授業科目名 Title of Course	Human Genetics		
対象学年 Eligible Students	2nd year students in the School of Medicine, and the Faculty of Dentistry	単位 Credits	2
科目責任者 Responsible Instructor	MATSUURA SHINYA	所属 Affiliation	Research Institute for Radiation Biology and Medicine (内線　Ext. Number: 5809　　)
		メール E-mail	
科目コーディネーター Course Coordinator	MATSUURA SHINYA	所属 Affiliation	Research Institute for Radiation Biology and Medicine (内線　Ext. Number: 5809　　)
		メール E-mail	
授業方法 Lesson Style	Lecture centered		
概要 Overview	Along with the progress of the human genome project, the field of human genetics (genetic medicine) has advanced significantly. Now, genetics is becoming an integral part of all fields of medicine. The objectives of this course are to learn the basic concepts of human genetics and understand the mechanism of diseases related to genes and chromosomes and ultimately cultivate a sense of morality based on the correct knowledge of genetic medicine. All health care professionals need to have knowledge and skills in genetic medicine. Students are expected to acquire the basics of genetics through this course, so that they can better understand various diseases that they will learn in their third year and beyond. Students who did not choose biology as a subject for the university entrance exam are recommended to review high school biology textbooks (heredity).		

到達目標 Academic Goals	Students will be able to: -Explain meiosis. -Explain genetic variation from the process of meiosis. -Explain Mendel's laws of heredity. -Explain the three modes of Mendelian inheritance and to list representative hereditary diseases. -Explain the relationship between genotype and phenotype. -Outline the relationship between genetic factors and environmental factors in developmental abnormality in an individual. -List diseases caused by multifactorial inheritance and explain their characteristics -Explain germline cells and somatic cells, and differences in diseases caused by genetic abnormalities in each cells. - Explain chromosomes and chromosomal behavior in meiosis. - Explain sex determination by sex chromosomes and sex-linked inheritance. - List and outline major diseases caused by chromosomal abnormalities.
講義日程 Class Schedule	Refer to the timetable on a separate sheet.
出席の取り扱い Class Attendance Policy	Attendance is taken at each class through the attendance management system.
評価項目 Evaluation Item	Degree of achievement of the course objectives (basic understanding and application of knowledge)
評価法 Evaluation Method	Written examinations prepared by the course instructor will be conducted. Grade will be based on class attendance, written examinations, and etc.
推奨参考書 Recommended Reference Books	[Reference books recommended to be purchased] *Iden Igaku-eno Shotai (Introduction to Genetic Medicine)* (Revised Edition 4), Norio Niikawa, Kyoko Abe, Nankodo Co., Ltd. [Other reference books useful for the course] *Iden Igaku Yasashii Keitou Kogi* (*Easy, Systematic Lectures on Genetic Medicine*), editorial supervision by Yoshimitsu Fukushima, Medical Science International Ltd. Thompson & Thompson Genetics in Medicine, R. L. Nussbaum, et.al. Medical Science International Ltd.