

(4) School of Medicine and Health Sciences(College of Medical Sciences)
Undergraduate Medical Science Program for International Students

Major Subjects (Required Courses)

| Course Number | Course Name | Instructional Type | Credits | standard registration year | Term | Meeting Days, Period etc. | Classroom | Instructor | Course Overview | Remarks |
|---------------|-----------------------------------------------|--------------------|---------|----------------------------|-----------------|---------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| HE33081 | International Infectious Diseases | 1 | 1.0 | 3 | SprABC | Intensive | | Morikawa Kazuya | In the modern world certain infectious diseases have become human threats, by spreading in a short period of time, with more morbidity and severity. In this course, important international infectious diseases are explained on the aspects from microbiology, clinical medicine and disease control. | 平成30年度以前入学の医療科学類生に限る。 |
| HE40001 | Medical Science Seminar | 1 | 1.0 | 3 | FallAB | by request | | Ho Kiong | This course offers advice on studying in this program for medical scientists and living in Tsukuba. | Offered exclusively for students in the Medical Scientists Program Lecture is conducted in English. Hybrid or Others オンライン授業時と対面授業時がある。 |
| HE40011 | Medical Microbiology | 1 | 2.0 | 3, 4 | FallAB | Intensive | | Morikawa Kazuya | This course offers a series of lectures and discussions regarding the molecular mechanisms underlying in bacterial pathogens. Students will learn hot topics and techniques in molecular bacteriology fields. | This course is for foreign students in School of Medical Sciences. Lecture is conducted in English. Hybrid or Others 初回授業は対面、それ以降はオンライン |
| HE40052 | Research Seminar | 2 | 4.0 | 3 | FallBC | by request | | Ohbayashi Norihiko | The students will select their theme from a variety of fields in medical sciences based on their own interests, and participate in research seminar and actual research activity in the laboratory. | Offered exclusively for students in the Medical Scientists Program Lecture is conducted in English. |
| HE40061 | English Communication for Medical Sciences I | 1 | 3.0 | 3 | FallAB FallC | Intensive | 4B119 | Takahashi Satoru, Hamada Michito, Hisatake Koji, Irie Kenji, Ohbayashi Norihiko, sasakitetsuya, Nishikii Hidekazu, Kawaguchi Atsushi, Miyamoto Takafumi | This course covers a variety of medical science research topics. Students will learn basic concepts, methodology, and scientific thinking through each research topic. | 医療科学類国際医療科学専攻学生に限る。 英語で授業。実施日程は後日周知。 Lecture is conducted in English. Details will be announced. |
| HE40071 | English Communication for Medical Sciences II | 1 | 3.0 | 4 | | | | Takahashi Satoru, Hamada Michito | This course covers a variety of medical science research topics. Students will learn basic concepts, methodology, and scientific thinking through each research topic. | 医療科学類国際医療科学専攻学生に限る。 英語で授業。 Lecture is conducted in English. Not open in 2021. |
| HE40081 | Topics in Medical Sciences I | 1 | 1.0 | 3 | FallAB | Wed3 | | Ho Kiong, Hisatake Koji | This course provides students with the opportunity to make presentations and discussions on medical science topics. | 医療科学類国際医療科学専攻学生に限る。 英語で授業。 Lecture is conducted in English. |
| HE40091 | Topics in Medical Sciences II | 1 | 1.0 | 4 | SprBC | Tue4 | | Hisatake Koji, Ho Kiong | This course provides students with the opportunity to make presentations and discussions on medical science topics. | 医療科学類国際医療科学専攻学生に限る。 Lecture is conducted in English. |
| HE40102 | Seminar on Medical Sciences | 2 | 1.0 | 3 | FallBC | Intensive | | Ohbayashi Norihiko | 医学に関する演習課題について主体的に調査、解答を行い、医科学の理解をさらに深める。 | 医療科学類国際医療科学専攻学生に限る。 英語で授業。 Lecture is conducted in English. |
| HE40113 | Graduation Research | 3 | 8.0 | 4 | SprABC, FallAB | by request | | Ohbayashi Norihiko | The aim of this course is to learn the knowledge of medical sciences and problem-solving skills through a research in laboratories. The students can select their theme from a variety of fields in medical sciences based on their own interests. | 医療科学類国際医療科学専攻学生に限る。 Lecture is conducted in English. |
| HE40123 | Clinical Practice in Laboratories | 3 | 3.0 | 3 | | | | koike akira, Isobe Tomonori | 大学病院と関連医療機関での臨床実習を通じて、医療の現場を支える臨床検査技術と医療人としての職業倫理観について習得する。特に、検査システム、検査技術、検査結果の評価、安全管理などを理解するとともに、他の医療職との連携(チーム医療)の重要性を体感し、医療の現場における臨床検査技師の使命について学ぶ。 | 医療科学類国際医療科学専攻学生に限る。 Not open in 2021. Details will be announced. Work Experience Faculty Face-to-face |

