

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ001	Human Anatomy: Lecture	1	2.0	1	SprAB	Wed1, 2	4F204	Takashi Shiga, Michito Hamada, Fumihiko Shutoh, Tomoyuki Masuda	1. 肉眼解剖学—人体についての骨学、筋学、脈管学、神経学、内臓学の基礎を学び、それらの知識が臨床分野にどのように応用されているかを理解する。 2. 顕微鏡解剖学—人体各器官の組織学・微細構造学を学び、各器官の機能する有様を細胞、更には分子レベルにおいて理解する。	【医物必修】電子・物理工学専攻「医工学コース」
01EQ002	Human Anatomy: Laboratory Course	3	1.0	1, 2	Sum Vac	Intensive	4A111	Takashi Shiga, Tomoyuki Masuda	人体構造を解剖標本の見学実習により正確に把握する。人体構造学概論を受講することを、履修の要件とする。	
01EQ045	Lecture in Human Physiology	1	1.0	1	SprA	Thu4, 5		Munetaka Shidara, Masayuki Matsumoto, Tadachika Koganezawa, Takashi Mizuhiki, Hiroshi Yamada	Understanding human physiological functions. Topics include blood circulation, respiration, prefrontal cortex, midbrain dopamine neurons, visual recognition, neuroeconomics of decision-making, motivation and emotion, etc.	Identical to 02RE608. Lectures are conducted in English.
01EQ046	Topics in Biochemistry	1	1.0	1	SprAB	Mon1		Aya Fukuda, Kenji Irie, Koji Hisatake, Kazuhiko Uchida, Kensuke Shiomi, Kazuko Keino-Masu, Tomoaki Mizuno	ヒトの生理機能とその異常である疾患を分子レベルで研究する為に必要な生化学の基本的事項を学習する。	Lectures are conducted in English.
01EQ004	Clinical Medicine	1	2.0	1	FallAB	Tue1, 2	4F204	Junichi Shoda, Tetsuaki Arai, Yasushi Kawakami, Takeji Sakae, Takayuki Sumida, Kazuhiro Takekoshi, Akira Tamaoka, Shigeru Chiba, Hiroyuki Nishiyama, Haruhiko Ninomiya, Shinji Takahashi, Kensaku Mori, Kazumasa Isobe, Yusuke Ohara	臨床医学の実践とは病める人を対象として、その人の持つ問題点を抽出し、それを把握した上で、その人の価値観と決定に従って治療することである。そしてその患者に満足してもらい幸せになってもらうことを目指している。このような臨床医学の基本的事項と分化した各専門分野の現状についても理解する。	【橋必修】電子・物理工学専攻「医工学コース」 Identical to 02RE621.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ005	Introduction to Social Medicine	1	2.0	1	SprAB	Thu1, 2	4F204	Masao Ichikawa, Masahiko Goshio, Masahide Kondo, Tamaki Saito, Nanako Tamiya, Katsuya Honda, Yukiko Wagatsuma, Shinichi Sasahara, Nobuaki Morita, Kazumasa Yamagishi, Tomoko Ito, Yuichi Oi, Reiko Okubo, Yasukazu Ogai, Yukiko Sugano, Ganchimeg Togoobaatar, Mizuho Fukushima, Ai Hori	This course aims to equip students with an understanding of the broad determinants of health - income and poverty, education, environmental factors such as housing and transport - as well as health care and genetic influences and of the importance of a multi-disciplinary approach which includes medicine, epidemiology, statistics, economics, social science and many other subjects in improving population health.	【橋必修】 【公必修】 【ヒ必修】 電子・物理工学専攻「医工学コース」 Lectures are conducted in English.
01EQ006	Selected Topics in International Health	1	1.0	1, 2					The aim of this course is to learn the fundamentals of international health and issues on health in developing countries and international cooperation to deal with them.	H31年度以降は開講せず。同内容は大学院共通科目01ZZ424「地球規模課題と国際社会：感染症・保健医療問題」にてH31年度以降は実施 Lectures are conducted in English. Not open in 2019.
01EQ007	Introduction to Epidemiology	1	1.0	1, 2	SprAB	Tue3	4F305	Yukiko Wagatsuma, Mizuho Fukushima	Epidemiology is the study of factors affecting the health and illness of populations, and serves as the foundation and logic of interventions made in the interest of public health and preventive medicine. The aim of this course is to learn the fundamental concepts and uses of epidemiology, and its role in formulating principles.	【公必修】 電子・物理工学専攻「医工学コース」 Lectures are conducted in English.
01EQ008	Topics in Medical Science	1	1.0	1, 2	Sum Vac	by appointment		Kenji Irie	医学研究の最先端や基礎医学・臨床医学、社会医学の境界を超えた学際的なテーマについてトピックスを取り上げ希望によりコースを選択して学習する。各教員が研究者としてどの様なテーマに取り組んでいるかを学びながら、問題点を的確にとらえ、解決するための方法論、その議評価法、現代医学の限界や今後の展望について学習する。	
01ZZ106	Bioethics in medical research and practice	0	1.0	1 - 5	SprC	Fri5, 6	4F204	Emiko Noguchi, Fumihiko Sugiyama, Yukiko Wagatsuma, Ken Nishimura, Hisako Yanagi, 彰子 川崎, Kazuhiro Takahashi, Yukiko Sugano	遺伝子治療、臓器移植、人工臓器、生殖医療、遺伝子診療、薬物やその他の治療法の治験などの現代の医療や医学研究には、インフォームドコンセント、個人の尊厳やプライバシー、脳死判定やリスクマネジメント、治療停止の選択など生命倫理にかかわる多くの問題を含んでいる。現代医療が抱える生命倫理諸問題の基礎知識、基本的考え方を習得するとともに、実例により学ぶ。	Identical to 01EQ009.
01EQ010	Applied Medical Information Technology: Lecture	1	1.0	1	SprAB	Fri6	4F204	Makoto Ohara	いわゆる「電子カルテ」システムの概要を理解し、その上で医療情報とその処理技術がいかに現代の我が国の医療を支え、病院の機能を支えているかを理解し、これからの医療をいかに発展させ得るかをサーベイし、理想的な医療の実践プランについて考える。	

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01EQ011	Biostatistics	1	1.0	1	SprAB	Wed3	4F204	Masahiko Goshu, Kazushi Maruo	医学領域における統計学的アプローチの具体的方法について学ぶ。検定、推定、相関、回帰、分散分析、多変量解析、生存時間分析など、特に応用の広い重要な手法を理解し、正しく手法を用いるための基礎を学ぶ。	【橋必修】【公必修】 電子・物理工学専攻 「工学コース」 Lectures are conducted in English.
01EQ012	Biostatistics in Practice	3	1.0	1	SprAB	Wed6, 7	4F305	Kazushi Maruo, Masahiko Goshu	統計解析ソフトウェアを用いて、医学データ解析に用いられる統計手法の実際について学ぶ。	Lectures are conducted in English.
01EQ013	English in Medical Science and Technology I	1	1.0	1	SprAB	Mon2	4F305, 4F204	Flaminia Miyamasu, Thomas David Mayers, Bryan James Mathis	The goal of this course is for students to develop the English proficiency they need to effectively and energetically communicate their professional achievements within the international scientific community. To this end, students will study aspects of scientific communication, including oral presentation and writing of scientific reports. Classes will be conducted entirely in English, so students will also hone their listening skills.	【医必修】 Lectures are conducted in English.
01EQ014	English in Medical Science and Technology II	1	1.0	1	FallAB	Mon5	4F305, 4F204	Flaminia Miyamasu, Thomas David Mayers, Bryan James Mathis	The goal of this course is for students to develop the English proficiency they need to effectively and energetically communicate their professional achievements within the international scientific community. To this end, students will study aspects of scientific communication, including oral presentation and writing of scientific reports. Classes will be conducted entirely in English, so students will also hone their listening skills.	【医必修】 Identical to 01ER105. Lectures are conducted in English.
01EQ016	Lecture and Seminar on Research Management (Basic)	1	1.0	1	SprC	by appointment	4F204	Koichi Hashimoto	This course aims to equip students with an acquiring of the basic knowledge and skill to be needed for the promotion of various research and development projects.	【医必修】【橋必修】 Identical to 02RE306.
01EQ018	Dissertation in Medical Sciences	2	8.0	2	Annual	by appointment		Chair of Medical Sciences	医学の各専門領域に関連する実験、調査、解析、分析などの手法を取得させ、修士論文の作成の指導を行う。	【全必修】 Lectures are conducted in English.
01EQ019	Internship I	3	1.0	1, 2	Annual	by appointment		Chair of Medical Sciences	This course offers opportunities for internship at hospitals, national institutes, private companies, etc. The internship is performed in the authorized institutions, or other institutions after getting permission of the internship committee. Through this internship program, future role expected for the students in Medical Science Program is understood.	【医必修】【医物必修】【橋必修】
01EQ020	Internship II	3	1.0	1, 2	Annual	by appointment		Chair of Medical Sciences	This course offers opportunities for internship at hospitals, national institutes, private companies, etc. The internship is performed in the authorized institutions, or other institutions after getting permission of the internship committee. Through this internship program, future role expected for the students in Medical Science Program is understood.	
01EQ023	Seminar on Basic Medical Sciences	2	3.0	1	Annual	by appointment		Chair of Medical Sciences	医学の各研究分野では、それぞれの分野に応じた独創的な研究が展開されている。修士論文研究の遂行上必要となる先端的な研究テーマを各自選び、紹介すると共に討論することによって自身の研究戦略を明確にする。	【医物必修】 Lectures are conducted in English.
01EQ047	International Medical Sciences Exchange Program I	1	1.0	1, 2	Annual	by appointment		Kazuya Morikawa, Tadachika Koganezawa, Kiong Ho	Students are required to go abroad and attend International meetings or International internship to discuss with many scientists to broaden their view and understand own place in the world.	Lectures are conducted in English.
01EQ048	International Medical Sciences Exchange Program II	1	2.0	1, 2	Annual	by appointment		Kazuya Morikawa, Tadachika Koganezawa, Kiong Ho	Students are required to go abroad and attend International meetings or International internship to discuss with many scientists to broaden their view and understand own place in the world.	Lectures are conducted in English.

