, NISHIMURA Hisaaki
5	4/21	18:00-19:30	情報検索室1		FUJIWARA Takeo, NISHIMURA Hisaaki
6	4/23	18:00-19:30	情報検索室1		FUJIWARA Takeo, NISHIMURA Hisaaki
7	4/28	18:00-19:30	情報検索室1		FUJIWARA Takeo, NISHIMURA Hisaaki
8	4/30	18:00-19:30	情報検索室1		FUJIWARA Takeo, NISHIMURA Hisaaki

Lecture Style

Depends on the lectures of the course instructor.

Course Outline

See table.

Grading System Attendance at least 5 out of 8 sessions is required. Grading will be based on the content of the submitted report (80 points) and participation (20 points).
Prerequisite Reading
Reference Materials 浦島充佳. Stata による医療系データ分析入門. 東京図書. 2014
Email TANI Yukako:fujiwara.hlth@tmd.ac.jp NISHIMURA Hisaaki:nishimura.hlth@tmd.ac.jp
Instructor's Contact Information TANI Yukako:Let me know in advance if you are coming.

Information for Students

1) Contact and Notification

Notifications and other information are posted on university bulletin boards or the Science Tokyo website (Click on the tab for “Student Life”.)

When emergency measures for natural or weather-related disasters such as typhoons are taken, causing the full suspension of public transportation services, lectures and examinations may be canceled or rescheduled. Notifications of such will be announced on the Science Tokyo website (Click on the tab for “Schools / Graduate Schools-News & Events”).

Bulletin boards are located in front of Bldg. 6, in front of the Yushima Student Office on the 1st floor of Bldg. 1 and in front of the Yushima Student Support Office on the 3rd floor of Bldg. 5. Please check these boards regularly.

When necessary, students will be contacted individually on the phone, via email or by mail. If your address or phone number changes, please update your contact information with the Student Division.

2) Student ID Card

Your student ID card serves as proof of student status and as a nametag. It is also an IC card and will enable you to unlock some school entrances and register your attendance for classes. Please be careful not to damage or lose it.

Additionally, please carry your student ID card with you at all times. You may also be asked to show it when you buy a commuter pass.

(1) Reissuance

Students should promptly notify the Student Division if their ID card has been lost or damaged, and complete the procedures to have the card reissued. Please note that a fee will be charged for reissuance.

(2) Return of card

Students should promptly return their ID card to the Student Division upon graduation, withdrawal or expulsion, or when the card expires. Please note that if the card has been lost and cannot be returned, a fee will be charged equal to that of reissuance.

(3) Updating the period of validity

If your enrollment period has been extended and your student ID card has expired, please visit the Yushima Degree Examination Group to update your card.
(TEL: 03-5803-5074)

3) Certificates

Some certificates and other official documents are issued by the Student Division, while others may be obtained from automatic document issuing machines.

Place	Items	Service hours	Office
Document vending machine Bldg. 5, 4th floor Student Lounge	Certificate of Enrollment (Japanese) Student Discount Card for JR	8:30-21:00 (Student ID card is required.)	Yushima Degree Examination Group TEL : 5803-5074
Student Division * Bldg. 1, 1st floor	Certificate of Enrollment (English) Transcript (Japanese/English) Certificate of Expected Graduation <Master's Program> (Japanese/English) Other certificates (Japanese/English)	8:30-17:15	Graduate Student Affairs Group 1 or 2, TEL : 5803-4676・4534
Student Division * Bldg. 1, 1st floor	Certificate of Expected Graduation <Doctoral Program> (Japanese/English)	8:30-17:15	Yushima Degree Examination Group TEL : 5803-5074

*Certificates issued by the Student Division

Please visit the Student Division and submit the relevant application form at the counter. It may take a few days to issue a Japanese certificate and about a week for an English certificate.

*Certificates for those who have already completed a course are also issued by the Student Division. Available certificates are: Certificate of Awarded Diploma, Transcript, Certificate of Past Enrollment, and Certificate of Degree.

