

| Course Coding(科目ナンバ－)   | Year/Semester/Term(年度・学期)   | Faculty Offering Course(時間割所属・時間割コード)  | Eligible Student Year(開講年次)   | Credits(単位数) | Weekday and Period(曜日・時限) |
|---|---|--|---|--------------|---------------------------|
| RDM7-004-99-2   | 2025whole year  | Graduate School of Medical Sciences (25580)  | 1, 2, 3, 4  | 2            | others                    |
| Course Title(Theme)(科目名(講義題目))  |   |  | Instructor(s)(担当教員)   |              |                           |
| Special Lecture I on Infectious Diseases and AIDS(B4 Infection and Immune Control)  |   |  | SATO Yorifumi, KUWATA Takeo, IKEDA Masanori, KUBOTA Ryuji, OKADA Seiji, OSHIUMI Hiroyuki, MOTOZONO Chihiro, SAWA Tomohiro, SUZU Shinya, NAKATA Hirotomo, IKEDA Terumasa, TANAKA Yasuhito, YASUNAGA Jyunichirou, MONDE Kazuaki |              |                           |
| Goals with their ratio(学修成果とその割合)   |   |  |   |              |                           |
| 1.Advanced expert knowledge, skill and research capability ……30% 2.Profound inter-disciplinary knowledge ……30% 3.Global perspective and ability to take initiative action ……20% 4.Social leadership drive ……20% |   |  |   |              |                           |
| Type of Class(授業の形態)  | Lecture   |  |   |              |                           |
| Teaching Method(授業の方法)  | PowerPoint will be used in the lectures, and active participation in the discussion is encouraged. Extra classes or video lectures are considered for those who are regularly absent for unavoidable reasons. (Before starting this course students will be informed of the individual lecture style of instructors in detail. )  |  |   |              |                           |
| Course Goals(授業の目的)   | The aim of this lecture series “Special Lecture I on Infectious Diseases and AIDS” is to learn following topics important for basic and clinical research of infectious diseases: (1) interaction between pathogen and host response, (2) molecular pathogenesis of viral infection, (3) immune control and vaccine research, (4) management of nosocomial/opportunistic infection, (5) diagnosis and treatment of emerging/re-emerging infectious diseases, (6) pathogenesis and treatment of infectious diseases.   |  |   |              |                           |
| Course Learning goals(学修目標)   | 【A level (A水準)】<br>Students will learn following topics important for basic and clinical research of infectious diseases. Students will learn following topics important for basic and clinical research of infectious diseases. (1) interaction between pathogen and host response,(2) molecular pathogenesis of viral infection, (3) immune control and vaccine research, (4) management of nosocomial/opportunistic infection, (5) diagnosis and treatment of emerging/re-emerging infectious diseases, (6) Pathogenesis and treatment of HIV-1 infection.<br>【C level (C水準)】<br>Understanding for the following points.<br>(1) interaction between pathogen and host response<br>(2) molecular pathogenesis of viral infection<br>(3) immune control and vaccine research<br>(4) management of nosocomial/opportunistic infection<br>(5) diagnosis and treatment of emerging/re-emerging infectious diseases<br>(6) Pathogenesis and treatment of HIV-1 infection |  |   |              |                           |
| Course Outline(授業の概要)   | The course addresses the introduction (bacteriology, virology) and particulars of various pathogenic organisms (including gram-positive and negative bacteria, a DNA or RNA viruses) focusing on topics of pathogenesis, control and prevention of infectious diseases and emerging and reemerging infectious diseases. The course addresses protective immunity of host against infectious diseases including HIV-1 infection. Especially, recent topics such as the mechanism of T-cell recognition of the viral antigens, differentiation of immune cells from hematopoietic stem cells and the strategy for the development of effective vaccine against HIV-1 infection will be discussed.   |  |   |              |                           |
| Details for Individual Classes(各回の授業内容)   |   |  |   |              |                           |
| No.(回)  | Date(月日)  | Class Theme(授業テーマ)   | Brief Outline of Class(内容概略)  |              |                           |
| 1   |   | Terumasa Ikeda 【eE-O】  | Retrovirus life cycle   |              |                           |
| 2   |   | Tomohiro Sawa 【eE-O】   | Bacterial infection and pathogenesis  |              |                           |
| 3   |   | Hiroyuki Oshiumi 【eE-O】  | Innate immune responses to pathogens  |              |                           |
| 4   |   | Chihiro Motozono 【eE-O】  | Cellular immune responses to pathogens  |              |                           |
| 5   |   | Takeo Kuwata 【eE-O】  | Humoral immune responses to pathogens   |              |                           |
| 6   | 06/30   | 5th period(16:45~18:15) Kazuaki Monde 【eE-O】   | Adaptive evolution of viral genes   |              |                           |
| 7   | 07/07   | 5th period(16:45~18:15) Jyunichirou Yasunaga 【eE-O】  | Emerging/re-emerging infectious diseases  |              |                           |
| 8   |   | Shinya Suzu 【eE-O】   | Retroviruses-host interaction   |              |                           |
| 9   |   | Yorifumi Sato 【eE-O】   | Retroviral infections and latency   |              |                           |
| 10  |   | Masanori Ikeda 【eE-O】  | Molecular pathogenesis of hepatitis viruses   |              |                           |
| 11  |   | Yasuhito Tanaka 【eE-O】   | Hepatitis viruses and Liver cancer  |              |                           |
| 12  |   | Ryuji Kubota 【eE-O】  | Virus-induced neurological diseases   |              |                           |
| 13  |   | Seiji Okada 【eE-O】   | Animal model research in infectious diseases  |              |                           |
| 14  |   | Hirotaka Matsui 【eE-O】   | Roles of laboratory medicine for infectious diseases  |              |                           |
| 15  |   | Hirotomo Nakata 【eE-O】   | Nosocomial/opportunistic infection  |              |                           |
| Estimated out-of-class study time   |   | ・ This course consists of content that requires hours (90 hours) of study. Since the class is 30 hours (2h x 15 frames) , 60 hours of pre- and post-study (including assignments) is necessary to understand the class. It is necessary to deepen. |   |              |                           |
| Required Textbook(テキスト)   |   | Textbooks are not specified, and handouts will be distributed.   |   |              |                           |
| Reading List(参考文献)  |   | “Atlas of AIDS” edited by Gerald L. Mandell and Donna Mildvan. Current Medicine, Inc. Philadelphia, 2001.<br>“Infectious Diseases and Medical Microbiology” 2nd Edition, Abraham I. Braude et al., W.B. Saunders Company                           |   |              |                           |

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| Enrollment Conditions(履修条件)                            | Have basic knowledge concerning what is taught in this course.   |
| Assessment Methods and Criteria(評価方法・基準)               | This class consisted of a series of omnibus lectures by 15 lecturers as listed in the schedule. Evaluation will be done based on active class participation, examination test and/or report for subjects by each lecturer. In order to get credits students have to take more than 2/3 lectures. Grading will be based on the average of top 10 scores among ones obtained by the student. |
| Language Used in Instruction(使用言語)                     | English  |
| Textbook/Material Language(教科書・資料の言語)                  | Combination of Japanese and English  |
| Course Based on Practical Work Experience(実務経験を活かした授業) | Not applicable   |