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01EQ049	International Medical Sciences Exchange Program III	1	3.0	1, 2	Annual	by appointment		Kazuya Morikawa, Tadachika Koganezawa, Kiong Ho	Students are required to go abroad and attend International meetings or International internship to discuss with many scientists to broaden their view and understand own place in the world.	Lectures are conducted in English.
01EQ025	Seminar for International Students	1	1.0	1, 2					This course provides international students with an opportunity to get prepared for disasters they might face in Japan.	【留学生対象】 Lectures are conducted in English. Not open in 2019.
01EQ038	Medical Science Seminar I: Brain Science Seminar	1	1.0	1, 2	Annual	by appointment		Munetaka Shidara	分子レベルから形態・機能・臨床医学、社会医学にまでおよぶ神経科学のさまざまな分野で活躍する第一線の研究者が行う最新のトピックスに関するセミナーに出席し、討論に参加する。	(第2または第3火曜)
01EQ039	Medical Science Seminar II: Biochemistry and Molecular Biology	1	1.0	1, 2	Annual	by appointment		Kenji Irie	医学生物学研究の最前線にいる研究者によるセミナーに出席し、最新の知識を学び、研究の進んでいく過程を具体的に理解する。	
01EQ040	Medical Science Seminar III: Immunology	1	1.0	1, 2	Annual	by appointment		Akira Shibuya	免疫学および関連科学分野における最新のトピックスに関するセミナーに出席し、専門研究者の討論に参加する。学んだ内容や印象をレポートにまとめる。	
01EQ041	Medical Science Seminar IV: Primary care	1	1.0	1, 2	Annual	by appointment		Hisako Yanagi, Tetsuhiro Maeno	The goal of this course is for students to acquire skills in critically appraising epidemiological research methods and biostatistical approaches. Students will use a variety of frameworks to critically appraise literature from their chosen field of study and examine and discuss the implications for evidence-based practice.	
01EQ042	Medical Science Seminar V: Career Path	1	1.0	1, 2	Annual	by appointment	4F204	Makoto Kobayashi, Kenji Irie, Satoko Tahara, Keiko Ookawa, Michito Hamada, Seiya Mizuno, Yukihide Watanabe	Visiting lecturers including alumni, from a variety of medical fields will make lecture about their business, life, future and school days story. You will also have opportunity to make a group discussion and/or interview with them, and to improve your presentation skills. 1. Experiences of Alumni (Career Path Development): Lecture 2. Group discussion with alumni, seniors, faculties and classmates 3. Writing and speaking practice	【医必修】【橋必修】 3 or 4 lecture times in Saturday afternoon or weekday night. Lectures are conducted in both English and Japanese.
01EQ053	Medical Science Seminar VI: epidemiology and biostatistics	1	2.0	1, 2	Annual	Tue6	4G121	Mizuho Fukushige, Yukiko Wagatsuma, Masahiko Goshō	This course assists students in learning steps through the discussions over textbooks and articles in epidemiology and biostatistics. We encourage students majoring in epidemiology and biostatistics should attend the course.	Subject to the enrolled students in or after 2015. Conducted in the classroom 4G121. Lectures are conducted in English.
01EQ060	Medical Science Seminar VII: Seminar of Clinical Study	1	1.0	1, 2	Annual	by appointment		Koichi Hashimoto	臨床研究の倫理・専門職のセミナーに出席し、GCP (Good Clinical Practice)、人を対象とする医学系研究に関する倫理指針、臨床研究実施体制などに関して理解する。	【橋必修】

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01EQ031	Outline of Internal Medicine	1	2.0	1	Fall IAB	Wed7 Thu6	4F204	Kunihiro Yamagata, Kazutaka Aonuma, Tomohiro Kamoda, Yasushi Kawakami, Keisuke Kuga, Hitoshi Shimano, Hidetoshi Takada, Akira Tamaoka, Shigeru Chiba, Hiromi Hamada, Nobuyuki Hizawa, Ichinosuke Hyodo, Shigeyuki Watanabe, Chie Saito, Yoshihiro Seo, Yuichi Hasegawa, Yayoi Miyazono, Yosuke Matsuno, Akiko Ishii, Yuya Kondo	内科学、小児科学の概要について、特に成人、小児の基本的疾患について疾患概念、発症機序、診断、治療の概要について学ぶ。	Identical to 02RE616.
01EQ032	Outline of Surgical Disorders	1	1.0	1	Fall IAB	Thu5	4F204	Yukio Sato, Yoshiaki Inoue, Masanao Kurata, Yuji Hiramatsu, Koji Masumoto, Shinichi Inomata, Tsurushima Hideo, Hajime Mishima, Tetsuro Wada, Hiroshi Kamada	外科学の概要を、各科の基本的疾患を中心にこれらの疾患概念、発症機序、診断、治療について学ぶ。	Identical to 02RE617.
01EQ033	Innovative Clinical Biochemistry in Life Science	1	2.0	1	Fall IAB	Wed3, 4	4F204	Hitoshi Shimano, Yasushi Kawakami, Akira Tamaoka, Shigemi Hitomi, Hiroaki Suzuki, Shigeru Yatoh, Naoya Yahagi, Hiroyuki Suzuki, Motohiro Sekiya, Yoshimi Nakagawa	The object of this class is to learn basics of metabolism and endocrinology such as etiology, pathology, diagnosis, therapy, and updated topics in the light of biochemistry. You will see the deep secrets of gene expression, metabolism, hormones, and signalings at the molecular levels to understand physiology and pathophysiology in life science.	
01EQ034	Laboratory Medicine	1	1.0	1, 2	Fall IAB	Fri3	4F204	Yasushi Kawakami, Kazuhiko Takekoshi, Kazuyoshi Yamauchi, Tomoko Ishizu, Kazumasa Isobe, Takayasu Kato	分子生物学の進歩に伴い臨床検査分野でも遺伝子解析技術などの新しい技術が導入され、分子レベルでの“疾患の病態生理学”が構築されようとしている。本検査総論では、実際に疾患をとりあげ、最新の臨床検査医学を概説する。	Identical to 02RE618.

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01EQ050	English Discussion & Presentation on Medical Sciences I	2	2.0	1, 2	SprAB	Fri1,2		Kenji Irie, Hiroyuki Suzuki, Tomoaki Mizuno, Yasuyuki Suda	英語による論文紹介と討論、インターネット回線を使った国立台湾大学、京都大学との交流授業を通して、生命科学の知識、および英語によるサイエンスコミュニケーション能力を身につける。 Boosting scientific communication in English, exploring biological sciences, and promoting international long-distance academic and research exchanges	Identical to 02RE101. Lectures are conducted in English.
01EQ051	English Discussion & Presentation on Medical Sciences II	2	2.0	1, 2	FallAB	Wed1,2		Kenji Irie, Mitsuyasu Kato, Satoru Takahashi, Hiroyuki Suzuki, Atsushi Kawaguchi, Yasuyuki Suda, Yuji Funakoshi, Tomoaki Mizuno	英語による論文紹介と討論、インターネット回線を使った国立台湾大学、京都大学との交流授業を通して、生命科学の知識、および英語によるサイエンスコミュニケーション能力を身につける。 Boosting scientific communication in English, exploring biological sciences, and promoting international long-distance academic and research exchanges	Identical to 01ER233 and 02RE102. Lectures are conducted in English.
01EQ052	Prominent Discoveries in Neuroscience	1	1.0	1, 2	SprA	Tue/Thu 7		Masashi Yanagisawa, Takeshi Sakurai, Hiromasa Funato, Hiroshi Nagase, Qinghua Liu, Takashi Abe, Masanori Sakaguchi, Yu Hayashi, Michael Lazarus, Sakiko Honjoh	The goal of this omnibus course is to learn advanced principles in neuroscience, by reading "landmark" papers of historical significance in the broad area of neurobiology chosen by each instructor.	Code share with HBP Identical to 01RC105, 02RA185, and 02RE602. Lectures are conducted in English.
01EQ054	Scientific English for Neuroscience	1	2.0	1	FallAB	by appointment		Tadachika Koganezawa	Communication skills in Neuroscience Research	The class is held at University of Bordeaux. Lectures are conducted in English.
01EQ055	Neural Network	1	3.0	1	FallAB	by appointment		Tadachika Koganezawa	Systematic understanding of the basic functioning of the networks of the central nervous system	The class is held at University of Bordeaux. Lectures are conducted in English.
01EQ056	Cognitive Neuroscience	1	3.0	1	FallAB	by appointment		Tadachika Koganezawa	Understanding of the overarching relationships between cognition and biology.	The class is held at University of Bordeaux. Lectures are conducted in English.
01EQ057	Cellular and Molecular Neurobiology	1	3.0	1	FallAB	by appointment		Tadachika Koganezawa	Systematic understanding of the cellular and molecular aspects of Neuroscience	The class is held at University of Bordeaux. Lectures are conducted in English.
01EQ061	Scientific Ethics	1	1.0	1, 2	SprAB	Wed4	4F204	Bryan James Mathis	This course will use traditional lectures and interactive presentations in the Socratic method for didactic learning. Students will also convene into groups for intensive discussion and reaction papers will be issued as homework to carry the learning outside of the classroom. Digital learning through iTunes modules will reinforce concepts using interactive technology.	Required for 1st-year students of the Ph.D. Program in Human Biology Identical to 02RA065 and 02RE002. Lectures are conducted in English.