How to apply for a certificate by mail

If you need to apply for a certificate that is not available from the document vending machines, you can send the application form by mail to the following address. Please send the application form along with a self-addressed envelope with a 120-yen stamp affixed. The envelope should be at least 240×332 mm in size so that an A4 size document can be inserted without folding.

Address

Student Division, Institute of Science Tokyo
1-5-45 Yushima, Bunkyo-ku, Tokyo
Postal code: 113-8510

4) Student Discount Card for JR

(1) Students can get a 20% discount on JR Line tickets for travel that exceeds 100 kilometers one way. The purpose of this service is to help ease students' financial burden and promote school education. You can use the Student Discount Card at JR for a maximum of 10 tickets per person per year, and the card is valid for 3 months.

(2) Caution: Please do not use this service in an inappropriate or illegal manner.
Do not:
1. Buy a discounted ticket by using the student ID card of another person.
2. Give someone a ticket that you bought.
3. Use an expired ticket.

If you commit any of these actions, you may be required to pay a penalty of twice the regular fare. Furthermore, this service for all students at Science Tokyo may be suspended as a result.

(3) The Student Discount Card for JR is available from the document vending machines in the Student Lounge in Bldg. 5, 4th floor.

Service hours: 8:30 a.m. to 9:00 p.m. on weekdays
Office:Yushima Degree Examination Group(TEL: 03-5803-5074)

5) Change of address/surname/ legal domicile/telephone number

A student who changes his/her address, legal domicile, surname or telephone number must promptly notify Graduate Student Affairs Group 1 or 2 in the Student Division and follow the necessary procedures. A student who has a change in their guarantor's information must also do the same.

If you fail to inform the Student Division of any changes, the university may not be able to contact you in case of an emergency.

Office

Graduate Student Affairs Group 1 or 2 in Student Division (Bldg. 1, 1st floor)

Notification form

	Form	Necessary documents
Change of surname	Change of name form	Proof of name change
Change of address or legal domicile	Change of address or legal domicile form	Proof of change of address or legal domicile
Change of Contact Person	Notification for Change of Contact Person	N/A

6) Request for permission to attend external practical training

If you would like to attend an external practical training course, you must submit the request form to the Graduate Student Affairs Group 1 or 2 in the Student Division two weeks before the start date. (If you would like to attend training abroad, you must submit your request two months before the start date.)

7) Lost and found property

Lost property found on the university campus is handled by the following offices.

(1) Lost property found inside the building of the Faculty of Medicine:
General Affairs Section, Administration Division, Faculty of Medicine
(Bldg. 3, 6th floor, TEL: 5803-5096)

(2) Lost property found inside the building of the Faculty of Dentistry:
General Affairs Section, Administration Division, Faculty of Dentistry and Dental Hospital (Dental Bldg. South, 2nd floor, TEL: 03-5803-5406)

(3) Lost property found in other places: Campus security and building safety offices.

9) Health Service Center

(Health Service Center: TEL 03-5803 - 5081、https://www.tmd.ac.jp/english/hac/)

The Health Service Center aims to help students and faculty members stay healthy so that they can pursue their activities effectively. Science Tokyo staff and students visit the center to get counseling for physical or mental issues, physical examinations, and letters of introduction necessary to visit specialists.

(1) Health consultation and counseling for mental health

1. Health consultation is available from 10 a.m. to 12:30 p.m. and 1:30 p.m. to 3:30 p.m. on weekdays.
2. For information concerning which doctors are available, please check the Health Administration Center website.
3. You may consult with doctors or health consultants even after official consultation hours if they are still in the center.
4. You may also freely use the center's scales to measure your height and weight, or the blood pressure machine.

(2) Health checkup

All students are obliged to complete a health checkup. It is the student's responsibility to check the Health Administration Center website for the detailed schedule of examinations.

1. Annual Health Checkup — May
2. Detection of HBs Antigen — April
3. Health Checkup for Radiation Workers — April and October
4. Others: Immunization for Hepatitis B or Influenza bacilli

(3) Health certificate issuance

Health certificates can be issued when needed for taking a qualifying examination, applying for clinical training at a hospital, job hunting or entering a different school. Note that the certificate can only be issued to students who have taken the annual health checkup.