| Course Number | Course Name | Instructional Type | Credits | standard registration year | Term | Meeting Days, Period etc. | Classroom | Instructor | Course Overview | Remarks |
|---------------|-------------------------------------------------|--------------------|---------|----------------------------|----------------|---------------------------|-----------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HE40131 | Clinical Hematology | 1 | 2.0 | 3 | FallABC | Intensive | | Obara Naoshi | 血液の組成、血液の生理的機能、血球の産生とその調節機構、造血因子および造血微小循環などについて教授する。主要な血液疾患の病態生理とその診断のための血液学的検査法の原理と手法、血球の形態学的検査の原理と手法について教授する。白血病の病理的診断(FAB分類)、リンパ腫の病理的診断法を教授する。 | Students should obtain permission of the instructor before taking this course. This courses will not be provided in 2020. Basically online lessons. Lecture is conducted in English. Online (Asynchronous) Online (Synchronous) |
| HE40141 | Coagulation and Fibrinolysis | 1 | 1.0 | 3 | FallABC | Intensive | | Obara Naoshi | 血液の凝固・線溶液系の生理的機構を教授し、その失調に伴う出血傾向や血栓症に関する基本的検査法について教授する。凝固・線溶系の検査法の原理と手法、血小板の機能検査の原理と手法について教授する。 | Students should obtain permission of the instructor before taking this course. Basically online lessons. Lecture is conducted in English. Online (Asynchronous) Online (Synchronous) |
| HE40151 | Clinical Pathophysiology | 1 | 2.0 | 3 | FallAB | Intensive | | Aita Yuichi | 様々な疾患についての病態生理について詳細に教授する。またそれぞれの病態と各種臨床検査の成績との関連について解説し、様々な病態において変化する血液酵素などの成分の変動の仕組みを理解させる。患者からもたらされる臨床検査の情報をいかに的確に診断や治療に応用したら良いのか、基本的なものの考え方を十分理解させる。 | Students should obtain permission of the instructor before taking this course. This courses will not be provided in 2021. Lecture is conducted in English. |
| HE40161 | Topics in Vascular Biology | 1 | 1.0 | 3, 4 | SprABC, FallAB | Intensive | 4B119 | Yanagisawa Hiromi, YAMASHIRO YOSHITO, KIMURA KENICHI | To provide basic knowledge and understanding of vascular biology, ranging from normal vascular development and physiology to molecular mechanisms of vascular diseases, as well as novel diagnostic and therapeutic approaches. The course aims to solicit active participation of students in lectures and journal clubs. | 医療科学類学生に限る。英語で授業。授業日程は後日周知。Lecture is conducted in English. Details will be announced. face-to-face |
| HE40201 | Immunology | 1 | 2.0 | 3, 4 | Annual | by request | | Shibuya Akira, Shibuya Kazuko, Tahara Satoko, Oda Chigusa | 免疫システムの基本を学ぶとともに、免疫学の最近のトピックスを紹介し、議論する。 | 国際医療科学専攻学生に限る。英語で授業。Lecture is conducted in English. Online (Asynchronous) |
| HE40231 | Clinical pharmacology | 1 | 1.0 | 3 | SprC | Intensive | | Ohbayashi Norihiko, Funakoshi Yuji | 臨床で用いられるいろいろな薬物について、特有の効果を発現するメカニズムについて学ぶ。薬物の適応症と禁忌について理解させる。これらを通じて生体機能についての理解を深める。 | 国際医療科学専攻学生に限る。英語で授業。Lecture is conducted in English. |
| HE40252 | Research Seminar | 2 | 4.0 | 3 | FallBC | Intensive | | Ohbayashi Norihiko | 指導教員の指導のもとにテーマを設定して研究を行う。これにより医学研究遂行に必要な基礎的技術の修得および問題解決能力の体得を図る。 | 国際医療科学専攻G30コース学生に限る。英語で授業。Lecture is conducted in English. |
| HE40262 | Research Seminar | 2 | 4.0 | 3 | Annual | by request | | Ohbayashi Norihiko | 指導教員の指導のもとにテーマを設定して研究を行う。これにより医学研究遂行に必要な基礎的技術の修得および問題解決能力の体得を図る。 | Lecture is conducted in English. 医療科学類生に限る |
| HE40263 | Seminar on Medical Sciences | 3 | 1.0 | 3 | Annual | by request | | Ohbayashi Norihiko | 医学に関する演習課題について主体的に調査、解答を行い、医学の理解をさらに深める。 | 国際医療科学専攻G30コース学生に限る。英語で授業。Lecture is conducted in English. |
| HE40273 | Graduation Research | 3 | 8.0 | 4 | Annual | by request | | Ohbayashi Norihiko | 指導教員の指導のもとにテーマを設定して研究を行う。これにより医学研究遂行に必要な基礎的技術の修得および問題解決能力の体得を図る。 | 国際医療科学専攻G30コース学生に限る。Lecture is conducted in English. |
| HE41170 | International Forum on Medical Biology Research | 0 | 1.0 | 2 - 4 | Annual | by request | | Morikawa Kazuya | Students will participate in international meeting in the field related to their own research, or participate in research activity in oversea laboratory. | 英語で授業。Lecture is conducted in English. |
| HE41175 | Training Abroad on Medical Biology | 5 | 1.0 | 3, 4 | Annual | by request | | Morikawa Kazuya | Students study at foreign university or enroll in an approved international program regarding medical related field. | 医療科学類生に限る。英語で授業。Lecture is conducted in English. |
| HE41181 | Workshop for Medical Science Students | 1 | 1.0 | 3 | FallC | Wed1,2 | | Ho Kiong | 英語環境で行う自主的な活動を通して積極的なコミュニケーションの姿勢を身につける。 | 医療科学類生に限る。平成31年度以降入学者用。英語で授業。Lecture is conducted in English. |
| HE41182 | Workshop for Medical Science Students | 2 | 1.5 | 1, 2 | | | | Ho Kiong | 英語環境で行う自主的な活動を通して積極的なコミュニケーションの姿勢を身につける。 | 医療科学類生に限る。平成30年度以前入学者用。英語で授業。詳細な実施日程は後日周知する。Lecture is conducted in English. Not open in 2021. |