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01EQ062	Scientific Critical Reading & Analysis	1	1.0	1, 2	SprAB	Thu6	4F204	Bryan James Mathis	After an initial lecture series on diagramming and presenting papers, students will take over as they each present a paper with an in-depth presentation. Didactic instruction will take place as discussion of the paper under the supervision of the instructor. Use of Powerpoint will reinforce basic presentation skills. Only English shall be used to present the paper and the language of data will be solely in English. A final exam will test student skill on unknown papers.	Lectures are conducted in English.

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01EQ101	Human Pathology: Lecture	1	2.0	1	SprAB	Wed5, 6	4F204	Masayuki Noguchi, Mitsuyasu Kato, Michio Nagata, Hiroyuki Suzuki, Norio Takayashiki, Junko Kano	ヒトの代表的な病気概念と発病のメカニズムについて学ぶ。または病気の診断や治療方針の決定などに際して病理診断の重要性について理解する。	電子・物理工学専攻「医工学コース」 Lectures are conducted in English.
01EQ102	Laboratory Animal Science and Animal Experimentation	5	2.0	1	SprAB	Fri3-5	4F204	Fumihiro Sugiyama, Seiya Mizuno	The goal of this course is to learn animal research regulation, animal welfare, and a variety of genetically-modified mice (transgenic, knockout, knockin, and genome editing mice). The topics of laboratory animal science are also covered while aiming at acquiring basic knowledge. Further, students are able to take practices for basic animal experimentation.	Lectures are conducted in English.

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01EQ103	Functional Structure and Laboratory Course	5	2.0	1	SprAB	Tue4-6	4F305	Yosuke Takei, Fumihiro Shutoh, Michito Hamada, tetsuya sasaki	組織学、特に、超微形態学の理論と実際について学ぶ。形態の研究法について様々な角度から紹介し、実習で組織の電子顕微鏡観察を行う。	
01EQ106	Oncology	1	2.0	1	FallAB	Mon/Tue 4	4F204	Masayuki Noguchi, Kenji Irie, Mitsuyasu Kato, Hideyuki Sakurai, Yukio Sato, Shigeru Chiba, Koji Hisatake, Ichinosuke Hyodo, Koji Masumoto, Hiroyuki Suzuki, Norio Takayashiki, Yuji Mizokami, Takeo Minaguchi, Koji Kawai, Yuji Funakoshi	This subject is aiming to understand disease entity, etiology, and the progression mechanism of malignant tumor at the molecular level. The topics of the latest tumor research (basic) and diagnostic treatment (clinical) are also covered while aiming at acquiring basic knowledge.	Lectures are conducted in English.

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01EQ107	Pharmacology	1	1.0	1	SprAB	Mon5	4F204	Masayuki Masu, Takeshi Sakurai, Norihiko Ohbayashi, Kensuke Shiomi, Kazuko Keino-Masu, Yoshihiro Miwa, Takuya Okada, Yuji Funakoshi	The objective of this course is to learn the basic knowledge of pharmacology in the medical field. The students will study the interaction between the living body and endogenous or exogenous biological substances at the genetic, cellular, and individual levels and learn basic principles of drugs and toxins.	Identical to 02RE611. Lectures are conducted in English.
01EQ131	Human Infection and Immunology	1	2.0	1	SprAB	Mon3, 4	4F204	Akira Shibuya, Takayuki Sumida, Kazuya Morikawa, Atsushi Kawaguchi, Kazuko Shibuya, Kaoru Takeuchi, Kiong Ho, Satoko Tahara, Chigusa Oda, Kosuke Kato, TUKASA NABEKURA	To understand infection biology and immunology is the basis to develop a strategy for control of infectious diseases all over the world. In this course, students study the molecular mechanism of replication and pathogenicity of infectious microbes such as viruses and bacteria, and the structure and function of microbes-encoded factors and host cell-derived factors involved in the replication and pathogenicity. In addition, students also study the immune system, including adaptive and innate immunities, which is crucial for human health and survival.	Code share with HBP Identical to 02RE601. Lectures are conducted in English.
01EQ109	Genome Medicine	1	2.0	1, 2	FallAB	Tue5, 6	4F204	Emiko Noguchi, Kazuhiro Takekoshi, Naoyuki Tsuchiya, Masayuki Noguchi, Masato Homma, Kazuya Morikawa, Hiroshi Furukawa, Masafumi Muratani, Koji Kawai, Hiroko Fukushima, Hiroko Miyadera	ゲノム科学の基本原則とその医学への応用方法を修得する。このために、人類遺伝学、遺伝医学、ゲノム疫学に関する主要な原理について解説を受けた後、診断・治療におけるゲノム診断とパーソナルゲノム情報の臨床応用に言及して、ゲノム情報を疾患の診断・予防・治療に役立てるための方法と課題について学習する。	Lectures are conducted in English.
01EQ111	Biomedical Engineering	1	1.0	1	SprAB	Tue2	4F204	Hirotooshi Miyoshi, Keiko Ookawa, Yukio Nagasaki	疾病の診断と治療に広く用いられている医用電子機器、生体情報計測装置、治療用医用機器及び人工臓器の基礎理論と臨床応用の実際を学ぶ。また、血液循環系を対象として、力学的特性やパイオメカニクス概念についても学習する。	Only for students who can understand Japanese.
01EQ132	Stem Cell Therapy	1	1.0	1	SprAB	Thu3	4F204	Osamu Ohneda, Toshiharu Yamashita	The objective of this class is to learn basic knowledge and the latest research progress on regenerative medicine and stem cell biology fields by reading original articles. In addition, this class aims to improve individual ability to extract the point at issue of the article and discuss with other participants. Students read the latest original articles on regenerative medicine and stem cell biology and perform presentation. Students are expected to understand research purpose, methods, results, and to have a discussion about significance or problem of the article.	Code share with HBP Identical to 02RE604. Lectures are conducted in English.
01EQ114	Radiological Science	1	2.0	1	FallAB	Fri1, 2	4F204	Takeji Sakae, Tomonori Isobe, Hideyuki Sakurai, Hiroaki Kumada, Hideyuki Takei, Yutaro Mori	放射線医学を基礎および臨床の両面から理解する。基礎は放射線物理学と生物学に関し、臨床は画像診断学、放射線腫瘍学および核医学を含め、その現状を学習する。また、放射線管理についても習得する。	

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ115	Psychiatry	1	1.0	1	Fall IAB	Mon3	4F204	Tetsuaki Arai, Shinji Sato, Sho Takahashi, Hirokazu Tachikawa, Kiyotaka Nemoto, Miho Ota, Yuki Shiratori, Asaki Matsuzaki	The objective of this course is to educate students for understanding the basic knowledge of both biological and psychological aspects of psychiatric disorders. The main themes of our research are dementia, depression, schizophrenia, eating disorder, perinatal psychiatric disorders, suicide prevention, disaster psychiatry, using the methods such as intervention, radiology, social psychiatry, neuropathology, and molecular biology.	
01EQ117	Clinical Gerontology	1	1.0	1	Fall IAB	Fri7	4F204	Akira Tamaoka, Akiko Ishii, Hirofumi Matsui, Hisako Yanagi	高齢者に多発する疾患について学び、老年病の特異性を理解する。また、高齢社会を迎えた現在、老年病対策の現状を分析し、今後を展望する。	
01EQ118	Pharmaceutical Sciences	1	1.0	1	Fall IAB	Wed6	4F204	Masato Homma, Kentaro Hatano, Kosuke Doki	薬物による生体機能制御では、体内動態(体液・組織中濃度)が重要である。1)薬物動態解析方法、2)薬物動態を制御する製剤開発、3)薬物動態に影響する薬物代謝酵素及び輸送タンパクの基礎知識と研究方法について学ぶ。	
01EQ119	Critical Path Research Management	1	2.0	1	Fall IAB	Mon6, 7	4F204	Koichi Hashimoto, Satoshi Matsusaka, Tsuruhima Hideo, Masafumi Muratani, Takahiro Kojima, Takeshi Machino, Takeshi Yamada	This course aims to equip students with an acquiring of the basic knowledge and skill to be needed for the promotion of various research and development projects.	【橋必修】 Identical to 01ER232 and 02RE305. Lectures are conducted in English.
01EQ133	Regulatory Science of Medical Products	1	1.0	1	Fall IABC	by appointment		Koichi Hashimoto	医薬品・医療機器の開発はの薬事法による規制を遵守して実施しなければならない。薬事法による規制と承認審査について体系的に理解する。また、医薬品・医療機器等の品質・安全性・有効性の試験結果を的確に評価するための基盤となる科学(レギュラトリーサイエンス)の概念についても学習する。	【橋必修】 Identical to 02RE304.
01EQ134	Appropriate Technology	1	3.0	1, 2	Annual	by appointment		Kenji Irie	現地のニーズ、文化、環境、人などを考慮したうえで、現地の人に必要とされる最善の技術を創出する。それにより、これからの社会で必要とされる問題解決力、現場対応力、起業力を身につける。 In terms of local needs, cultures, environments, and people, Appropriate Technology provides opportunities for the students to develop the optimum technology needed for targeted communities and to generate problem-solving skills, improvisational capabilities, and entrepreneurial abilities for future social needs.	Lectures are conducted in English.
01EQ120	Frontier Science in Drug Discovery	1	1.0	1, 2	Fall IAB	Wed5	4F204	Satoru Takahashi	Scientific advancements during the past two decades have created a paradigm shift in drug discovery process from the traditional approach including long experiences and contingencies to innovative methods, which are based on logical approach utilizing the latest in computational simulation technology. The recent progress includes genome-wide identification of successful drug-target proteins and in silico designing and screening of lead compounds with the techniques of combinatorial chemistry. In addition, there has been remarkable progress in the field of ADME assessment and drug delivery system. This program will be focused on the fundamentals of the process of the drug discovery and development and strengthening of medical-pharmaceutical relations.	Code share with HBP Lectures are conducted in English.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ420	Environmental Health Perspective	1	2.0	1, 2	Fall AB	Fri2 Fri3	4E608	Yoshito Kumagai, Shinkai Yasuhiro	There are numerous chemical substances in the environment, resulting in some serious effects on the body. However, current molecular studies suggest that illnesses caused by exposure to environmental chemicals are, at least in part, attributable to the interaction with macromolecules like proteins in the organism. This lecture offers an opportunity to learn about a variety of symptoms caused by exposure of humans to environmental chemical and initial response and cellular protection against such chemicals.	2018年度まで開講の01EQ406「予防環境医学」と同一。Identical to 01AD605 and 01ER102. Lectures are conducted in English.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ001	Human Anatomy: Lecture	1	2.0	1	Spr AB	Wed1, 2	4F204	Takashi Shiga, Michito Hamada, Fumihito Shutoh, Tomoyuki Masuda	1.肉眼解剖学—人体についての骨学、筋学、脈管学、神経学、内臓学の基礎を学び、それらの知識が臨床分野にどのように応用されているかを理解する。 2.顕微鏡解剖学—人体各器官の組織学・微細構造学を学び、各器官の機能する有様を細胞、更には分子レベルにおいて理解する。	【医物必修】電子・物理工学専攻「医工学コース」
01ZZ106	Bioethics in medical research and practice	0	1.0	1 - 5	Spr C	Fri5, 6	4F204	Emiko Noguchi, Fumihito Sugiyama, Yukiko Wagatsuma, Ken Nishimura, Hisako Yanagi, 彰子 川崎, Kazuhiro Takahashi, Yukiko Sugano	遺伝子治療、臓器移植、人工臓器、生殖医療、遺伝子診療、薬物やその他の治療法の治験などの現代の医療や医学研究には、インフォームドコンセント、個人の尊厳やプライバシー、脳死判定やリスクマネージメント、治療停止の選択など生命倫理にかかわる多くの問題を含んでいる。現代医療が抱える生命倫理諸問題の基礎知識、基本的考え方を習得するとともに、実例により学ぶ。	Identical to 01EQ009.
01EQ023	Seminar on Basic Medical Sciences	2	3.0	1	Annual	by appointment		Chair of Medical Sciences	医科学の各研究分野では、それぞれの分野に応じた独創的な研究が展開されている。修士論文研究の遂行上必要となる先端的な研究テーマを各自選び、紹介すると共に討論することによって自身の研究戦略を明確にする。	【医物必修】Lectures are conducted in English.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ201	Medical Physics IA: Lecture	1	2.0	1	Spr AB	Wed7, 8		Takeji Sakae, Tomonori Isobe, Hiroaki Kumada, Kiyoshi Yasuoka, Hideyuki Takei, Yutaro Mori	Radiation physics is learned in the field of medical physics. Audio, video and electronic materials are effectively used in this lecture.	【医物必修】
01EQ208	Medical Physics IB: Lecture	1	2.0	1	Fall AB	Fri5, 6		Takeji Sakae, Tomonori Isobe, Hiroaki Kumada, Kiyoshi Yasuoka, Hideyuki Takei, Yutaro Mori	Radiation measurement is learned in the field of medical physics. Audio, video and electronic materials are effectively used in this lecture.	【医物必修】
01EQ202	Medical Physics II: Lecture	1	2.0	1	Fall AB	Fri7, 8		Takeji Sakae, Tomonori Isobe, Hiroaki Kumada, Kiyoshi Yasuoka, Hideyuki Takei, Yutaro Mori	医学物理分野の治療領域における臨床応用技術の一部として、放射線治療物理学について教授する。なお、本講義では視聴覚教材や電子教材を有効活用する。	【医物必修】