10) Student support

Yushima Student Support Center : http://www.tmd.ac.jp/labs/gakuseihokenkikou/scsfs/index.html)

The Yushima Student Support Center assists students with managing their daily life such as schoolwork and career planning, provides counseling for mental health issues and harassment, and promotes other student support activities. The center also implements plans for supporting research activities and work-life balance for both female and male researchers and graduate students.

If you have problems in your daily life as a student, you can talk to a counselor. Based upon your needs, choose the appropriate contact number below.

<For matters related to student life>

(Contact : scenter.stc@tmd.ac.jp)

- Personal life: family, financial circumstances, relationship problems, etc.
- Schoolwork: progress in school, continued education, relationships with students or faculty
- Career planning: post-graduation decisions, job hunting
- Mental health: stress, unstable mental condition, interpersonal relationships
- Harassment: Academic dishonesty, power harassment, sexual harassment, etc.
- Other: Sexuality and gender issues, disabilities and chronic illnesses, etc.

11) For matters related to student life or career support and work-life balance (http://www.tmd.ac.jp/ang/counsel/index.html)

- Future career decisions and lifestyle
- Work-life balance and events such as pregnancy, childbirth and parenting
- Concerns about nursery schools or nursing care

☆Individual counseling: 10:30 a.m. to 5:00 p.m. on weekdays
Typically, you need to make a reservation for an individual counseling session. Please refer to the website for details.

12) Graduate student lounge

Any graduate student can use the lounges located in M&D Tower on the 14th floors.

<Available hours> 8:00 a.m. to 9:00 p.m.

<Notes>

1. Please keep the lounge tidy.
2. Please dispose of your garbage in your laboratory. Do not dispose of it in nearby classroom trashcans.
3. Please do not bother others. For example, avoid talking loudly, sleeping for too long, or bringing outside playthings to the lounge.
4. Please do not leave your belongings in the lounge.
5. Please take care to follow basic infection control measures such as washing hands and wearing masks.

13) Others

(1) If you plan to receive personal mail, please tell the sender to include the name of your department in the address field.

(2) TMDU imposes traffic restrictions on campus and commuting by car is prohibited. However, an exception may be made for students who have difficulty commuting to campus by train or bus.

(3) Relevant Offices

1. Academic affairs:
   Graduate Student Affairs Group 1 and 2, Student Division (Bldg. 1, 1st floor, TEL 03-5803－4676、4679、4534)
2. Payment of tuition:
   Fund Management Group (Bldg. 1, 3rd floor, TEL 03-5803－5048)
3. Scholarships and tuition exemption:
   Yushima Student Support Office (Bldg. 5, 3rd floor, TEL 5803－5077)

Various procedures

You may retrieve all designated forms for Science Tokyo necessary for each procedure from the Graduate Student Affairs Group 1 and Team 2 of the Student Division (Building 1 West, first floor) or the SCIENCE TOKYO homepage.

URL： https://www.tmd.ac.jp/faculties/graduate_school/kyoumuka/

1) Leave of absence

If you can not attend school for two months or more due to illness or other reasons, you can take a leave of absence or extend the leave period using the following procedures. A leave of absence may not exceed three years in total. Furthermore, a leave of absence shall not be included in the period of enrollment.

Submission/information window

Student Division for Graduate Student Affairs 1 & 2 (Building 1 West, first floor)

Items to submit

-Request for leave of absence or Request for extension of the leave period (form designated by SCIENCE TOKYO)

*As a rule, the starting date will be at the beginning of the month.

*You will be asked to submit a doctor's note if your absence is due to illness.

Submission deadline

By 20th of two months before the starting date of leave of absence you desire.

2) Re-enrollment

If a student who is absent through leave of absence wishes to return to school during the period of the leave of absence or at the end of a leave of absence, the following procedures shall be carried out.

Submission/information window

Student Division for Graduate Student Affairs 1 & 2 (Building 1 West, first floor)

Items to submit

-Request for re-enrollment (form designated by SCIENCE TOKYO)

*You will be asked to submit a doctor's note if your absence is due to illness. Additionally, an inspection from the Health Administration Center is required, so please inquire in advance.