| Course Number | Course Name | Instructional Type | Credits | standard registration year | Term | Meeting Days, Period etc. | Classroom | Instructor | Course Overview | Remarks |
|---------------|-----------------------------------------------------|--------------------|---------|----------------------------|--------|---------------------------|-----------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| HE41190 | International Forum on Medical Biology Research II | 0 | 1.0 | 2 - 4 | Annual | by request | | Morikawa Kazuya | Students will participate in international meeting in the field related to their own research, or participate in research activity in oversea laboratory. | 医療科学類生に限る。英語で授業 Lecture is conducted in English. |
| HE41200 | International Forum on Medical Biology Research III | 0 | 1.0 | 2 - 4 | Annual | by request | | Morikawa Kazuya | Students will participate in international meeting in the field related to their own research, or participate in research activity in oversea laboratory. | 医療科学類生に限る。英語で授業 Lecture is conducted in English. |
| HE41210 | International Forum on Medical Biology Research IV | 0 | 1.0 | 2 - 4 | Annual | by request | | Morikawa Kazuya | 国際学会参加や短期間の調査研究をとおして、海外の担当者あるいは研究者と意見交換し、国際的な研究の動向を把握し、自身のキャリアに活かす。 | 英語で授業 Lecture is conducted in English. |
| HE41215 | Training Abroad Medicaal Biology II | 5 | 1.0 | 3, 4 | Annual | by request | | Morikawa Kazuya | Students study at foreign university or enroll in an approved international program regarding medical related field. | 医療科学類生に限る。英語で授業 Lecture is conducted in English. |
| HE41220 | International Forum on Medical Biology Research V | 0 | 1.0 | 2 - 4 | Annual | by request | | Morikawa Kazuya | 国際学会参加や短期間の調査研究をとおして、海外の担当者あるいは研究者と意見交換し、国際的な研究の動向を把握し、自身のキャリアに活かす。 | 英語で授業 Lecture is conducted in English. |
| HE41225 | Training Abroad Medicaal Biology III | 5 | 1.0 | 3, 4 | Annual | by request | | Morikawa Kazuya | Students study at foreign university or enroll in an approved international program regarding medical related field. | 医療科学類生に限る。英語で授業 Lecture is conducted in English. |
| HE41241 | Genetic Testing and Chromosome Analysis | 1 | 1.0 | 3 | SprBC | Intensive | | Noguchi Emiko | Students will learn the basic knowledge of DNA, chromosome and genetics of the diseases through lectures and e-learning. The date of the classes will be announced. The instructor will provide materials (handout, text and e-learning materials) and students are expected to learn the materials prior to the class. At the class, the instructor and tudents will discuss the contents of the materials provided and students will take short tests. | 医療科学類国際医療科学専攻学生に限る。英語で授業。 Lecture is conducted in English. Details will be announced. |