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ203	Medical Physics III: Lecture	1	2.0	1	Fall C	by appointment		Takeji Sakae, Tomonori Isobe, Hiroaki Kumada, Kiyoshi Yasuoka, Hideyuki Takei, Yutaro Mori	医学物理分野の診断領域における臨床応用技術の一部として、放射線診断および核医学に関する物理学と診断学について教授する。なお、本講義では視聴覚教材や電子教材を有効活用する。	【医物必修】
01EQ204	Medical Physics IV: Lecture	1	2.0	1	Fall C	by appointment		Takeji Sakae, Tomonori Isobe, Hiroaki Kumada, Kiyoshi Yasuoka, Hideyuki Takei, Yutaro Mori	医学物理分野の情報工学における臨床応用技術の一部として、情報処理や画像工学について教授する。なお、本講義では視聴覚教材や電子教材を有効活用する。	【医物必修】
01EQ205	Medical Physics V: Lecture	1	2.0	1	Fall C	by appointment		Takeji Sakae, Hitoshi Ishikawa, Tomonori Isobe, Hideyuki Sakurai, Toshiyuki Okumura	医学物理分野のなかでも特に放射線診断に関連する物理学、および情報処理や画像工学について教授する。なお、本講義では視聴覚教材や電子教材を有効活用する。	【医物必修】
01EQ206	Medical Physics Seminar	2	1.0	1	Spr C	Thu7, 8		Takeji Sakae, Tomonori Isobe, Hiroaki Kumada, Kiyoshi Yasuoka, Hideyuki Takei, Yutaro Mori	医学物理学は理工学の知識と成果を医学に応用する分野である。この分野に携わる研究者は、何か問題が生じたときに解決手段を見出す能力を持たなければならない。本演習では、幾つかの課題を解くことで、医学物理分野における種々の問題を解決する能力を養う。	【医物必修】
01EQ207	Medical Physics Practice	3	1.0	1	Fall C	Thu7, 8		Takeji Sakae, Tomonori Isobe, Toshiyuki Okumura, Hiroaki Kumada, Kiyoshi Yasuoka, Hideyuki Takei, Yutaro Mori	医学物理学は理工学の知識と成果を医学に応用する分野である。この分野に携わる研究者は、何か問題が生じたときに解決手段を見出す能力を持たなければならない。臨床現場で生じる問題を想定したテーマの実習により、問題解決型の実用的な知識と技術を養う。	【医物必修】