Submission deadline

By 20th of two months before the date of re-enrollment you desire.

3) Withdrawal

The following procedures must be carried out in the event that you are unable to continue your studies due to illness or other reasons and you must withdraw as a result.

Submission/information window

Student Division for Graduate Student Affairs 1 & 2 (Building 1 West, first floor)

Items to submit

-Request to withdraw (form designated by SCIENCE TOKYO)

Submission deadline

By 20th of a month before the desired date of withdrawal.

4) Commission research instruction

If you wish to receive research guidance at another graduate school, research institute, or a high level hospital (hereinafter referred to as “other institution”), you must conduct the following procedures upon consulting with the other party in advance. Furthermore, the application period may not exceed the school year. You must

reapply by the end of January in the event that you continue to take research instruction in the following year. Furthermore, the period in which a Master's course student can commission research instruction is up to one year.

Submission/information window

Student Division for Graduate Student Affairs 1 & 2 (Building 1 West, first floor)

Items to submit

Application to commission research instruction (form designated by SCIENCE TOKYO)

*As a rule, the start date will be the first of the month.

*As a rule, the starting date will be at the beginning of the month.

Submission deadline

By 20th of three months before the starting date of commission research instruction you desire

*Application for commuter pass for practical training accompanying commission research instruction

If you attend other institution after the application for the commission research instruction is accepted, you may purchase a commuter pass for internships by applying.

Submission/information window

Student Division for Graduate Student Affairs 1 & 2 (Building 1 West, first floor)

Items to submit

Application for commuter pass for internships (form designated by SCIENCE TOKYO)

Submission deadline

By 20th of two months beforehand (It will take about one month to obtain permission from the railway company.)

5) Study abroad

In the case of studying in a foreign graduate school or equivalent higher education institution, the following procedures must be carried out upon consulting with the other party beforehand.

Please make sure to inquire beforehand, as there is a limit on when you may study abroad.

Submission/information window

Student Division for Graduate Student Affairs 1 & 2 (Building 1 West, first floor)

Items to submit

-Request to study abroad (form designated by SCIENCE TOKYO)

-Written statement of reasons from instructor (free formatting)

-Documents such as the acceptance letter of the other party, etc. (copy)

-Japanese translations of documents such as the acceptance letter of the other party, etc.

-Guarantee of length of stay

Submission deadline

By 20th of two months before the starting date of study abroad you desire

[To change the period of study abroad]

Submission/information window

Student Division for Graduate Student Affairs 1 & 2 (Building 1 West, first floor)

Items to submit

-Request to change study abroad period (form designated by SCIENCE TOKYO)

-Documents pertaining to the study abroad period (copy)

-Study abroad permission slip (copy)

Submission deadline

By 20th of two months before the desired date to change the new study abroad period

6) Extend enrollment period

Students who intend to attend school (excluding a period of leave of absence) beyond the standard study period shall carry out the following procedure. Students may extend their enrollment period for twice the standard term of study (see table below).

Graduate School	Program	Track	Years
Medical and Dental Sciences	Master's course	Medical and Dental Science and Technology Track (excluding medical care management courses)	4 years
		Medical care management course	2 years
	Doctoral Program	Medical and Dental Sciences Track	8 years
		Life Science and Technology Track	6 years
Health Care Sciences	Doctoral program (first semester)	Nursing Innovation Science Track Biomedical Laboratory Sciences Track	4 years
	Doctoral program (second semester)	Nursing Innovation Science Track Biomedical Laboratory Sciences Track	6 years
	Consecutive doctoral program	Nursing Innovation Science Track Cooperative Doctoral Course in Disaster Nursing Track	10 years

Please note, leave of absences are not included in the enrollment period.

Submission/information window

Student Division for Graduate Student Affairs 1 & 2 (Building 1 West, first floor)

Items to submit

-Request for extension of enrollment period (form designated by SCIENCE TOKYO)

Submission deadline

- By 20th of two months before the completion of the enrollment period

7) Change major department

If you wish to change the research department to which you belong for reasons such as a change in your research content during your enrollment period, the following must be carried out.

Submission/information window

Student Division for Graduate Student Affairs 1 & 2 (Building 1 West, first floor)

Items to submit

-Request for change of track (form designated by SCIENCE TOKYO)

Submission deadline

By 20th of two months before the desired date of change

8) Change of course of study

In the case of employment during the enrollment period, or if you enrolled in an adult graduate school course that ceases to exist, the following must be carried out.

Submission/information window

Student Division for Graduate Student Affairs 1 & 2 (Building 1 West, first floor)

	Items to submit -Request to change course of study (form designated by SCIENCE TOKYO) *If you wish to change from a “general course” to an “adult graduate school course”, please also attach the following. -Employer approval (form designated by SCIENCE TOKYO) -Written statement of reasons for instructor change (free formatting) Submission deadline By 20th of two months before the desired date of change
9) Transfer	If you take an transfer examination to transfer to another institution, you must perform the following. Submission/information window Student Division for Graduate Student Affairs 1 & 2 (Building 1 West, first floor) Items to submit Request for transfer examination consent form (form designated by SCIENCE TOKYO) Submission deadline By 20th of three months before the testing date If you pass your transfer examination, you must carry out the following. Items to submit -Request to transfer (form designated by SCIENCE TOKYO) -A copy of your passing results Submission deadline By 20th of two months before your transfer
10) Death	In the event that the student passes away, please have a guarantor carry out the following as soon as possible. Submission/information window Student Division for Graduate Student Affairs 1 & 2 (Building 1 West, first floor) Items to submit -Notification of death (form designated by SCIENCE TOKYO)
11) Cancelling a course	If you wish to cancel a course that you have already registered for you must carry out the following. Submission/information window Student Division for Graduate Student Affairs 1 & 2 (Building 1 West, first floor) Forms to submit -Request f0r Cancelling a Registered Subject (form designated by SCIENCE TOKYO) Submission deadline -Students placed in Doctoral Program of Medical and Dental Sciences Track Up until May 31st for first semester courses Up until November 30th for second semester courses, full year courses, and multiple year courses Within the course period for intensive lectures

[Notes]