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ004	Clinical Medicine	1	2.0	1	Fall AB	Tue1, 2	4F204	Junichi Shoda, Tetsuaki Arai, Yasushi Kawakami, Takeji Sakae, Takayuki Sumida, Kazuhiro Takekoshi, Akira Tamaoka, Shigeru Chiba, Hiroyuki Nishiyama, Haruhiko Ninomiya, Shinji Takahashi, Kensaku Mori, Kazumasa Isobe, Yusuke Ohara	臨床医学の実践とは病める人を対象として、その人の持つ問題点を抽出し、それを把握した上で、その人の価値観と決定に従って治療することである。そしてその患者に満足してもらい幸せになってもらうことを目指している。このような臨床医学の基本的事項と分化した各専門分野の現状についても理解する。	【橋必修】電子・物理工学専攻「医工学コース」 Identical to 02RE621.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ005	Introduction to Social Medicine	1	2.0	1	SprAB	Thu1, 2	4F204	Masao Ichikawa, Masahiko Goshu, Masahide Kondo, Tamaki Saito, Nanako Tamiya, Katsuya Honda, Yukiko Wagatsuma, Shinichiro Sasahara, Nobuaki Morita, Kazumasa Yamagishi, Tomoko Ito, Yuichi Oi, Reiko Okubo, Yasukazu Ogai, Yukiko Sugano, Ganchimeg Togoobaatar, Mizuho Fukushima, Ai Hori	This course aims to equip students with an understanding of the broad determinants of health - income and poverty, education, environmental factors such as housing and transport - as well as health care and genetic influences and of the importance of a multi-disciplinary approach which includes medicine, epidemiology, statistics, economics, social science and many other subjects in improving population health.	【橋必修】【公必修】 【ヒ必修】電子・物理工学専攻「医工学コース」 Lectures are conducted in English.
01EQ508	Health Economics	1	1.0	1, 2	FallC	Intensive	4F204	Masahide Kondo, Reiko Okubo	As a foundation of health economics, microeconomics, welfare economics, and new institutional economics in health care are explained in order to nurture a view of the health system as a market for health care.	【橋必修】【公必修】 国際地域研究専攻とコードシェア Identical to 01DZ512. Lectures are conducted in English.
01EQ011	Biostatistics	1	1.0	1	SprAB	Wed3	4F204	Masahiko Goshu, Kazushi Maruo	医学領域における統計学的アプローチの具体的方法について学ぶ。検定、推定、相関、帰帰、分散分析、多変量解析、生存時間分析など、特に応用の広い重要な手法を理解し、正しく手法を用いるための基礎を学ぶ。	【橋必修】【公必修】 電子・物理工学専攻「医工学コース」 Lectures are conducted in English.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ119	Critical Path Research Management	1	2.0	1	FallAB	Mon6, 7	4F204	Koichi Hashimoto, Satoshi Matsusaka, Tsuruhima Hideo, Masafumi Muratani, Takahiro Kojima, Takeshi Machino, Takeshi Yamada	This course aims to equip students with an acquiring of the basic knowledge and skill to be needed for the promotion of various research and development projects.	【橋必修】 Identical to 01ER232 and 02RE305. Lectures are conducted in English.
01EQ133	Regulatory Science of Medical Products	1	1.0	1	FallABC	by appointment		Koichi Hashimoto	医薬品・医療機器の開発はの薬事法による規制を遵守して実施しなければならない。薬事法による規制と承認審査について体系的に理解する。また、医薬品・医療機器等の品質・安全性・有効性の試験結果を的確に評価するための基盤となる科学(レギュラトリーサイエンス)の概念についても学習する。	【橋必修】 Identical to 02RE304.
01EQ403	Clinical Trials	1	1.0	1, 2	FallAB	Tue7, 8	4F204	Yukiko Wagatsuma, Mizuho Fukushima, Masahiko Goshu	Clinical trial is a comparison test of a medical treatment, versus a placebo, or the standard medical treatment for a patient's condition. Good Clinical Practice (GCP) guidelines include the standards on how clinical trials should be conducted, define the roles and responsibilities of clinical trial sponsors, clinical research investigators and monitors. The aim of this course is to learn about the outline of clinical trials and GCP.	Lectures are conducted in English.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ409	Biostatistics Advanced	1	2.0	1, 2	FallAB	Wed4, 5	4F305	Masahiko Goshu, Kazushi Maruo	医学研究で重要である統計手法、生存時間解析を学ぶ。	【公必修】 Lectures are conducted in English.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ401	Lecture on Health Behavioral Science	1	1.0	1, 2	FallAB	Wed3	4E608	Shinichiro Sasahara, Tamaki Saito, Ichiyo Matsuzaki, Nobuaki Morita, Yuichi Oi, Yasukazu Ogai	This course aims to equip students with an understanding of the concept of health promotion, and theory and methodology of health behavior change through the real example in each field.	【公必修】 Lectures are conducted in English.
01EQ517	Health Care Policy and Management	1	1.0	1, 2	FallAB	Thu3	4F204	Masahide Kondo, Reiko Okubo	1 To understand basic theories of health care policy science. 2 To understand health systems and challenges they face in the world and Japan.	【公必修】 Code share with GIP-TRIAD. Identical to 01ER235. Lectures are conducted in English.
01EQ518	Health Service Administration	1	1.0	1, 2	FallAB	Thu4	4F204	Nanako Tamiya	To understand the approach of health service administration and management in various fields of health care.	【公必修】 Identical to 01ER238. Lectures are conducted in English.
01EQ508	Health Economics	1	1.0	1, 2	FallC	Intensive	4F204	Masahide Kondo, Reiko Okubo	As a foundation of health economics, microeconomics, welfare economics, and new institutional economics in health care are explained in order to nurture a view of the health system as a market for health care.	【橋必修】 【公必修】 国際地域研究専攻とコードシェア Identical to 01DZ512. Lectures are conducted in English.
01EQ511	Introduction of Health Services Research	1	1.0	1, 2	SprAB	Thu4	4F305	Nanako Tamiya, Tomoko Ito	This course is designed for students to understand the basic concept of "Health Services Research" that scientifically evaluates and analyzes the quality of service (including hospitals, facility care and in-home care) in the field of public health and welfare.	【公必修】 国際地域研究専攻とコードシェア Identical to 01DZ510. Lectures are conducted in English.
01EQ411	Critical Appraisal in Quantitative Health and Social Sciences Research	1	1.0	1	SprC	Fri3, 4	4F204	Ganchimeg Togoobaatar, Masao Ichikawa	The goal of this course is for students to acquire skills in critically appraising epidemiological research methods and biostatistical approaches. Students will use a variety of frameworks to critically appraise literature from their chosen field of study and examine and discuss the implications for evidence-based practice.	Lectures are conducted in English.
01EQ412	Systematic reviews and Introduction to Meta-analysis	1	2.0	1	FallAB	Mon2 Mon3	4F305	Ganchimeg Togoobaatar, Masao Ichikawa	The goal of this course is students to acquire knowledge and skills to conduct systematic review and meta-analysis. This course will provide a detailed description of the systematic review process, discuss the strengths and limitations of the method, and provide step-by-step guidance on how to perform a systematic review and meta-analysis.	Lectures are conducted in English.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
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Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ402	Epidemiology	1	2.0	1, 2	Fall AB	Tue3, 4	4F305	Yukiko Wagatsuma, Mizuho Fukushige	The fundamental concepts and uses of epidemiology, and its role in formulating principles, are examined. The uses of information science and statistics in epidemiological and clinical researches are studied, and the role that these fields can play in EBM (Evidence-Based Medicine) are also examined. Exercises are conducted in which epidemiological methods are utilized, to promote understanding of the practice of this discipline.	【公必修】 Lectures are conducted in English.
01EQ403	Clinical Trials	1	1.0	1, 2	Fall AB	Tue7, 8	4F204	Yukiko Wagatsuma, Mizuho Fukushige, Masahiko Goshu	Clinical trial is a comparison test of a medical treatment, versus a placebo, or the standard medical treatment for a patient's condition. Good Clinical Practice (GCP) guidelines include the standards on how clinical trials should be conducted, define the roles and responsibilities of clinical trial sponsors, clinical research investigators and monitors. The aim of this course is to learn about the outline of clinical trials and GCP.	Lectures are conducted in English.
01EQ404	Health Promotion	1	1.0	1, 2	Spr AB	Wed4	4F305	Tokie Anme	This course explores the theory and practice on health promotion, advocacy, communication, and empowerment, using transdisciplinary research outcomes.	Lectures are conducted in English.
01EQ405	Topics in Environmental Health	1	1.0	1, 2	Spr AB	Mon4	5C502	Yasushi Honda	This course introduces study methods of environmental health and has students obtain knowledge on effects of various environmental factors on health and learn the environmental-health-specific way of thinking.	Identical to 01EH206. Lectures are conducted in English.
01EQ420	Environmental Health Perspective	1	2.0	1, 2	Fall AB	Fri2 Fri3	4E608	Yoshito Kumagai, Shinkai Yasuhiro	There are numerous chemical substances in the environment, resulting in some serious effects on the body. However, current molecular studies suggest that illnesses caused by exposure to environmental chemicals are, at least in part, attributable to the interaction with macromolecules like proteins in the organism. This lecture offers an opportunity to learn about a variety of symptoms caused by exposure of humans to environmental chemical and initial response and cellular protection against such chemicals.	2018年度まで開講の「01EQ406「予防環境医学」と同一。Identical to 01AD605 and 01ER102. Lectures are conducted in English.
01EQ409	Biostatistics Advanced	1	2.0	1, 2	Fall AB	Wed4, 5	4F305	Masahiko Goshu, Kazushi Maruo	医学研究で重要である統計手法、生存時間解析を学ぶ。	【公必修】 Lectures are conducted in English.
01EQ513	Mental Health	1	1.0	1	Spr AB	Mon5	4F305	Tamaki Saito, Nobuaki Morita, Yasukazu Ogai	ライフサイクルの各段階での心理的課題と危機、ストレスのメカニズム、心理的ケア、心理的側面の評価法、社会精神医学、精神保健対策について学ぶ。	Lectures are conducted in English.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ501	Lecture on Human Care Science I	1	1.0	1, 2	Spr A	Intensive		Yoshikazu Hamaguchi, Ichiko Shoji, Tetsuji Yokoyama, Yasushi Honda, Yoko Sawamiya	対人援助にかかわる諸問題を、さまざまな学問分野から交差的かつ体系的に把握し、基礎的知識を得るためのヒューマン・ケア科学の基礎講義として開設される。すなわち、対人援助の基本として、対象の対人的理解、援助方法の策定と介入、そして対象の置かれている状況の社会的制度的理解と援助が求められるが、これらの問題を教育学、心理学、保健学の研究分野から論じる。	【必修】 Identical to 02EU001. 5/11, 5/12 主専攻必修科目。

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ502	Lecture on Human Care Science II	1	1.0	1, 2	FallB	Intensive		Tamaki Saito, Fumi Takeda, Katsuyoshi Mizukami, Masahide Kondo	対人援助にかかわる諸問題を、さまざまな学問分野から交叉的かつ体系的に把握し、基礎的知識を得るためのヒューマン・ケア科学の基礎講義として開設される。すなわち、対人援助の基本として、対象の対人的理解、援助方法の策定と介入、そして対象の置かれている状況の社会的制約的理解と援助が求められるが、これらの問題を健康社会学、保健学、精神保健学、医療経済学の研究分野から論じる。	【必修】 Identical to 02EU002. 11/9, 11/10 主専攻必修科目。
01EQ503	Lecture on Human Care Science III	1	1.0	1, 2	SprB	Intensive		Masao Ichikawa, Nobuaki Morita, Nanako Tamiya, Katsumi Tokuda, Hideto Takahashi	対人援助にかかわる諸問題を、さまざまな学問分野から交叉的かつ体系的に把握し、基礎的知識を得るためのヒューマン・ケア科学の基礎講義として開設される。すなわち、対人援助の基本として、対象の対人的理解、援助方法の策定と介入、そして対象の置かれている状況の社会的制約的理解と援助が求められるが、これらの問題を社会医学およびヘルスサービスマニエールの研究分野から論じる。	【必修】 Identical to 02EU003. 7/20, 7/21 主専攻必修科目。
01EQ504	Methodology of Human Care Science I	1	1.0	1, 2	SprB	Intensive		Yoshiyuki Kawano, Sanae Aoki, Tomoko Ito	ヒューマン・ケア科学は学際的な領域であるために、関連する多様な分野の研究方法に対する基礎的な理解が必要となる。本科目では、社会調査、心理測定、臨床心理学、公衆衛生学にかかわる基本的な研究法について解説する。	【必修】 Identical to 02EU004. 6/15, 6/16 主専攻必修科目。
01EQ505	Methodology of Human Care Science II	1	1.0	1, 2	FallA	Intensive		Yumi Hashizume, Tomomi Mizuno, Noriko Okamoto, 貴史 門間	ヒューマン・ケア科学は学際的な領域であるために、関連する多様な分野の研究方法に対する基礎的な理解が必要となる。本科目では看護学、健康行動科学、バリアフリーにかかわる基本的な研究法について解説する。	【必修】 Identical to 02EU005. 10/5, 10/6 主専攻必修科目。
01EQ506	Methodology of Human Care Science III	1	1.0	1, 2	FallB	Intensive		Hisako Yanagi, Yasukazu Ogai, Reiko Okubo, Ai Hori	ヒューマン・ケア科学は学際的な領域であるために、関連する多様な分野の研究方法に対する基礎的な理解が必要となる。本科目では、福祉医療学、社会医学、社会心理学、医療経済学にかかわる基本的な研究法について解説する。	【必修】 Identical to 02EU006. 12/7, 12/8 主専攻必修科目。

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ517	Health Care Policy and Management	1	1.0	1, 2	FallAB	Thu3	4F204	Masahide Kondo, Reiko Okubo	1 To understand basic theories of health care policy science. 2 To understand health systems and challenges they face in the world and Japan.	【公必修】 Code share with GIP-TRIAD. Identical to 01ER235. Lectures are conducted in English.
01EQ518	Health Service Administration	1	1.0	1, 2	FallAB	Thu4	4F204	Nanako Tamiya	To understand the approach of health service administration and management in various fields of health care.	【公必修】 Identical to 01ER238. Lectures are conducted in English.
01EQ508	Health Economics	1	1.0	1, 2	FallC	Intensive	4F204	Masahide Kondo, Reiko Okubo	As a foundation of health economics, microeconomics, welfare economics, and new institutional economics in health care are explained in order to nurture a view of the health system as a market for health care.	【橋必修】【公必修】 国際地域研究専攻とコードシェア Identical to 01DZ512. Lectures are conducted in English.
01EQ509	Medical Science and Health Care for Elderly People	1	1.0	1, 2	SprAB	Mon7	4F305	Hisako Yanagi, Masao Ichikawa, Ai Hori	高齢者は複数の慢性疾患を持つことが多いが、症状・経過が非典型的で個人差が大きく、不安、抑うつ、痴呆などの精神症状を呈しやすい。高齢者が疾病・障害を負った場合、病院内での治療・管理で治癒することは少なく、地域での医療ケアが必要となる例が多い。高齢者に発症しやすい疾病の病態・治療・管理について学習し、地域における医療ケアを支える保健・医療・福祉の仕組みについて理解を深める。	【選択必修】
01EQ510	Palliative Medicine	1	1.0	1	FallAB	Intensive	4F305	Jun Hamano	治癒することが難しく、死に臨んでいる患者およびその家族に対する医療は単なる延命のためではなく、質を求め、全人的にアプローチすることが求められている。本授業では緩和医療の基本的事項を学び、基礎となる価値観の確立のために演習や討論を行う。	

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ511	Introduction of Health Services Research	1	1.0	1, 2	SprAB	Thu4	4F305	Nanako Tamiya, Tomoko Ito	This course is designed for students to understand the basic concept of "Health Services Research" that scientifically evaluates and analyzes the quality of service (including hospitals, facility care and in-home care) in the field of public health and welfare.	【公必修】国際地域研究専攻とコードシェア 01DZ510. Lectures are conducted in English.
01EQ513	Mental Health	1	1.0	1	SprAB	Mon5	4F305	Tamaki Saito, Nobuaki Morita, Yasukazu Ogai	ライフサイクルの各段階での心理的課題と危機、ストレスのメカニズム、心理的ケア、心理的側面の評価法、社会精神医学、精神保健対策について学ぶ。	Lectures are conducted in English.
01EQ514	Gerontological Nursing and Caring	1	1.0	1, 2	SprAB	Wed7	5Z310	Yumi Hashizume, Noriko Okamoto	高齢者とその家族及び地域社会を対象にしたヒューマン・ケアリングの意味と効果を探るために、その研究方法として質的研究、ミックス法の理論と実際を学ぶ。	

General Foundation Subjects

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ005	Introduction to Social Medicine	1	2.0	1	SprAB	Thu1, 2	4F204	Masao Ichikawa, Masahiko Goshu, Masahide Kondo, Tamaki Saito, Nanako Tamiya, Katsuya Honda, Yukiko Wagatsuma, Shinichi Sasahara, Nobuaki Morita, Kazumasa Yamagishi, Tomoko Ito, Yuichi Oi, Reiko Okubo, Yasukazu Ogai, Yukiko Sugano, Ganchimeg Togoobaatar, Mizuho Fukushima, Ai Hori	This course aims to equip students with an understanding of the broad determinants of health - income and poverty, education, environmental factors such as housing and transport - as well as health care and genetic influences and of the importance of a multi-disciplinary approach which includes medicine, epidemiology, statistics, economics, social science and many other subjects in improving population health.	【橋必修】【公必修】【ヒ必修】電子・物理工学専攻「医工学コース」 Lectures are conducted in English.
01EQ006	Selected Topics in International Health	1	1.0	1, 2					The aim of this course is to learn the fundamentals of international health and issues on health in developing countries and international cooperation to deal with them.	H31年度以降は開講せず。同内容は大学院共通科目01ZZ424「地球規模課題と国際社会：感染症・保健医療問題」にてH31年度以降は実施 Lectures are conducted in English. Not open in 2019.
01EQ007	Introduction to Epidemiology	1	1.0	1, 2	SprAB	Tue3	4F305	Yukiko Wagatsuma, Mizuho Fukushima	Epidemiology is the study of factors affecting the health and illness of populations, and serves as the foundation and logic of interventions made in the interest of public health and preventive medicine. The aim of this course is to learn the fundamental concepts and uses of epidemiology, and its role in formulating principles.	【公必修】電子・物理工学専攻「医工学コース」 Lectures are conducted in English.
01EQ011	Biostatistics	1	1.0	1	SprAB	Wed3	4F204	Masahiko Goshu, Kazushi Maruo	医学領域における統計学的アプローチの具体的方法について学ぶ。検定、推定、相関、回帰、分散分析、多変量解析、生存時間分析など、特に応用の広い重要な手法を理解し、正しく手法を用いるための基礎を学ぶ。	【橋必修】【公必修】電子・物理工学専攻「医工学コース」 Lectures are conducted in English.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ012	Biostatistics in Practice	3	1.0	1	SprAB	Wed6, 7	4F305	Kazushi Maruo, Masahiko Goshu	統計解析ソフトウェアを用いて、医学データ解析に用いられる統計手法の実際について学ぶ。	Lectures are conducted in English.
01EQ013	English in Medical Science and Technology I	1	1.0	1	SprAB	Mon2	4F305, 4F204	Flaminia Miyamasu, Thomas David Mayers, Bryan James Mathis	The goal of this course is for students to develop the English proficiency they need to effectively and energetically communicate their professional achievements within the international scientific community. To this end, students will study aspects of scientific communication, including oral presentation and writing of scientific reports. Classes will be conducted entirely in English, so students will also hone their listening skills.	【医必修】 Lectures are conducted in English.
01EQ014	English in Medical Science and Technology II	1	1.0	1	FallAB	Mon5	4F305, 4F204	Flaminia Miyamasu, Thomas David Mayers, Bryan James Mathis	The goal of this course is for students to develop the English proficiency they need to effectively and energetically communicate their professional achievements within the international scientific community. To this end, students will study aspects of scientific communication, including oral presentation and writing of scientific reports. Classes will be conducted entirely in English, so students will also hone their listening skills.	【医必修】 Identical to 01ER105. Lectures are conducted in English.
01EQ018	Dissertation in Medical Sciences	2	8.0	2	Annual	by appointment		Chair of Medical Sciences	医学の各専門領域に関連する実験、調査、解析、分析などの手法を取得させ、修士論文の作成の指導を行う。	【全必修】 Lectures are conducted in English.
01EQ029	Advanced Exercise on Public Health	1	4.0	1	Annual	by appointment		Chair of Medical Sciences	This is compulsory in the Accelerated MPH program (instead of 01EQ018)	Lectures are conducted in English. 本年度開講中止 2018/10/24 開講中止決定
01EQ023	Seminar on Basic Medical Sciences	2	3.0	1	Annual	by appointment		Chair of Medical Sciences	医学の各研究分野では、それぞれの分野に応じた独創的な研究が展開されている。修士論文研究の遂行上必要となる先端的な研究テーマを各自選び、紹介すると共に討論することによって自身の研究戦略を明確にする。	【医物必修】 Lectures are conducted in English.
01EQ025	Seminar for International Students	1	1.0	1, 2					This course provides international students with an opportunity to get prepared for disasters they might face in Japan.	【留学生対象】 Lectures are conducted in English. Not open in 2019.
01EQ401	Lecture on Health Behavioral Science	1	1.0	1, 2	FallAB	Wed3	4E608	Shinichiro Sasahara, Tamaki Saito, Ichiyo Matsuzaki, Nobuaki Morita, Yuichi Oi, Yasukazu Ogai	This course aims to equip students with an understanding of the concept of health promotion, and theory and methodology of health behavior change through the real example in each field.	【公必修】 Lectures are conducted in English.
01EQ517	Health Care Policy and Management	1	1.0	1, 2	FallAB	Thu3	4F204	Masahide Kondo, Reiko Okubo	1 To understand basic theories of health care policy science. 2 To understand health systems and challenges they face in the world and Japan.	【公必修】 Code share with GIP-TRIAD. Identical to 01ER235. Lectures are conducted in English.
01EQ518	Health Service Administration	1	1.0	1, 2	FallAB	Thu4	4F204	Nanako Tamiya	To understand the approach of health service administration and management in various fields of health care.	【公必修】 Identical to 01ER238. Lectures are conducted in English.
01EQ508	Health Economics	1	1.0	1, 2	FallC	Intensive	4F204	Masahide Kondo, Reiko Okubo	As a foundation of health economics, microeconomics, welfare economics, and new institutional economics in health care are explained in order to nurture a view of the health system as a market for health care.	【橋必修】 【公必修】 国際地域研究専攻とコードシェア Identical to 01DZ512. Lectures are conducted in English.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ511	Introduction of Health Services Research	1	1.0	1, 2	SprAB	Thu4	4F305	Nanako Tamiya, Tomoko Ito	This course is designed for students to understand the basic concept of "Health Services Research" that scientifically evaluates and analyzes the quality of service (including hospitals, facility care and in-home care) in the field of public health and welfare.	【公必修】国際地域研究専攻とコードシェア Identical to 01DZ510. Lectures are conducted in English.
01EQ411	Critical Appraisal in Quantitative Health and Social Sciences Research	1	1.0	1	SprC	Fri3, 4	4F204	Ganchimeg Togoobaatar, Masao Ichikawa	The goal of this course is for students to acquire skills in critically appraising epidemiological research methods and biostatistical approaches. Students will use a variety of frameworks to critically appraise literature from their chosen field of study and examine and discuss the implications for evidence-based practice.	Lectures are conducted in English.
01EQ412	Systematic reviews and Introduction to Meta-analysis	1	2.0	1	FallAB	Mon2 Mon3	4F305	Ganchimeg Togoobaatar, Masao Ichikawa	The goal of this course is students to acquire knowledge and skills to conduct systematic review and meta-analysis. This course will provide a detailed description of the systematic review process, discuss the strengths and limitations of the method, and provide step-by-step guidance on how to perform a systematic review and meta-analysis.	Lectures are conducted in English.