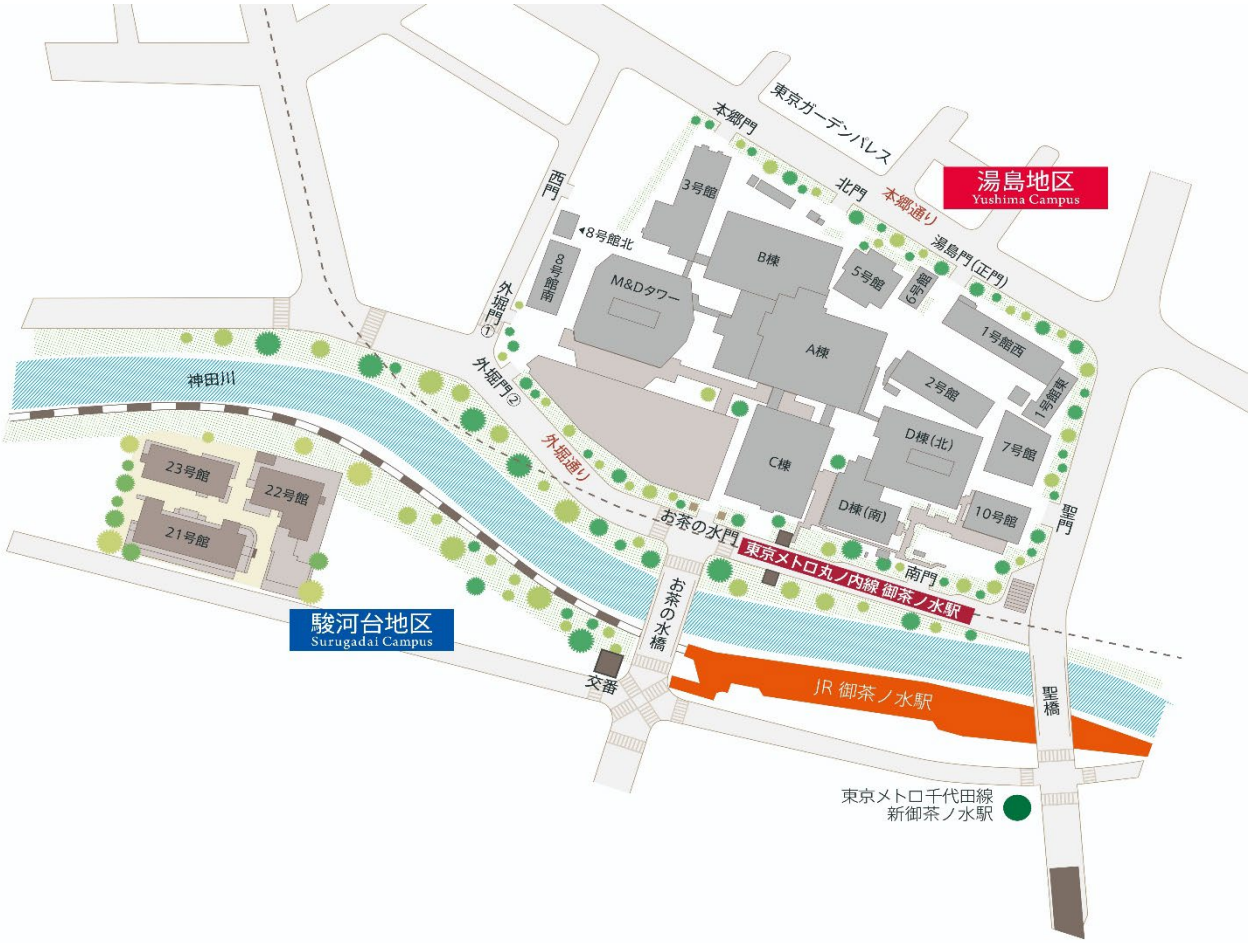
All the above procedures are matters to be discussed by the graduate school promotion committee, with the exception of “cancellation of course”, **so we enforce a strict deadline**. Submissions after the deadline will be permitted after a desired date.

The graduate school promotion committee will not be held in August, students who wish to start in September should give notification one month before the submission deadline.

Major facilities

Facility name	Location	Contact Information
Student Support Division Yushima student Support Office Student Support Group	Bldg. 5, 3F	kousei.adm@ml.tmd.ac.jp
Student Division	Bldg. 1, 1F	grad.doctor_med.adm@tmd.ac.jp （Yushima Degree Examination Group） grad01@ml.tmd.ac.jp （Graduate Student Affairs Group 1） grad02@ml.tmd.ac.jp （Graduate Student Affairs Group 2） jd@ml.tmd.ac.jp （JD & MPH Group）
Admissions Division Yushima Graduate Admissions Group	Bldg. 1, 1F	nyu-grad@ml.tmd.ac.jp
Accounting Division	Ookayama Campus	suitou.adm@tmd.ac.jp
Library Services Division Ochanomizu Library Group	M&D Tower, 3F	toshokan@ml.tmd.ac.jp
Yushima Healthcare Support Center	Bldg. 5, 2F	hokencenter.hsc@tmd.ac.jp
Student Lounge (Certificate Vending Machine)	Bldg. 5, 4F	—
University Co-op Cafeteria and shop	Bldg. 5, 1F, B1F	—
Ochanomizu Research Facility	Bldg. 8, North, South	https://www.tmd.ac.jp/rcmd/contact/

Campus/Access Map


湯島地区
Yushima Campus
駿河台地区
Surugadai Campus
本郷門
東京ガーデンパレス
西門
北門
本郷通り
湯島門(正門)
3号館
8号館北
8号館南
B棟
M&Dタワー
5号館
6号館
A棟
1号館西
2号館
1号館東
C棟
D棟(北)
7号館
D棟(南)
10号館
外堀門①
外堀門②
外堀通り
神田川
23号館
22号館
21号館
お茶の水門
東京メトロ丸ノ内線 御茶ノ水駅
南門
聖門
お茶の水橋
交番
JR 御茶ノ水駅
聖橋
東京メトロ千代田線
新御茶ノ水駅