Major Subjects

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ109	Genome Medicine	1	2.0	1, 2	FallAB	Tue5, 6	4F204	Emiko Noguchi, Kazuhiro Takekoshi, Naoyuki Tsuchiya, Masayuki Noguchi, Masato Homma, Kazuya Morikawa, Hiroshi Furukawa, Masafumi Muratani, Koji Kawai, Hiroko Fukushima, Hiroko Miyadera	ゲノム科学の基本原理とその医学への応用方法を修得する。このために、人類遺伝学、遺伝医学、ゲノム疫学に関する主要な原理について解説を受けた後、診断・治療におけるゲノム診断とパーソナルゲノム情報の臨床応用に言及して、ゲノム情報を疾患の診断・予防・治療に役立てるための方法と課題について学習する。	Lectures are conducted in English.
01EQ402	Epidemiology	1	2.0	1, 2	FallAB	Tue3, 4	4F305	Yukiko Wagatsuma, Mizuho Fukushige	The fundamental concepts and uses of epidemiology, and its role in formulating principles, are examined. The uses of information science and statistics in epidemiological and clinical researches are studied, and the role that these fields can play in EBM (Evidence-Based Medicine) are also examined. Exercises are conducted in which epidemiological methods are utilized, to promote understanding of the practice of this discipline.	【公必修】 Lectures are conducted in English.
01EQ404	Health Promotion	1	1.0	1, 2	SprAB	Wed4	4F305	Tokie Anme	This course explores the theory and practice on health promotion, advocacy, communication, and empowerment, using transdisciplinary research outcomes.	Lectures are conducted in English.
01EQ405	Topics in Environmental Health	1	1.0	1, 2	SprAB	Mon4	5C502	Yasushi Honda	This course introduces study methods of environmental health and has students obtain knowledge on effects of various environmental factors on health and learn the environmental-health-specific way of thinking.	Identical to 01EH206. Lectures are conducted in English.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ420	Environmental Health Perspective	1	2.0	1, 2	Fall AB	Fri2 Fri3	4E608	Yoshito Kumagai, Shinkai Yasuhiro	There are numerous chemical substances in the environment, resulting in some serious effects on the body. However, current molecular studies suggest that illnesses caused by exposure to environmental chemicals are, at least in part, attributable to the interaction with macromolecules like proteins in the organism. This lecture offers an opportunity to learn about a variety of symptoms caused by exposure of humans to environmental chemical and initial response and cellular protection against such chemicals.	2018年度まで開講の01EQ406「予防環境医学」と同一。Identical to 01AD605 and 01ER102. Lectures are conducted in English.
01EQ409	Biostatistics Advanced	1	2.0	1, 2	Fall AB	Wed4, 5	4F305	Masahiko Goshō, Kazushi Maruo	医学研究で重要である統計手法、生存時間解析を学ぶ。	【公必修】Lectures are conducted in English.
01EQ513	Mental Health	1	1.0	1	Spr AB	Mon5	4F305	Tamaki Saito, Nobuaki Morita, Yasukazu Ogai	ライフサイクルの各段階での心理的課題と危機、ストレスのメカニズム、心理的ケア、心理的側面の評価法、社会精神医学、精神保健対策について学ぶ。	Lectures are conducted in English.
01EQ053	Medical Science Seminar VI: epidemiology and biostatistics	1	2.0	1, 2	Annual	Tue6	4G121	Mizuho Fukushige, Yukiko Wagatsuma, Masahiko Goshō	This course assists students in learning steps through the discussions over textbooks and articles in epidemiology and biostatistics. We encourage students majoring in epidemiology and biostatistics should attend the course.	Subject to the enrolled students in or after 2015. Conducted in the classroom 4G121. Lectures are conducted in English.

General Foundation Subjects

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ045	Lecture in Human Physiology	1	1.0	1	Spr A	Thu4, 5		Munetaka Shidara, Masayuki Matsumoto, Tadachika Koganezawa, Takashi Mizuhiki, Hiroshi Yamada	Understanding human physiological functions. Topics include blood circulation, respiration, prefrontal cortex, midbrain dopamine neurons, visual recognition, neuroeconomics of decision-making, motivation and emotion, etc.	Identical to 02RE608. Lectures are conducted in English.
01EQ046	Topics in Biochemistry	1	1.0	1	Spr AB	Mon1		Aya Fukuda, Kenji Irie, Koji Hisatake, Kazuhiko Uchida, Kensuke Shiomi, Kazuko Keino-Masu, Tomoaki Mizuno	ヒトの生理機能とその異常である疾患を分子レベルで研究する為に必要な生化学の基本的事項を学習する。	Lectures are conducted in English.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ005	Introduction to Social Medicine	1	2.0	1	SprAB	Thu1, 2	4F204	Masao Ichikawa, Masahiko Goshō, Masahide Kondo, Tamaki Saito, Nanako Tamiya, Katsuya Honda, Yukiko Wagatsuma, Shinichi Sasahara, Nobuaki Morita, Kazumasa Yamagishi, Tomoko Ito, Yuichi Oi, Reiko Okubo, Yasukazu Ogai, Yukiko Sugano, Ganchimeg Togoobaatar, Mizuho Fukushima, Ai Hori	This course aims to equip students with an understanding of the broad determinants of health – income and poverty, education, environmental factors such as housing and transport – as well as health care and genetic influences and of the importance of a multi-disciplinary approach which includes medicine, epidemiology, statistics, economics, social science and many other subjects in improving population health.	【橋必修】【公必修】 【ヒ必修】電子・物理工学専攻「医工学コース」 Lectures are conducted in English.
01EQ006	Selected Topics in International Health	1	1.0	1, 2					The aim of this course is to learn the fundamentals of international health and issues on health in developing countries and international cooperation to deal with them.	H31年度以降は開講せず。同内容は大学院共通科目01ZZ424「地球規模課題と国際社会：感染症・保健医療問題」にてH31年度以降は実施 Lectures are conducted in English. Not open in 2019.
01EQ007	Introduction to Epidemiology	1	1.0	1, 2	SprAB	Tue3	4F305	Yukiko Wagatsuma, Mizuho Fukushima	Epidemiology is the study of factors affecting the health and illness of populations, and serves as the foundation and logic of interventions made in the interest of public health and preventive medicine. The aim of this course is to learn the fundamental concepts and uses of epidemiology, and its role in formulating principles.	【公必修】電子・物理工学専攻「医工学コース」 Lectures are conducted in English.
01EQ011	Biostatistics	1	1.0	1	SprAB	Wed3	4F204	Masahiko Goshō, Kazushi Maruo	医学領域における統計学的アプローチの具体的方法について学ぶ。検定、推定、相関、回帰、分散分析、多変量解析、生存時間分析など、特に応用の広い重要な手法を理解し、正しく手法を用いるための基礎を学ぶ。	【橋必修】【公必修】 電子・物理工学専攻「医工学コース」 Lectures are conducted in English.
01EQ012	Biostatistics in Practice	3	1.0	1	SprAB	Wed6, 7	4F305	Kazushi Maruo, Masahiko Goshō	統計解析ソフトウェアを用いて、医学データ解析に用いられる統計手法の実際について学ぶ。	Lectures are conducted in English.
01EQ013	English in Medical Science and Technology I	1	1.0	1	SprAB	Mon2	4F305, 4F204	Flaminia Miyamasu, Thomas David Mayers, Bryan James Mathis	The goal of this course is for students to develop the English proficiency they need to effectively and energetically communicate their professional achievements within the international scientific community. To this end, students will study aspects of scientific communication, including oral presentation and writing of scientific reports. Classes will be conducted entirely in English, so students will also hone their listening skills.	【医必修】 Lectures are conducted in English.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ014	English in Medical Science and Technology II	1	1.0	1	Fall/AB	Mon5	4F305, 4F204	Flaminia Miyamasu, Thomas David Mayers, Bryan James Mathis	The goal of this course is for students to develop the English proficiency they need to effectively and energetically communicate their professional achievements within the international scientific community. To this end, students will study aspects of scientific communication, including oral presentation and writing of scientific reports. Classes will be conducted entirely in English, so students will also hone their listening skills.	【医必修】 Identical to 01ER105. Lectures are conducted in English.
01EQ023	Seminar on Basic Medical Sciences	2	3.0	1	Annual	by appointment		Chair of Medical Sciences	医科学の各研究分野では、それぞれの分野に応じた独創的な研究が展開されている。修士論文研究の遂行上必要となる先端的な研究テーマを各自選び、紹介すると共に討論することによって自身の研究戦略を明確にする。	【医物必修】 Lectures are conducted in English.
01EQ018	Dissertation in Medical Sciences	2	8.0	2	Annual	by appointment		Chair of Medical Sciences	医科学の各専門領域に関連する実験、調査、解析、分析などの手法を取得させ、修士論文の作成の指導を行う。	【全必修】 Lectures are conducted in English.
01EQ101	Human Pathology: Lecture	1	2.0	1	Spr/AB	Wed5, 6	4F204	Masayuki Noguchi, Mitsuyasu Kato, Michio Nagata, Hiroyuki Suzuki, Norio Takayashiki, Junko Kano	ヒトの代表的な病気概念と発病のメカニズムについて学ぶ。または病気の診断や治療方針の決定などに際して病理診断の重要性について理解する。	電子・物理工学専攻「医工学コース」 Lectures are conducted in English.
01EQ102	Laboratory Animal Science and Animal Experimentation	5	2.0	1	Spr/AB	Fri3-5	4F204	Fumihiko Sugiyama, Seiya Mizuno	The goal of this course is to learn animal research regulation, animal welfare, and a variety of genetically-modified mice (transgenic, knockout, knockin, and genome editing mice). The topics of laboratory animal science are also covered while aiming at acquiring basic knowledge. Further, students are able to take practices for basic animal experimentation.	Lectures are conducted in English.

Major Subjects

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ050	English Discussion & Presentation on Medical Sciences I	2	2.0	1, 2	Spr/AB	Fri1, 2		Kenji Irie, Hiroyuki Suzuki, Tomoaki Mizuno, Yasuyuki Suda	英語による論文紹介と討論、インターネット回線を使った国立台湾大学、京都大学との交流授業を通して、生命科学の知識、および英語によるサイエンスコミュニケーション能力を身につける。 Boosting scientific communication in English, exploring biological sciences, and promoting international long-distance academic and research exchanges	Identical to 02RE101. Lectures are conducted in English.
01EQ051	English Discussion & Presentation on Medical Sciences II	2	2.0	1, 2	Fall/AB	Wed1, 2		Kenji Irie, Mitsuyasu Kato, Satoru Takahashi, Hiroyuki Suzuki, Atsushi Kawaguchi, Yasuyuki Suda, Yuji Funakoshi, Tomoaki Mizuno	英語による論文紹介と討論、インターネット回線を使った国立台湾大学、京都大学との交流授業を通して、生命科学の知識、および英語によるサイエンスコミュニケーション能力を身につける。 Boosting scientific communication in English, exploring biological sciences, and promoting international long-distance academic and research exchanges	Identical to 01ER233 and 02RE102. Lectures are conducted in English.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ106	Oncology	1	2.0	1	Fall AB	Mon/Tue 4	4F204	Masayuki Noguchi, Kenji Irie, Mitsuyasu Kato, Hideyuki Sakurai, Yukio Sato, Shigeru Chiba, Koji Hisatake, Ichinosuke Hyodo, Koji Masumoto, Hiroyuki Suzuki, Norio Takayashiki, Yuji Mizokami, Takeo Minaguchi, Koji Kawai, Yuji Funakoshi	This subject is aiming to understand disease entity, etiology, and the progression mechanism of malignant tumor at the molecular level. The topics of the latest tumor research (basic) and diagnostic treatment (clinical) are also covered while aiming at acquiring basic knowledge.	Lectures are conducted in English.
01EQ107	Pharmacology	1	1.0	1	Spr AB	Mon 5	4F204	Masayuki Masu, Takeshi Sakurai, Norihiko Ohbayashi, Kensuke Shiomi, Kazuko Keino-Masu, Yoshihiro Miwa, Takuya Okada, Yuji Funakoshi	The objective of this course is to learn the basic knowledge of pharmacology in the medical field. The students will study the interaction between the living body and endogenous or exogenous biological substances at the genetic, cellular, and individual levels and learn basic principles of drugs and toxins.	Identical to 02RE611. Lectures are conducted in English.
01EQ131	Human Infection and Immunology	1	2.0	1	Spr AB	Mon 3, 4	4F204	Akira Shibuya, Takayuki Sumida, Kazuya Morikawa, Atsushi Kawaguchi, Kazuko Shibuya, Kaoru Takeuchi, Kiong Ho, Satoko Tahara, Chigusa Oda, Kosuke Kato, TUKASA NABEKURA	To understand infection biology and immunology is the basis to develop a strategy for control of infectious diseases all over the world. In this course, students study the molecular mechanism of replication and pathogenicity of infectious microbes such as viruses and bacteria, and the structure and function of microbes-encoded factors and host cell-derived factors involved in the replication and pathogenicity. In addition, students also study the immune system, including adaptive and innate immunities, which is crucial for human health and survival.	Code share with HBP Identical to 02RE601. Lectures are conducted in English.
01EQ109	Genome Medicine	1	2.0	1, 2	Fall AB	Tue 5, 6	4F204	Emiko Noguchi, Kazuhiro Takekoshi, Naoyuki Tsuchiya, Masayuki Noguchi, Masato Homma, Kazuya Morikawa, Hiroshi Furukawa, Masafumi Muratani, Koji Kawai, Hiroko Fukushima, Hiroko Miyadera	ゲノム科学の基本原則とその医学への応用方法を修得する。このために、人類遺伝学、遺伝医学、ゲノム疫学に関する主要な原理について解説を受けた後、診断・治療におけるゲノム診断とパーソナルゲノム情報の臨床応用に言及して、ゲノム情報を疾患の診断・予防・治療に役立てるための方法と課題について学習する。	Lectures are conducted in English.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ132	Stem Cell Therapy	1	1.0	1	SprAB	Thu3	4F204	Osamu Ohneda, Toshiharu Yamashita	The objective of this class is to learn basic knowledge and the latest research progress on regenerative medicine and stem cell biology fields by reading original articles. In addition, this class aims to improve individual ability to extract the point at issue of the article and discuss with other participants. Students read the latest original articles on regenerative medicine and stem cell biology and perform presentation. Students are expected to understand research purpose, methods, results, and to have a discussion about significance or problem of the article.	Code share with HBP Identical to 02RE604. Lectures are conducted in English.
01EQ119	Critical Path Research Management	1	2.0	1	FallAB	Mon6, 7	4F204	Koichi Hashimoto, Satoshi Matsusaka, Tsurushima Hideo, Masafumi Muratani, Takahiro Kojima, Takeshi Machino, Takeshi Yamada	This course aims to equip students with an acquiring of the basic knowledge and skill to be needed for the promotion of various research and development projects.	【橋必修】 Identical to 01ER232 and 02RE305. Lectures are conducted in English.
01EQ120	Frontier Science in Drug Discovery	1	1.0	1, 2	FallAB	Wed5	4F204	Satoru Takahashi	Scientific advancements during the past two decades have created a paradigm shift in drug discovery process from the traditional approach including long experiences and contingencies to innovative methods, which are based on logical approach utilizing the latest in computational simulation technology. The recent progress includes genome-wide identification of successful drug-target proteins and in silico designing and screening of lead compounds with the techniques of combinatorial chemistry. In addition, there has been remarkable progress in the field of ADME assessment and drug delivery system. This program will be focused on the fundamentals of the process of the drug discovery and development and strengthening of medical-pharmaceutical relations.	Code share with HBP Lectures are conducted in English.
01EQ402	Epidemiology	1	2.0	1, 2	FallAB	Tue3, 4	4F305	Yukiko Wagatsuma, Mizuho Fukushige	The fundamental concepts and uses of epidemiology, and its role in formulating principles, are examined. The uses of information science and statistics in epidemiological and clinical researches are studied, and the role that these fields can play in EBM (Evidence-Based Medicine) are also examined. Exercises are conducted in which epidemiological methods are utilized, to promote understanding of the practice of this discipline.	【公必修】 Lectures are conducted in English.
01EQ420	Environmental Health Perspective	1	2.0	1, 2	FallAB	Fri2 Fri3	4E608	Yoshito Kumagai, Shinkai Yasuhiro	There are numerous chemical substances in the environment, resulting in some serious effects on the body. However, current molecular studies suggest that illnesses caused by exposure to environmental chemicals are, at least in part, attributable to the interaction with macromolecules like proteins in the organism. This lecture offers an opportunity to learn about a variety of symptoms caused by exposure of humans to environmental chemical and initial response and cellular protection against such chemicals.	2018年度まで開講の01EQ406「予防環境医学」と同一。 Identical to 01AD605 and 01ER102. Lectures are conducted in English.
01EQ517	Health Care Policy and Management	1	1.0	1, 2	FallAB	Thu3	4F204	Masahide Kondo, Reiko Okubo	1 To understand basic theories of health care policy science. 2 To understand health systems and challenges they face in the world and Japan.	【公必修】 Code share with GIP-TRIAD. Identical to 01ER235. Lectures are conducted in English.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
01EQ518	Health Service Administration	1	1.0	1, 2	Fall/AB	Thu4	4F204	Nanako Tamiya	To understand the approach of health service administration and management in various fields of health care.	【公必修】 Identical to 01ER238. Lectures are conducted in English.
01EQ511	Introduction of Health Services Research	1	1.0	1, 2	Spr/AB	Thu4	4F305	Nanako Tamiya, Tomoko Ito	This course is designed for students to understand the basic concept of "Health Services Research" that scientifically evaluates and analyzes the quality of service (including hospitals, facility care and in-home care) in the field of public health and welfare.	【公必修】国際地域研究専攻とコードシェア Identical to 01DZ510. Lectures are conducted in English.
01EQ039	Medical Science Seminar II: Biochemistry and Molecular Biology	1	1.0	1, 2	Annual	by appointment		Kenji Irie	医学生物学研究の最前線にいる研究者によるセミナーに出席し、最新の知識を学び、研究の進んでいく過程を具体的に理解する。	
01EQ040	Medical Science Seminar III: Immunology	1	1.0	1, 2	Annual	by appointment		Akira Shibuya	免疫学および関連科学分野における最新のトピックスに関するセミナーに出席し、専門研究者の討論に参加する。学んだ内容や印象をレポートにまとめる。	
01EQ053	Medical Science Seminar VI: epidemiology and biostatistics	1	2.0	1, 2	Annual	Tue6	4G121	Mizuho Fukushige, Yukiko Wagatsuma, Masahiko Goshō	This course assists students in learning steps through the discussions over textbooks and articles in epidemiology and biostatistics. We encourage students majoring in epidemiology and biostatistics should attend the course.	Subject to the enrolled students in or after 2015. Conducted in the classroom 4G121. Lectures are conducted in English.